



**II. FISCAL IMPACT ANALYSIS**

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

| Fiscal Years                                   | 2024                | 2025 | 2026 | 2027 | 2028 |
|--|---------------------|------|------|------|------|
| Capital Expenditures                           | \$1,897,270         |      |      |      |      |
| Operating Costs                                |                     |      |      |      |      |
| External Revenues (Grants)                     |                     |      |      |      |      |
| Program Income (County)                        |                     |      |      |      |      |
| In-Kind Match (County)                         |                     |      |      |      |      |
| <b>NET FISCAL IMPACT</b>                       | <b>\$ 1,897,270</b> |      |      |      |      |
| <b># ADDITIONAL FTE POSITIONS (Cumulative)</b> |                     |      |      |      |      |

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

**Budget Account No:**

| Fund | 4111 | Department | 121 | Unit | A428 | Object | 6505 |
|------|------|------------|-----|------|------|--------|------|
|      | 4111 |            | 121 |      | A463 |        | 6505 |
|      | 4111 |            | 121 |      | A465 |        | 6505 |
|      | 4111 |            | 121 |      | A455 |        | 6504 |
|      | 4111 |            | 121 |      | A107 |        | 6505 |

Reporting Category \_\_\_\_\_

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

A Budget Transfer in the Airport's Improvement and Development Fund in the amount of \$1,357,023; including a transfer from Reserves in the amount of \$1,357,023. Unit breakout as follows:

A463 = \$447,386; A465 = \$208,650; A107 = \$700,987 Total = \$1,357,023

Certain items on Exhibit B-1 Summary of Fees of the agreement are already in the current budget as follows:

A428 = \$59,495; A455 = \$217,752 Total = \$277,247

\$1,357,023 + \$277,247 + \$263,000 (already in Budget A463=\$113,000 & A465=\$150,000) = \$1,897,270

**C. Departmental Fiscal Review:**

*[Signature]*  
 (2W) 12/18/23

**III. REVIEW COMMENTS**

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

*[Signature]* 12/20/23  
 OFMB GA 12/20/23 ESW 12-20-23  
*[Signature]* 12/29/23  
 Contract Dev. and Control  
 12/28/23

**B. Legal Sufficiency:**

*[Signature]* 1/2/24  
 Assistant County Attorney

**C. Other Department Review:**

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

**AMENDMENT NO. 2 TO CONTRACT  
BETWEEN  
PALM BEACH COUNTY DEPARTMENT OF AIRPORTS  
AND  
AECOM TECHNICAL SERVICES, INC.  
FOR  
GENERAL CONSULTING SERVICES  
AT  
PALM BEACH COUNTY AIRPORTS**

This Amendment No. 2 to the Contract is made as of the 23<sup>rd</sup> day of January, 2024, by and between Palm Beach County, Florida (COUNTY) and AECOM TECHNICAL SERVICES, INC., a corporation authorized to do business in the State of Florida, hereinafter referred to as the CONSULTANT, whose Federal Tax I.D. number is 95-2661922.

WITNESSETH

WHEREAS, on July 11, 2023, the County entered into an Agreement (R2023-0980) with the Consultant for the Consultant to provide General Airport Consulting Services for the Palm Beach County Department of Airports, for a period of two (2) years, with three (3) one (1)-year renewal options, the exercise of which are within COUNTY'S sole control and discretion; and

WHEREAS, on November 7, 2023, the County entered into an Amendment No. 1 (R2023-1654) with the Consultant to provide additional professional services for the Department of Airports, Palm Beach County, in accordance with Article 26 of the original Agreement; and

WHEREAS, Article 26 of the Contract requires an amendment when the parties are able to define additional services and the parties have now defined those services;

NOW THEREFORE, in consideration of the mutual covenants herein contained, and such other good and valuable consideration, the receipt of which the parties hereby acknowledge, the parties agree to the following terms and conditions:

1. The parties hereby agree to amend the Contract to include the Scope of Services and Fees as outlined in Exhibit A. The total amount to be paid by the COUNTY to the CONSULTANT for professional services, including any out of pocket expenses, shall not exceed One Million Eight Hundred and Ninety-Seven Thousand Two Hundred and Sixty-Nine Dollars and Sixty Six Cents (\$1,897,269.66) for the services in Amendment No. 2 to the original Contract.
2. Except as specifically amended herein, all other terms and conditions of the Contract shall remain in full force and effect.

{Remainder of page intentionally left blank.}

IN WITNESS WHEREOF, the parties have caused the Second Amendment to the Contract to be signed by the Mayor of the Board of County Commissioners and the Seal of said Board to be fixed hereto and attested by the Clerk of said board, and the CONSULTANT, AECOM TECHNICAL SERVICES, INC., has caused these presents to be signed in its corporate name by its duly authorized officer Andrew Kacer, Vice President, acting on behalf of said CONSULTANT, and the Seal of said CONSULTANT to be affixed hereto and attested by the Secretary of said CONSULTANT, the day and year first written above.

ATTEST:

PALM BEACH COUNTY, FLORIDA  
BOARD OF COUNTY COMMISSIONERS

JOSEPH ABRUZZO  
CLERK OF THE CIRCUIT COURT  
& COMPTROLLER

By: \_\_\_\_\_  
Deputy Clerk

By: \_\_\_\_\_  
Maria Sachs, Mayor

WITNESS:

CONSULTANT:

Martin, Clint  
Digitally signed by Martin, Clint  
DN: cn="Martin, Clint",  
ou=CLERK OF THE CIRCUIT COURT,  
ou=AECOM, ou=AECOM/US, o=AECOM, cn=Andrew Kacer,  
DC=us, DC=aecom, DC=com  
Date: 2023.12.14 16:50:18-0500  
\_\_\_\_\_  
SIGNATURE

AECOM Technical Services, Inc.  
\_\_\_\_\_  
COMPANY NAME

Clint Martin  
\_\_\_\_\_  
Name (type or print)

Andrew Kacer  
Digitally signed by Andrew Kacer  
DN: cn=US,  
email=Kacer@aecom.com,  
o=AECOM, cn=Andrew Kacer,  
Date: 2023.12.14 16:52:48-0500  
\_\_\_\_\_  
Signature

Andrew Kacer  
\_\_\_\_\_  
Name (type or print)

Vice President  
\_\_\_\_\_  
Title

APPROVED AS TO FORM  
AND LEGAL SUFFICIENCY

BY: Annex [Signature]  
County Attorney

APPROVED AS TO TERMS  
AND CONDITIONS

By: Anna Burke  
Department Director

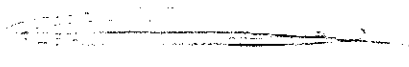
**SECRETARY'S CERTIFICATE****AECOM TECHNICAL SERVICES, INC.**  
**a California corporation**

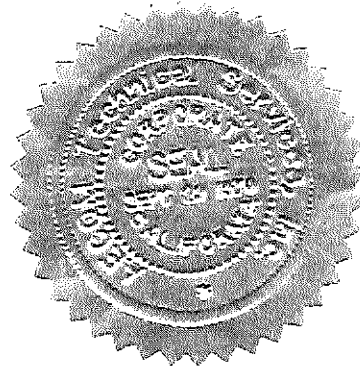
I, Armond Tatevossian, DO HEREBY CERTIFY that I am a duly elected and acting Secretary of AECOM Technical Services, Inc., a corporation organized under the laws of the State of California ("ATS" or "Corporation"), and the keeper of its records and corporate seal.

I FURTHER CERTIFY that the Corporation's principal place of business is 300 South Grand Avenue, 9<sup>th</sup> Floor, Los Angeles, California 90071.

I FURTHER CERTIFY that pursuant to the Written Consent of the Board of Directors of ATS, adopted on May 22, 2023, and attached hereto as Exhibit A, Andrew Kacer has signatory authority for ATS and is authorized to execute contracts and other documents on behalf of the Corporation.

IN WITNESS WHEREOF, I have subscribed my name and affixed the seal of the Corporation, this 6<sup>th</sup> day of June, 2023.

  
\_\_\_\_\_  
Armond Tatevossian  
Secretary



**UNANIMOUS ACTION OF THE BOARD OF DIRECTORS  
OF  
AECOM TECHNICAL SERVICES, INC.**

The undersigned, being all the members of the Board of Directors of AECOM TECHNICAL SERVICES, INC. (the "Corporation"), a California corporation, hereby take the following action:

**RESOLVED:** That, "the following U.S. based persons are designated with authority by the Board of Directors to execute contracts and other legal documents on behalf of the Corporation within the boundaries of specific Regions and Business Lines as noted and effective as of the dates set forth below:"

Effective May 22, 2023:

| Last Name | First Name | Region | Business Line  |
|-----------|------------|--------|----------------|
| Kacer     | Andrew     | East   | Transportation |

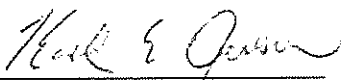
IN TESTIMONY WHEREOF, all the Directors have hereunto set their hands this 22<sup>nd</sup> day of May, 2023.



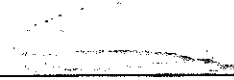
\_\_\_\_\_  
Allison Hall



\_\_\_\_\_  
Matthew Crane



\_\_\_\_\_  
Karl Jensen



\_\_\_\_\_  
Armond Tatevossian

## AMENDMENT NO. 2 INDEX

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### CERTIFICATE OF INSURANCE

#### EXHIBIT A: AMENDMENT NO. 2

- |             |   |
|-------------|---|
| EXHIBIT A-1 | Task I-23-PBI-A-016 PBI Holding Apron at TW A and C                       |
| EXHIBIT A-2 | Task I-23-PBI-A-017 PBI Taxiway M, M1, and M2 Reconstruction Improvements |
| EXHIBIT A-3 | Task I-23-PBI-A-018 PBI Stormwater Master Plan                            |
| EXHIBIT A-4 | Task I-23-PBI-A-019 PBI Garage Additional Services                        |
| EXHIBIT A-5 | Task I-23-LNA-A-020 New LNA Rotating Beacon and Tower                     |
| EXHIBIT A-6 | Task I-23-DOA-A-021 Miscellaneous Planning & Engineering Services         |
| EXHIBIT A-7 | Task I-23-DOA-A-022 DBE Program Outreach Services 2024/25                 |



**EXHIBIT B: DETAILED FEES, EXPENSES AND PAYMENTS**

EXHIBIT B-I Summary of Fees

EXHIBIT B-II Schedule of Payments

**EXHIBIT C: PROPOSED SCHEDULES**

**EXHIBIT D: DBE**

## CERTIFICATE OF INSURANCE



**Palm Beach County  
Compliance Summary Report**

| Vendor Number | Vendor Name                   | AM Best Rating | Insurance Carrier                            | Policy #        | Eff. Date | Exp. Date | Coverage               | Contract Number | Contract Name                    |
|---------------|-------------------------------|----------------|--|-----------------|-----------|-----------|------------------------|-----------------|----------------------------------|
| DX00000660    | AECOM Technical Services Inc. | Modified       | Compliant                                    |                 |           |           |                        | DOA 18-1        | Consulting Professional Services |
|               |                               | A++g , XV      | ACE American Insurance Company               | ISAH10735531    | 4/1/2023  | 4/1/2024  | Auto Liability         |                 |                                  |
|               |                               | A++g , XV      | ACE American Insurance Company               | HDOG47334275    | 4/1/2023  | 4/1/2024  | General Liability      |                 |                                  |
|               |                               | A++g , XV      | Illinois Union Insurance Company             | EONG21654693005 | 4/1/2023  | 4/1/2024  | Professional Liability |                 |                                  |
|               |                               | A++g , XV      | Indemnity Insurance Company of North America | WLRC50710129    | 4/1/2023  | 4/1/2024  | Workers Comp           |                 |                                  |

**Risk Profile :** Standard - Professional Services  
**Required Additional Insured :** Palm Beach County Board of County Commissioners  
**Ownership Entity :**

## EXHIBIT A

This Amendment No. 2 is in accordance with the Contract (Agreement R2023-0980) for Consultant/Professional Services between Palm Beach County (COUNTY) and AECOM Technical Services, Inc. (CONSULTANT) dated July 11, 2023.

- |             |   |
|-------------|---|
| EXHIBIT A-1 | Task I-23-PBI-A-016 PBI Holding Apron at TW A and C                       |
| EXHIBIT A-2 | Task I-23-PBI-A-017 PBI Taxiway M, M1, and M2 Reconstruction Improvements |
| EXHIBIT A-3 | Task I-23-PBI-A-018 PBI Stormwater Master Plan                            |
| EXHIBIT A-4 | Task I-23-PBI-A-019 PBI Garage Additional Services                        |
| EXHIBIT A-5 | Task I-23-LNA-A-020 New LNA Rotating Beacon and Tower                     |
| EXHIBIT A-6 | Task I-23-DOA-A-021 Miscellaneous Planning & Engineering Services         |
| EXHIBIT A-7 | Task I-23-DOA-A-022 DBE Program Outreach Services 2024/25                 |

## EXHIBIT A-1

# **PALM BEACH DOA GENERAL CONSULTING SERVICES**

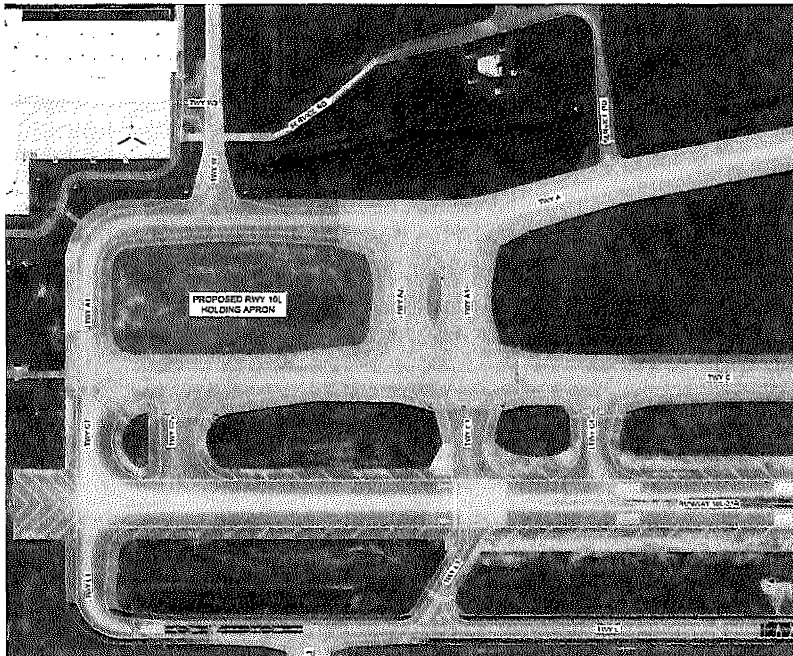
## **EXHIBIT A-1**

### **Miscellaneous Planning, Engineering and Construction Services**

#### **Palm Beach International Airport (PBI) Task I-23-PBI-A-016 PBI Holding Apron at TW A and C**

## **OVERVIEW**

The Palm Beach DOA Department of Airports (DOA) has requested that AECOM Technical Services, Inc. (CONSULTANT) provide Professional Engineering Services associated with Task I-23-PBI-A-016 PBI Holding Apron at TW A and C Project (Project) at Palm Beach International Airport (PBI). The project consists of constructing a new apron between Taxiway A1 and Taxiway A2, shown in Figure 1, to improve operation efficiency and capacity at Runway 10L. With the addition of new pavement, a significant modification to the existing stormwater pond directly to the west of Taxiway A1 would be required due to the additional impervious area.



*Figure 1: PBI Holding Apron at TW A and C Limits*

The CONSULTANT will prepare Construction Documents (CDs) for the design and bidding services of the Project. The holding apron design shall be in accordance with

the Federal Aviation Administration (FAA), Florida Department of Transportation (FDOT), and SFWMD requirements. The project's geometric design and layout will be based on FAA AC 150/5300-13B Airport Design Standards. The construction specifications will be based on FAA AC 150/5370-10H, Standards for Specifying Construction of Airports, and applicable FDOT Design Standards. The Construction Safety and Phasing Plans (CSPP) will be prepared in compliance with FAA AC 150/5370-2G Operational Safety on Airports During Construction.

In addition to the overall design and layout of the new holding apron, the CONSULTANT will provide basic services including drainage design, construction phasing, survey, utility locations, and geotechnical engineering services. The CONSULTANT will prepare construction documents and support the DOA during the bid and award services. A brief overview of pertinent tasks to be performed by the CONSULTANT for the Project includes:

1. Attend One (1) DOA Design Kick-Off Meeting and prepare meeting minutes;
2. Coordinate One (1) Internal Design Team Kick-Off Meeting;
3. Coordinate Data Collection, Records Research, and Review of As-Built information;
4. Field Coordination Meetings (At the beginning of the survey and throughout geotechnical services);
5. Prepare PowerPoint Presentations, sketches, and agenda for meetings (as applicable);
6. Validate Program Cost Estimate;
7. Facilitate Design Coordination meetings via conference calls and webinars;
8. Develop Construction Safety and Phasing Plans (CSPPs);
9. Prepare 60%, 90% and 100% Contract Documents, General Provisions, Technical Specifications, Drawings, Project Schedule, Engineer's Report, Cost Estimates, Submit Permitting Documents to SFWMD, Engineer's Report, and CSPP Report;
10. Attend Four (4) DOA Submittal Review Meetings. Prepare meeting agenda and meeting minutes (KO Meeting, 60%, 90%, and 100% Contract Documents);
11. Task Management/Task Administration – Coordination with DOA, FAA, DOA Operations, Permitting Agencies (if applicable), sub-consultants, and other stakeholders;
12. Provide Quality Assurance for all deliverables;
13. Prepare and Assemble Final Bid Documents: Project Manual, Technical Specifications and Drawings;
14. Assist DOA in Advertisement and Bidding of Tasks – Issue Addendums, attend Pre-bid conferences, prepare meeting minutes, coordinate a site visit, and answer contractor questions;
15. Evaluate Bids and Prepare Bid Recommendations, Award Letters and Bid Tabulations;
16. Task Management;
17. Task Coordination (FAA, ATCT, DOA Operations, SFWMD, Other Consultants, and other interested project stakeholders); and,

18. This task authorization will not include Construction Administration Services and Resident Project Representative Services.

**Project Team**

This Project Team for the Basic Services and Special Services and the respective type of services to be provided by the Team are provided below:

| <b>Firm Name</b><br>(CONSULTANT/SUBCONSULTANT)          | <b>Type of Services</b>                                   |
|---|---|
| AECOM Technical Services, Inc.<br>(AECOM) (CONSULTANT)  | Project Management; Civil and Structural Design           |
| Brown and Phillips (B&P)<br>(SUBCONSULTANT)             | Topographic Survey / Utility Locates / Utility Clearances |
| Quantum Electrical Engineering (QEE)<br>(SUBCONSULTANT) | Electrical Engineering                                    |
| Chen Moore and Associates (CMA)<br>(SUBCONSULTANT)      | Stormwater/Permitting                                     |
| Tierra South Florida (TSF)<br>(SUBCONSULTANT)           | Geotechnical Investigations                               |

**SCOPE OF SERVICES**

Our scope of services will follow two distinct phases: Phases 1 and 2. Phase 1 consists of three (3) subphases: sixty percent (60%) design completion of the Contract Documents (Phase 1A); ninety percent (90%) design completion (Phase 1B); and final design completion (100%) of Bid Documents (Phase 1C). Phase 2 consists of Bidding and Award of Contract requirements.

A brief definition for each of the Phases included in the scope of services is provided below:

PHASE 1A -CONSULTANT will develop the Contract Documents to a predetermined completion milestone (60% of completion). CONSULTANT will develop the Program Costs and prepare Schedule/Phasing Plans.

PHASE 1B -CONSULTANT will develop the Contract Documents to 90% to allow the Project to be reviewed and preliminarily submitted to applicable permitting agencies. CONSULTANT will update Program Costs, Schedule, and Phasing Plans.

PHASE 1C -CONSULTANT will complete the Contract Documents to 100% to allow the Project to be permitted, bid, and constructed. CONSULTANT will prepare the Final Program Cost Estimate, Schedule, and Phasing Plans.

PHASE 2 - CONSULTANT will assist the DOA in obtaining Bids and in the Award of a Construction Contract, as required.



The following paragraphs summarize the CONSULTANT'S Basic Services for Phases 1 and 2:

## **1.0 PHASE 1A – 60% CONTRACT DOCUMENTS**

The CONSULTANT will prepare a presentation/agenda for the Project's Kick Off meeting. All key stakeholders will be invited to this meeting: DOA/Airport Staff, CONSULTANT'S key staff, and Subconsultants. The Kick-Off meeting's discussion items will include stakeholder identifications, project limits, safety and operational impacts, permitting, design services, design standards, schedule, budget, and construction constraints. The CONSULTANT will prepare and distribute the meeting minutes, highlighting outstanding action items and meeting details. Immediately following the Kick-Off Meeting, field investigative services associated with the survey and geotechnical services will begin. All airfield investigative services will be coordinated with DOA Operations before starting work.

The CONSULTANT will prepare the following as a part of Phase 1A:

### **1.1. Documents Data Collection and Records Research**

The Consultant will review existing DOA designs and as-builts, record drawings, and gather information regarding the proposed Project components for use during subsequent design phases. All pertinent record documents associated with the holding apron and adjacent areas will be obtained from the DOA records database.

### **1.2. Field Investigative Services and Design Development**

#### **1.2.1 Site Evaluation**

The AECOM Team will perform two site visits to evaluate the existing conditions and collect data. AECOM will also be on-site throughout the geotechnical investigations. The AECOM Team will assess the existing condition of the pavement, lighting, drainage infrastructure, and any other above-ground infrastructure within the project limits.

#### **1.2.2 Topographic Survey and Utility Locates**

B&P will perform the surveying services for this task. The major components of the survey are the development of a topographic survey within the area shown in **Attachment B** of the attached B&P detailed scope and fee. The topographic survey will obtain data, including pavement, utilities, and drainage structures. The points on paved surfaces will be taken at a 25' x 25' grid; the off-pavement data will be collected on a 50' x 50' grid, with all grade breaks or other visible surface anomalies picked up. B&P will also perform utility locates and clearances for the geotechnical data collection. See the attached B&P scope and fee for a more detailed description of the B&P services.

### 1.2.3 Geotechnical/subsurface investigations

TSF will perform the geotechnical/subsurface investigations services for this Project. The major components of the geotechnical/subsurface investigations services include the following items:

- Perform twenty-nine (29) SPT borings to a depth of 12 feet to determine the subsurface conditions.
- Perform six (6) California Bearing Ratio (CBR) tests.
- Perform twelve (12) asphalt pavement cores, includes asphalt pavement thickness and base depth.

### 1.2.4 Pavement Condition Evaluation

AECOM will review the condition of the existing pavement within the project limits. This analysis will include an evaluation of the onsite pavement condition and reviewing the latest PBI Airfield Pavement Management Study for comparison with our findings. Based on this evaluation, we will determine the final location of the geotechnical data acquisition.

### 1.2.5 Geometry

AECOM will utilize the recommended apron layout from the latest ALP as the basis of design and will coordinate any necessary design changes with the DOA. The apron will be designed to the latest FAA Standards.

### 1.2.6 Airfield Electrical

QEE will perform the electrical design services for this contract. The scope of work will include the design of new airfield lighting and signage systems for the new apron edge lighting. The scope also includes relocating the existing FAA Fiber Optic duct bank and manhole system.

### 1.2.7 Grading and Drainage Design/Permitting

CMA will perform all required services for the stormwater permitting through SFWMD and the associated design, as described in their attached detailed scope. This includes significant modification to the existing stormwater pond directly west of Taxiway A1 and control structures S-1A and S-1B.

1.3. The **60% Plans** will include, but are not limited to:

1. Cover Sheet (60%).
2. Drawings Index (60%).
3. Summary of Quantities (60%).
4. Safety and Security Plan (60%).
5. Staging and Haul Route Plan (60%).
6. Overall Phasing Plan (60%)

7. Phasing Plans, Details, and Maintenance of Traffic (60%).
8. Survey Control Plan (60%).
9. Existing Conditions Plan (60%).
10. Demolition Plan (60%).
11. Grading Plans (60%).
12. Geometry Plans (60%).
13. Marking Plans (60%).
14. Marking Details (60%).
15. Stormwater Pollution Prevention Plans (60%).
16. Stormwater Pollution Prevention Notes and Details (60%)
17. Miscellaneous Details (60%).
18. Cross Section Layout Plan (60%).
19. Electrical Demolition Plans (60%).
20. Electrical Plans (60%).
21. Electrical Circuiting Plans (60%).
22. Airfield Sign Schedule (60%).
23. Misc. Electrical Details (60%).

The CONSULTANT will prepare and submit an Engineer's Design Report covering all findings and recommendations developed throughout the 60% Design Development Phase, including a Construction Schedule and estimate of probable Project Program Costs through Construction.

#### **1.4. Meetings**

The CONSULTANT will attend the following meetings during this Phase:

- a. Design K.O. Meeting;
- b. Team Coordination Meetings;
- c. Regulatory permitting agencies meetings, as applicable; and
- d. One (1) DOA Review Submittal Meeting.

The CONSULTANT will submit PDF copies of all Contract Documents required under this.

Phase 1A for review comments and approval by the DOA.

#### **1.5. Deliverables**

The CONSULTANT will deliver the following major Deliverables (pdf):

- a. K.O. Meeting Minutes;
- b. Topographic Survey;
- c. Geotechnical Report;
- d. Meeting minutes from all applicable meetings of this Phase;
- e. Regulatory permitting agencies' documentation;
- f. 60% Drawings;
- g. 60% Technical Specifications;
- h. 60% Construction Safety and Phasing Plan;
- i. 60% Project Program Cost Estimates;
- j. 60% Project Schedule; and,

k. 60% Engineer's Report containing Geotechnical Report.

**1.6. Schedule**

The anticipated duration of this phase is 75 calendar days from the kick-off meeting.

**2.0 PHASE 1B - 90% SUBMITTAL**

Following the 60% Complete Contract Documents approval, the CONSULTANT will develop 90% Complete Contract Documents from the approved 60% Complete Contract Documents. These 90% documents will consist of the information contained in the 60% documents, as well as incorporate any comments provided by DOA, Permit Agencies, or other authorized reviewers, as directed by DOA.

**2.1 The 90% Plans will include but are not limited to:**

1. Cover Sheet (90%).
2. Drawings Index (90%).
3. Summary of Quantities (Base Bid and Alternates, if applicable) [90%].
4. Safety and Security Plans (90%).
5. Staging and Haul Route Plans (90%).
6. Overall Phasing Plan (90%).
7. Phasing Plans, Details, and Maintenance of Traffic (90%).
8. Survey Control Plan (90%).
9. Existing Conditions Plan (90%).
10. Demolition Plan (90%).
11. Grading Plan (90%).
12. Geometry Plan (90%).
13. Marking Plans (90%).
24. Marking Details (90%).
25. Stormwater Pollution Prevention Plans (90%).
14. Stormwater Pollution Prevention Notes and Details (90%)
15. Miscellaneous Details (90%).
16. Cross-Section Layout Plan (90%).
17. Cross Sections Plans (90%).
18. Electrical Demolition Plans (90%).
19. Electrical Plans (90%).
20. Electrical Circuiting Plans (90%).
21. Airfield Sign Schedule (90%).
22. Misc. Electrical Details (90%).

**2.2 Meetings**

The CONSULTANT will attend the following meetings during this Phase:

- a. Team Coordination Meetings, as applicable;
- b. Regulatory permitting agencies meetings, as applicable; and

- c. One (1) DOA Review Submittal Meeting.

The CONSULTANT will submit PDF copies of all Contract Documents required under this Phase 1B for review comments and approval by the DOA.

### **2.3 Deliverables**

- a. Meeting minutes from all applicable meetings of this Phase;
- b. Response to DOA 60% Design review comments;
- c. Regulatory permitting agencies' documentation;
- d. 90% Contract Drawings;
- e. 90% Project Manual - Technical Specifications, Front Ends, and FAA General Provisions;
- f. Construction Safety and Phasing Plan;
- g. 90% Project Cost Budget Estimates;
- h. 90% Project Schedule; and,
- i. 90% Engineer's Report.

### **2.4 Schedule**

The anticipated duration of this phase is 45 calendar days.

## **3 PHASE 1C - 100% SUBMITTAL**

Following the approval of 90% Complete Contract Documents, the CONSULTANT will develop "Final" 100% Complete Contract Documents from the approved 90% Complete Contract Documents. They will consist of the information contained in the 90% documents, as well as incorporate any comments provided by DOA, Permit Agencies, or other authorized reviewers, as directed by DOA.

### **3.1 The 100% Plans will include but are not limited to:**

- 1. Cover Sheet (100%).
- 2. Drawings Index (100%).
- 3. Summary of Quantities (100%).
- 4. Safety and Security Plan (100%).
- 5. Staging and Haul Route Plan (100%).
- 6. Overall Phasing Plan (100%).
- 7. Phasing Plans, Details, and Maintenance of Traffic (100%).
- 8. Survey Control Plan (100%).
- 9. Existing Conditions Plan (100%).
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- 16. Stormwater Pollution Prevention Notes and Details (100%).

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21. Electrical Plans 100%).
22. Electrical Circuiting Plans (100%).
23. Airfield Sign Schedule (100%).
24. Misc. Electrical Details (100%).

In providing opinions of probable construction costs, the DOA understands that the CONSULTANT has no control over costs or the price of labor, equipment, or materials or over the Contractor's method of pricing and that the opinions of probable construction costs provided herein shall be based on the CONSULTANT'S qualifications and experience. The CONSULTANT makes no warranty, expressed or implied, regarding the accuracy of such opinions compared to bid or actual costs.

### **3.2 Meetings**

The CONSULTANT will attend the following meetings during this Phase:

- a. Team Coordination Meetings, as applicable;
- b. Regulatory permitting agencies meetings, as applicable; and
- c. One (1) DOA Review Submittal Meeting.

### **3.3 Deliverables**

The CONSULTANT will deliver the following major Deliverables for this Phase:

- a. Meeting minutes from all applicable meetings of this Phase;
- b. Response to DOA 90% Design review comments;
- c. Regulatory permitting agencies' documentation;
- d. 100% Contract Drawings;
- e. 100% Project Manual - Technical Specifications, Front Ends, and FAA General Provisions;
- f. Construction Safety and Phasing Plan;
- g. 100% Project Cost Budget Estimates;
- h. 100% Project Schedule; and,
- i. 100% Engineer's Report.

### **3.4 Schedule**

The anticipated duration of this phase is 30 calendar days.

## **4.0 PHASE 4 - BIDDING AND AWARD OF CONTRACT**

### **Bid & Award Services**

After authorization to proceed with the Bidding Phase, CONSULTANT will assist the DOA in advertising for and obtaining bids via the County's Vendor Self-Service Website. CONSULTANT will support the DOA in conducting a pre-bid conference to share pertinent bidding and technical information and requirements with prospective bidders; issue addenda as appropriate to interpret and clarify or expand the Bidding Documents during the Bidding phase; and attend the bid opening, prepare bid tabulation sheets and assist DOA in

evaluating bids or proposals and in assembling and awarding contracts for construction, materials, equipment, and services.

**5.1 Deliverables**

- a. PDF copy of the Bid Documents
- b. Pre-Bid Conference Agenda and Meeting Minutes
- c. Addenda as required during the bid process
- , e. Bid Tabulation
- f. Bid Recommendation Letter

**5.1 Schedule**

The anticipated duration of this phase is 45 calendar days.

**Assumptions:**

- 1. DOA will provide all record documents applicable to this task.
- 2. DOA will pay for all permitting costs.
- 3. Construction Administration and Resident Project Representative Services are not included in this scope of services. The CONSULTANT will perform Construction Administration and Resident Project Representative Services via a separate task order if requested.
- 4. In providing opinions of probable construction costs, the DOA understands that the CONSULTANT has no control over costs or the price of labor, equipment, or materials or over the Contractor's method of pricing and that the opinions of probable construction costs provided herein shall be based on the CONSULTANT'S qualifications and experience. The CONSULTANT makes no warranty, expressed or implied, of the accuracy of such opinions compared to bid or actual costs.
- 5. CONSULTANT shall not be responsible for the means, methods, techniques, sequences, procedures of construction, or selection of materials selected by the Contractor or the safety precautions and programs incident to the work of the Contractor. The CONSULTANT shall not guarantee the Contractor's performance nor be responsible for the Contractor's acts, errors, omissions, or failure to perform the construction work in accordance with the Contract Documents.

Table B

Labor/Fee Estimate Summary - CONSULTANT (AECOM Technical Services, Inc.) - Task I-23-PBI-A-016 PBI Holding Apron at TW A and C

|               |        |        |        |        |        |        |        |        |       |
|---------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| Billing Rate: | \$ 340 | \$ 236 | \$ 270 | \$ 255 | \$ 201 | \$ 215 | \$ 128 | \$ 129 | \$ 96 |
|---------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|

| Task Description  | Labor Estimate (Hours) |             |                        |                |                               |                                   |                  |            |          |           | Fee Estimate (\$) |                  |                |                  |
|---|------------------------|-------------|------------------------|----------------|-------------------------------|-----------------------------------|------------------|------------|----------|-----------|-------------------|------------------|----------------|------------------|
|   | Principal              | QC Reviewer | Senior Project Manager | Senior Planner | Design / Construction Manager | Project Manager / Senior Engineer | Project Engineer | Planner    | Clerical | Total     | Labor             | Expenses         | Total          |                  |
| <b>Task I-23-PBI-A-016 PBI Holding Apron at TW A and TW C</b> |                        |             |                        |                |                               |                                   |                  |            |          |           |                   |                  |                |                  |
| <b>Phase 1A (60% CONSTRUCTION DOCUMENTS)</b>                  | <b>Total</b>           | <b>0</b>    | <b>33</b>              | <b>20</b>      | <b>0</b>                      | <b>149</b>                        | <b>139</b>       | <b>534</b> | <b>0</b> | <b>24</b> | <b>899</b>        | <b>\$143,678</b> | <b>\$2,000</b> | <b>\$145,678</b> |
| Attend One (1) DOA Kick-Off Meeting, Agenda & Minutes         |                        |             |                        | 1              |                               | 2                                 | 2                | 2          |          |           | 7                 | \$ 1,358         | \$ -           | \$ 1,358         |
| Internal Design Team Kick-Off Meeting                         |                        | 1           |                        | 1              |                               | 1                                 | 1                | 2          |          |           | 6                 | \$ 1,178         | \$ -           | \$ 1,178         |
| Documents Data Collection and Records Research                |                        |             |                        |                |                               | 2                                 | 2                | 8          |          | 2         | 14                | \$ 2,048         | \$ -           | \$ 2,048         |
| Field Coordination for Survey and Geotechnical                |                        |             |                        | 2              |                               | 4                                 | 4                | 50         |          |           | 60                | \$ 8,604         | \$ 1,000       | \$ 9,604         |
| Site Investigations (AECOM)                                   |                        |             |                        |                |                               | 4                                 | 4                | 16         |          |           | 24                | \$ 3,712         | \$ 1,000       | \$ 4,712         |
| Cover Sheet (60%).  |                        |             |                        |                |                               |                                   | 1                | 1          |          |           | 2                 | \$ 343           | \$ -           | \$ 343           |
| Drawings Index (60%).   |                        |             |                        |                |                               |                                   | 1                | 2          |          |           | 3                 | \$ 471           | \$ -           | \$ 471           |
| Summary of Quantities/General Notes (60%).                    |                        |             |                        |                |                               | 2                                 | 2                | 2          |          |           | 6                 | \$ 1,088         | \$ -           | \$ 1,088         |
| Safety and Security Plan (60%).                               |                        |             |                        |                |                               | 2                                 | 2                | 2          |          |           | 6                 | \$ 1,088         | \$ -           | \$ 1,088         |
| Staging and Haul Route Plan (60%).                            |                        |             |                        |                |                               | 2                                 | 2                | 8          |          |           | 12                | \$ 1,856         | \$ -           | \$ 1,856         |
| Overall Phasing Plans (60%).                                  |                        |             |                        |                |                               | 4                                 | 2                | 4          |          |           | 10                | \$ 1,746         | \$ -           | \$ 1,746         |
| Individual Work Area Phasing Plans (60%).                     |                        |             | 2                      |                |                               | 4                                 | 2                | 24         |          |           | 32                | \$ 4,846         | \$ -           | \$ 4,846         |
| Construction Phasing and Security Notes and Details(60%).     |                        |             |                        |                |                               | 2                                 | 2                | 5          |          |           | 9                 | \$ 1,472         | \$ -           | \$ 1,472         |
| Survey Control Plan (60%).                                    |                        |             |                        |                |                               | 1                                 | 1                | 4          |          |           | 6                 | \$ 928           | \$ -           | \$ 928           |
| Existing Conditions Plan (60%).                               |                        |             |                        |                |                               | 4                                 | 2                | 16         |          |           | 22                | \$ 3,282         | \$ -           | \$ 3,282         |
| Demolition Plan (60%).  |                        |             |                        |                |                               | 4                                 | 2                | 16         |          |           | 22                | \$ 3,282         | \$ -           | \$ 3,282         |
| Grading Plans (60%).  |                        |             |                        |                |                               | 16                                | 16               | 80         |          |           | 112               | \$ 16,896        | \$ -           | \$ 16,896        |
| Geometry Plans (60%).   |                        |             |                        |                |                               | 15                                | 15               | 40         |          |           | 70                | \$ 11,360        | \$ -           | \$ 11,360        |
| Marking Plans (60%).  |                        |             |                        |                |                               | 4                                 | 2                | 24         |          |           | 30                | \$ 4,306         | \$ -           | \$ 4,306         |
| Marking Details (60%).  |                        |             |                        |                |                               | 2                                 | 2                | 20         |          |           | 24                | \$ 3,392         | \$ -           | \$ 3,392         |
| Miscellaneous Details (60%).                                  |                        |             |                        |                |                               | 4                                 | 2                | 24         |          |           | 30                | \$ 4,306         | \$ -           | \$ 4,306         |
| Cross Section Layout Plan (60%).                              |                        |             |                        |                |                               | 2                                 | 2                | 16         |          |           | 20                | \$ 2,880         | \$ -           | \$ 2,880         |
| Pavement Design (60%)   |                        |             |                        |                |                               | 8                                 | 8                | 40         |          |           | 56                | \$ 8,448         | \$ -           | \$ 8,448         |
| 60% Technical Specifications                                  |                        |             |                        |                |                               | 8                                 | 8                | 24         |          |           | 40                | \$ 6,400         | \$ -           | \$ 6,400         |
| 60% Construction Safety and Phasing Plan                      |                        |             |                        |                |                               | 8                                 | 8                | 24         |          |           | 40                | \$ 6,400         | \$ -           | \$ 6,400         |
| 60% Project Construction Cost Estimate                        |                        |             |                        |                |                               | 8                                 | 8                | 16         |          |           | 32                | \$ 5,376         | \$ -           | \$ 5,376         |
| 60% Project Schedule  |                        |             |                        |                |                               | 4                                 | 4                | 10         |          |           | 18                | \$ 2,944         | \$ -           | \$ 2,944         |
| 60% Engineer's Report w/ Geotechnical Report                  |                        |             |                        |                |                               | 16                                | 16               | 24         |          |           | 56                | \$ 9,728         | \$ -           | \$ 9,728         |
| Coordination with Permitting and Regulatory Agencies          |                        |             | 2                      |                |                               | 4                                 | 4                | 8          |          |           | 18                | \$ 3,228         | \$ -           | \$ 3,228         |
| ISO 9001 - QA/QC Review                                       |                        | 32          |                        |                |                               | 4                                 | 4                | 16         |          |           | 56                | \$ 11,264        | \$ -           | \$ 11,264        |
| Team Coordination Meetings                                    |                        |             |                        | 1              |                               | 2                                 | 2                | 4          |          | 4         | 13                | \$ 1,998         | \$ -           | \$ 1,998         |
| One (1) DOA Review Submittal Meeting                          |                        |             |                        | 1              |                               | 2                                 | 2                | 2          |          | 2         | 9                 | \$ 1,550         | \$ -           | \$ 1,550         |
| Stakeholder Coordination                                      |                        |             |                        | 2              |                               | 2                                 | 2                |            |          |           | 6                 | \$ 1,372         | \$ -           | \$ 1,372         |
| Task Management and Coordination                              |                        |             |                        | 8              |                               | 2                                 | 2                |            |          | 16        | 28                | \$ 4,528         | \$ -           | \$ 4,528         |
| <b>Phase 1B (90% CONSTRUCTION DOCUMENTS)</b>                  | <b>Total</b>           | <b>0</b>    | <b>16</b>              | <b>15</b>      | <b>0</b>                      | <b>88</b>                         | <b>80</b>        | <b>294</b> | <b>0</b> | <b>14</b> | <b>507</b>        | <b>\$81,690</b>  | <b>\$500</b>   | <b>\$82,190</b>  |
| Cover Sheet (90%).  |                        |             |                        |                |                               |                                   |                  | 1          |          |           | 1                 | \$ 128           | \$ -           | \$ 128           |
| Drawings Index (90%).   |                        |             |                        |                |                               |                                   |                  | 2          |          |           | 2                 | \$ 256           | \$ -           | \$ 256           |
| Summary of Quantities/General Notes (90%).                    |                        |             |                        |                |                               |                                   | 1                | 4          |          |           | 5                 | \$ 727           | \$ -           | \$ 727           |
| Safety and Security Plan (90%).                               |                        |             |                        |                |                               | 1                                 | 1                | 4          |          |           | 6                 | \$ 928           | \$ -           | \$ 928           |
| Staging and Haul Route Plan (90%).                            |                        |             |                        |                |                               | 2                                 | 2                | 8          |          |           | 12                | \$ 1,856         | \$ -           | \$ 1,856         |
| Overall Phasing Plans (90%).                                  |                        |             |                        |                |                               | 4                                 | 4                | 12         |          |           | 20                | \$ 3,200         | \$ -           | \$ 3,200         |
| Individual Work Area Phasing Plans (90%).                     |                        |             |                        |                |                               | 4                                 | 4                | 12         |          |           | 20                | \$ 3,200         | \$ -           | \$ 3,200         |
| Construction Phasing and Security Notes and Details (90%).    |                        |             |                        |                |                               | 1                                 |                  | 4          |          |           | 5                 | \$ 713           | \$ -           | \$ 713           |
| Survey Control Plan (90%).                                    |                        |             |                        |                |                               |                                   |                  | 2          |          |           | 2                 | \$ 256           | \$ -           | \$ 256           |
| Existing Conditions Plan (90%).                               |                        |             |                        |                |                               | 4                                 | 4                | 4          |          |           | 12                | \$ 2,176         | \$ -           | \$ 2,176         |
| Demolition Plan (90%).  |                        |             |                        |                |                               | 4                                 | 4                | 8          |          |           | 16                | \$ 2,688         | \$ -           | \$ 2,688         |
| Typical Sections (90%).                                       |                        |             |                        |                |                               | 4                                 | 4                | 8          |          |           | 16                | \$ 2,688         | \$ -           | \$ 2,688         |
| Geometry Plans (90%).   |                        |             |                        |                |                               | 6                                 | 6                | 24         |          |           | 36                | \$ 5,568         | \$ -           | \$ 5,568         |
| Marking Plans (90%).  |                        |             |                        |                |                               | 4                                 | 4                | 16         |          |           | 24                | \$ 3,712         | \$ -           | \$ 3,712         |
| Marking Details (90%).  |                        |             |                        |                |                               | 4                                 |                  | 8          |          |           | 12                | \$ 1,828         | \$ -           | \$ 1,828         |
| Grading Plans (90%).  |                        |             |                        |                |                               | 4                                 | 4                | 48         |          |           | 56                | \$ 7,808         | \$ -           | \$ 7,808         |
| Miscellaneous Details (90%).                                  |                        |             |                        |                |                               | 4                                 | 4                | 8          |          |           | 16                | \$ 2,688         | \$ -           | \$ 2,688         |
| Cross Section Layout Plan (90%).                              |                        |             |                        |                |                               | 4                                 |                  | 5          |          |           | 9                 | \$ 1,444         | \$ -           | \$ 1,444         |
| Cross Sections (90%).   |                        |             |                        |                |                               | 4                                 | 4                | 24         |          |           | 32                | \$ 4,736         | \$ -           | \$ 4,736         |
| Pavement Design (90%)   |                        |             |                        |                |                               | 3                                 | 3                | 10         |          |           | 16                | \$ 2,528         | \$ -           | \$ 2,528         |



**Table B**  
**Labor/Fee Estimate Summary - CONSULTANT (AECOM Technical Services, Inc.) - Task I-23-PBI-A-016 PBI Holding Apron at TW A and C**

|                      |        |        |        |        |        |        |        |        |       |
|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| <b>Billing Rate:</b> | \$ 340 | \$ 236 | \$ 270 | \$ 255 | \$ 201 | \$ 215 | \$ 128 | \$ 129 | \$ 96 |
|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|

| Task Description  | Labor Estimate (Hours) |             |                        |                |                               |                                   |                  |            |          | Fee Estimate (\$) |                 |            |                 |
|---|------------------------|-------------|------------------------|----------------|-------------------------------|-----------------------------------|------------------|------------|----------|-------------------|-----------------|------------|-----------------|
|   | Principal              | QC Reviewer | Senior Project Manager | Senior Planner | Design / Construction Manager | Project Manager / Senior Engineer | Project Engineer | Planner    | Clerical | Total             | Labor           | Expenses   | Total           |
| <b>Task I-23-PBI-A-016 PBI Holding Apron at TW A and TW C</b> |                        |             |                        |                |                               |                                   |                  |            |          |                   |                 |            |                 |
| 90% Technical Specifications                                  |                        |             |                        |                | 4                             | 4                                 | 16               |            |          | 24                | \$ 3,712        | \$ -       | \$ 3,712        |
| 90% Front End Specifications & FAA General Provisions         |                        |             |                        |                | 4                             | 4                                 | 4                |            |          | 12                | \$ 2,176        | \$ -       | \$ 2,176        |
| 90% Construction Safety and Phasing Plan                      |                        |             |                        |                | 2                             | 2                                 | 4                |            |          | 8                 | \$ 1,344        | \$ -       | \$ 1,344        |
| 90% Project Construction Cost Estimate                        |                        |             |                        |                | 4                             | 3                                 | 24               |            |          | 31                | \$ 4,521        | \$ -       | \$ 4,521        |
| 90% Project Schedule  |                        |             |                        |                | 4                             | 3                                 |                  |            |          | 7                 | \$ 1,449        | \$ -       | \$ 1,449        |
| 90% Engineer's Report w/ Geotechnical Report                  |                        |             |                        |                | 4                             | 3                                 | 16               |            |          | 23                | \$ 3,497        | \$ -       | \$ 3,497        |
| Coordination with Permitting and Regulatory Agencies          |                        |             | 2                      |                | 4                             | 3                                 |                  |            |          | 9                 | \$ 1,989        | \$ -       | \$ 1,989        |
| ISO 9001 - QA/QC Review                                       |                        | 16          |                        |                |                               |                                   | 8                |            |          | 24                | \$ 4,800        | \$ -       | \$ 4,800        |
| Team Coordination Meetings                                    |                        |             | 2                      |                | 2                             | 2                                 | 4                |            | 4        | 14                | \$ 2,268        | \$ -       | \$ 2,268        |
| Perform One (1) Project Site Visit                            |                        |             |                        |                |                               | 2                                 | 4                |            |          | 6                 | \$ 942          | \$ 500     | \$ 1,442        |
| One (1) DOA Review Submittal Meeting                          |                        |             | 1                      |                | 1                             | 1                                 | 2                |            | 2        | 7                 | \$ 1,134        | \$ -       | \$ 1,134        |
| Stakeholder Coordination                                      |                        |             | 2                      |                |                               | 2                                 |                  |            |          | 4                 | \$ 970          | \$ -       | \$ 970          |
| Task Management and Coordination                              |                        |             | 8                      |                | 2                             | 2                                 |                  |            | 8        | 20                | \$ 3,760        | \$ -       | \$ 3,760        |
| <b>Phase 1C (100% CONSTRUCTION DOCUMENTS)</b>                 | <b>Total</b>           | <b>0</b>    | <b>8</b>               | <b>12</b>      | <b>0</b>                      | <b>60</b>                         | <b>55</b>        | <b>186</b> | <b>0</b> | <b>339</b>        | <b>\$54,549</b> | <b>\$0</b> | <b>\$54,549</b> |
| Cover Sheet (100%).   |                        |             |                        |                |                               |                                   | 1                |            |          | 1                 | \$ 128          | \$ -       | \$ 128          |
| Drawings Index (100%).  |                        |             |                        |                |                               |                                   | 2                |            |          | 2                 | \$ 256          | \$ -       | \$ 256          |
| Summary of Quantities/General Notes (100%).                   |                        |             |                        |                | 2                             | 1                                 | 4                |            |          | 7                 | \$ 1,129        | \$ -       | \$ 1,129        |
| Safety and Security Plan (100%).                              |                        |             |                        |                | 2                             | 1                                 | 4                |            |          | 7                 | \$ 1,129        | \$ -       | \$ 1,129        |
| Staging and Haul Route Plan (100%).                           |                        |             |                        |                | 2                             | 1                                 | 4                |            |          | 7                 | \$ 1,129        | \$ -       | \$ 1,129        |
| Overall Phasing Plans (100%).                                 |                        |             |                        |                | 2                             | 1                                 | 4                |            |          | 7                 | \$ 1,129        | \$ -       | \$ 1,129        |
| Individual Work Area Phasing Plans (90%).                     |                        |             |                        |                | 2                             | 2                                 | 4                |            |          | 8                 | \$ 1,344        | \$ -       | \$ 1,344        |
| Construction Phasing and Security Notes and Details (100%).   |                        |             |                        |                | 2                             | 2                                 | 4                |            |          | 8                 | \$ 1,344        | \$ -       | \$ 1,344        |
| Survey Control Plan (100%).                                   |                        |             |                        |                |                               |                                   | 1                |            |          | 1                 | \$ 128          | \$ -       | \$ 128          |
| Existing Conditions Plan (100%).                              |                        |             |                        |                | 2                             | 1                                 | 4                |            |          | 7                 | \$ 1,129        | \$ -       | \$ 1,129        |
| Demolition Plan (100%).                                       |                        |             |                        |                | 2                             | 2                                 | 4                |            |          | 8                 | \$ 1,344        | \$ -       | \$ 1,344        |
| Typical Sections (100%).                                      |                        |             |                        |                | 2                             | 2                                 | 4                |            |          | 8                 | \$ 1,344        | \$ -       | \$ 1,344        |
| Geometry Plans (100%).  |                        |             |                        |                | 2                             | 2                                 | 8                |            |          | 12                | \$ 1,856        | \$ -       | \$ 1,856        |
| Marking Plans (100%).   |                        |             |                        |                | 2                             | 2                                 | 4                |            |          | 8                 | \$ 1,344        | \$ -       | \$ 1,344        |
| Marking Details (100%).                                       |                        |             |                        |                | 2                             | 2                                 | 4                |            |          | 8                 | \$ 1,344        | \$ -       | \$ 1,344        |
| Grading Plans (100%).   |                        |             |                        |                | 2                             | 2                                 | 24               |            |          | 28                | \$ 3,904        | \$ -       | \$ 3,904        |
| Miscellaneous Details (100%).                                 |                        |             |                        |                | 2                             | 2                                 | 4                |            |          | 8                 | \$ 1,344        | \$ -       | \$ 1,344        |
| Cross Section Layout Plan (100%).                             |                        |             |                        |                | 2                             | 2                                 | 4                |            |          | 8                 | \$ 1,344        | \$ -       | \$ 1,344        |
| Cross Sections (100%).  |                        |             |                        |                |                               | 2                                 | 16               |            |          | 18                | \$ 2,478        | \$ -       | \$ 2,478        |
| Pavement Design (100%)  |                        |             |                        |                | 2                             | 2                                 | 12               |            |          | 16                | \$ 2,368        | \$ -       | \$ 2,368        |
| 100% Technical Specifications                                 |                        |             |                        |                | 4                             | 3                                 | 16               |            |          | 23                | \$ 3,497        | \$ -       | \$ 3,497        |
| 100% Front End Specifications & FAA General Provisions        |                        |             |                        |                | 4                             | 3                                 | 16               |            |          | 23                | \$ 3,497        | \$ -       | \$ 3,497        |
| 100% Construction Safety and Phasing Plan                     |                        |             |                        |                | 4                             | 3                                 | 12               |            |          | 19                | \$ 2,985        | \$ -       | \$ 2,985        |
| 100% Project Construction Cost Estimate                       |                        |             |                        |                | 4                             | 3                                 | 16               |            |          | 23                | \$ 3,497        | \$ -       | \$ 3,497        |
| 100% Project Schedule   |                        |             |                        |                | 4                             | 3                                 |                  |            |          | 7                 | \$ 1,449        | \$ -       | \$ 1,449        |
| 100% Engineer's Report w/ Geotechnical Report                 |                        |             |                        |                | 2                             | 3                                 | 4                |            |          | 9                 | \$ 1,559        | \$ -       | \$ 1,559        |
| Coordination with Permitting and Regulatory Agencies          |                        |             | 2                      |                | 2                             | 2                                 |                  |            |          | 6                 | \$ 1,372        | \$ -       | \$ 1,372        |
| ISO 9001 - QA/QC Review                                       |                        | 8           |                        |                |                               |                                   |                  |            |          | 8                 | \$ 1,888        | \$ -       | \$ 1,888        |
| Team Coordination Meetings                                    |                        |             |                        |                |                               | 2                                 | 4                |            |          | 6                 | \$ 942          | \$ -       | \$ 942          |
| One (1) DOA Review Submittal Meeting                          |                        |             | 2                      |                | 2                             | 2                                 | 2                |            | 2        | 10                | \$ 1,820        | \$ -       | \$ 1,820        |
| Task Management and Coordination                              |                        |             | 8                      |                | 2                             | 2                                 |                  |            | 16       | 28                | \$ 4,528        | \$ -       | \$ 4,528        |

Table B  
 Labor/Fee Estimate Summary - CONSULTANT (AECOM Technical Services, Inc.) - Task I-23-PBI-A-016 PBI Holding Apron at TW A and C

|               |        |        |        |        |        |        |        |        |       |
|---------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| Billing Rate: | \$ 340 | \$ 236 | \$ 270 | \$ 255 | \$ 201 | \$ 215 | \$ 128 | \$ 129 | \$ 96 |
|---------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|

| Task Description  | Principal            | QC Reviewer | Senior Project Manager | Senior Planner | Labor Estimate (Hours)        |                                   |                  |           |           | Fee Estimate (\$) |                  |                 |                      |                 |
|---|----------------------|-------------|------------------------|----------------|-------------------------------|-----------------------------------|------------------|-----------|-----------|-------------------|------------------|-----------------|----------------------|-----------------|
|   |                      |             |                        |                | Design / Construction Manager | Project Manager / Senior Engineer | Project Engineer | Planner   | Clerical  | Total             | Labor            | Expenses        | Total                |                 |
| <b>Task I-23-PBI-A-016 PBI Holding Apron at TW A and TW C</b>   |                      |             |                        |                |                               |                                   |                  |           |           |                   |                  |                 |                      |                 |
| <b>Phase 2 BID AND AWARD SERVICES</b>                           | <b>Total</b>         | <b>0</b>    | <b>10</b>              | <b>12</b>      | <b>0</b>                      | <b>30</b>                         | <b>28</b>        | <b>51</b> | <b>0</b>  | <b>0</b>          | <b>131</b>       | <b>\$24,178</b> | <b>\$300</b>         | <b>\$24,478</b> |
| Bid Drawings  |                      |             |                        | 1              |                               | 1                                 | 1                | 12        |           |                   | 15               | \$ 2,222        | \$ -                 | \$ 2,222        |
| Bid Technical Specifications                                    |                      |             |                        | 1              |                               | 1                                 | 1                | 4         |           |                   | 7                | \$ 1,198        | \$ -                 | \$ 1,198        |
| Bid Front End Specifications & FAA General Provisions           |                      |             |                        | 1              |                               | 1                                 | 1                | 4         |           |                   | 7                | \$ 1,198        | \$ -                 | \$ 1,198        |
| Bid Construction Phasing and Safety Plan Report                 |                      |             |                        |                |                               | 1                                 | 1                | 3         |           |                   | 5                | \$ 800          | \$ -                 | \$ 800          |
| Bid Project Construction Cost Estimate                          |                      |             |                        |                |                               | 1                                 | 1                | 2         |           |                   | 4                | \$ 672          | \$ -                 | \$ 672          |
| ISO 9001 - QA/QC Review   |                      | 8           |                        |                |                               |                                   |                  |           |           |                   | 8                | \$ 1,888        | \$ -                 | \$ 1,888        |
| Task Management and Coordination                                |                      |             |                        | 2              |                               | 2                                 | 2                |           |           |                   | 6                | \$ 1,372        | \$ -                 | \$ 1,372        |
| Assist DOA in Advertisement and Processing of Bid Documents     |                      |             |                        | 2              |                               | 2                                 | 2                | 2         |           |                   | 8                | \$ 1,628        | \$ 300               | \$ 1,928        |
| Prepare and attend Pre-Bid Meeting, Prepare Minutes             |                      |             |                        |                |                               | 2                                 | 2                | 2         |           |                   | 6                | \$ 1,088        | \$ -                 | \$ 1,088        |
| Prepare and Maintain Bid Holders Log                            |                      |             |                        |                |                               |                                   |                  | 4         |           |                   | 4                | \$ 512          | \$ -                 | \$ 512          |
| Respond to Contractor's Request for Information (RFI's)         |                      |             |                        | 2              |                               | 6                                 | 6                |           |           |                   | 14               | \$ 3,036        | \$ -                 | \$ 3,036        |
| Prepare and Issue Addenda                                       |                      | 2           |                        | 2              |                               | 12                                | 8                | 12        |           |                   | 36               | \$ 6,680        | \$ -                 | \$ 6,680        |
| Attend Bid Opening Meeting                                      |                      |             |                        |                |                               |                                   |                  | 4         |           |                   | 4                | \$ 512          | \$ -                 | \$ 512          |
| Prepare, Review and Evaluate Bid Tabulation and Bid Forms       |                      |             |                        |                |                               | 1                                 | 1                | 2         |           |                   | 4                | \$ 672          | \$ -                 | \$ 672          |
| Prepare and Submit Recommendation of Bid Award Letter to DOA    |                      |             |                        | 1              |                               |                                   | 2                |           |           |                   | 3                | \$ 700          | \$ -                 | \$ 700          |
| <b>Total Fee - AECOM Technical Services, Inc.</b>               | <b>0</b>             | <b>67</b>   | <b>58</b>              | <b>0</b>       | <b>327</b>                    | <b>302</b>                        | <b>1,065</b>     | <b>0</b>  | <b>56</b> | <b>1,876</b>      | <b>\$304,095</b> | <b>\$2,800</b>  | <b>\$306,895</b>     |                 |
| <b>Subconsultant Fees</b>                                       |                      |             |                        |                |                               |                                   |                  |           |           |                   |                  |                 |                      |                 |
| 1 Total Subconsultant Fee - Tierra (T&M)                        | \$ 40,402.66         |             |                        |                |                               |                                   |                  |           |           |                   | Lump Sum         |                 | \$ 479,825.00        |                 |
| 2 Total Subconsultant Fee - Quantum Electrical Engineering (LS) | \$ 37,630.00         |             |                        |                |                               |                                   |                  |           |           |                   | T&M              |                 | \$ 77,760.66         |                 |
| 3 Total Subconsultant Fee - Chen Moore & Associates (LS)        | \$ 138,100.00        |             |                        |                |                               |                                   |                  |           |           |                   | Expenses         |                 | \$ 2,800.00          |                 |
| 4 Total Subconsultant Fee - Brown & Phillips (T&M)              | \$ 37,358.00         |             |                        |                |                               |                                   |                  |           |           |                   | <b>TOTAL</b>     |                 | <b>\$ 560,385.66</b> |                 |
| <b>Total Fee - Subconsultants</b>                               | <b>\$ 253,490.66</b> |             |                        |                |                               |                                   |                  |           |           |                   |                  |                 |                      |                 |
| <b>GRAND TOTAL FEE - BASIC ENGINEERING SERVICES</b>             | <b>\$ 560,385.66</b> |             |                        |                |                               |                                   |                  |           |           |                   |                  |                 |                      |                 |

Prepared by: AECOM Technical Services, Inc.

**BROWN & PHILLIPS, Inc.**  
PROFESSIONAL SURVEYING SERVICES

December 4, 2023

Mr. Andres Kacer, P.E.  
AECOM  
7650 West Courtney Campbell Causeway  
Tampa, FL 33607

**Re: Palm Beach International Airport (PBI) Taxiway A and C Holding Apron  
Topographic Survey and Stake Soil Borings/Pavement Cores**

Dear Andy:

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. The scope of services is as follows:

**SCOPE OF SERVICES**

**I. TOPOGRAPHIC SURVEY**

Utilizing Airport Control from our previous surveys, we will perform a topographic survey at the site for the area highlighted in red on Attachment 'B', tying in all above ground features. This will include, but not be limited to, pavement, walks, utilities, and drainage structures. This is a very busy area, therefore may include night work and multiple trips, which requires additional time. We will attempt to get as-built information on all the pipes leading out of any storm or sanitary sewer structures found. We will show invert elevations, pipe sizes and materials for all pipes located including outfall pipes. We will obtain elevations on the site on a 25' grid. We will locate sufficient points to give an accurate representation of the lay of the land. In addition, we will prepare a TIN file and all the corresponding break lines for the design of the holding apron. Since a TIN is required, this will entail additional shots to be taken on the cross sections to accurately depict the existing conditions.

**II. SOIL BORINGS/PAVEMENT CORES**

We will stakeout approximately forty-one (41) soil borings/pavement cores as delineated on the plan included with this proposal as Attachment 'B'.

**III. UTILITY TARGETING SERVICES**

We will scan around the area of the Geotech borings as delineated on the plan included with this proposal as Attachment 'B' and mark any underground utilities that may conflict. We will then locate the designates and add them to the survey.

**IV. TEST HOLES**

We will perform ten (10) test holes at locations to be determined by you. We will then locate the test holes and add them to the survey.

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

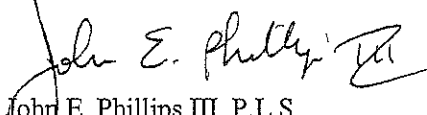
(561) 615-3988 • Fax (561) 615-3991

M:\PROPOSALS\BY COMPANY\AECOM\PBIATaxiway A and C Holding Apron\topographic survey.docx

**V. CLOSURE**

A drawing will be produced which will show all the features located. We propose to provide AECOM with hard copies, a digitally signed PDF file, and an AutoCAD file in the version requested. We will perform the scope of services for an hourly, **not-to-exceed fee of \$37,358.00** (\$29,358.00 for the survey, \$3,000.00 for utility targeting services, and \$5,000.00 for ten test holes at \$500.00 each), see Attachment '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.

**Brown & Phillips, Inc.**

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

Attachment

This Proposal accepted this \_\_\_\_ day of \_\_\_\_\_, 2023

By: \_\_\_\_\_  
**AECOM**

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_



**BROWN & PHILLIPS, Inc.**  
 PROFESSIONAL SURVEYING SERVICES

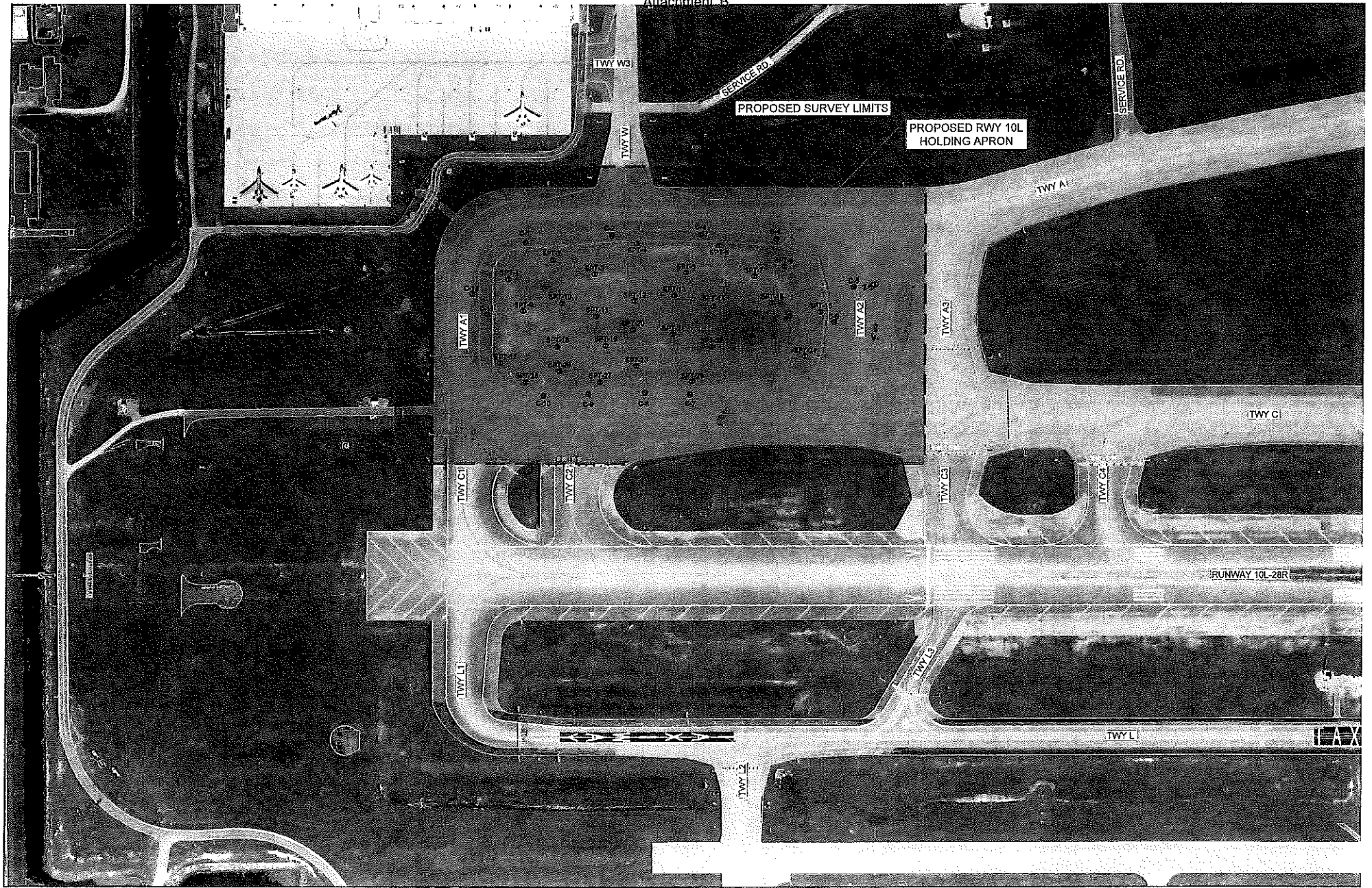
ATTACHMENT 'A'

Palm Beach International Airport (PBI) Taxiway A and C Holding Apron

Type of Survey: Topographic  
 Date: December 4, 2023

| TASK   | SURVEY CREW | CADD TECH  | SURVEY TECH | PLS        | COMMENTS   |
|--|-------------|------------|-------------|------------|--|
| Meetings and Coordination                          |             |            |             | 4          |  |
| Horizontal and Vertical Project Network Control    | 16          |            | 5           | 3          | Establish control and set benchmarks                                 |
| Tie In Improvements and Cross Sections             | 90          |            | 18          | 4          | Locate above ground features, 25' cross sections and spot elevations |
| As-builts  | 8           |            | 2           |            | Obtain as-built data   |
| Stake Soil Borings, CBR Locations & Pavement Cores | 16          |            | 3           | 1          | 29 soil borings and 12 pavement cores                                |
| Topographic Survey                                 |             | 32         | 8           | 5          | Prepare topographic survey   |
|  |             |            |             |            |  |
| Total Hours:                                       | 130         | 32         | 36          | 17         |  |
| Rate/Hour  | \$156.00    | \$96.00    | \$96.00     | \$150.00   |  |
| Subtotal:  | \$20,280.00 | \$3,072.00 | \$3,456.00  | \$2,550.00 |  |
| <b>Total Labor Cost:</b>                           |             |            |             |            | <b>\$29,358.00</b>   |

| <u>Optional S.U.E. Services</u>  | <u>quantity</u> | <u>unit</u> | <u>cost/unit</u> | <u>total</u> |                         |
|----------------------------------|-----------------|-------------|------------------|--------------|-------------------------|
| Utility Targeting                | 1.5             | day         | \$2,000.00       | \$3,000.00   | (clear Geotech borings) |
| Test Holes                       | 10              | each        | \$500.00         | \$5,000.00   |                         |
| <b>Total Other Direct Costs:</b> |                 |             |                  |              | <b>\$8,000.00</b>       |
| <b>TOTAL PRICE</b>               |                 |             |                  |              | <b>\$37,358.00</b>      |



December 05, 2023

SENT VIA E-MAIL ([blehr@chenmoore.com](mailto:blehr@chenmoore.com))

Mr. Andrew Kacer  
AECOM  
7650 West Courtney Campbell Causeway  
Tampa, FL 33607

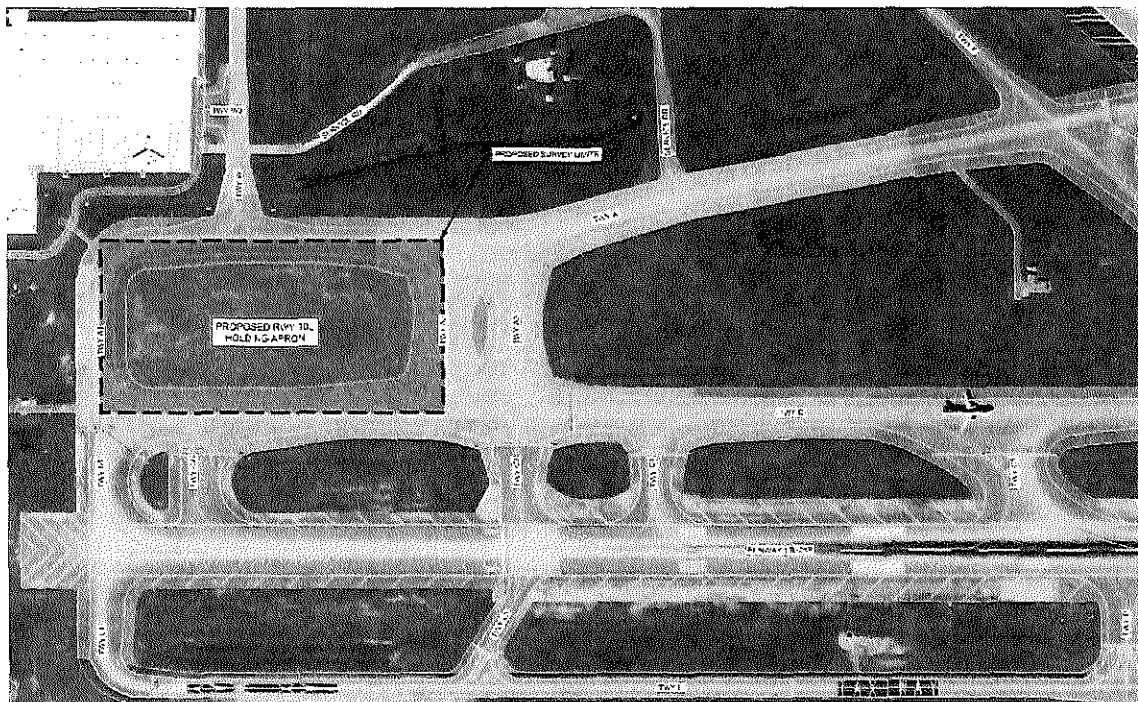
**Subject: PBI Taxiway A1 and A2 Holding Apron  
Civil Engineering Design Phase Scope of Services  
CMA Proposal No. 23-0066.P0001-008**

Dear Mr. Kacer,

Chen Moore and Associates, Inc. (CMA) is pleased to submit the attached Scope of Services and associated fee estimate to assist your team with the drainage and permitting services for the referenced project.

**PROJECT INTRODUCTION**

This project includes the conversion of the existing infield area bounded by Taxiway A1, A, A2, and C into a new concrete pavement holding apron to service the growing volume of general aircraft operations at PBI as illustrated in Figure 1 below. CMA's scope of services for this project will be to design and permit the new closed drainage system for the holding apron. The additional impervious area will require significant modification to the existing stormwater pond directly to the west of Taxiway A1. The drainage conveyance system design and pond modifications shall take into consideration recently permitted modifications for the Fixed Based Operator (FBO), Signature Flight Support's planned expansions to the north. It is anticipated that there will be modifications to the pond retention volume as well as modifications to control structure's S-1A and S-1B.



**FIGURE 1:** Depiction of proposed Holding Apron between TWY A1 and TWY A2.

The project phases shall consist of the following:

- 60% Preliminary Design
- 90% Final Design
- 100% Bid Plans
- Bidding Assistance
- Permitting Services

### **PROJECT STAFFING**

Our staff and team are ready and prepared to work on this project. Chen Moore staff project roles shall be as follows:

Principal – Jose L. Acosta, P.E., F. ASCE  
Project Director – Brent Whitfield, P.E.  
Senior Engineer – Cole Benjamin, P.E.  
Project Engineer – David Cowan, P.E.  
Associate Engineer – Brandon Sullivan

Subconsultants: N/A

### **SCOPE OF SERVICES**

#### **TASK 1 – Project Initiation, Information Gathering, and Site Investigation**

Consultant shall collect and review copies of all relevant data, including correspondence, plans or information provided by the Client which may be beneficial to the work effort performed by Consultant. This task shall include one on-site investigation to collect pertinent information about the present-day condition of the project site. This task shall also include preparation for, and attendance by, the Consultant, at the project kick-off meeting.

#### **TASK 2 – Engineering Design Services**

Consultant shall include all relevant documentation required for 60%/90%/100% design phase submittals and shall provide Bidding Assistance as detailed below.

##### **60% Preliminary Design**

- Provide a preliminary closed drainage network for the new holding apron pavement area and receiving pond modifications, along with all corresponding hydraulic analyses and supporting calculations.
- Prepare 60% civil engineering stormwater plans for the purpose of Owner review and interdisciplinary coordination with other related disciplines. Submittal will include plan view, profile view, cross sections (where appropriate), and pond and control structure modification details.
- Prepare 60% technical specifications pertaining to the project's stormwater elements.
- Prepare 60% stormwater management design report, including relevant narrative, exhibits, and figures, and hydraulics and hydrologic analyses.
- Prepare 60% Erosion and Sediment Control plans and details.
- Provide a preliminary Opinion of Probable Cost for the project's stormwater elements.
- Attend one (1) meeting with the Owner/Client for project coordination.



- Coordinate with other project disciplines (Geotech, SUE, Airfield, Electrical) throughout this design phase.

#### 90% Final Design

- Review and respond to Client/Owner comments from the previous submittal and update portions of the design, as appropriate, including written responses to provided comments pertaining to stormwater.
- Revised 90% civil engineering stormwater plans for the purpose of Owner review and interdisciplinary coordination and to submit for permits, including plan view, profile view, cross sections (where appropriate), and pond and control structure modification details.
- Prepare 90% technical specifications pertaining to the project's stormwater elements.
- Revised stormwater management design report sufficient to submit for permit to the SFWMD.
- Revised 90% Erosion and Sediment Control plans and details.
- Provide an updated Opinion of Probable Cost for the project's stormwater elements.
- Attend one (1) meeting with the Owner/Client for project coordination.
- Coordinate with other project disciplines (Geotech, SUE, Airfield, Electrical) throughout this design phase.

#### 100% Bid Plans

- Review and respond to Client/Owner comments from the previous submittal and update portions of the design, as appropriate, including written responses to provided comments pertaining to stormwater.
- Prepare 100% civil engineering stormwater plans for the purpose of Owner review and interdisciplinary coordination and to submit for permits, including plan view, profile view, cross sections (where appropriate), and pond and control structure modification details.
- Prepare 100% technical specifications pertaining to the project's stormwater elements.
- Provide Final stormwater management report.
- Prepare 100% Erosion and Sediment Control plans and details.
- Provide an updated Opinion of Probable Cost for the project's stormwater elements.
- Attend one (1) meeting with the Owner/Client for project coordination.
- Coordinate with other project disciplines (Geotech, SUE, Airfield, Electrical) throughout this design phase.

#### Bidding Assistance

- Attend one (1) pre-bid meeting.
- Participate in addendum preparation (up to two minor addenda).

#### **TASK 3 – Permitting Services**

Consultant shall prepare and submit permit applications for the following regulatory authority:

- Stormwater Management - South Florida Water Management District (SFWMD)

This task shall include the effort to schedule and conduct a pre-application meeting with the South Florida Water Management District (SFWMD) pertaining to stormwater design, including the preparation of a meeting agenda and meeting minutes. The task shall also include preparing applications, correspondence with regulatory reviewers, and any required responses for up to two rounds of comments and responses for Requests for Additional Information (RAI). Providing permit fees are not included and shall be the responsibility of the Owner.

**The basis for the above scope of services and associated fee(s) are based on the following:**

- Design services and associated fees assume project is developed in a single phase and no temporary stormwater conveyance is required.
- Surveying and geotechnical investigation are to be performed by the Client, as required.
- If any off-site stormwater or off-site roadway improvements are required, they shall be rendered as an Additional Service.
- Franchise utility (such as FPL, telecom, and natural gas) relocation and/or service design shall be by others.
- Design services exclusively pertain to stormwater. Design associated with water, wastewater, landscape architecture, irrigation, site planning, pavement, signage and markings, Maintenance of Traffic, and detailed grading are not included.
- Site lighting is not included in this proposal.
- Client shall provide submittal fees for government agencies.
- This project is to be permitted in a single phase of construction.
- No construction management or construction administration services were included in this proposal. If requested, this effort shall be rendered as an additional service.

**Information to be provided by the Client:**

- A signed and sealed boundary and topographic survey and associated digital CAD File.
- A letter from the property owner granting access to the site and giving approval for Consultant to perform the services listed above.
- Filing and permit application fees, review fees, impact fees or any other associated assessments by other governments/agencies.
- Copies of all relevant data, including correspondence, traffic reports, plans or information in the Client's possession which may be beneficial to the work effort performed by Consultant.
- Previous reports and assessments.
- Legal description of the site.

**SCHEDULE AND FEES**

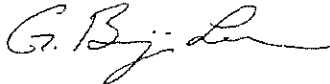
Consultant shall schedule work upon receipt of signed approval for this project as required. Per discussions with your team, the goal is to start immediately upon notice to proceed and official authorization from the Client. The total lump sum fee for this project will be divided as follows:

| <u>TASK(s)</u>   | <u>Task Description</u>   | <u>Lump Sum</u> | <u>Hourly</u> | <u>Total Fees</u>   |
|--|---|-----------------|---------------|---------------------|
| <b>WATER RESOURCES ENGINEERING AND STORMWATER PERMITTING</b> |   |                 |               |                     |
| TASK 1   | Project Initiation, Information Gathering, and Site Investigation | \$5,560.00      | -             | \$5,560.00          |
| TASK 2   | Engineering Design Services                                       | \$100,880.00    | -             | \$100,880.00        |
| TASK 3   | Permitting Services   | \$31,660.00     | -             | \$31,660.00         |
| <b>PROJECT TOTAL</b>   |   |                 |               | <b>\$138,100.00</b> |

Reimbursable expenses for the tasks above are included in the lump sum price. Additional reimbursables requested by the client shall be rendered as Additional Services.

Should you have any questions, please do not hesitate to contact me at my office at +1 (561) 746-6900, my cell phone at +1 (904) 707-7724, or send me an electronic message at [blehr@chenmoore.com](mailto:blehr@chenmoore.com).

Respectfully submitted,



Benjamin Lehr, PE, LEED AP  
Director – Transportation  
12/05/2023

Attachment(s):  
Fee Estimate

**PBI Taxiway A1 and A2 Holding Apron - AECOM**  
**Fee Estimate**

Chen Moore and Associates, Inc.

CMA Project No. 23-0066.P0001-008

| Hourly Rate   | Project   | Project   | Senior     | Project    | Associate  | Administrative | Total               |
|---|-----------|-----------|------------|------------|------------|----------------|---------------------|
|   | Principal | Director  | Engineer   | Engineer   | Engineer   | Staff          |                     |
|   | \$360.00  | \$250.00  | \$200.00   | \$150.00   | \$125.00   | \$90.00        |                     |
| <b>TASK 1 – PROJECT INITIATION, INFORMATION GATHERING, AND SITE INVESTIGATION</b> |           |           |            |            |            |                |                     |
| Initial Field Visit   |           | 4         |            | 4          |            |                | \$1,600.00          |
| Existing Document Review  |           | 2         | 6          | 4          |            |                | \$2,300.00          |
| Project Kickoff Meeting and Project Setup   |           | 2         | 4          |            |            | 4              | \$1,660.00          |
| <b>Task 1 Total</b>   | <b>0</b>  | <b>8</b>  | <b>10</b>  | <b>8</b>   | <b>0</b>   | <b>4</b>       | <b>\$5,560.00</b>   |
| <b>TASK 2 – ENGINEERING DESIGN SERVICES</b>                                       |           |           |            |            |            |                |                     |
| <b>60% PRELIMINARY DESIGN SUBMITTAL</b>   |           |           |            |            |            |                |                     |
| Preliminary Closed Drainage Network and Pond Modification Layout                  |           | 2         | 16         | 24         | 16         |                | \$9,300.00          |
| Preliminary Hydraulic Analysis and Supporting Calculations                        |           | 8         | 16         | 24         | 8          |                | \$9,800.00          |
| Plans & Details (Closed system plan & profile, pond & control structure mods)     |           | 2         | 16         | 16         | 16         |                | \$8,100.00          |
| Technical Specifications  |           | 2         | 4          | 4          | 4          |                | \$2,400.00          |
| Design Report   |           | 2         | 8          | 12         | 8          |                | \$4,900.00          |
| Preliminary Erosion Control Sheets and Details                                    |           | 2         | 4          | 8          | 8          |                | \$3,500.00          |
| Preliminary Opinion of Probable Cost  | 1         | 2         | 4          | 4          | 4          |                | \$2,760.00          |
| 60% Deliverable Review Meeting  |           | 1         | 2          |            |            |                | \$650.00            |
| Coordination with Others (Geotech, SUE, Airfield, Electrical)                     |           | 2         | 4          | 2          |            |                | \$1,600.00          |
| QA/QC   | 1         | 4         | 4          | 8          | 4          |                | \$3,860.00          |
| <b>90% FINAL DESIGN SUBMITTAL</b>   |           |           |            |            |            |                |                     |
| Incorporate 60% Design Submittal Comments   |           | 2         | 4          | 8          | 4          |                | \$3,000.00          |
| Update Hydraulic Analysis and Supporting Calculations                             |           | 2         | 16         | 16         |            |                | \$6,100.00          |
| Update Construction Plans and Details   |           | 1         | 12         | 12         | 8          |                | \$5,450.00          |
| Update Technical Specifications   |           | 1         | 4          | 4          | 2          |                | \$1,900.00          |
| Update Design Report  |           | 1         | 4          | 8          | 4          |                | \$2,750.00          |
| Update Erosion Control Sheets and Details   |           | 1         | 2          | 6          | 6          |                | \$2,300.00          |
| Update Opinion of Probable Cost   | 1         | 1         | 2          | 4          | 4          |                | \$2,110.00          |
| 90% Deliverable Review Meeting  |           | 1         | 2          |            |            |                | \$650.00            |
| Coordination with Others (Geotech, SUE, Airfield, Electrical)                     |           | 2         | 4          | 2          |            |                | \$1,600.00          |
| QA/QC   | 1         | 4         | 4          | 4          | 4          |                | \$3,260.00          |
| <b>100% ISSUED FOR BID</b>  |           |           |            |            |            |                |                     |
| Incorporate 90% Design Submittal Comments   |           | 1         | 4          | 8          |            |                | \$2,250.00          |
| Finalize Hydraulic Analysis and Supporting Calculations                           |           | 2         | 4          | 8          |            |                | \$2,500.00          |
| Finalize Construction Plans and Details   |           |           | 4          | 4          | 4          |                | \$1,900.00          |
| Finalize Technical Specifications   |           | 1         | 2          | 4          | 2          |                | \$1,500.00          |
| Finalize Design Report  |           | 1         | 2          | 8          | 4          |                | \$2,350.00          |
| Finalize Erosion Control Sheets and Details                                       |           |           | 2          | 2          | 4          |                | \$1,200.00          |
| Final Opinion of Probable Cost  | 1         | 1         | 2          | 2          | 2          |                | \$1,560.00          |
| 100% Deliverable Review Meeting   |           | 1         | 2          |            |            |                | \$650.00            |
| Coordination with Others (Geotech, SUE, Airfield, Electrical)                     |           | 2         | 4          | 2          |            |                | \$1,600.00          |
| QA/QC   | 1         | 2         | 4          | 4          |            |                | \$2,260.00          |
| Produce Signed and Sealed Construction Plans and Calculations                     |           | 1         |            | 2          |            |                | \$550.00            |
| Revise and Resubmit (Assume 1 Occurrence)   |           | 1         | 4          | 4          | 4          |                | \$2,150.00          |
| <b>BIDDING ASSISTANCE</b>   |           |           |            |            |            |                |                     |
| Pre-Bid Meeting   |           |           | 2          |            |            |                | \$400.00            |
| Addendum Preparation (up to two minor addenda)                                    | 1         | 2         | 8          | 8          |            | 4              | \$4,020.00          |
| <b>Task 2 Total</b>   | <b>7</b>  | <b>58</b> | <b>176</b> | <b>222</b> | <b>120</b> | <b>4</b>       | <b>\$100,880.00</b> |
| <b>TASK 3 – PERMITTING SERVICES</b>   |           |           |            |            |            |                |                     |
| Existing Permit Review and Pre-Application Meeting Request                        |           | 1         | 2          | 4          |            |                | \$1,250.00          |
| Pre-Application Meeting with SFWMD  |           | 1         | 1          |            |            |                | \$450.00            |
| Pre-Application Meeting Minutes   |           |           | 2          |            |            |                | \$400.00            |
| SFWMD ERP Application Documents   |           | 4         | 8          | 8          | 4          |                | \$4,300.00          |
| Water Quality Analysis  |           | 4         | 16         | 16         | 12         |                | \$8,100.00          |
| ERP Application Supporting Exhibits/Plan Production                               |           | 1         | 8          | 16         | 8          |                | \$5,250.00          |
| QA/QC   | 1         | 4         | 4          | 4          | 4          |                | \$3,260.00          |
| Submit ERP Application Package to ePermitting Site                                |           |           | 2          | 6          | 4          |                | \$1,800.00          |
| Respond to RAIs (up to two occurrences)   | 1         | 4         | 8          | 16         | 4          |                | \$5,860.00          |
| Issue Final Permit Application  |           | 2         | 2          |            |            | 1              | \$990.00            |
| <b>Task 3 Total</b>   | <b>2</b>  | <b>21</b> | <b>53</b>  | <b>70</b>  | <b>36</b>  | <b>1</b>       | <b>\$31,660.00</b>  |
| <b>TOTAL FEES</b>   |           |           |            |            |            |                | <b>\$138,100.00</b> |

| TASK   | Total Hrs/Task | Total \$/Task       |
|--|----------------|---------------------|
| TASK 1 – PROJECT INITIATION, INFORMATION GATHERING, AND SITE | 30             | \$5,560.00          |
| TASK 2 – ENGINEERING DESIGN SERVICES                         | 587            | \$100,880.00        |
| TASK 3 – PERMITTING SERVICES                                 | 183            | \$31,660.00         |
| <b>TOTAL</b>   | <b>800</b>     | <b>\$138,100.00</b> |

# QUANTUM

Electrical Engineering, Inc.

December 2, 2023

AECOM Technical Services, Inc.  
Mr. Clint Martin, P.E.  
Project Manager  
7650 West Courtney Campbell Causeway  
Tampa, FL 33607

Subject: Electrical Design Services Fee Proposal for the Palm Beach County Department of Airports (DOA) – Palm Beach International Airport Holding Apron between Taxiway A1 and A2 Expansion Project.

Dear Clint:

Quantum Electrical Engineering, Inc. (QUANTUM) is pleased to provide AECOM an electrical design services fee proposal for Palm Beach International Airport (PBI) Holding Apron between Taxiway A1 and A2 Expansion Project. The proposal is based upon information provided by AECOM via email on 11/29/2023. The following tasks are included in our scope of services:

#### **Task 1: Design Documents**

- Includes design coordination meetings with the DOA, FAA and AECOM Team.
- Includes record drawing reviews, on-site electrical verifications, and visual assessment of existing conditions.
- Design new airfield lighting and signage systems for the new apron edge lighting. Includes modifications to existing conductor and conduit systems, play layouts, details, schedules, electrical calculations and demolition plans of existing airfield electrical systems.
- Includes airfield electrical plans reflecting the modification to the existing ALCMS graphic.
- Includes relocation of the existing FAA Fiber Optic ductbank and manhole system which contains the primary and redundant FAA Fiber loops. There are currently 3 manholes within the infield area between connected by a 2-4" conduits. Coordination will be required with the FAA to see if and where a splice would be permitted. If a splice is not permitted then new fiber optic cables will be required to be installed between existing termination points. This will most likely require a reimbursable agreement.

#### **Task 2: Bid & Award**

- Includes Bid and Award Services, addenda and RFI responses and revisions, review of bid pricing results and electrical recommendation.

#### **Assumptions and Exclusions:**

- AECOM shall provide all base drawings to QUANTUM on AutoCAD 2022 or higher.
- AECOM to provide marking files, electrical locations of airfield lighting and signage will be based off of the marking files.

Palm Beach County  
2755 Vista Parkway, Suite I-12  
West Palm Beach, FL 33411  
561.210.9224

[www.QuantumElectricalEngineering.com](http://www.QuantumElectricalEngineering.com)

Broward County  
5571 N. University Drive, Suite 101  
Coral Springs, FL 33067  
954.369.5810

- QUANTUM shall provide 1-set of electronic electrical plans & specifications to AECOM for 60%, 90%, 100%, Bid Set reviews and Bid Set documents.
- AECOM shall provide all printing of Plans & Specifications for reviews, bid phase and construction phases.
- Does not include construction services.

|   |                     |
|---|---------------------|
| Our proposed Lump-Sum fee for Task 1 is:  | \$ 36,000.00        |
| Our proposed Lump-Sum fee for Task 2 is:  | \$ 1,630.00         |
| <b>Our proposed total Lump-Sum fee is</b> | <b>\$ 37,630.00</b> |

Sincerely,



Amy L. Champagne-Baker, PE  
President

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West Palm Beach, FL 33411  
561.210.9224

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5571 N. University Drive, Suite 101  
Coral Springs, FL 33067  
954.369.5810

| PALM BEACH COUNTY DEPARTMENT OF AIRPORTS - PBIA HOLDING APRON BETWEEN A1 AND A2 PROJECT |               |            |                    |                    |                   |               |                 |            |          |                    |
|---|---------------|------------|--------------------|--------------------|-------------------|---------------|-----------------|------------|----------|--------------------|
| QUANTUM ELECTRICAL ENGINEERING, INC.  |               |            |                    |                    |                   |               |                 |            |          |                    |
| SCOPE FEE SUMMARY   |               |            |                    |                    |                   |               |                 |            |          |                    |
| FEE PROPOSAL ELECTRICAL SERVICES to AE 12/2/23  |               |            |                    |                    |                   |               |                 |            |          |                    |
|   | Rate          | \$170.00   | \$150.00           | \$145.00           | \$85.00           | \$140.00      | \$50.00         |            |          |                    |
|   |               | Proj. Mgr. | Prof. Eng          | Proj. Eng          | CADD/Tech         | Field Eng.    | Clerical        | Total      |          | TOTAL              |
| PHASE OF WORK   | Hours         | Hours      | Hours              | Hours              | Hours             | Hours         | Hours           | Hours      | Expenses | TASK COST          |
| <b>Task 1: Design Documents</b>   |               |            |                    |                    |                   |               |                 |            |          |                    |
| <b>60% Design Documents</b>   |               |            |                    |                    |                   |               |                 |            |          |                    |
| Design Review Mtgs DOA, FAA and AE  |               |            | 4                  |                    |                   |               |                 | 4          |          | \$600.00           |
| Site Investigation, Record Drawing Review and Discovery                                 |               |            | 8                  | 4                  |                   |               |                 | 12         |          | \$1,780.00         |
| Electrical Design Drawings  |               |            | 32                 | 32                 | 48                |               |                 | 112        |          | \$13,520.00        |
| Specifications & Cost Estimate  |               |            | 4                  | 4                  |                   |               | 2               | 10         |          | \$1,280.00         |
| QA/QC & Comment Incorporation   |               |            | 4                  | 2                  | 4                 |               |                 | 10         |          | \$1,230.00         |
| <b>Subtotal</b>   | <b>0</b>      |            | <b>52</b>          | <b>42</b>          | <b>52</b>         | <b>0</b>      | <b>2</b>        | <b>148</b> |          | <b>\$18,410.00</b> |
| <b>90% Design Documents</b>   |               |            |                    |                    |                   |               |                 |            |          |                    |
| Design Review Mtgs DOA and AE   |               |            | 1                  |                    |                   |               |                 | 1          |          | \$150.00           |
| Electrical Design Drawings  |               |            | 16                 | 24                 | 32                |               |                 | 72         |          | \$8,600.00         |
| Specifications & Cost Estimate  |               |            | 4                  | 4                  |                   |               | 1               | 9          |          | \$1,230.00         |
| QA/QC & Comment Incorporation   |               |            | 4                  | 2                  | 4                 |               |                 | 10         |          | \$1,230.00         |
| <b>Subtotal</b>   | <b>0</b>      |            | <b>25</b>          | <b>30</b>          | <b>36</b>         | <b>0</b>      | <b>1</b>        | <b>92</b>  |          | <b>\$11,210.00</b> |
| <b>100% Design Documents</b>  |               |            |                    |                    |                   |               |                 |            |          |                    |
| Design Review Mtgs DOA and AE   |               |            | 1                  |                    |                   |               |                 | 1          |          | \$150.00           |
| Electrical Design Drawings  |               |            | 8                  | 16                 | 16                |               |                 | 40         |          | \$4,880.00         |
| Specifications & Cost Estimate  |               |            | 2                  | 4                  |                   |               |                 | 6          |          | \$880.00           |
| QA/QC & Comment Incorporation   |               |            | 2                  |                    | 2                 |               |                 | 4          |          | \$470.00           |
| <b>Subtotal</b>   | <b>0</b>      |            | <b>13</b>          | <b>20</b>          | <b>18</b>         | <b>0</b>      | <b>0</b>        | <b>51</b>  |          | <b>\$6,380.00</b>  |
| <b>Task 1 Total Hours</b>   | <b>0</b>      |            | <b>90</b>          | <b>92</b>          | <b>106</b>        | <b>0</b>      | <b>3</b>        | <b>291</b> |          |                    |
| <b>Task 1 Total Labor Cost</b>  | <b>\$0.00</b> |            | <b>\$13,500.00</b> | <b>\$13,340.00</b> | <b>\$9,010.00</b> | <b>\$0.00</b> | <b>\$150.00</b> |            |          | <b>\$36,000.00</b> |
| <b>Task 2: Bid &amp; Award</b>  |               |            |                    |                    |                   |               |                 |            |          |                    |
| Attend Pre-Bid Meeting  |               |            | 1                  |                    |                   |               |                 | 1          |          | \$150.00           |
| RFI Responses and Addendum Revisions  |               |            | 4                  | 2                  | 4                 |               | 1               | 11         |          | \$1,280.00         |
| Review of Bid Results & Recommendation  |               |            | 1                  |                    |                   |               | 1               | 2          |          | \$200.00           |
| <b>Subtotal</b>   | <b>0</b>      |            | <b>6</b>           | <b>2</b>           | <b>4</b>          | <b>0</b>      | <b>2</b>        | <b>14</b>  |          | <b>\$1,630.00</b>  |
| <b>Task 2 Total Hours</b>   | <b>0</b>      |            | <b>6</b>           | <b>2</b>           | <b>4</b>          | <b>0</b>      | <b>2</b>        | <b>14</b>  |          |                    |
| <b>Task 2 Total Labor Cost</b>  | <b>\$0.00</b> |            | <b>\$900.00</b>    | <b>\$290.00</b>    | <b>\$340.00</b>   | <b>\$0.00</b> | <b>\$100.00</b> |            |          | <b>\$1,630.00</b>  |
| <b>Grand Total Hours</b>  | <b>0</b>      |            | <b>96</b>          | <b>94</b>          | <b>110</b>        | <b>0</b>      | <b>5</b>        | <b>305</b> |          |                    |
| <b>Grand Total Labor Cost</b>   | <b>\$0.00</b> |            | <b>\$14,400.00</b> | <b>\$13,630.00</b> | <b>\$9,350.00</b> | <b>\$0.00</b> | <b>\$250.00</b> |            |          | <b>\$37,630.00</b> |



December 4, 2023

AECOM Technical Services, Inc.  
7650 West Courtney Campbell Causeway  
Tampa, FL 33607

Attn: Alejandra Schmidt, P.E.  
Email: [Alejandra.Schmidt@AECOM.com](mailto:Alejandra.Schmidt@AECOM.com)

**RE: Proposal for Geotechnical Services  
PBI Holding Apron at Taxiway A and C  
West Palm Beach, Florida  
TSFGeo Proposal No. 2312-782**

Dear Alejandra:

As requested, **Tierra South Florida (TSFGeo)** is pleased to submit this proposal for the above-referenced project. The proposal is based on information provided by AECOM on November 30, 2023. Based on our understanding of the project, the proposed construction will consist of a holding apron between Taxiway A and C at Palm Beach International Airport in West Palm Beach, Florida. This proposal includes an outline of our proposed scope of work, an estimate of the total fees, and our anticipated schedule for completion of the work.

**PROPOSED SCOPE OF WORK**

As requested, the following field testing will be performed:

| <b>Table 1 – Proposed Field Testing</b> |   |
|---|---|
| <b>Location</b>                         | <b>Proposed Services</b>  |
| Taxiway                                 | <ul style="list-style-type: none"> <li>- Twenty-nine (29) Standard Penetration Test (SPT) borings to depths of 12 feet</li> <li>- Twelve (12) Asphalt Pavement Cores</li> <li>- Six (6) California Bearing Ratio (CBR) Tests</li> </ul> |

Prior to drilling at the project site, TSFGeo will notify the local utility companies and request that underground utilities be marked (Sunshine State One Call). **Our experience, however, is that the utility companies will not mark privately owned or airside utilities. Our proposal assumes that airside/private utility lines will be located in the field by others prior to mobilization of the drill rig. TSFGeo can recommend a utility line locating service upon request.**

**It is our understanding that AECOM personnel or others will be present on site to escort TSFGeo to the test locations.**

Upon completion of the field exploration some laboratory testing and visual classifications will be performed on selected samples.



A report will be issued that contains the exploration data and a discussion of the site and subsurface conditions.

### ESTIMATED FEES

It is proposed that the fee for the performance of the services outlined above is determined on a unit price basis in accordance with the attached Fee Schedule and that the services be performed pursuant to TSFGeo's General Conditions enclosed herewith and incorporated into this proposal. On the basis of the proposed quantities, the estimated total fee is:

|  |                           |
|--|---------------------------|
| <b>FIELD INVESTIGATION - Night</b>         | <b>\$21,300.00</b>        |
| <b>GPR - Night</b>                         | <b>\$0.00</b>             |
| <b>LABORATORY TESTING</b>                  | <b>\$5,070.00</b>         |
| <b>ENGINEERING/COORDINATION/MANAGEMENT</b> | <b><u>\$14,032.66</u></b> |
| <b>TOTAL</b>                               | <b>\$40,402.66</b>        |

The above estimate assumes that the site is open and accessible to our truck-mounted drill rig. Our estimate covers the work needed to present our findings in a formal report. Not included are reviews of foundation drawings, preparation of construction specifications, special conferences and any other work requested after submittal of our report.

Boring, sampling, and testing requirements are functions of the subsurface conditions encountered. Therefore, the estimated fee previously indicated is approximate, and compensation for the exploration will be based on the actual work and tests performed. We will endeavor to keep the exploration cost at a minimum consistent with good engineering practice.


### SCHEDULE AND AUTHORIZATION

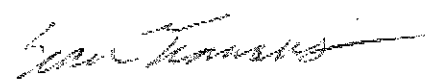
TSFGeo will proceed with the work after receipt of a signed copy of this proposal. With our present schedule, we can commence work within a few days of project approval (weather permitting and permit approval) and after utilities have been cleared. The fieldwork is expected to take about 10 days to complete. The test results can be submitted about 4 weeks after completion of the field exploration. Verbal preliminary recommendations can be made to appropriate parties prior to submittal of the written report.

We at TSFGeo appreciate the opportunity to submit this proposal and look forward to working with you on this project. If you should have any questions concerning our proposal, please contact our office.

Respectfully submitted,

TSFGeo

  
Ramakumar Vedula, P.E.  
Principal Engineer

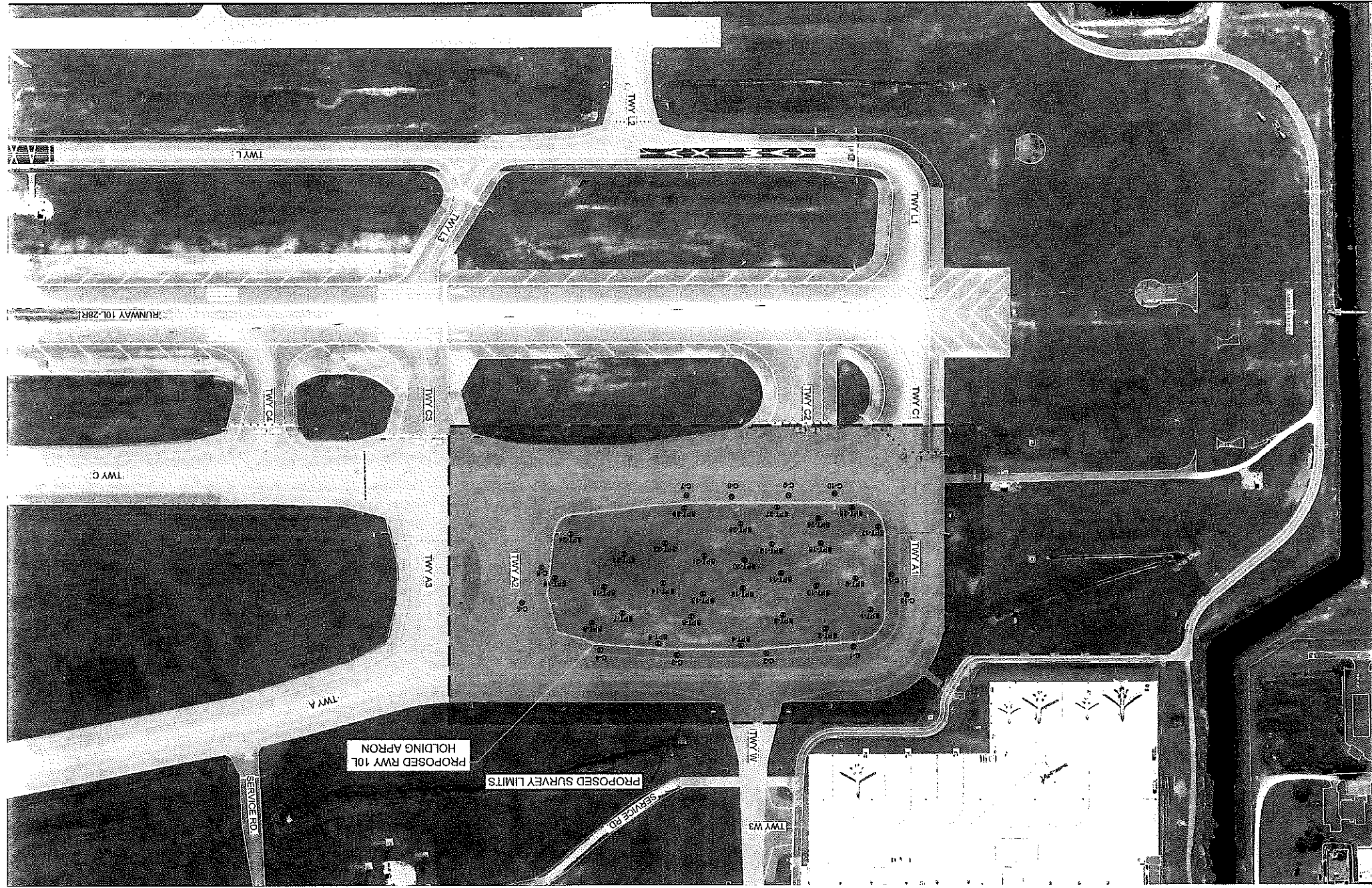
  
Sean Tromans, E.I.  
Staff Engineer

Attachments: General Conditions  
Fee Schedule  
Proposed Boring Location Plan

| <b>AUTHORIZED BY:</b> | <b>INVOICE TO:</b> |
|-----------------------|--------------------|
| <b>Name:</b>          | <b>Firm:</b>       |
| <b>Title:</b>         | <b>Name:</b>       |
| <b>Date:</b>          | <b>Address:</b>    |
|                       | <b>Phone :</b>     |

**NIGHT TIME SERVICES**

|   | Unit  | # of Units |    | Unit Price |    | Total            |
|---|-------|------------|----|------------|----|------------------|
| <b>I. FIELD INVESTIGATION</b>                                     |       |            |    |            |    |                  |
| Mobilization of Men and Equipment                                 | LS    | 8          | \$ | 450.00     | \$ | 3,600.00         |
| Truck-Mounted Equipment   | DAY   | 8          | \$ | 150.00     | \$ | 1,200.00         |
| Support Vehicle   |       |            |    |            |    |                  |
| Standard Penetration Test Borings<br>(By Truck-Mounted Equipment) |       |            |    |            |    |                  |
| Land: 0 - 50 ft depth   | L.F.  | 348        | \$ | 20.00      | \$ | 6,960.00         |
| 50 - 100 ft depth   | L.F.  | 0          | \$ | 23.00      | \$ | 0.00             |
| Grout-Seal Boreholes<br>(By Truck-Mounted Equipment)              |       |            |    |            |    |                  |
| Land: 0 - 50 ft depth   | L.F.  | 348        | \$ | 8.00       | \$ | 2,784.00         |
| 50 - 100 ft depth   | L.F.  | 0          | \$ | 9.50       | \$ | 0.00             |
| Casing<br>(By Truck-Mounted Equipment)                            |       |            |    |            |    |                  |
| Land: 0 - 50 ft depth   | L.F.  | 348        | \$ | 9.50       | \$ | 3,306.00         |
| 50 - 100 ft depth   | L.F.  | 0          | \$ | 11.50      | \$ | 0.00             |
| Pavement Cores, Asphalt   | Each  | 12         | \$ | 250.00     | \$ | 3,000.00         |
| Coring Machine + Generator Rental                                 | Trip  | 1          | \$ | 450.00     | \$ | 450.00           |
| <b>IA GPR</b>   | Night | 0          | \$ | 4300.00    | \$ | 0.00             |
| <b>II. LABORATORY TESTING</b>                                     |       |            |    |            |    |                  |
| Natural Moisture Content Tests                                    | Test  | 12         | \$ | 15.00      | \$ | 180.00           |
| Grain-Size Analysis - Full Gradation                              | Test  | 12         | \$ | 65.00      | \$ | 780.00           |
| Grain-Size Analysis - Single Sieve                                | Test  | 12         | \$ | 35.00      | \$ | 420.00           |
| Organic Content Tests   | Test  | 12         | \$ | 50.00      | \$ | 600.00           |
| Atterberg Limit Tests   | Test  | 1          | \$ | 90.00      | \$ | 90.00            |
| Laboratory CBR + Sampling   | Test  | 6          | \$ | 500.00     | \$ | 3,000.00         |
| <b>III ENGINEERING/COORDINATION/MANAGEMENT</b>                    |       |            |    |            |    |                  |
| Project Manager   | Hour  | 10         | \$ | 253.06     | \$ | 2,530.60         |
| Principal Engineer  | Hour  | 6          | \$ | 269.40     | \$ | 1,616.40         |
| Project Engineer  | Hour  | 30         | \$ | 166.53     | \$ | 4,995.90         |
| Senior Technician   | Hour  | 40         | \$ | 91.68      | \$ | 3,667.20         |
| CADD  | Hour  | 12         | \$ | 101.88     | \$ | 1,222.56         |
|   |       |            |    |            | \$ | <b>40,402.66</b> |



## EXHIBIT A-2

# **PALM BEACH DOA GENERAL CONSULTING SERVICES**

## **EXHIBIT A-2**

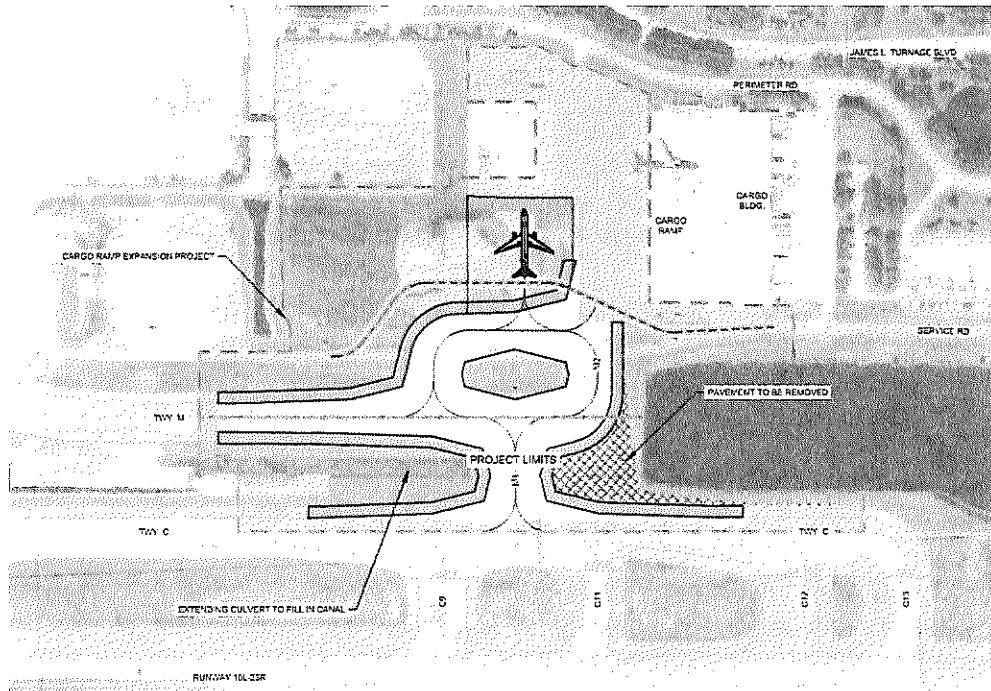
### **Miscellaneous Planning, Engineering and Construction Services**

#### **Palm Beach International Airport (PBI)**

#### **Task I-23-PBI-A-017 PBI Taxiway M, M1, and M2 Reconstruction Improvements**

### **OVERVIEW**

The Palm Beach DOA Department of Airports (DOA) has requested that AECOM Technical Services, Inc. (CONSULTANT) provide Professional Engineering Services associated with Task I-23-PBI-A-017 PBI Taxiway M, M1 and M2 Reconstruction Improvements Project (Project) at Palm Beach International Airport (PBI). The project consists of the second phase of the geometric reconfiguration of TW M, M1, and M2 from the previously scoped Cargo Ramp Project, Task I-23-PBI-A-002, highlighted in cyan in Figure 1. This Task will be bid at the same time as the Cargo Ramp Project, as an Add Alternate to this project. The design includes the realignment of Taxiway M1 and the completion of the geometric modifications south of Taxiway M's centerline. This task also includes enclosing the open channel area west of the realigned Taxiway M1 with a concrete box culvert.



*Figure 1: PBI Taxiway M, M1, and M2 Reconstruction Limits*

The CONSULTANT will prepare Construction Documents (CDs) for the design and bidding services of the Project. The Taxiway M, M1, and M2 Reconstruction design shall be in accordance with the Federal Aviation Administration (FAA), Florida Department of Transportation (FDOT), and SFWMD requirements. The project's geometric design and layout will be based on FAA AC 150/5300-13B Airport Design Standards. The construction specifications will be based on FAA AC 150/5370-10H, Standards for Specifying Construction of Airports, and applicable FDOT Design Standards. The Construction Safety and Phasing Plans (CSPP) will be prepared in compliance with FAA AC 150/5370-2G Operational Safety on Airports During Construction.

In addition to the overall design and layout of the project, the CONSULTANT will provide basic services, including drainage design, construction phasing, survey, utility locations, and geotechnical engineering services. The CONSULTANT will prepare construction documents and support the DOA during the bid and award services. A brief overview of pertinent tasks to be performed by the CONSULTANT for the Project includes:

1. Attend One (1) DOA Design Kick-Off Meeting and prepare meeting minutes;
2. Coordinate One (1) Internal Design Team Kick-Off Meeting;
3. Coordinate Data Collection, Records Research, and Review of As-Built information;
4. Field Coordination Meetings (At the beginning of the survey and throughout geotechnical services);
5. Prepare PowerPoint Presentations, sketches, and agenda for meetings (as applicable);
6. Validate Program Cost Estimate;
7. Facilitate Design Coordination meetings via conference calls and webinars;
8. Develop Construction Safety and Phasing Plans (CSPPs);
9. Prepare 60%, 90% and 100% Contract Documents, General Provisions, Technical Specifications, Drawings, Project Schedule, Engineer's Report, Cost Estimates, Submit Permitting Documents to SFWMD, Engineer's Report, and CSPP Report;
10. Attend Four (4) DOA Submittal Review Meetings. Prepare meeting agenda and meeting minutes (KO Meeting, 60%, 90%, and 100% Contract Documents);
11. Task Management/Task Administration – Coordination with DOA, FAA, DOA Operations, Permitting Agencies (if applicable), sub-consultants, and other stakeholders;
12. Provide Quality Assurance for all deliverables;
13. Prepare and Assemble Final Bid Documents: Project Manual, Technical Specifications, and Drawings;
14. Assist DOA in Advertisement and Bidding of Tasks – Issue Addendums, attend Pre-bid conferences, prepare meeting minutes, coordinate a site visit, and answer contractor questions;

- 15. Evaluate Bids and Prepare Bid Recommendations, Award Letters and Bid Tabulations;
- 16. Task Management;
- 17. Task Coordination (FAA, ATCT, DOA Operations, SFWMD, Other Consultants, and other interested project stakeholders); and,
- 18. This task authorization will not include Construction Administration Services and Resident Project Representative Services.

**Project Team**

This Project Team for the Basic Services and Special Services and the respective type of services to be provided by the Team are provided below:

| <b>Firm Name<br/>(CONSULTANT/SUBCONSULTANT)</b>         | <b>Type of Services</b>                                  |
|---|--|
| AECOM Technical Services, Inc.<br>(AECOM) (CONSULTANT)  | Project Management; Civil and Drainage Design/Permitting |
| Quantum Electrical Engineering (QEE)<br>(SUBCONSULTANT) | Electrical Engineering                                   |
| Chen Moore and Associates (CMA)<br>(SUBCONSULTANT)      | Stormwater/Permitting                                    |
| Tierra South Florida (TSF)<br>(SUBCONSULTANT)           | Geotechnical Investigations                              |
| Brown & Phillips (B&P)<br>(SUBCONSULTANT)               | Utility Clearance  |

**SCOPE OF SERVICES**

Our scope of services will follow two distinct phases: Phases 1 and 2. Phase 1 consists of three (3) subphases: sixty percent (60%) design completion of the Contract Documents (Phase 1A); ninety percent (90%) design completion (Phase 1B); and final design completion (100%) of Bid Documents (Phase 1C). Phase 2 consists of bidding and awarding of contract requirements.

A brief definition for each of the Phases included in the scope of services is provided below:

PHASE 1A -CONSULTANT will develop the Contract Documents to a predetermined completion milestone (60% of completion). CONSULTANT will develop the Program Costs and prepare Schedule/Phasing Plans.

PHASE 1B -CONSULTANT will develop the Contract Documents to 90% to allow the Project to be reviewed and preliminarily submitted to applicable permitting agencies. CONSULTANT will update Program Costs, Schedule, and Phasing Plans.



PHASE 1C -CONSULTANT will complete the Contract Documents to 100% to allow the Project to be permitted, bid, and constructed. CONSULTANT will prepare the Final Program Cost Estimate, Schedule, and Phasing Plans.

PHASE 2 - CONSULTANT will assist the DOA in obtaining Bids and in the Award of a Construction Contract, as required.

The following paragraphs summarize the CONSULTANT'S Basic Services for Phases 1 and 2:

## **1.0 PHASE 1A – 60% CONTRACT DOCUMENTS**

The CONSULTANT will prepare a presentation/agenda for the Project's kick-off meeting. All key stakeholders will be invited to this meeting: DOA/Airport Staff, CONSULTANT'S key staff, and sub-consultants. The Kick-Off meeting's discussion items will include stakeholder identifications, project limits, safety and operational impacts, permitting, design services, design standards, schedule, budget, and construction constraints. The CONSULTANT will prepare and distribute the meeting minutes, highlighting outstanding action items and meeting details. Immediately following the Kick-Off Meeting, field investigative services associated with the survey and geotechnical services will begin. All airfield investigative services will be coordinated with DOA Operations before starting work.

The CONSULTANT will prepare the following as a part of Phase 1A:

### **1.1. Documents Data Collection and Records Research**

The Consultant will review existing DOA designs and as-builts, record drawings, and gather information regarding the proposed Project components for use during subsequent design phases. All pertinent record documents associated with the realignment of Taxiway M1 and adjacent areas will be obtained from the DOA records database.

### **1.2. Field Investigative Services and Design Development**

#### **1.2.1 Site Evaluation**

The AECOM Team will perform two site visits to evaluate the existing conditions and collect data. AECOM will also be on-site at the beginning of the topographic survey and throughout the geotechnical investigations. The AECOM Team will evaluate the existing condition of the pavement, lighting, drainage infrastructure, and any other above-ground infrastructure within the project limits.

#### **1.2.2 Topographic Survey and Utility Locates**

B&P performed the surveying services for this task under "Task I-23-PBI-A-002 PBI Cargo Ramp Expansion." B&P will perform utility locates and

clearances for the geotechnical data collection. See the attached B&P scope and fee for a more detailed description of the B&P services.

**1.2.3 Geotechnical/subsurface investigations**

TSF will perform the geotechnical/subsurface investigations services for this Project. The major components of the geotechnical/subsurface investigations services include the following items:

- Perform ten (10) SPT borings to a depth of 40 feet to determine the subsurface conditions.
- Perform two (2) asphalt pavement cores, including asphalt pavement thickness and base depth.
- Perform sediment probes

**1.2.4 Pavement Condition Evaluation**

AECOM will review the condition of the existing pavement within the project limits. This analysis will include an evaluation of the onsite pavement condition and reviewing the latest PBI Airfield Pavement Management Study for comparison with our findings. Based on this evaluation, we will determine the final location of the geotechnical data acquisition.

**1.2.5 Geometry**

AECOM will utilize the recommended ramp layout from the previous Task I-22-PBI-A-63 PBI Cargo Expansion Project as the basis of design. It will coordinate any necessary design changes with the DOA to align with the latest ALP.

**1.2.6 Airfield Electrical**

QEE will perform the electrical design services for this contract. The scope of work will include the design of a new airfield lighting and signage system for the realigned TW M1. It will also have modifications to the existing conductor and conduit systems, play layouts, detailed schedules, electrical calculations, and demolition plans of existing airfield electrical systems.

**1.2.7 Grading and Drainage Design/Permitting**

CMA will perform all required services for the stormwater permitting through SFWMD and the associated design, as described in their attached detailed scope. This includes sizing a concrete box culvert at the open channel area west of TW M1.

**1.3. The 60% Plans will include, but are not limited to:**

1. Cover Sheet (60%).

2. Drawings Index (60%).
3. Summary of Quantities (60%).
4. Safety and Security Plan (60%).
5. Staging and Haul Route Plan (60%).
6. Overall Phasing Plan (60%)
7. Phasing Plans, Details, and Maintenance of Traffic (60%).
8. Survey Control Plan (60%).
9. Existing Conditions Plan (60%).
10. Demolition Plan (60%).
11. Grading Plans (60%).
12. Geometry Plans (60%).
13. Marking Plans (60%).
14. Marking Details (60%).
15. Drainage Plans (60%)
16. Drainage Details (60%)
17. Stormwater Pollution Prevention Plans (60%).
18. Stormwater Pollution Prevention Notes and Details (60%)
19. Miscellaneous Details (60%).
20. Cross Section Layout Plan (60%).
21. Electrical Demolition Plans (60%).
22. Electrical Plans (60%).
23. Electrical Circuiting Plans (60%).
24. Airfield Sign Schedule (60%).
25. Misc. Electrical Details (60%).

The CONSULTANT will prepare and submit an Engineer's Design Report covering all findings and recommendations developed throughout the 60% Design Development Phase, including a Construction Schedule and estimate of probable Project Program Costs through Construction.

#### **1.4. Meetings**

The CONSULTANT will attend the following meetings during this Phase:

- a. Design K.O. Meeting;
- b. Team Coordination Meetings;
- c. Regulatory permitting agencies meetings, as applicable; and
- d. One (1) DOA Review Submittal Meeting.

The CONSULTANT will submit PDF copies of all Contract Documents required under this.

Phase 1A for review comments and approval by the DOA.

#### **1.5. Deliverables**

The CONSULTANT will deliver the following major Deliverables (pdf):

- a. K.O. Meeting Minutes;
- b. Topographic Survey;
- c. Geotechnical Report;

- d. Meeting minutes from all applicable meetings of this Phase;
- e. Regulatory permitting agencies' documentation;
- f. 60% Drawings;
- g. 60% Technical Specifications;
- h. 60% Construction Safety and Phasing Plan;
- i. 60% Project Program Cost Estimates;
- j. 60% Project Schedule; and,
- k. 60% of the Engineer's Report contains the Geotechnical Report.

**1.6. Schedule**

The anticipated duration of this phase is 75 calendar days from the kick-off meeting.

**2.0 PHASE 1B - 90% SUBMITTAL**

Following the 60% Complete Contract Documents approval, the CONSULTANT will develop 90% Complete Contract Documents from the approved 60% Complete Contract Documents. These 90% of documents will consist of the information contained in the 60% of documents and incorporate any comments provided by DOA, Permit Agencies, or other authorized reviewers, as directed by DOA.

**2.1 The 90% Plans will include but are not limited to:**

- 1. Cover Sheet (90%).
- 2. Drawings Index (90%).
- 3. Summary of Quantities (Base Bid and Alternates, if applicable) [90%].
- 4. Safety and Security Plans (90%).
- 5. Staging and Haul Route Plans (90%).
- 6. Overall Phasing Plan (90%).
- 7. Phasing Plans, Details, and Maintenance of Traffic (90%).
- 8. Survey Control Plan (90%).
- 9. Existing Conditions Plan (90%).
- 10. Demolition Plan (90%).
- 11. Grading Plan (90%).
- 12. Geometry Plan (90%).
- 13. Marking Plans (90%).
- 26. Marking Details (90%).
- 27. Drainage Plans (90%).
- 28. Drainage Details (90%).
- 29. Stormwater Pollution Prevention Plans (90%).
- 14. Stormwater Pollution Prevention Notes and Details (90%)
- 15. Miscellaneous Details (90%).
- 16. Cross Section Layout Plan (90%).
- 17. Cross Sections Plans (90%).
- 18. Electrical Demolition Plans (90%).
- 19. Electrical Plans (90%).

20. Electrical Circuiting Plans (90%).
21. Airfield Sign Schedule (90%).
22. Misc. Electrical Details (90%)

## 2.2 Meetings

The CONSULTANT will attend the following meetings during this Phase:

- a. Team Coordination Meetings, as applicable;
- b. Regulatory permitting agencies meetings, as applicable; and
- c. One (1) DOA Review Submittal Meeting.

The CONSULTANT will submit PDF copies of all Contract Documents required under this Phase 1B for review comments and approval by the DOA.

## 2.3

### Deliverables

- a. Meeting minutes from all applicable meetings of this Phase;
- b. Response to DOA 60% Design review comments;
- c. Regulatory permitting agencies' documentation;
- d. 90% Contract Drawings;
- e. 90% Project Manual - Technical Specifications, Front Ends, and FAA General Provisions;
- f. Construction Safety and Phasing Plan;
- g. 90% Project Cost Budget Estimates;
- h. 90% Project Schedule; and,
- i. 90% Engineer's Report.

## 2.4 Schedule

The anticipated duration of this phase is 45 calendar days.

## 3 PHASE 1C - 100% SUBMITTAL

Following the approval of 90% Complete Contract Documents, the CONSULTANT will develop "Final" 100% Complete Contract Documents from the approved 90% Complete Contract Documents. They will consist of the information contained in the 90% documents and incorporate any comments provided by DOA, Permit Agencies, or other authorized reviewers, as directed by DOA.

3.1 The 100% Plans will include but are not limited to:

1. Cover Sheet (100%).
2. Drawings Index (100%).
3. Summary of Quantities (100%).
4. Safety and Security Plan (100%).
5. Staging and Haul Route Plan (100%).

6. Overall Phasing Plan (100%).
7. Phasing Plans, Details, and Maintenance of Traffic (100%).
8. Survey Control Plan (100%).
9. Existing Conditions Plan (100%).
10. Demolition Plan (100%).
11. Grading Plans (100%).
12. Geometry Plans (100%).
13. Marking Plans (100%).
14. Marking Details (100%).
15. Drainage Plans (100%).
16. Drainage Details (100%).
17. Stormwater Pollution Prevention Plans (100%).
18. Stormwater Pollution Prevention Notes and Details (100%).
19. Miscellaneous Details (100%).
20. Cross Section Layout Plan (100%).
21. Cross Sections (100%).
22. Electrical Demolition Plans (100%).
23. Electrical Plans 100%.
24. Electrical Circuiting Plans (100%).
25. Airfield Sign Schedule (100%).
26. Misc. Electrical Details (100%).

In providing opinions of probable construction costs, the DOA understands that the CONSULTANT has no control over costs or the price of labor, equipment, or materials or over the Contractor's method of pricing and that the opinions of probable construction costs provided herein shall be based on the CONSULTANT'S qualifications and experience. The CONSULTANT makes no warranty, expressed or implied, regarding the accuracy of such opinions compared to bid or actual costs.

### **3.2 Meetings**

The CONSULTANT will attend the following meetings during this Phase:

- a. Team Coordination Meetings, as applicable;
- b. Regulatory permitting agencies meetings, as applicable; and
- c. One (1) DOA Review Submittal Meeting.

### **3.3 Deliverables**

The CONSULTANT will deliver the following major Deliverables for this Phase:

- a. Meeting minutes from all applicable meetings of this Phase;
- b. Response to DOA 90% Design review comments;
- c. Regulatory permitting agencies' documentation;
- d. 100% Contract Drawings;
- e. 100% Project Manual - Technical Specifications, Front Ends, and FAA General Provisions;
- f. Construction Safety and Phasing Plan;
- g. 100% Project Cost Budget Estimates;
- h. 100% Project Schedule; and,

- i. 100% Engineer's Report.

### **3.4 Schedule**

The anticipated duration of this phase is 30 calendar days.

## **4.0 PHASE 4 - BIDDING AND AWARD OF CONTRACT**

### **Bid & Award Services**

After authorization to proceed with the Bidding Phase, CONSULTANT will assist the DOA in advertising for and obtaining bids via the County's Vendor Self-Service Website. CONSULTANT will support the DOA in conducting a pre-bid conference to share pertinent bidding and technical information and requirements with prospective bidders; issue addenda as appropriate to interpret and clarify or expand the Bidding Documents during the Bidding phase; and attend the bid opening, prepare bid tabulation sheets and assist DOA in evaluating bids or proposals and in assembling and awarding contracts for construction, materials, equipment, and services.

### **5.1 Deliverables**

- a. PDF copy of the Bid Documents
- b. Pre-Bid Conference Agenda and Meeting Minutes
- c. Addenda as required during the bid process
- , e. Bid Tabulation
- f. Bid Recommendation Letter

### **5.1 Schedule**

The anticipated duration of this phase is 45 calendar days.

### **Assumptions:**

- 1. DOA will provide all record documents applicable to this task.
- 2. DOA will pay for all permitting costs.
- 3. Construction Administration and Resident Project Representative Services are separate from this scope of services. If requested, the CONSULTANT will perform Construction Administration and Resident Project Representative Services via a separate task order.
- 4. In providing opinions of probable construction costs, the DOA understands that the CONSULTANT has no control over costs or the price of labor, equipment, or materials or over the Contractor's method of pricing and that the opinions of probable construction costs provided herein shall be based on the CONSULTANT'S qualifications and experience. The CONSULTANT makes no warranty, expressed or implied, as to the accuracy of such opinions compared to bid or actual costs.
- 5. CONSULTANT shall not be responsible for the means, methods, techniques, sequences, procedures of construction, or selection of materials selected by the Contractor or the safety precautions and programs incident to the work of the Contractor. The CONSULTANT shall not guarantee the Contractor's performance nor be responsible for the Contractor's acts, errors, omissions, or failure to perform the construction work in accordance with the Contract Documents.

Table B

Labor/Fee Estimate Summary - CONSULTANT (AECOM Technical Services, Inc.) - Task I-23-PBI-A-002 PBI Taxiway M, M1, and M2 Reconstruction Improvements

|               |        |        |        |        |        |        |        |        |       |
|---------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| Billing Rate: | \$ 340 | \$ 236 | \$ 270 | \$ 216 | \$ 201 | \$ 215 | \$ 128 | \$ 129 | \$ 96 |
|---------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|

| Task Description   | Labor Estimate (Hours) |             |                        |                   |                               |                                   |                  |          |           |            | Fee Estimate (\$) |                |                 |
|--|------------------------|-------------|------------------------|-------------------|-------------------------------|-----------------------------------|------------------|----------|-----------|------------|-------------------|----------------|-----------------|
|  | Principal              | QC Reviewer | Senior Project Manager | Senior Structural | Design / Construction Manager | Project Manager / Senior Engineer | Project Engineer | Planner  | Clerical  | Total      | Labor             | Expenses       | Total           |
| <b>Task I-23-PBI-A-017 PBI Taxiway M, M1, and M2 Reconstruction Improvements</b> |                        |             |                        |                   |                               |                                   |                  |          |           |            |                   |                |                 |
| <b>Phase 1A (60% CONSTRUCTION DOCUMENTS)</b>                                     | <b>0</b>               | <b>17</b>   | <b>18</b>              | <b>28</b>         | <b>67</b>                     | <b>64</b>                         | <b>319</b>       | <b>0</b> | <b>40</b> | <b>553</b> | <b>\$86,819</b>   | <b>\$2,000</b> | <b>\$88,819</b> |
| Attend One (1) DOA Kick-Off Meeting, Agenda & Minutes                            |                        |             | 1                      |                   | 2                             | 2                                 | 2                |          |           | 7          | \$ 1,358          | \$ -           | \$ 1,358        |
| Internal Design Team Kick-Off Meeting  |                        | 1           | 1                      |                   | 1                             | 1                                 | 2                |          |           | 6          | \$ 1,178          | \$ -           | \$ 1,178        |
| Documents Data Collection and Records Research                                   |                        |             |                        |                   | 2                             | 2                                 | 8                |          | 2         | 14         | \$ 2,048          | \$ -           | \$ 2,048        |
| Field Coordination for Survey and Geotechnical                                   |                        |             | 2                      |                   | 2                             | 2                                 | 24               |          |           | 30         | \$ 4,444          | \$ 1,000       | \$ 5,444        |
| Site Investigations (AECOM)  |                        |             |                        |                   | 2                             | 2                                 | 8                |          |           | 12         | \$ 1,856          | \$ 1,000       | \$ 2,856        |
| Cover Sheet (60%).   |                        |             |                        |                   |                               | 1                                 | 2                |          |           | 3          | \$ 471            | \$ -           | \$ 471          |
| Drawings Index (60%).  |                        |             |                        |                   |                               | 1                                 | 2                |          |           | 3          | \$ 471            | \$ -           | \$ 471          |
| Summary of Quantities/General Notes (60%).                                       |                        |             |                        |                   | 1                             | 2                                 | 2                |          |           | 5          | \$ 887            | \$ -           | \$ 887          |
| Safety and Security Plan (60%).  |                        |             |                        |                   | 2                             | 2                                 | 2                |          |           | 6          | \$ 1,088          | \$ -           | \$ 1,088        |
| Staging and Haul Route Plan (60%).   |                        |             |                        |                   | 2                             | 2                                 | 4                |          |           | 8          | \$ 1,344          | \$ -           | \$ 1,344        |
| Overall Phasing Plans (60%).   |                        |             |                        |                   | 4                             | 2                                 | 4                |          |           | 10         | \$ 1,746          | \$ -           | \$ 1,746        |
| Individual Work Area Phasing Plans (60%).  |                        |             | 2                      |                   | 2                             | 2                                 | 16               |          |           | 22         | \$ 3,420          | \$ -           | \$ 3,420        |
| Construction Phasing and Security Notes and Details(60%).                        |                        |             |                        |                   | 2                             | 2                                 | 5                |          |           | 9          | \$ 1,472          | \$ -           | \$ 1,472        |
| Survey Control Plan (60%).   |                        |             |                        |                   | 1                             | 1                                 | 4                |          |           | 6          | \$ 928            | \$ -           | \$ 928          |
| Existing Conditions Plan (60%).  |                        |             |                        |                   | 2                             | 2                                 | 16               |          |           | 20         | \$ 2,880          | \$ -           | \$ 2,880        |
| Demolition Plan (60%).   |                        |             |                        |                   | 2                             | 2                                 | 16               |          |           | 20         | \$ 2,880          | \$ -           | \$ 2,880        |
| Grading Plans (60%).   |                        |             |                        |                   | 2                             | 2                                 | 16               |          |           | 20         | \$ 2,880          | \$ -           | \$ 2,880        |
| Geometry Plans (60%).  |                        |             |                        |                   | 2                             | 2                                 | 16               |          |           | 20         | \$ 2,880          | \$ -           | \$ 2,880        |
| Marking Plans (60%).   |                        |             |                        |                   | 2                             | 2                                 | 12               |          |           | 16         | \$ 2,368          | \$ -           | \$ 2,368        |
| Marking Details (60%).   |                        |             |                        |                   | 2                             | 2                                 | 8                |          |           | 12         | \$ 1,856          | \$ -           | \$ 1,856        |
| Structural Details (60%).  |                        |             | 2                      | 16                |                               |                                   | 32               |          |           | 50         | \$ 8,092          | \$ -           | \$ 8,092        |
| Miscellaneous Details (60%).   |                        |             |                        |                   | 2                             | 2                                 | 4                |          |           | 8          | \$ 1,344          | \$ -           | \$ 1,344        |
| Cross Section Layout Plan (60%).   |                        |             |                        |                   | 2                             | 2                                 | 4                |          |           | 8          | \$ 1,344          | \$ -           | \$ 1,344        |
| Pavement Design (60%)  |                        |             |                        |                   | 6                             | 2                                 | 8                |          |           | 16         | \$ 2,660          | \$ -           | \$ 2,660        |
| Structural Design (Drainage) (60%)   |                        |             | 2                      | 12                |                               |                                   | 32               |          |           | 46         | \$ 7,228          | \$ -           | \$ 7,228        |
| 60% Technical Specifications   |                        |             |                        |                   | 2                             | 2                                 | 8                |          |           | 12         | \$ 1,856          | \$ -           | \$ 1,856        |
| 60% Construction Safety and Phasing Plan   |                        |             |                        |                   | 2                             | 2                                 | 8                |          |           | 12         | \$ 1,856          | \$ -           | \$ 1,856        |
| 60% Project Construction Cost Estimate   |                        |             |                        |                   | 2                             | 2                                 | 20               |          |           | 24         | \$ 3,392          | \$ -           | \$ 3,392        |
| 60% Project Schedule   |                        |             |                        |                   | 2                             | 2                                 |                  |          |           | 4          | \$ 832            | \$ -           | \$ 832          |
| 60% Engineer's Report w/ Geotechnical Report                                     |                        |             |                        |                   | 2                             | 2                                 | 12               |          |           | 16         | \$ 2,368          | \$ -           | \$ 2,368        |
| Coordination with Permitting and Regulatory Agencies                             |                        |             | 2                      |                   | 2                             | 2                                 | 0                |          |           | 6          | \$ 1,372          | \$ -           | \$ 1,372        |
| ISO 9001 - QA/QC Review  |                        | 16          |                        |                   | 2                             | 2                                 | 16               |          |           | 36         | \$ 6,656          | \$ -           | \$ 6,656        |
| Team Coordination Meetings   |                        |             | 1                      |                   | 2                             | 2                                 | 4                |          | 4         | 13         | \$ 1,998          | \$ -           | \$ 1,998        |
| One (1) DOA Review Submittal Meeting   |                        |             | 1                      |                   | 2                             | 2                                 | 2                |          | 2         | 9          | \$ 1,550          | \$ -           | \$ 1,550        |
| Stakeholder Coordination   |                        |             | 2                      |                   | 2                             | 2                                 |                  |          |           | 6          | \$ 1,372          | \$ -           | \$ 1,372        |
| Task Management and Coordination   |                        |             | 2                      |                   | 2                             | 2                                 |                  |          | 32        | 38         | \$ 4,444          | \$ -           | \$ 4,444        |



Table B

Labor/Fee Estimate Summary - CONSULTANT (AECOM Technical Services, Inc.) - Task I-23-PBI-A-002 PBI Taxiway M, M1, and M2 Reconstruction Improvements

|               |    |     |    |     |    |     |    |     |    |     |    |     |    |     |    |     |    |    |
|---------------|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|----|
| Billing Rate: | \$ | 340 | \$ | 236 | \$ | 270 | \$ | 216 | \$ | 201 | \$ | 215 | \$ | 128 | \$ | 129 | \$ | 96 |
|---------------|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|----|

| Task Description   | Labor Estimate (Hours) |             |                        |                   |                               |                                   |                  |            |          |           | Fee Estimate (\$) |                 |              |                 |
|--|------------------------|-------------|------------------------|-------------------|-------------------------------|-----------------------------------|------------------|------------|----------|-----------|-------------------|-----------------|--------------|-----------------|
|  | Principal              | QC Reviewer | Senior Project Manager | Senior Structural | Design / Construction Manager | Project Manager / Senior Engineer | Project Engineer | Planner    | Clerical | Total     | Labor             | Expenses        | Total        |                 |
| <b>Task I-23-PBI-A-017 PBI Taxiway M, M1, and M2 Reconstruction Improvements</b> |                        |             |                        |                   |                               |                                   |                  |            |          |           |                   |                 |              |                 |
| <b>Phase 1B (90% CONSTRUCTION DOCUMENTS)</b>                                     | <b>Total</b>           | <b>0</b>    | <b>16</b>              | <b>9</b>          | <b>16</b>                     | <b>48</b>                         | <b>55</b>        | <b>224</b> | <b>0</b> | <b>6</b>  | <b>374</b>        | <b>\$60,383</b> | <b>\$500</b> | <b>\$60,883</b> |
| Cover Sheet (90%).   |                        |             |                        |                   |                               |                                   |                  | 1          |          |           | 1                 | \$ 128          | \$ -         | \$ 128          |
| Drawings Index (90%).  |                        |             |                        |                   |                               |                                   |                  | 1          |          |           | 1                 | \$ 128          | \$ -         | \$ 128          |
| Summary of Quantities/General Notes (90%).                                       |                        |             |                        |                   |                               |                                   | 1                | 1          |          |           | 2                 | \$ 343          | \$ -         | \$ 343          |
| Safety and Security Plan (90%).  |                        |             |                        |                   |                               |                                   | 1                | 1          |          |           | 2                 | \$ 343          | \$ -         | \$ 343          |
| Staging and Haul Route Plan (90%).   |                        |             |                        |                   |                               | 1                                 |                  | 2          |          |           | 4                 | \$ 672          | \$ -         | \$ 672          |
| Overall Phasing Plans (90%).   |                        |             |                        |                   |                               | 2                                 | 2                | 4          |          |           | 8                 | \$ 1,344        | \$ -         | \$ 1,344        |
| Individual Work Area Phasing Plans (90%).  |                        |             |                        |                   |                               | 2                                 | 2                | 4          |          |           | 8                 | \$ 1,344        | \$ -         | \$ 1,344        |
| Construction Phasing and Security Notes and Details (90%).                       |                        |             |                        |                   |                               | 1                                 |                  | 1          |          |           | 2                 | \$ 329          | \$ -         | \$ 329          |
| Survey Control Plan (90%).   |                        |             |                        |                   |                               |                                   |                  | 1          |          |           | 1                 | \$ 128          | \$ -         | \$ 128          |
| Existing Conditions Plan (90%).  |                        |             |                        |                   |                               | 1                                 | 1                | 4          |          |           | 6                 | \$ 928          | \$ -         | \$ 928          |
| Demolition Plan (90%).   |                        |             |                        |                   |                               | 2                                 | 2                | 8          |          |           | 12                | \$ 1,856        | \$ -         | \$ 1,856        |
| Typical Sections (90%).  |                        |             |                        |                   |                               | 1                                 | 1                | 4          |          |           | 6                 | \$ 928          | \$ -         | \$ 928          |
| Geometry Plans (90%).  |                        |             |                        |                   |                               | 2                                 | 2                | 8          |          |           | 12                | \$ 1,856        | \$ -         | \$ 1,856        |
| Marking Plans (90%).   |                        |             |                        |                   |                               | 1                                 | 1                | 4          |          |           | 6                 | \$ 928          | \$ -         | \$ 928          |
| Marking Details (90%).   |                        |             |                        |                   |                               |                                   | 1                | 4          |          |           | 5                 | \$ 727          | \$ -         | \$ 727          |
| Grading Plans (90%).   |                        |             |                        |                   |                               | 1                                 | 1                | 32         |          |           | 34                | \$ 4,512        | \$ -         | \$ 4,512        |
| Structural Details (90%).  |                        |             |                        | 8                 |                               |                                   |                  | 24         |          |           | 32                | \$ 4,800        | \$ -         | \$ 4,800        |
| Miscellaneous Details (90%).   |                        |             |                        |                   |                               | 1                                 | 1                | 2          |          |           | 4                 | \$ 672          | \$ -         | \$ 672          |
| Cross Section Layout Plan (90%).   |                        |             |                        |                   |                               |                                   | 1                | 4          |          |           | 5                 | \$ 727          | \$ -         | \$ 727          |
| Cross Sections (90%).  |                        |             |                        |                   |                               | 1                                 | 1                | 20         |          |           | 22                | \$ 2,976        | \$ -         | \$ 2,976        |
| Pavement Design (90%)  |                        |             |                        |                   |                               | 1                                 | 1                | 4          |          |           | 6                 | \$ 928          | \$ -         | \$ 928          |
| Structural Design (Drainage) (90%)   |                        |             |                        | 8                 |                               |                                   |                  | 24         |          |           | 32                | \$ 4,800        | \$ -         | \$ 4,800        |
| 90% Technical Specifications   |                        |             |                        |                   |                               | 4                                 | 4                | 8          |          |           | 16                | \$ 2,688        | \$ -         | \$ 2,688        |
| 90% Front End Specifications & FAA General Provisions                            |                        |             |                        |                   |                               | 4                                 | 4                | 4          |          |           | 12                | \$ 2,176        | \$ -         | \$ 2,176        |
| 90% Construction Safety and Phasing Plan   |                        |             |                        |                   |                               | 2                                 | 2                | 4          |          |           | 8                 | \$ 1,344        | \$ -         | \$ 1,344        |
| 90% Project Construction Cost Estimate   |                        |             |                        |                   |                               | 4                                 | 4                | 16         |          |           | 24                | \$ 3,712        | \$ -         | \$ 3,712        |
| 90% Project Schedule   |                        |             |                        |                   |                               | 4                                 | 4                |            |          |           | 8                 | \$ 1,664        | \$ -         | \$ 1,664        |
| 90% Engineer's Report w/ Geotechnical Report                                     |                        |             |                        |                   |                               | 4                                 | 4                | 16         |          |           | 24                | \$ 3,712        | \$ -         | \$ 3,712        |
| Coordination with Permitting and Regulatory Agencies                             |                        |             | 2                      |                   |                               | 4                                 | 4                |            |          |           | 10                | \$ 2,204        | \$ -         | \$ 2,204        |
| ISO 9001 - QA/QC Review  |                        | 16          |                        |                   |                               |                                   |                  | 8          |          |           | 24                | \$ 4,800        | \$ -         | \$ 4,800        |
| Team Coordination Meetings   |                        |             | 2                      |                   |                               | 2                                 | 2                | 4          | 4        |           | 14                | \$ 2,268        | \$ -         | \$ 2,268        |
| Perform One (1) Project Site Visit   |                        |             |                        |                   |                               |                                   | 2                | 4          |          |           | 6                 | \$ 942          | \$ 500       | \$ 1,442        |
| One (1) DOA Review Submittal Meeting   |                        |             | 1                      |                   |                               | 1                                 | 1                | 2          | 2        | 2         | 7                 | \$ 1,134        | \$ -         | \$ 1,134        |
| Stakeholder Coordination   |                        |             | 2                      |                   |                               |                                   | 2                |            |          |           | 4                 | \$ 970          | \$ -         | \$ 970          |
| Task Management and Coordination   |                        |             | 2                      |                   |                               | 2                                 | 2                |            |          |           | 6                 | \$ 1,372        | \$ -         | \$ 1,372        |
| <b>Phase 1C (100% CONSTRUCTION DOCUMENTS)</b>                                    | <b>Total</b>           | <b>0</b>    | <b>8</b>               | <b>5</b>          | <b>22</b>                     | <b>37</b>                         | <b>32</b>        | <b>112</b> | <b>0</b> | <b>18</b> | <b>234</b>        | <b>\$38,371</b> | <b>\$0</b>   | <b>\$38,371</b> |
| Cover Sheet (100%).  |                        |             |                        |                   |                               |                                   |                  | 1          |          |           | 1                 | \$ 128          | \$ -         | \$ 128          |
| Drawings Index (100%).   |                        |             |                        |                   |                               |                                   |                  | 1          |          |           | 1                 | \$ 128          | \$ -         | \$ 128          |
| Summary of Quantities (100%).  |                        |             |                        |                   |                               |                                   |                  | 1          |          |           | 2                 | \$ 343          | \$ -         | \$ 343          |
| Safety and Security Plan (100%).   |                        |             |                        |                   |                               |                                   |                  | 1          |          |           | 2                 | \$ 343          | \$ -         | \$ 343          |
| Staging and Haul Route Plan (100%).  |                        |             |                        |                   |                               |                                   |                  | 1          |          |           | 2                 | \$ 343          | \$ -         | \$ 343          |
| Overall Phasing Plans (100%).  |                        |             |                        |                   |                               |                                   |                  | 1          |          |           | 3                 | \$ 471          | \$ -         | \$ 471          |
| Individual Work Area Phasing Plans (90%).  |                        |             |                        |                   |                               |                                   |                  | 2          |          |           | 4                 | \$ 686          | \$ -         | \$ 686          |
| Construction Phasing and Security Notes and Details (100%).                      |                        |             |                        |                   |                               |                                   |                  | 2          |          |           | 4                 | \$ 686          | \$ -         | \$ 686          |
| Survey Control Plan (100%).  |                        |             |                        |                   |                               |                                   |                  | 1          |          |           | 1                 | \$ 128          | \$ -         | \$ 128          |
| Existing Conditions Plan (100%).   |                        |             |                        |                   |                               | 1                                 | 1                | 2          |          |           | 4                 | \$ 672          | \$ -         | \$ 672          |
| Demolition Plan (100%).  |                        |             |                        |                   |                               | 2                                 | 2                | 4          |          |           | 6                 | \$ 914          | \$ -         | \$ 914          |
| Typical Sections (100%).   |                        |             |                        |                   |                               | 2                                 | 2                | 4          |          |           | 6                 | \$ 914          | \$ -         | \$ 914          |
| Geometry Plans (100%).   |                        |             |                        |                   |                               | 2                                 | 2                | 4          |          |           | 6                 | \$ 914          | \$ -         | \$ 914          |
| Marking Plans (100%).  |                        |             |                        |                   |                               | 2                                 | 2                | 4          |          |           | 6                 | \$ 914          | \$ -         | \$ 914          |
| Marking Details (100%).  |                        |             |                        |                   |                               | 2                                 | 2                | 4          |          |           | 6                 | \$ 914          | \$ -         | \$ 914          |
| Grading Plans (100%).  |                        |             |                        |                   |                               |                                   |                  | 12         |          |           | 18                | \$ 2,832        | \$ -         | \$ 2,832        |
| Structural Details (100%).   |                        |             |                        | 8                 |                               |                                   |                  | 8          |          |           | 16                | \$ 2,752        | \$ -         | \$ 2,752        |
| Miscellaneous Details (100%).  |                        |             |                        |                   |                               | 2                                 | 2                | 4          |          |           | 6                 | \$ 914          | \$ -         | \$ 914          |
| Cross Section Layout Plan (100%).  |                        |             |                        |                   |                               | 2                                 | 2                | 4          |          |           | 8                 | \$ 1,344        | \$ -         | \$ 1,344        |
| Cross Sections (100%).   |                        |             |                        |                   |                               | 2                                 | 2                | 4          |          |           | 6                 | \$ 914          | \$ -         | \$ 914          |
| Pavement Design (100%)   |                        |             |                        |                   |                               | 2                                 | 2                | 4          |          |           | 8                 | \$ 1,344        | \$ -         | \$ 1,344        |

Table B

Labor/Fee Estimate Summary - CONSULTANT (AECOM Technical Services, Inc.) - Task I-23-PBI-A-002 PBI Taxiway M, M1, and M2 Reconstruction Improvements

|                      |        |        |        |        |        |        |        |        |       |
|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| <b>Billing Rate:</b> | \$ 340 | \$ 236 | \$ 270 | \$ 216 | \$ 201 | \$ 215 | \$ 128 | \$ 129 | \$ 96 |
|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|

| Task Description   | Labor Estimate (Hours) |             |                        |                   |                               |                                   |                  |           |           |              | Fee Estimate (\$) |                |                  |                |        |          |
|--|------------------------|-------------|------------------------|-------------------|-------------------------------|-----------------------------------|------------------|-----------|-----------|--------------|-------------------|----------------|------------------|----------------|--------|----------|
|  | Principal              | QC Reviewer | Senior Project Manager | Senior Structural | Design / Construction Manager | Project Manager / Senior Engineer | Project Engineer | Planner   | Clerical  | Total        | Labor             | Expenses       | Total            |                |        |          |
| <b>Task I-23-PBI-A-017 PBI Taxiway M, M1, and M2 Reconstruction Improvements</b> |                        |             |                        |                   |                               |                                   |                  |           |           |              |                   |                |                  |                |        |          |
| Structural Design (Drainage) (90%)   |                        |             |                        | 8                 |                               |                                   |                  |           |           | 16           |                   |                | 24               | \$ 3,776       | \$ -   | \$ 3,776 |
| 100% Technical Specifications  |                        |             |                        |                   | 2                             | 2                                 |                  |           |           | 4            |                   |                | 8                | \$ 1,344       | \$ -   | \$ 1,344 |
| 100% Front End Specifications & FAA General Provisions                           |                        |             |                        |                   | 2                             | 2                                 |                  |           |           | 4            |                   |                | 8                | \$ 1,344       | \$ -   | \$ 1,344 |
| 100% Construction Safety and Phasing Plan  |                        |             |                        |                   | 2                             | 2                                 |                  |           |           | 4            |                   |                | 8                | \$ 1,344       | \$ -   | \$ 1,344 |
| 100% Project Construction Cost Estimate  |                        |             |                        |                   | 2                             | 2                                 |                  |           |           | 4            |                   |                | 8                | \$ 1,344       | \$ -   | \$ 1,344 |
| 100% Project Schedule  |                        |             |                        |                   | 2                             | 2                                 |                  |           |           | 4            |                   |                | 4                | \$ 832         | \$ -   | \$ 832   |
| 100% Engineer's Report w/ Geotechnical Report                                    |                        |             |                        |                   | 2                             | 2                                 |                  |           |           | 4            |                   |                | 8                | \$ 1,344       | \$ -   | \$ 1,344 |
| Coordination with Permitting and Regulatory Agencies                             |                        |             | 2                      |                   | 2                             | 2                                 |                  |           |           |              |                   |                | 6                | \$ 1,372       | \$ -   | \$ 1,372 |
| ISO 9001 - QA/QC Review  |                        | 8           |                        |                   |                               |                                   |                  |           |           |              |                   |                | 8                | \$ 1,888       | \$ -   | \$ 1,888 |
| Team Coordination Meetings   |                        |             |                        |                   |                               | 2                                 |                  |           |           | 4            |                   |                | 6                | \$ 942         | \$ -   | \$ 942   |
| One (1) DOA Review Submittal Meeting   |                        |             | 1                      |                   | 2                             | 1                                 |                  |           |           | 2            |                   |                | 8                | \$ 1,335       | \$ -   | \$ 1,335 |
| Task Management and Coordination   |                        |             | 2                      |                   | 2                             | 2                                 |                  |           |           |              | 16                |                | 22               | \$ 2,908       | \$ -   | \$ 2,908 |
| <b>Phase 2 BID AND AWARD SERVICES</b>  | <b>Total</b>           | <b>0</b>    | <b>2</b>               | <b>5</b>          | <b>0</b>                      | <b>7</b>                          | <b>7</b>         | <b>17</b> | <b>0</b>  | <b>0</b>     | <b>38</b>         | <b>\$6,910</b> | <b>\$300</b>     | <b>\$7,210</b> |        |          |
| Bid Drawings   |                        |             | 1                      |                   | 1                             | 1                                 |                  |           |           | 12           |                   |                | 15               | \$ 2,222       | \$ -   | \$ 2,222 |
| Bid Technical Specifications   |                        |             | 1                      |                   | 1                             | 1                                 |                  |           |           | 1            |                   |                | 4                | \$ 814         | \$ -   | \$ 814   |
| Bid Front End Specifications & FAA General Provisions                            |                        |             | 1                      |                   | 1                             | 1                                 |                  |           |           |              |                   |                | 3                | \$ 686         | \$ -   | \$ 686   |
| Bid Construction Phasing and Safety Plan Report                                  |                        |             |                        |                   | 1                             | 1                                 |                  |           |           | 2            |                   |                | 4                | \$ 672         | \$ -   | \$ 672   |
| Bid Project Construction Cost Estimate   |                        |             |                        |                   | 1                             | 1                                 |                  |           |           | 2            |                   |                | 4                | \$ 672         | \$ -   | \$ 672   |
| ISO 9001 - QA/QC Review  |                        | 2           |                        |                   |                               |                                   |                  |           |           |              |                   |                | 2                | \$ 472         | \$ -   | \$ 472   |
| Task Management and Coordination   |                        |             | 2                      |                   | 2                             | 2                                 |                  |           |           |              |                   |                | 6                | \$ 1,372       | \$ -   | \$ 1,372 |
| Assist DOA in Advertisement and Processing of Bid Documents                      |                        |             |                        |                   |                               |                                   |                  |           |           |              |                   |                | 0                | \$ -           | \$ 300 | \$ 300   |
| Prepare and attend Pre-Bid Meeting, Prepare Minutes                              |                        |             |                        |                   |                               |                                   |                  |           |           |              |                   |                | 0                | \$ -           | \$ -   | \$ -     |
| Prepare and Maintain Bid Holders Log   |                        |             |                        |                   |                               |                                   |                  |           |           |              |                   |                | 0                | \$ -           | \$ -   | \$ -     |
| Respond to Contractor's Request for Information (RFI's)                          |                        |             |                        |                   |                               |                                   |                  |           |           |              |                   |                | 0                | \$ -           | \$ -   | \$ -     |
| Prepare and Issue Addenda  |                        |             |                        |                   |                               |                                   |                  |           |           |              |                   |                | 0                | \$ -           | \$ -   | \$ -     |
| Attend Bid Opening Meeting   |                        |             |                        |                   |                               |                                   |                  |           |           |              |                   |                | 0                | \$ -           | \$ -   | \$ -     |
| Prepare, Review and Evaluate Bid Tabulation and Bid Forms                        |                        |             |                        |                   |                               |                                   |                  |           |           |              |                   |                | 0                | \$ -           | \$ -   | \$ -     |
| Prepare and Submit Recommendation of Bid Award Letter to DOA                     |                        |             |                        |                   |                               |                                   |                  |           |           |              |                   |                | 0                | \$ -           | \$ -   | \$ -     |
| <b>Total Fee - AECOM Technical Services, Inc.</b>                                | <b>0</b>               | <b>43</b>   | <b>37</b>              | <b>66</b>         | <b>159</b>                    | <b>158</b>                        | <b>672</b>       | <b>0</b>  | <b>64</b> | <b>1,199</b> | <b>\$192,483</b>  | <b>\$2,800</b> | <b>\$195,283</b> |                |        |          |

| Subconsultant Fees  |              |
|---|--------------|
| 1 Total Subconsultant Fee - Tierra (T&M)                        | \$ 38,567.82 |
| 2 Total Subconsultant Fee - Quantum Electrical Engineering (LS) | \$ 26,830.00 |
| 3 Total Subconsultant Fee - Chen Moore & Associates (LS)        | \$ 89,570.00 |
| 4 Total Subconsultant Fee - Brown & Phillips (T&M)              | \$ 8,409.00  |

|              |                     |
|--------------|---------------------|
| Lump Sum     | \$308,883.00        |
| T&M          | \$46,966.82         |
| Expenses     | \$2,800.00          |
| <b>TOTAL</b> | <b>\$358,649.82</b> |

|   |                      |
|---|----------------------|
| <b>Total Fee - Subconsultants</b>                   | <b>\$ 163,366.82</b> |
| <b>GRAND TOTAL FEE - BASIC ENGINEERING SERVICES</b> | <b>\$ 358,649.82</b> |

Prepared by: AECOM Technical Services, Inc.

December 05, 2023

SENT VIA E-MAIL ([blehr@chenmoore.com](mailto:blehr@chenmoore.com))

Mr. Andrew Kacer  
AECOM  
7650 West Courtney Campbell Causeway  
Tampa, FL 33607

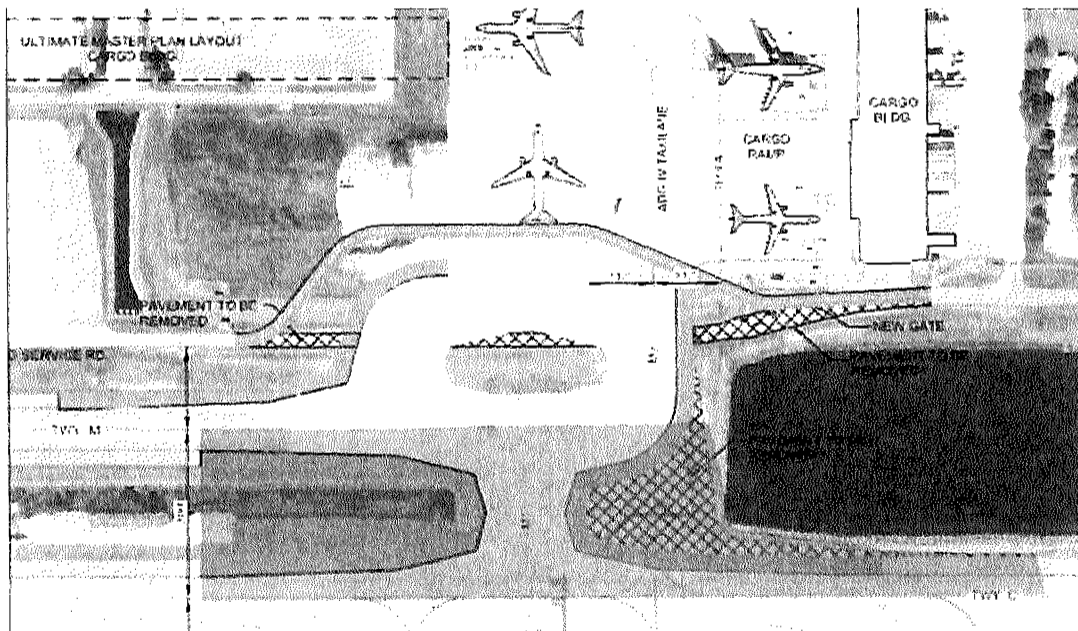
**Subject: PBI Taxiway M, M1, and M2 Reconstruction  
Civil Engineering Design Phase Scope of Services  
CMA Proposal No. 23-0066.P0001-007**

Dear Mr. Kacer,

Chen Moore and Associates, Inc. (CMA) is pleased to submit the attached Scope of Services and associated fee estimate to assist your team with the drainage and permitting services for the referenced project.

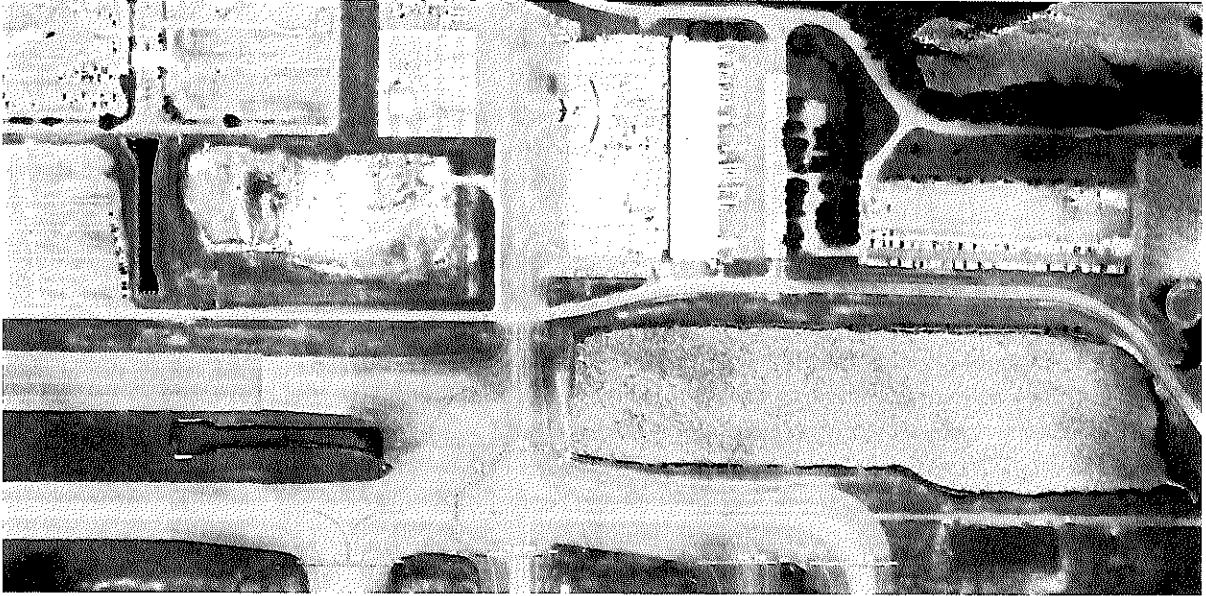
### PROJECT INTRODUCTION

This project is related to the expansion of the existing cargo apron area. Previously scoped work includes stormwater conveyance design and permitting efforts for existing cargo apron area modifications, realignment of the existing service road, proposed taxiway connection modifications from the northern most boundary of the project limits to the proposed connections at the centerline of Taxiway M. This phase of the work incorporates modifications to Taxiway M, M1, and M2 to complete the connections to the expanded Cargo Apron Area. The drainage conveyance system is being designed as part of the previously approved task work order for the impervious areas as shown in Figure 1 below. However, permitting efforts from the previous task order were to only consider apron pavement area north of the centerline of Taxiway M. Since this previously approved permitting effort has not yet begun, CMA will approach the permitting in one phase with the South Florida Water Management District (SFWMD) for efficiency. This permitting will account for the new section of culvert discussed below.



**FIGURE 1: Taxiway M, M1, and M2 reconfiguration**  
CMA Proposal No. 23-0066.P0001-007

In addition to this work, Palm Beach County Department of Airports (PBCDOA) wishes to encapsulate the remaining, roughly 500 linear foot section of open channel section south of Taxiway M with a concrete box culvert. As part of a previous project, the majority of the existing open channel was replaced with a twin cell concrete box culvert in 2021. This culvert terminates into a large junction box where three RCP culverts tie in from the north and a short section of three cell concrete culvert extends to the new headwall on the western limit of the remaining open channel section. The existing culvert underneath Taxiway M1 is a four cell concrete box. CMA will design and permit the proposed connection. Analysis and details will be provided for a phasing scheme that accommodates stormwater flow during construction.



**FIGURE 2:** Limits of open channel encapsulation

The project phases shall consist of the following:

- 60% Preliminary Design
- 90% Final Design
- 100% Bid Plans
- Bidding Assistance
- Permitting Services

### **PROJECT STAFFING**

Our staff and team are ready and prepared to work on this project. Chen Moore staff project roles shall be as follows:

Principal – Jose L. Acosta, P.E., F. ASCE  
Project Director – Brent Whitfield, P.E.  
Senior Engineer – Cole Benjamin, P.E.  
Project Engineer – David Cowan, P.E.  
Associate Engineer – Brandon Sullivan

Subconsultants: N/A

## **SCOPE OF SERVICES**

### **TASK 1 – Project Initiation, Information Gathering, and Site Investigation**

Consultant shall collect and review copies of all relevant data, including correspondence, plans or information provided by the Client which may be beneficial to the work effort performed by Consultant. A site investigation was already included in the phase 1 task order. This task shall also include preparation for, and attendance by, the Consultant, for a separate meeting with the client to discuss the bypass parameters for the channel.

### **TASK 2 – Engineering Design Services**

Consultant shall include all relevant documentation required for 60%/90%/100% design phase submittals and shall provide Bidding Assistance as detailed below.

#### **60% Preliminary Design**

- Provide a preliminary layout and design for the culverting of the existing open channel south of Taxiway M, along with all corresponding hydraulic analyses and supporting calculations.
- Prepare 60% civil engineering stormwater plans for the purpose of Owner review and interdisciplinary coordination with other related disciplines. Submittal will include plan view, profile view, cross sections (where appropriate), and details of the proposed construction sequence accounting for temporary bypass conditions.
- Prepare 60% technical specifications pertaining to the culvert.
- Prepare 60% stormwater management design report, including relevant narrative, exhibits, and figures, and hydraulics and hydrologic analyses.
- Prepare 60% Erosion and Sediment Control plans and details.
- Provide a preliminary Opinion of Probable Cost for the culvert and any temporary diversion work.
- Attend one (1) meeting with the Owner/Client for project coordination.
- Coordinate with other project disciplines (Structural, Geotech, SUE, Airfield, Etc.) throughout this design phase.

#### **90% Final Design**

- Review and respond to Client/Owner comments from the previous submittal and update portions of the design, as appropriate, including written responses to provided comments pertaining to stormwater.
- Revised 90% civil engineering culvert plans for the purpose of Owner review and interdisciplinary coordination and to submit for permits, including plan view, profile view, cross sections (where appropriate), and details.
- Revise the Temporary Drainage Analysis for each phase of construction, based on the phasing plan for culvert.
- Prepare 90% technical specifications pertaining to the culvert.
- Revised stormwater management design report sufficient to submit for permit to the SFWMD.
- Revised 90% Erosion and Sediment Control plans and details.
- Provide an updated Opinion of Probable Cost for the culvert and temporary works needed for culvert construction.
- Attend one (1) meeting with the Owner/Client for project coordination.
- Coordinate with other project disciplines (Structural, Geotech, SUE, Airfield, Etc.) throughout this design phase.

#### 100% Bid Plans

- Review and respond to Client/Owner comments from the previous submittal and update portions of the design, as appropriate, including written responses to provided comments pertaining to stormwater.
- Prepare 100% civil engineering culvert plans for the purpose of Owner review and interdisciplinary coordination and to submit for permits, including plan view, profile view, cross sections (where appropriate), and details.
- Finalize the Temporary Drainage Analysis for each phase of construction, based on the phasing plan for the culvert.
- Prepare 100% technical specifications pertaining to the culvert.
- Provide Final stormwater management report.
- Prepare 100% Erosion and Sediment Control plans and details.
- Provide an updated Opinion of Probable Cost for the culvert and temporary works needed for culvert construction.
- Attend one (1) meeting with the Owner/Client for project coordination.
- Coordinate with other project disciplines (Structural, Geotech, SUE, Airfield, Etc.) throughout this design phase.

#### Bidding Assistance

- Attend one (1) pre-bid meeting.
- Participate in addendum preparation (up to two minor addenda).

#### **TASK 3 – Permitting Services**

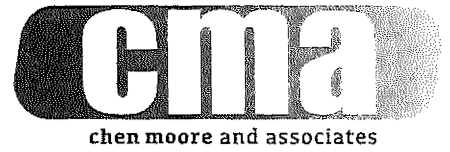
Consultant shall prepare and submit permit applications for the following regulatory authority:

- Stormwater Management - South Florida Water Management District (SFWMD)

As noted in the Project Background above, the permitting effort for this work will be combined with the permitting efforts already scoped as part of the Cargo Apron Area – Phase 1 task work order. This task includes some additional time to expand the ERP application and provide appropriate permit sketches for the proposed culvert work. The task shall also include preparing applications, correspondence with regulatory reviewers, and any required responses for up to two rounds of comments and responses for Requests for Additional Information (RAI) related to the culvert work. Providing permit fees are not included and shall be the responsibility of the Owner.

#### **The basis for the above scope of services and associated fee(s) are based on the following:**

- Structural design, detailing, specifications, of proposed culvert to be performed by others.
- Surveying, geotechnical investigation are to be performed by the Client, as required.
- If any off-site stormwater or off-site roadway improvements are required, they shall be rendered as an Additional Service.
- Franchise utility (such as FPL, telecom, and natural gas) relocation and/or service design shall be by others.
- Design services exclusively pertain to stormwater. Design associated with water, wastewater, landscape architecture, irrigation, site planning, pavement, signage and markings, Maintenance of Traffic, and detailed grading are not included.
- Site lighting is not included in this proposal.
- Client shall provide submittal fees for government agencies.
- Phased permitting may require an Additional Service.



- No construction management or construction administration services were included in this proposal. If requested, this effort shall be rendered as an additional service.

**Information to be provided by the Client:**

- A signed and sealed boundary and topographic survey and associated digital CAD File.
- A letter from the property owner granting access to the site and giving approval for Consultant to perform the services listed above.
- Filing and permit application fees, review fees, impact fees or any other associated assessments by other governments/agencies.
- Copies of all relevant data, including correspondence, traffic reports, plans or information in the Client's possession which may be beneficial to the work effort performed by Consultant.
- Previous reports and assessments.
- Legal description of the site.

**SCHEDULE AND FEES**

Consultant shall schedule work upon receipt of signed approval for this project as required. Per discussions with your team, the goal is to start immediately upon notice to proceed and official authorization from the Client. The total lump sum fee for this project will be divided as follows:

| <b>TASK(s)</b>   | <b>Task Description</b>   | <b>Lump Sum</b> | <b>Hourly</b> | <b>Total Fees</b>  |
|--|---|-----------------|---------------|--------------------|
| <b>WATER RESOURCES ENGINEERING AND STORMWATER PERMITTING</b> |   |                 |               |                    |
| TASK 1   | Project Initiation, Information Gathering, and Site Investigation | \$5,560.00      | -             | \$5,560.00         |
| TASK 2   | Engineering Design Services                                       | \$77,860.00     | -             | \$77,860.00        |
| TASK 3   | Permitting Services   | \$6,150.00      | -             | \$6,150.00         |
| <b>PROJECT TOTAL</b>   |   |                 |               | <b>\$89,570.00</b> |

Reimbursable expenses for the tasks above are included in the lump sum price. Additional reimbursables requested by the client shall be rendered as Additional Services.

Should you have any questions, please do not hesitate to contact me at my office at +1 (561) 746-6900, my cell phone at +1 (904) 707-7724, or send me an electronic message at [blehr@chenmoore.com](mailto:blehr@chenmoore.com).

Respectfully submitted,

Benjamin Lehr, PE, LEED AP  
Director – Transportation  
12/05/2023

Attachment(s):  
Fee Estimate

**PBI Taxiway M, M1, and M2 Reconstruction - AECOM**  
**Fee Estimate**

Chen Moore and Associates, Inc.

CMA Project No. 23-0066.P0001-007

| Hourly Rate   | Project   | Project   | Senior                | Project    | Associate            | Administrative | Total              |
|---|-----------|-----------|-----------------------|------------|----------------------|----------------|--------------------|
|   | Principal | Director  | Engineer              | Engineer   | Engineer             | Staff          |                    |
|   | \$360.00  | \$250.00  | \$200.00              | \$150.00   | \$125.00             | \$90.00        |                    |
| <b>TASK 1 – PROJECT INITIATION, INFORMATION GATHERING, AND SITE INVESTIGATION</b> |           |           |                       |            |                      |                |                    |
| Initial Field Visit   |           | 4         |                       | 4          |                      |                | \$1,600.00         |
| Existing Document Review  |           | 2         | 6                     | 4          |                      |                | \$2,300.00         |
| Project Kickoff Meeting (Culvert Phasing Discussion) and Project Setup            |           | 2         | 4                     |            |                      | 4              | \$1,660.00         |
| <b>Task 1 Total</b>   |           | <b>0</b>  | <b>8</b>              | <b>10</b>  | <b>8</b>             | <b>0</b>       | <b>\$5,560.00</b>  |
| <b>TASK 2 – ENGINEERING DESIGN SERVICES</b>                                       |           |           |                       |            |                      |                |                    |
| <b>60% PRELIMINARY DESIGN SUBMITTAL</b>   |           |           |                       |            |                      |                |                    |
| Preliminary Culvert Layout, Hydraulic Analysis, and Supporting Calcs              |           | 4         | 8                     | 8          |                      |                | \$3,800.00         |
| Construction Sequencing, Temporary Condition Analyses, plans                      |           | 8         | 24                    | 24         | 16                   |                | \$12,400.00        |
| Technical Specifications  |           | 4         | 4                     | 8          |                      |                | \$3,000.00         |
| Design Report   |           | 2         | 8                     | 8          | 8                    |                | \$4,300.00         |
| Preliminary Erosion Control Sheets and Details                                    |           | 2         | 4                     | 8          | 8                    |                | \$3,500.00         |
| Preliminary Opinion of Probable Cost  |           | 2         | 4                     | 4          |                      |                | \$1,900.00         |
| 60% Deliverable Review Meeting  |           | 2         | 2                     |            |                      |                | \$900.00           |
| Coordination with Others (Structural, Geotech, SUE, Airfield)                     |           | 2         | 2                     | 2          |                      |                | \$1,200.00         |
| QA/QC   | 1         | 4         | 2                     | 4          | 4                    |                | \$2,860.00         |
| <b>90% FINAL DESIGN SUBMITTAL</b>   |           |           |                       |            |                      |                |                    |
| Incorporate 60% Design Submittal Comments   |           | 2         | 4                     | 4          | 4                    |                | \$2,400.00         |
| Update Hydraulic Analysis, Supporting Calculations, Plans                         |           | 2         | 8                     | 4          | 4                    |                | \$3,200.00         |
| Update Construction Sequencing and Supporting Analyses                            |           | 4         | 16                    | 16         | 8                    |                | \$7,600.00         |
| Update Technical Specifications   |           | 1         | 4                     | 4          | 2                    |                | \$1,900.00         |
| Update Design Report  |           | 1         | 4                     | 4          |                      |                | \$1,650.00         |
| Update Erosion Control Sheets and Details   |           | 1         | 4                     | 4          | 4                    |                | \$2,150.00         |
| Update Opinion of Probable Cost   |           | 1         | 2                     | 2          |                      |                | \$950.00           |
| 90% Deliverable Review Meeting  |           | 1         | 1                     |            |                      |                | \$450.00           |
| Coordination with Others (Structural, Geotech, SUE, Airfield)                     |           | 2         | 2                     | 2          |                      |                | \$1,200.00         |
| QA/QC   | 1         | 2         | 2                     | 2          | 2                    |                | \$1,810.00         |
| <b>100% ISSUED FOR BID</b>  |           |           |                       |            |                      |                |                    |
| Incorporate 90% Design Submittal Comments   |           | 1         | 2                     | 2          | 2                    |                | \$1,200.00         |
| Finalize Hydraulic Analysis, Supporting Calculations, Plans                       |           | 1         | 4                     | 4          | 4                    |                | \$2,150.00         |
| Finalize Construction Sequencing, Supporting Analyses, Plans                      |           | 2         | 8                     | 8          | 4                    |                | \$3,800.00         |
| Finalize Technical Specifications   |           | 1         | 2                     | 2          |                      |                | \$950.00           |
| Finalize Design Report  |           | 1         | 2                     | 2          | 2                    |                | \$1,200.00         |
| Finalize Erosion Control Sheets and Details                                       |           |           | 4                     | 4          | 4                    |                | \$1,900.00         |
| Final Opinion of Probable Cost  |           | 1         | 2                     |            |                      |                | \$650.00           |
| 100% Deliverable Review Meeting   |           | 1         | 1                     |            |                      |                | \$450.00           |
| Coordination with Others (Structural, Geotech, SUE, Airfield)                     |           | 1         | 2                     |            |                      |                | \$650.00           |
| QA/QC   | 1         | 2         | 2                     | 2          |                      |                | \$1,560.00         |
| Produce Signed and Sealed Construction Plans and Calculations                     | 1         | 1         |                       |            |                      | 2              | \$860.00           |
| Revise and Resubmit (Assume 1 Occurrence)   |           | 1         | 4                     | 2          | 2                    |                | \$1,600.00         |
| <b>BIDDING ASSISTANCE</b>   |           |           |                       |            |                      |                |                    |
| Pre-Bid Meeting   |           |           | 2                     |            |                      |                | \$400.00           |
| Addendum Preparation (up to two minor addenda)                                    | 1         | 2         | 8                     |            | 4                    | 4              | \$3,320.00         |
| <b>Task 2 Total</b>   | <b>5</b>  | <b>62</b> | <b>148</b>            | <b>134</b> | <b>84</b>            | <b>4</b>       | <b>\$77,860.00</b> |
| <b>TASK 3 – PERMITTING SERVICES</b>   |           |           |                       |            |                      |                |                    |
| SFWMD ERP Application Documents (Culvert)   |           | 1         | 2                     | 2          | 2                    |                | \$1,200.00         |
| ERP Application Supporting Exhibits/Plan Production (Culvert)                     |           | 1         | 4                     | 4          | 4                    |                | \$2,150.00         |
| QA/QC   |           | 2         | 2                     | 2          |                      |                | \$1,200.00         |
| Respond to RAls (up to two occurrences - Culvert)                                 |           | 2         | 4                     | 2          |                      |                | \$1,600.00         |
| <b>Task 3 Total</b>   | <b>0</b>  | <b>6</b>  | <b>12</b>             | <b>10</b>  | <b>6</b>             | <b>0</b>       | <b>\$6,150.00</b>  |
| <b>TOTAL FEES</b>   |           |           |                       |            |                      |                | <b>\$89,570.00</b> |
| <b>TASK</b>   |           |           | <b>Total Hrs/Task</b> |            | <b>Total \$/Task</b> |                |                    |
| TASK 1 – PROJECT INITIATION, INFORMATION GATHERING, AND SITE                      |           |           | 30                    |            | \$5,560.00           |                |                    |
| TASK 2 – ENGINEERING DESIGN SERVICES  |           |           | 437                   |            | \$77,860.00          |                |                    |
| TASK 3 – PERMITTING SERVICES  |           |           | 34                    |            | \$6,150.00           |                |                    |
| <b>TOTAL</b>  |           |           | <b>501</b>            |            | <b>\$89,570.00</b>   |                |                    |



# QUANTUM

Electrical Engineering, Inc.

December 2, 2023

AECOM Technical Services, Inc.  
Mr. Clint Martin, P.E.  
Project Manager  
7650 West Courtney Campbell Causeway  
Tampa, FL 33607

Subject: Electrical Design Services Fee Proposal for the Palm Beach County Department of Airports (DOA) – Palm Beach International Airport Taxiway M, M1, and M2 Reconstruction Project.

Dear Clint:

Quantum Electrical Engineering, Inc. (QUANTUM) is pleased to provide AECOM an electrical design services fee proposal for Palm Beach International Airport (PBI) Taxiway M, M1, and M2 Reconstruction Project. The proposal is based upon information provided by AECOM via email on 11/30/2023. The following tasks are included in our scope of services:

#### **Task 1: Design Documents**

- Includes design coordination meetings with the DOA and AECOM Team.
- Includes record drawing reviews, on-site electrical verifications, and visual assessment of existing conditions.
- Design new airfield lighting and signage systems for the (2) new taxiway connectors between Taxiway M1 and M2 along with the tie-in to Taxiway M. Includes modifications to existing conductor and conduit systems, play layouts, details, schedules, electrical calculations and demolition plans of existing airfield electrical systems.
- Includes airfield electrical plans reflecting the modification to the existing ALCMS graphic.

#### **Task 2: Bid & Award**

- Includes Bid and Award Services, addenda and RFI responses and revisions, review of bid pricing results and electrical recommendation.

#### **Assumptions and Exclusions:**

- AECOM shall provide all base drawings to QUANTUM on AutoCAD 2022 or higher.
- AECOM to provide marking files, electrical locations of airfield lighting and signage will be based off of the marking files.
- QUANTUM shall provide 1-set of electronic electrical plans & specifications to AECOM for 60%, 90%, 100%, Bid Set reviews and Bid Set documents.
- AECOM shall provide all printing of Plans & Specifications for reviews, bid phase and construction phases.
- Does not include construction services.

Palm Beach County  
2755 Vista Parkway, Suite I-12  
West Palm Beach, FL 33411  
561.210.9224

[www.QuantumElectricalEngineering.com](http://www.QuantumElectricalEngineering.com)

Broward County  
5571 N. University Drive, Suite 101  
Coral Springs, FL 33067  
954.369.5810

|   |                     |
|---|---------------------|
| Our proposed Lump-Sum fee for Task 1 is:  | \$ 25,500.00        |
| Our proposed Lump-Sum fee for Task 2 is:  | \$ 1,330.00         |
| <b>Our proposed total Lump-Sum fee is</b> | <b>\$ 26,830.00</b> |

Sincerely,



Amy L. Champagne-Baker, PE  
President

Palm Beach County  
2755 Vista Parkway, Suite I-12  
West Palm Beach, FL 33411  
561.210.9224

[www.QuantumElectricalEngineering.com](http://www.QuantumElectricalEngineering.com)

Broward County  
5571 N. University Drive, Suite 101  
Coral Springs, FL 33067  
954.369.5810

| PALM BEACH COUNTY DEPARTMENT OF AIRPORTS - PBI TAXIWAY M, M1 AND M2 RECONSTRUCTION PROJECT |               |            |                   |                    |                   |               |                 |            |          |                    |
|--|---------------|------------|-------------------|--------------------|-------------------|---------------|-----------------|------------|----------|--------------------|
| QUANTUM ELECTRICAL ENGINEERING, INC.   |               |            |                   |                    |                   |               |                 |            |          |                    |
| SCOPE FEE SUMMARY  |               |            |                   |                    |                   |               |                 |            |          |                    |
| FEE PROPOSAL ELECTRICAL SERVICES to AE 12/03/2023  |               |            |                   |                    |                   |               |                 |            |          |                    |
|  | Rate          | \$170.00   | \$150.00          | \$145.00           | \$85.00           | \$140.00      | \$50.00         |            |          |                    |
|  |               | Proj. Mgr. | Prof. Eng         | Proj. Eng          | CADD/Tech         | Field Eng.    | Clerical        | Total      |          | TOTAL              |
| PHASE OF WORK  | Hours         | Hours      | Hours             | Hours              | Hours             | Hours         | Hours           | Hours      | Expenses | TASK COST          |
| <b>Task 1: Design Documents</b>  |               |            |                   |                    |                   |               |                 |            |          |                    |
| <b>60% Design Documents</b>  |               |            |                   |                    |                   |               |                 |            |          |                    |
| Design Review Mtgs DOA and AE  |               |            | 2                 |                    |                   |               |                 | 2          |          | \$300.00           |
| Site Investigation, Record Drawing Review and Discovery                                    |               |            | 4                 | 4                  |                   |               |                 | 8          |          | \$1,180.00         |
| Electrical Design Drawings   |               |            | 16                | 24                 | 40                |               |                 | 80         |          | \$9,280.00         |
| Specifications & Cost Estimate   |               |            | 2                 | 4                  |                   |               | 2               | 8          |          | \$980.00           |
| QA/QC & Comment Incorporation  |               |            | 2                 | 2                  | 4                 |               |                 | 8          |          | \$930.00           |
| <b>Subtotal</b>  | <b>0</b>      |            | <b>26</b>         | <b>34</b>          | <b>44</b>         | <b>0</b>      | <b>2</b>        | <b>106</b> |          | <b>\$12,670.00</b> |
| <b>90% Design Documents</b>  |               |            |                   |                    |                   |               |                 |            |          |                    |
| Design Review Mtgs DOA and AE  |               |            | 1                 |                    |                   |               |                 | 1          |          | \$150.00           |
| Electrical Design Drawings   |               |            | 8                 | 16                 | 30                |               |                 | 54         |          | \$6,070.00         |
| Specifications & Cost Estimate   |               |            | 4                 | 4                  |                   |               | 1               | 9          |          | \$1,230.00         |
| QA/QC & Comment Incorporation  |               |            | 2                 | 2                  | 2                 |               |                 | 6          |          | \$760.00           |
| <b>Subtotal</b>  | <b>0</b>      |            | <b>15</b>         | <b>22</b>          | <b>32</b>         | <b>0</b>      | <b>1</b>        | <b>70</b>  |          | <b>\$8,210.00</b>  |
| <b>100% Design Documents</b>   |               |            |                   |                    |                   |               |                 |            |          |                    |
| Design Review Mtgs DOA and AE  |               |            | 1                 |                    |                   |               |                 | 1          |          | \$150.00           |
| Electrical Design Drawings   |               |            | 4                 | 8                  | 16                |               |                 | 28         |          | \$3,120.00         |
| Specifications & Cost Estimate   |               |            | 2                 | 4                  |                   |               |                 | 6          |          | \$880.00           |
| QA/QC & Comment Incorporation  |               |            | 2                 |                    | 2                 |               |                 | 4          |          | \$470.00           |
| <b>Subtotal</b>  | <b>0</b>      |            | <b>9</b>          | <b>12</b>          | <b>18</b>         | <b>0</b>      | <b>0</b>        | <b>39</b>  |          | <b>\$4,620.00</b>  |
| <b>Task 1 Total Hours</b>  | <b>0</b>      |            | <b>50</b>         | <b>68</b>          | <b>94</b>         | <b>0</b>      | <b>3</b>        | <b>215</b> |          |                    |
| <b>Task 1 Total Labor Cost</b>   | <b>\$0.00</b> |            | <b>\$7,500.00</b> | <b>\$9,860.00</b>  | <b>\$7,990.00</b> | <b>\$0.00</b> | <b>\$150.00</b> |            |          | <b>\$25,500.00</b> |
| <b>Task 2: Bid &amp; Award</b>   |               |            |                   |                    |                   |               |                 |            |          |                    |
| Attend Pre-Bid Meeting   |               |            | 1                 |                    |                   |               |                 | 1          |          | \$150.00           |
| RFI Responses and Addendum Revisions   |               |            | 2                 | 2                  | 4                 |               | 1               | 9          |          | \$980.00           |
| Review of Bid Results & Recommendation   |               |            | 1                 |                    |                   |               | 1               | 2          |          | \$200.00           |
| <b>Subtotal</b>  | <b>0</b>      |            | <b>4</b>          | <b>2</b>           | <b>4</b>          | <b>0</b>      | <b>2</b>        | <b>12</b>  |          | <b>\$1,330.00</b>  |
| <b>Task 2 Total Hours</b>  | <b>0</b>      |            | <b>4</b>          | <b>2</b>           | <b>4</b>          | <b>0</b>      | <b>2</b>        | <b>12</b>  |          |                    |
| <b>Task 2 Total Labor Cost</b>   | <b>\$0.00</b> |            | <b>\$600.00</b>   | <b>\$290.00</b>    | <b>\$340.00</b>   | <b>\$0.00</b> | <b>\$100.00</b> |            |          | <b>\$1,330.00</b>  |
| <b>Grand Total Hours</b>   | <b>0</b>      |            | <b>54</b>         | <b>70</b>          | <b>98</b>         | <b>0</b>      | <b>5</b>        | <b>227</b> |          |                    |
| <b>Grand Total Labor Cost</b>  | <b>\$0.00</b> |            | <b>\$8,100.00</b> | <b>\$10,150.00</b> | <b>\$8,330.00</b> | <b>\$0.00</b> | <b>\$250.00</b> |            |          | <b>\$26,830.00</b> |



December 4, 2023

AECOM Technical Services, Inc.  
7650 West Courtney Campbell Causeway  
Tampa, FL 33607

Attn: Alejandra Schmidt, P.E.  
Email: [Alejandra.Schmidt@AECOM.com](mailto:Alejandra.Schmidt@AECOM.com)

RE: **Proposal for Geotechnical Services**  
**PBI Design Taxiway M New Culvert & Taxiway M, M1, and M2 Rehabilitation**  
**West Palm Beach, Florida**  
**TSFGeo Proposal No. 2312-781**

Dear Alejandra:

As requested, **Tierra South Florida (TSFGeo)** is pleased to submit this proposal for the above-referenced project. The proposal is based on information provided by AECOM on November 30, 2023. Based on our understanding of the project, the proposed construction will consist of improvements to the existing Taxiway M, M1, and M2 at Palm Beach International Airport in West Palm Beach, Florida. This proposal includes an outline of our proposed scope of work, an estimate of the total fees, and our anticipated schedule for completion of the work.

**PROPOSED SCOPE OF WORK**

As requested, the following field testing will be performed:

| <b>Table 1 – Proposed Field Testing</b> |  |
|---|--|
| <b>Location</b>                         | <b>Proposed Services</b>   |
| Taxiway                                 | <ul style="list-style-type: none"> <li>- Ten (10) Standard Penetration Test (SPT) borings to depths of 40 feet</li> <li>- Two (2) Asphalt Pavement Cores</li> <li>- Sediment Probes</li> </ul> |

Prior to drilling at the project site, TSFGeo will notify the local utility companies and request that underground utilities be marked (Sunshine State One Call). **Our experience, however, is that the utility companies will not mark privately owned or airside utilities. Our proposal assumes that airside/private utility lines will be located in the field by others prior to mobilization of the drill rig. TSFGeo can recommend a utility line locating service upon request.**

**It is our understanding that AECOM personnel or others will be present on site to escort TSFGeo to the test locations.**

Upon completion of the field exploration some laboratory testing and visual classifications will be performed on selected samples.

A report will be issued that contains the exploration data and a discussion of the site and subsurface conditions.

### ESTIMATED FEES

It is proposed that the fee for the performance of the services outlined above is determined on a unit price basis in accordance with the attached Fee Schedule and that the services be performed pursuant to TSFGeo's General Conditions enclosed herewith and incorporated into this proposal. On the basis of the proposed quantities, the estimated total fee is:

|  |                           |
|--|---------------------------|
| <b>FIELD INVESTIGATION - Night</b>         | <b>\$23,080.00</b>        |
| <b>GPR - Night</b>                         | <b>\$0.00</b>             |
| <b>LABORATORY TESTING</b>                  | <b>\$1,500.00</b>         |
| <b>ENGINEERING/COORDINATION/MANAGEMENT</b> | <b><u>\$13,977.82</u></b> |
| <b>TOTAL</b>                               | <b>\$38,557.82</b>        |

The above estimate assumes that the site is open and accessible to our truck-mounted drill rig and that the borings will be performed on land. Our estimate covers the work needed to present our findings in a formal report. Not included are reviews of foundation drawings, preparation of construction specifications, special conferences and any other work requested after submittal of our report.

Boring, sampling, and testing requirements are functions of the subsurface conditions encountered. Therefore, the estimated fee previously indicated is approximate, and compensation for the exploration will be based on the actual work and tests performed. We will endeavor to keep the exploration cost at a minimum consistent with good engineering practice.


### SCHEDULE AND AUTHORIZATION

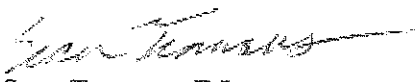
TSFGeo will proceed with the work after receipt of a signed copy of this proposal. With our present schedule, we can commence work within a few days of project approval (weather permitting and permit approval) and after utilities have been cleared. The fieldwork is expected to take about 10 days to complete. The test results can be submitted about 4 weeks after completion of the field exploration. Verbal preliminary recommendations can be made to appropriate parties prior to submittal of the written report.

We at TSFGeo appreciate the opportunity to submit this proposal and look forward to working with you on this project. If you should have any questions concerning our proposal, please contact our office.

Respectfully submitted,

TSFGeo

  
Ramakumar Vedula, P.E.  
Principal Engineer

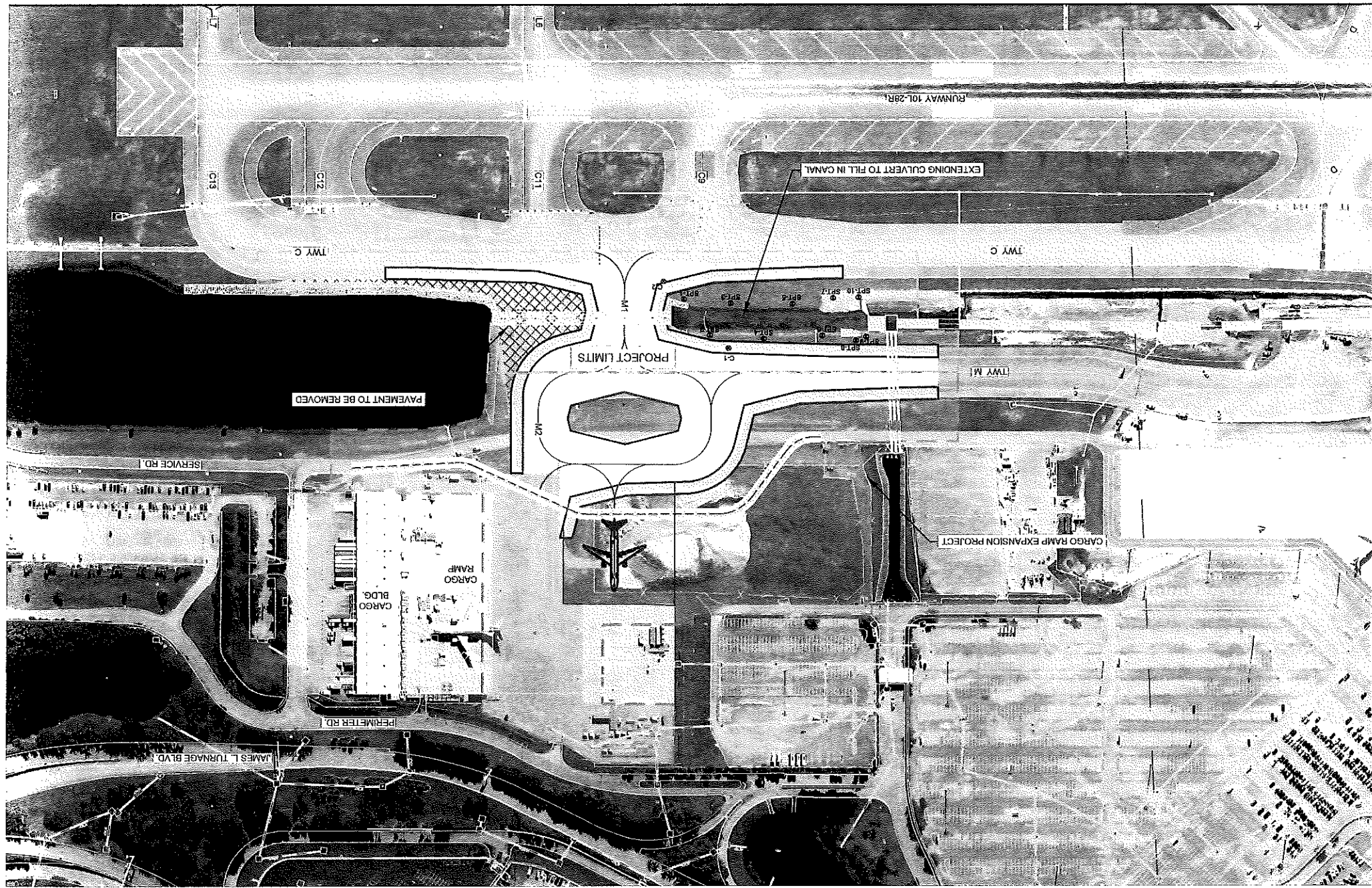
  
Sean Tromans, E.I.  
Staff Engineer

Attachments: General Conditions  
Fee Schedule  
Proposed Boring Location Plan

| <b>AUTHORIZED BY:</b> | <b>INVOICE TO:</b> |
|-----------------------|--------------------|
| <b>Name:</b>          | <b>Firm:</b>       |
| <b>Title:</b>         | <b>Name:</b>       |
| <b>Date:</b>          | <b>Address:</b>    |
|                       | <b>Phone :</b>     |

**NIGHT TIME SERVICES**

|   | Unit  | # of Units | Unit Price |         | Total            |
|---|-------|------------|------------|---------|------------------|
| <b>I. FIELD INVESTIGATION</b>                                     |       |            |            |         |                  |
| Mobilization of Men and Equipment                                 |       |            |            |         |                  |
| Truck-Mounted Equipment   | L.S.  | 8          | \$         | 450.00  | \$ 3,600.00      |
| Support Vehicle   | DAY   | 9          | \$         | 150.00  | \$ 1,350.00      |
| Support Boat  | Day   | 1          | \$         | 500.00  | \$ 500.00        |
| Standard Penetration Test Borings<br>(By Truck-Mounted Equipment) |       |            |            |         |                  |
| Land: 0 - 50 ft depth   | L.F.  | 400        | \$         | 20.00   | \$ 8,000.00      |
| 50 - 100 ft depth   | L.F.  | 0          | \$         | 23.00   | \$ 0.00          |
| Grout-Seal Boreholes<br>(By Truck-Mounted Equipment)              |       |            |            |         |                  |
| Land: 0 - 50 ft depth   | L.F.  | 400        | \$         | 8.00    | \$ 3,200.00      |
| 50 - 100 ft depth   | L.F.  | 0          | \$         | 9.50    | \$ 0.00          |
| Casing<br>(By Truck-Mounted Equipment)                            |       |            |            |         |                  |
| Land: 0 - 50 ft depth   | L.F.  | 400        | \$         | 9.50    | \$ 3,800.00      |
| 50 - 100 ft depth   | L.F.  | 0          | \$         | 11.50   | \$ 0.00          |
| Pavement Cores, Asphalt   | Each  | 2          | \$         | 250.00  | \$ 500.00        |
| Coring Machine + Generator Rental                                 | Trip  | 1          | \$         | 450.00  | \$ 450.00        |
| Muck Probing  | Hour  | 12         | \$         | 140.00  | \$ 1,680.00      |
| I.A GPR   | Night | 0          | \$         | 4300.00 | \$ 0.00          |
| <b>II. LABORATORY TESTING</b>                                     |       |            |            |         |                  |
| Natural Moisture Content Tests                                    | Test  | 8          | \$         | 15.00   | \$ 120.00        |
| Grain-Size Analysis - Full Gradation                              | Test  | 8          | \$         | 65.00   | \$ 520.00        |
| Grain-Size Analysis - Single Sieve                                | Test  | 8          | \$         | 35.00   | \$ 280.00        |
| Organic Content Tests   | Test  | 8          | \$         | 50.00   | \$ 400.00        |
| Atterberg Limit Tests   | Test  | 2          | \$         | 90.00   | \$ 180.00        |
| <b>III ENGINEERING/COORDINATION/MANAGEMENT</b>                    |       |            |            |         |                  |
| Project Manager   | Hour  | 10         | \$         | 253.06  | \$ 2,530.60      |
| Principal Engineer  | Hour  | 6          | \$         | 269.40  | \$ 1,616.40      |
| Project Engineer  | Hour  | 26         | \$         | 166.53  | \$ 4,329.78      |
| Senior Technician   | Hour  | 40         | \$         | 91.68   | \$ 3,667.20      |
| CADD  | Hour  | 18         | \$         | 101.88  | \$ 1,833.84      |
|   |       |            |            | \$      | <b>38,557.82</b> |





**BROWN & PHILLIPS, Inc.**  
PROFESSIONAL SURVEYING SERVICES

December 12, 2023

Mr. Andrew Kacer, P.E.  
AECOM  
7650 West Courtney Campbell Causeway  
Tampa, FL 33607

**Re: Palm Beach International Airport (PBIA) Taxiway M New Culvert Design  
Clear and Tie-in Soil Borings/Pavement Cores**

Dear Andy:

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. The scope of services is as follows:

**SCOPE OF SERVICES**

**I. SOIL BORINGS/PAVEMENT CORES**

We will tie-in approximately twelve (12) soil borings/pavement cores as delineated on the plan included with this proposal as Attachment 'B'.

**II. UTILITY TARGETING SERVICES**

We will scan around the area of the Geotech borings as delineated on the plan included with this proposal as Attachment 'B' and mark any underground utilities that may conflict. This is a very busy area; therefore it may include night work and multiple trips, which requires additional time. We will then locate the designates and add them to the survey.

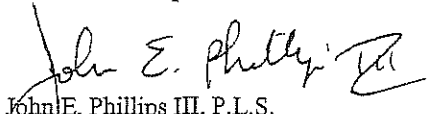
**III. TEST HOLES**

We will perform ten (10) test holes at locations to be determined by you. We will then locate the test holes and add them to the survey.

**IV. CLOSURE**

A drawing will be produced which will show all the features located. We propose to provide AECOM with hard copies, a digitally signed PDF file, and an AutoCAD file in the version requested. We will perform the scope of services for an hourly, **not-to-exceed fee of \$8,409.00**, (\$2,409.00 to field locate and update the survey, \$1,000.00 for utility targeting services to clear the Geotech borings, and \$5,000.00 for ten test holes at \$500.00 each), see Attachment '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.

Brown & Phillips, Inc.

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

Attachment

This Proposal accepted this \_\_\_\_\_ day of \_\_\_\_\_, 2023

By: \_\_\_\_\_  
**AECOM**

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

1860 Old Okeechobee Road • Suite 509 • West Palm Beach, Florida 33409  
(561) 615-3988 • Fax (561) 615-3991

M:\PROPOSALS\BY COMPANY\AECOM\PBIA\Taxiway M\new culvert utility and geotech tie-in survey.docx



**BROWN & PHILLIPS, Inc.**  
 PROFESSIONAL SURVEYING SERVICES

ATTACHMENT 'A'

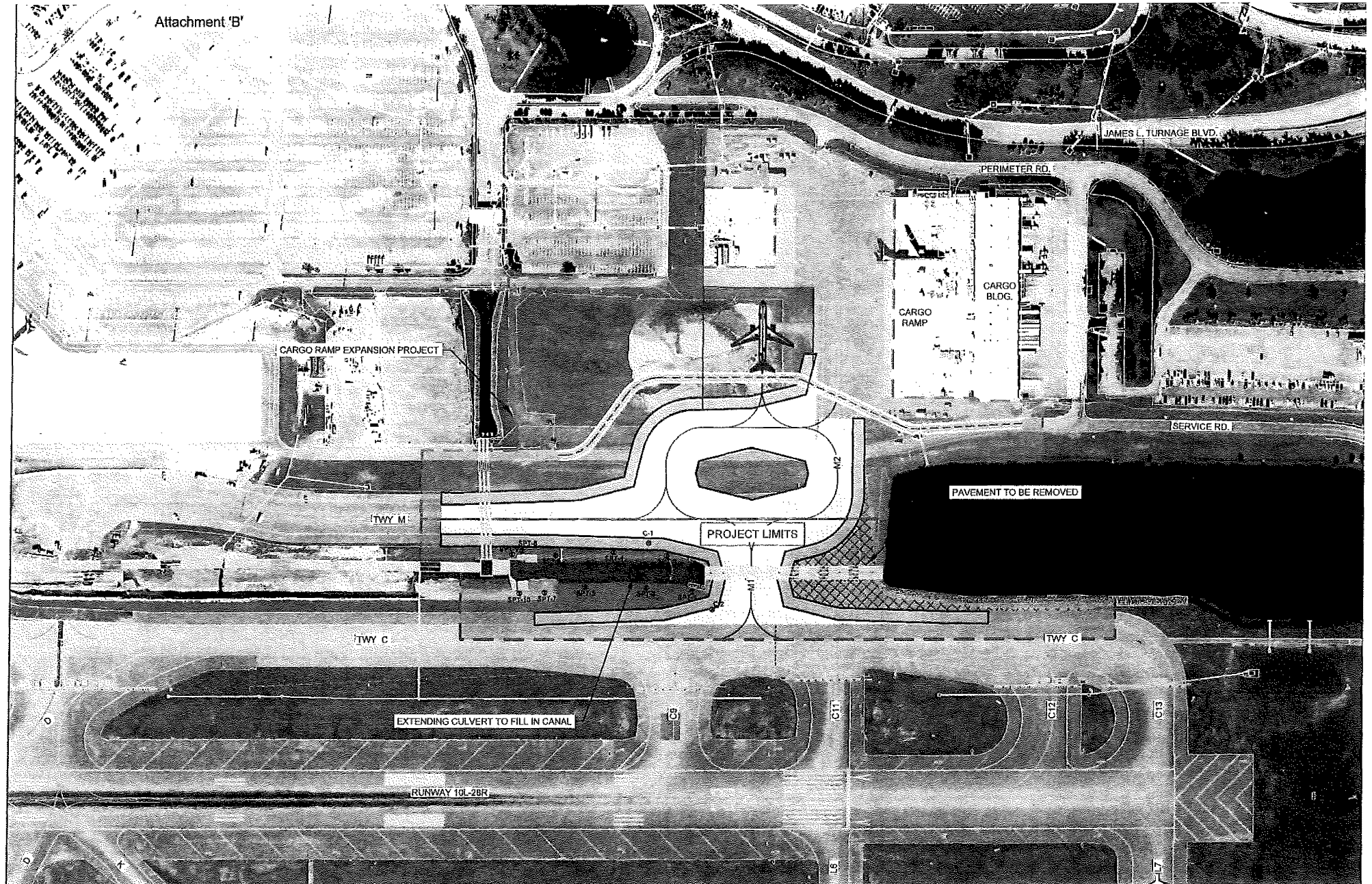
Palm Beach International Airport (PBI) Taxiway M New Culvert Design

Type of Survey: Utility/Geotech Tie-In  
 Date: December 12, 2023

| TASK  | SURVEY CREW | CADD TECH | SURVEY TECH | PLS      | COMMENTS                                  |
|---|-------------|-----------|-------------|----------|---|
| Meetings and Coordination                           |             |           |             | 1        |   |
| Horizontal and Vertical Project Network Control     | 5           |           | 0.5         |          | Find and establish control and benchmarks |
| Tie-In Soil Borings, CBR Locations & Pavement Cores | 5           |           | 2           |          | 10 soil borings and 2 pavement cores      |
| Topographic Survey                                  |             | 4         |             | 0.5      | Update topographic survey                 |
|   |             |           |             |          |   |
| Total Hours:  | 10          | 4         | 2.5         | 1.5      |   |
| Rate/Hour   | \$156.00    | \$96.00   | \$96.00     | \$150.00 |   |
| Subtotal:   | \$1,560.00  | \$384.00  | \$240.00    | \$225.00 |   |
| <b>Total Labor Cost:</b>                            |             |           |             |          | <b>\$2,409.00</b>                         |

| <u>Optional S.U.E. Services</u>  | <u>quantity</u> | <u>unit</u> | <u>cost/unit</u> | <u>total</u> |                         |
|----------------------------------|-----------------|-------------|------------------|--------------|-------------------------|
| Utility Targeting                | 0.5             | day         | \$2,000.00       | \$1,000.00   | (clear Geotech borings) |
| Test Holes                       | 10              | each        | \$500.00         | \$5,000.00   |                         |
| <b>Total Other Direct Costs:</b> |                 |             |                  |              | <b>\$6,000.00</b>       |
| <b>TOTAL PRICE</b>               |                 |             |                  |              | <b>\$8,409.00</b>       |

Attachment 'B'



## EXHIBIT A-3

## **PALM BEACH DOA GENERAL CONSULTING SERVICES**

### **EXHIBIT A-3**

#### **Miscellaneous Planning, Engineering and Construction Services**

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#### **Palm Beach International Airport (PBI) Task I-23-PBI-A-018 PBI Stormwater Master Plan**

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### **OVERVIEW**

The Palm Beach Department of Airports (DOA) has requested that AECOM Technical Services, Inc. (CONSULTANT) provide Professional Engineering Services associated with developing the Task I-23-PBI-A-018 PBI Stormwater Master Plan Project (Project) at Palm Beach International Airport (PBI). This Project will utilize the PBI Airport Layout Plan (ALP) that Ricondo & Associates, Inc. (Ricondo) is currently completing. This Ricondo ALP serves as an update to the 2018 AECOM developed ALP, that was utilized in developing the recently completed Task I-20-PBI-A-035: Stormwater Master Plan Update. The DOA is planning to accommodate potential increases in demand for PBI. Based on its location, PBI presents numerous opportunities to increase revenue and a review of the airfield configuration demonstrates potential improvements in operational safety and efficiency with additional pavement and facilities.

Each of the proposed improvements will affect the stormwater management system at the airport and will require modification, resulting in the need to obtain permits from the South Florida Water Management District (SFWMD). To facilitate all future improvements included in the Airport Layout Plan (ALP) for PBI (which may occur over multiple development phases) the DOA has requested the AECOM Team to prepare a stormwater master plan that demonstrates the changes in the drainage infrastructure that will be required. The final stormwater master plan will be presented to the SFWMD as part of a Conceptual Environmental Resources Permit (ERP) application, to facilitate efficient permitting for all future phases of development.

The project phases shall consist of the following:

- Task 1 - Data Collection and Review
- Task 2 - Existing Conditions Stormwater Model Development
- Task 3 - Proposed Conditions Stormwater Model Development
- Task 4 - Procurement of Conceptual ERP

The following Tasks will be coordinated and/or performed by AECOM:

- DOA Kick-Off Meeting
- Team and DOA Meetings

- Data Collection and Records Research
- Field Coordination for Site Visits
- Develop Schematic Grading Plans
- Review Draft Report
- Review Final Report
- Develop Future Condition Tailwater Model/Input
- Task Management and Coordination

See the attached detailed scope of serves from Chen Moore & Associates, Inc. (CMA), our subconsultant for this Task.

**Project Team**

This Project Team for the Professional Engineering Services to be provided by the Team are provided below:

| <b>Firm Name<br/>(CONSULTANT/SUBCONSULTANT)</b>        | <b>Type of Services</b>      |
|--|------------------------------|
| AECOM Technical Services, Inc.<br>(AECOM) (CONSULTANT) | Project Management           |
| Chen Moore & Associates, Inc. (CMA)<br>(SUBCONSULTANT) | Stormwater Design/Permitting |

**Meetings**

- The CONSULTANT will attend the following meetings during this Task:
- a. Design K.O. Meeting;
  - b. Team and DOA Coordination Meetings;
  - c. Regulatory permitting agencies meetings, as applicable; and
  - d. One (1) DOA Review Submittal Meeting.

**Deliverables**

- The CONSULTANT will deliver the following major Deliverables (pdf):
- a. K.O. Meeting Minutes;
  - b. Existing Conditions Technical Memorandum;
  - c. Conceptual Opinion of Probable Construction Cost (OPCC);
  - d. Future Conditions Technical Memorandum;
  - e. Regulatory permitting agencies documentation;
  - f. Draft Stormwater Master Plan; and
  - g. Final Stormwater Master Plan.

**Schedule**

The anticipated duration of this Task 180 calendar days from the kick-off meeting.

Table B

Labor/Fee Estimate Summary - CONSULTANT (AECOM Technical Services, Inc.) - Task I-23-PBI-A-018 PBI Stormwater Master Plan

|               |        |        |        |        |        |        |        |        |       |
|---------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| Billing Rate: | \$ 340 | \$ 236 | \$ 270 | \$ 255 | \$ 201 | \$ 215 | \$ 128 | \$ 129 | \$ 96 |
|---------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|

| Task Description   | Labor Estimate (Hours) |             |                        |                |                               |                                   |                  |          |           |            | Fee Estimate (\$)    |               |                    |  |
|--|------------------------|-------------|------------------------|----------------|-------------------------------|-----------------------------------|------------------|----------|-----------|------------|----------------------|---------------|--------------------|--|
|  | Principal              | QC Reviewer | Senior Project Manager | Senior Planner | Design / Construction Manager | Project Manager / Senior Engineer | Project Engineer | Planner  | Clerical  | Total      | Labor                | Expenses      | Total              |  |
| <b>Task I-23-PBI-A-018 PBI Stormwater Master Plan</b>    |                        |             |                        |                |                               |                                   |                  |          |           |            |                      |               |                    |  |
| <b>Total</b>   | <b>0</b>               | <b>37</b>   | <b>30</b>              | <b>4</b>       | <b>88</b>                     | <b>0</b>                          | <b>130</b>       | <b>0</b> | <b>18</b> | <b>307</b> | <b>\$53,908</b>      | <b>\$0</b>    | <b>\$53,908</b>    |  |
| Attend One (1) DOA Kick-Off Meeting                      |                        |             | 2                      |                | 2                             |                                   |                  |          | 2         | 6          | \$ 1,134             | \$ -          | \$ 1,134           |  |
| Team and DOA Meetings                                    |                        | 1           | 8                      |                | 8                             |                                   | 8                |          | 8         | 33         | \$ 5,796             | \$ -          | \$ 5,796           |  |
| Data Collection and Records Research                     |                        |             | 4                      |                | 4                             |                                   | 8                |          |           | 16         | \$ 2,908             | \$ -          | \$ 2,908           |  |
| Field Coordination for Site Visits                       |                        |             |                        |                | 2                             |                                   |                  |          |           | 2          | \$ 402               | \$ -          | \$ 402             |  |
| Proposed Schematic Grading                               |                        | 16          | 8                      | 4              | 32                            |                                   | 100              |          |           | 160        | \$ 26,188            | \$ -          | \$ 26,188          |  |
| Review Draft Report                                      |                        | 10          |                        |                | 12                            |                                   |                  |          |           | 22         | \$ 4,772             | \$ -          | \$ 4,772           |  |
| Review Final Report                                      |                        | 10          |                        |                | 12                            |                                   |                  |          |           | 22         | \$ 4,772             | \$ -          | \$ 4,772           |  |
| Develop Future Condition Tailwater Model/Input           |                        |             |                        |                | 16                            |                                   |                  |          |           | 16         | \$ 3,216             | \$ -          | \$ 3,216           |  |
| Task Management and Coordination                         |                        |             | 8                      |                |                               |                                   | 14               |          | 8         | 30         | \$ 4,720             | \$ -          | \$ 4,720           |  |
| <b>Total Fee - AECOM Technical Services, Inc.</b>        | <b>0</b>               | <b>37</b>   | <b>30</b>              | <b>4</b>       | <b>88</b>                     | <b>0</b>                          | <b>130</b>       | <b>0</b> | <b>18</b> | <b>307</b> | <b>\$53,908.00</b>   | <b>\$0.00</b> | <b>\$53,908.00</b> |  |
| <b>Subconsultant Fees</b>                                |                        |             |                        |                |                               |                                   |                  |          |           |            |                      |               |                    |  |
| 1 Total Subconsultant Fee - Chen Moore & Associates (LS) |                        |             |                        |                |                               |                                   |                  |          |           |            | \$ 248,830.00        |               |                    |  |
|  |                        |             |                        |                |                               |                                   |                  |          |           |            | <b>Lump Sum</b>      |               | \$302,738.00       |  |
|  |                        |             |                        |                |                               |                                   |                  |          |           |            | <b>Expenses</b>      |               | \$0.00             |  |
| <b>Total Fee - Subconsultants</b>                        |                        |             |                        |                |                               |                                   |                  |          |           |            | <b>\$ 248,830.00</b> |               |                    |  |
| <b>GRAND TOTAL FEE - BASIC ENGINEERING SERVICES</b>      |                        |             |                        |                |                               |                                   |                  |          |           |            | <b>\$ 302,738.00</b> |               |                    |  |

Prepared by: AECOM Technical Services, Inc.

August 14, 2023

SENT VIA E-MAIL ([bwhitfield@chenmoore.com](mailto:bwhitfield@chenmoore.com))

Mr. Andrew Kacer  
AECOM  
7650 West Courtney Campbell Causeway  
Tampa, FL 33607

**Subject: Palm Beach International Airport (PBI)  
Stormwater Master Plan Update  
CMA Proposal No. 23-0066.P0001-006**

Dear Mr. Kacer,

Chen Moore and Associates, Inc. (CMA) is pleased to submit the attached Scope of Services and associated fee estimate to assist your team with the stormwater master plan and permitting services for the referenced project.

### **PROJECT INTRODUCTION**

The Palm Beach County Department of Airports (DOA) is looking to provide expansions and improvements to the Palm Beach International Airport (PBI) to accommodate potential increases in demand. The DOA has requested the AECOM Team provide engineering services to update the airport's existing stormwater master plan (SMP). The existing stormwater master plan first received approval in the form of a Conceptual Environmental Resource Permit (ERP) on February 18, 2008. Subsequently, the AECOM Team was tasked to develop the Palm Beach International Airport Conceptual Stormwater Master Plan Update which was completed July 5, 2023, to represent the improvements proposed in the Final September 2018 PBI Airport Layout Plan (ALP). The DOA has requested the AECOM Team to update the July 5, 2023 report to reflect the latest ALP that is currently under development. The goal of this task is to develop an updated SMP that integrates the proposed improvements described in the current ALP, and to create the ability to efficiently permit and construct the various projects.

The project phases shall consist of the following:

- Task 1 – Kickoff Meeting and Data Collection
- Task 2 - Existing and Future Conditions Stormwater Model Development
- Task 3 - **Procurement of Conceptual ERP**

### **PROJECT STAFFING**

Our staff and team are ready and prepared to work on this project. Chen Moore staff project roles shall be as follows:

Principal – Jason McClair, P.E.  
Project Director – Brent Whitfield, P.E.



Senior Engineer – Cole Benjamin, P.E.  
Project Engineer – David Cowan, P.E.  
Associate Engineer – Brandon Sullivan

Subconsultants - None

## **SCOPE OF SERVICES**

### **TASK 1 – Kickoff Meeting and Data Collection**

An initial meeting with the DOA and AECOM Team is included to establish the parameters and expectations on the project. After the kickoff meeting, the consultant shall collect and review copies of all relevant data, including correspondence, past reports, archived record drawings, existing permits, plans, or information provided by the DOA which may be beneficial to the work effort performed by the AECOM Team. Information provided by the DOA shall include, at a minimum, existing survey/topographic data and the most up to date ALP.

### **TASK 2 – Existing and Future Conditions Stormwater Model Development**

Consultant shall include all relevant documentation required for development of the existing conditions stormwater model.

#### ***Task 2.1 – Existing Condition Model Set Up and Analysis***

Consultant will perform the following activities to develop an existing conditions hydrologic/hydraulic model that is representative of the current conditions within the PBI.

- Verify existing conditions ICPR V4 model inputs for consistency with the July 5, 2023, AECOM Palm Beach International Airport Conceptual Stormwater Master Plan Update.
- Input and simulate the following design storm events to ensure the existing model results in comparable flows and stages as shown in the AECOM PBIA Conceptual Stormwater Master Plan Update:
  - 5yr/24hr
  - 10yr/24hr
  - 10yr/3day
  - 25yr/3day
  - 100yr/3day
- Integrate the known projects under development since the AECOM PBIA Conceptual Stormwater Master Plan Update was finalized, based on the data collected as part of Task 1. Assume the following projects will be included:
  - Central Airfield Improvements
  - Signature Flight Support Phase 3
  - Atlantic Aviation PBI Hangars Phase 1
  - PBI Cargo Access Road Improvements
- Input and simulate the following design storm events meet the water quantity requirements included in the current Conceptual ERP. The 500-year design storm is included for vulnerability analysis purposes.
  - 5yr/24hr
  - 10yr/24hr
  - 10yr/3day

- 25yr/3day
- 100yr/3day (Zero Discharge)
- 500yr Design Storm
- Attend one (1) meeting with the AECOM Team for project coordination.

**Task 2.2 – Proposed Conditions Stormwater Model Setup**

Consultant will set up and analyze a proposed conditions stormwater model based on the current ALP for PBI. The proposed conditions model will not include any Outparcel Groups.

- Prepare stormwater model (ICPR) based on anticipated future development, as shown in the Airport Layout Plan.
- Develop modifications to the stormwater management system to accommodate required improvements including changes in sub-basin delineations, as well as, modifications to existing stormwater piping, detention facilities, and outfalls.
- Input and simulate the following design storm events:
  - 5yr/1day
  - 10yr/1day
  - 25yr/3day
  - 100yr/3day (Zero Discharge)
  - 500yr Design Storm
- Establish the proposed level of service.
- Confirm site grading meets proposed level of service and revise, as needed, to meet the following criteria.
  - Edge of pavement and parking lot elevations set above 5yr/1day max stage
  - Roadway centerline elevation set above 10yr/1day max stage
  - No offsite overland discharge of 25yr/3day
  - All building FFEs set above 100yr/3day-No discharge max stage
  - Peak Discharge at the outfall for the 25y/3day event is equal to or less than existing conditions
- Confirm compliance with existing SFWMD-ERP permit requirements.
- Attend one (1) meeting with the DOA for project coordination.

**Task 2.3 – Water Quality Analyses**

Consultant will perform a nutrient analysis for the pre and post development condition to determine the type and extent of Best Management Practices (BMPs) that may be required to meet the regulatory requirements of the South Florida Water Management District (SFWMD).

**Task 2.4 – C-51 Basin Floodplain Compensation Analysis**

Portions of PBI fall within the C-51 Basin and must comply with the C-51 Basin Rules for floodplain compensation. To meet the C-51 Basin Rules, CMA will perform the following tasks.

- Determine areas of proposed development, per the current ALP, that will require proposed fill.
- Compare the final elevation of the proposed development to the respective floodplain elevations, per the C-51 Basin Rule.
- Investigate potential locations for use as floodplain compensation areas that can be allocated to meet the C-51 Basin floodplain compensation requirements.
- Once floodplain compensation locations are finalized, re-grade proposed locations to meet the C-51 Basin requirements.

**Task 2.5 – Vulnerability Assessment**

Consultant will provide the following modeling support to AECOM for completion of the vulnerability assessment at PBI:

- Analyze Future Conditions Rainfall Projection (up to 2 Scenarios)
- Evaluate potential impacts of variations in tailwater elevations for vulnerability assessment (includes research into and simulation of impacts of sea level rise on receiving water body).
- Provide max stage results for incorporation into the vulnerability assessment.

**Task 2.6 – Proposed Stormwater Model Technical Memorandum**

Consultant will prepare a Proposed Stormwater Model Technical Memorandum comparing the existing and proposed conditions model and documenting the findings of the water quality analysis, the floodplain compensation evaluation, and the vulnerability analysis.

**TASK 3 – Procurement of Conceptual ERP**

Consultant shall procure a Conceptual Environmental Resources Permit (ERP) from the SFWMD. This task shall include the effort to schedule and conduct a pre-application meeting with the SFWMD pertaining to stormwater design, including the preparation of a meeting agenda and meeting minutes. The task shall also include preparing applications and supporting documentation, correspondence with regulatory reviewers, and any required responses for up to two rounds of comments and responses for Requests for Additional Information (RAI). The Consultant will incorporate the Task 2 Technical Memorandum that includes a narrative of the overall project, review of regulatory requirements, a summary of the existing and proposed condition stormwater model and respective level of service, as well as a narrative of the proposed improvements. Providing permit fees are not included and shall be the responsibility of the Owner.

**The basis for the above scope of services and associated fee(s) are based on the following:**

- Outparcel development is not included in the analysis of the stormwater model.
- No surveying, geotechnical investigation, or environmental assessments are required for this conceptual permitting effort and therefore are not included.
- Conceptual analyses exclusively pertain to stormwater. Analysis associated with water, wastewater, landscape architecture, irrigation, site planning, pavement, signage and markings, Maintenance of Traffic, and detailed grading are not included.
- Regulatory coordination is limited to SFWMD in consideration that the ERP application is for a Conceptual permit. No permitting through FDEP or USACE will be required.
- Client shall provide submittal fees for government agencies.
- No detailed engineering design or construction administration services were included in this proposal. If requested, this effort shall be rendered as an additional service.

**Information to be provided by the Client:**

- Approved Airport Layout Plan
- A signed and sealed boundary and topographic survey and associated digital CAD File.
- A letter from the property owner granting access to the site and giving approval for Consultant to perform the services listed above.
- Filing and permit application fees, review fees, impact fees or any other associated assessments by other governments/agencies.
- Copies of all relevant data, including correspondence, plans or information in the Client's possession which may be beneficial to the work effort performed by Consultant.

- Previous reports and assessments.
- Boundary survey or legal description of the site.

**SCHEDULE AND FEES**

Consultant shall schedule work upon receipt of signed approval for this project as required. Per discussions with your team, the goal is to start immediately upon notice to proceed and official authorization from the Client. The total lump sum fee for this project will be divided as follows:

| <u>TASK(s)</u>   | <u>Task Description</u>                           | <u>Lump Sum</u> | <u>Hourly</u> | <u>Total Fees</u>   |
|--|---|-----------------|---------------|---------------------|
| <b>WATER RESOURCES ENGINEERING AND STORMWATER PERMITTING</b> |   |                 |               |                     |
| TASK 1   | Kickoff Meeting and Data Collection               | \$11,270.00     | -             | \$11,270.00         |
| TASK 2   | Existing and Proposed Conditions Stormwater Model | \$170,600.00    | -             | \$170,600.00        |
| TASK 3   | Procurement of Conceptual ERP                     | \$66,960.00     | -             | \$66,960.00         |
| <b>PROJECT TOTAL</b>   |   |                 |               | <b>\$248,830.00</b> |

Reimbursable expenses for the tasks above are included in the lump sum price. Additional reimbursables requested by the client shall be rendered as Additional Services.

Should you have any questions, please do not hesitate to contact me at my office at +1 (561) 295-1716, my cell phone at +1 (561) 329-1797, or send me an electronic message at [bwhitfield@chenmoore.com](mailto:bwhitfield@chenmoore.com).

Respectfully submitted,



Brent Whitfield, PE  
Director – Water Resources  
08/14/2023

Attachment(s):  
Fee Estimate

**Palm Beach County Department of Airports - AECOM**  
**Stormwater Master Plan - PBI**  
**Fee Breakdown**

Chen Moore and Associates

23-00066.P0006

|   | Project<br>Principal | Project<br>Director | Senior<br>Engineer | Project<br>Engineer | Associate<br>Engineer | Administrative<br>Staff | Total               |
|---|----------------------|---------------------|--------------------|---------------------|-----------------------|-------------------------|---------------------|
| Hourly Rate   | \$ 360.00            | \$250.00            | \$200.00           | \$150.00            | \$125.00              | \$90.00                 |                     |
| <b>TASK 1 – KICKOFF MEETING AND DATA REVIEW</b>                   |                      |                     |                    |                     |                       |                         |                     |
| Kickoff Meeting   |                      | 4                   | 4                  |                     | 8                     | 1                       | \$2,890.00          |
| Data Collection and Review  |                      | 8                   | 16                 |                     | 24                    | 2                       | \$8,380.00          |
| Task 1 Total  | 0                    | 12                  | 20                 | 0                   | 32                    | 3                       | \$11,270.00         |
| <b>TASK 2 – EXISTING AND PROPOSED CONDITIONS STORMWATER MODEL</b> |                      |                     |                    |                     |                       |                         |                     |
| Verify Existing Conditions ADA ICPR v4 Model Inputs               |                      | 2                   | 8                  | 12                  | 8                     |                         | \$4,900.00          |
| Validate Design Storm Results (5 Storm Events - See SOW)          |                      | 4                   | 16                 | 16                  | 8                     |                         | \$7,600.00          |
| Update Existing Conditions Model with Current Projects            |                      | 6                   | 40                 | 24                  | 8                     |                         | \$14,100.00         |
| Simulate Design Storms (5 Storm Events - See SOW)                 |                      | 2                   | 16                 | 12                  | 4                     |                         | \$6,000.00          |
| Validate Results for Compliance with Conceptual ERP               |                      | 4                   | 12                 | 8                   | 4                     |                         | \$5,100.00          |
| Prepare Proposed Conditions Model (Based on ALP)                  |                      | 24                  | 60                 | 40                  | 24                    |                         | \$27,000.00         |
| Simulate Design Storms (5 Storm Events - See SOW)                 |                      | 8                   | 32                 | 24                  | 16                    |                         | \$14,000.00         |
| Establish Proposed Level of Service                               |                      | 4                   | 12                 | 8                   | 4                     |                         | \$5,100.00          |
| Water Quality Analysis  |                      | 16                  | 40                 | 32                  | 16                    |                         | \$18,800.00         |
| C-51 Basin Rule Compliance  |                      | 8                   | 24                 | 12                  | 8                     |                         | \$9,600.00          |
| Vulnerability Assessment  |                      | 12                  | 40                 | 16                  | 8                     |                         | \$14,400.00         |
| Prepare Proposed Conditions Technical Memorandum                  |                      | 24                  | 60                 | 40                  | 24                    |                         | \$27,000.00         |
| QA/QC   |                      | 12                  | 28                 | 24                  | 16                    |                         | \$14,200.00         |
| Coordination Meeting with PBCDOA                                  |                      | 4                   | 4                  |                     | 8                     |                         | \$2,800.00          |
| Task 2 Total  | 0                    | 130                 | 392                | 268                 | 156                   | 0                       | \$ 170,600.00       |
| <b>TASK 3 – PROCURE CONCEPTUAL ERP FROM SFWMD</b>                 |                      |                     |                    |                     |                       |                         |                     |
| Prepare and Attend Kickoff Meeting with SFWMD                     |                      | 4                   | 8                  |                     | 4                     |                         | \$3,100.00          |
| Prepare and Submit Conceptual ERP                                 |                      | 16                  | 60                 | 40                  | 24                    | 4                       | \$25,360.00         |
| QA/QC   |                      | 8                   | 24                 | 16                  | 8                     |                         | \$10,200.00         |
| RAI Responses (Assume 2 RAI's)                                    |                      | 16                  | 48                 | 32                  | 24                    |                         | \$21,400.00         |
| Additional coordination with SFWMD Staff                          |                      | 4                   | 16                 | 8                   | 12                    |                         | \$6,900.00          |
| Task 3 Total  | 0                    | 48                  | 156                | 96                  | 72                    | 4                       | \$66,960.00         |
| <b>TOTAL FEES</b>   |                      |                     |                    |                     |                       |                         | <b>\$248,830.00</b> |

| TASK   | Total Hrs/Task | Total \$/Task       |
|--|----------------|---------------------|
| TASK 1 – KICKOFF MEETING AND DATA REVIEW             | 67             | \$11,270.00         |
| TASK 2 – EXISTING AND PROPOSED CONDITIONS STORMWATER | 946            | \$170,600.00        |
| TASK 3 – PROCURE CONCEPTUAL ERP FROM SFWMD           | 376            | \$66,960.00         |
| <b>TOTAL</b>   | <b>1389</b>    | <b>\$248,830.00</b> |

## EXHIBIT A-4

**PALM BEACH DOA GENERAL CONSULTING SERVICES**

**EXHIBIT A-4**

**Miscellaneous Planning, Engineering and Construction Services**

**Palm Beach International Airport (PBI)  
Task I-23-PBI-A-019 PBI Garage Additional Services**

**OVERVIEW**

The Palm Beach Department of Airports (DOA) has requested that AECOM Technical Services, Inc. (CONSULTANT) provide Professional Engineering Services under this Task I-23-PBI-A-019 PBI Garage Additional Services Project. The services for this Project are additional services that are being performed under the current Task I-23-PBI-A-085 PBI Garage Repairs CM/CA/RPR Services Project.

**Project Team**

This Project Team for the Professional Engineering Services to be provided by the Team are provided below:

| <b>Firm Name<br/>(CONSULTANT/SUBCONSULTANT)</b>         | <b>Type of Services</b>         |
|---|---------------------------------|
| AECOM Technical Services, Inc.<br>(AECOM) (CONSULTANT)  | Project Management              |
| Quantum Electrical Engineering (QEE)<br>(SUBCONSULTANT) | Electrical Engineering/Lighting |

The scope of this Project is to develop six (6) separate Field Bulletins (FBs) that are being developed under the current Task I-23-PBI-A-085 PBI Garage Repairs CM/CA/RPR Services Project. These FBs are as shown below:

- FB 1: Short Term Garage Light Pole Repairs
- FB 2: Temporary Overflow Parking
- FB 3: Water Intrusion - Elevator Lobby
- FB 4: ADA Parking Improvements STPG
- FB 5: Soffit Beam Repair Column 48
- FB 6: Joint Repair STPG Level 4

A description of each FB is provided below:

FB 1: Short Term Garage Light Pole Repairs: The DOA has requested a repair of the existing light pole anchor bolts located on the 7th floor of the Short-Term Parking Garage. A number of bolts have rusted and are unable to support the light poles. Additionally, an area of ponding on the 7th floor of the Short-Term Garage is causing deterioration to the concrete and reinforcing steel has been exposed. This Field Bulletin incorporates work into the Contract to repair the anchor bolts on a number of light poles.

FB 2: Temporary Overflow Parking: The DOA has determined that due to the length of time and the facility closures needed to complete the current work on the PB 22-8 PBIA Repairs to Short-Term and Long-Term Garage 2 (Project), additional surface parking is required for use by the public during the peak travel season at PBI. As requested, AECOM has prepared Design and Construction drawings to transform existing surface Lot D into Temporary Overflow Parking to fill the needs of the Airport.

FB 3: Water Intrusion - Elevator Lobby: AECOM had a subconsultant (Construction Moisture Consultants) perform an evaluation to review the reported water intrusion within the elevator/tower at the Long-Term Parking Garage No. 3 (Level 7). Based on the recommendations contained in the Evaluation Report, the DOA has requested AECOM prepare documents detailing the work required to make a number of the recommended repairs for inclusion into the PB 22-8 PBIA Repairs to Short-Term and Long-Term Garage 2 (Project).

FB 4: ADA Parking Improvements STPG: The DOA requested AECOM to perform an evaluation of the existing parking spaces within the Short-Term Parking garage, then to prepare construction plans so that these areas could be remarked, and the ADA spaces updated to current standard.

FB 5: Soffit Beam Repair Column 48: During preparation for spall repairs on the Soffit Beam on column line 48 between JJ and HH, the existing reinforcing became exposed and unsupported. This field bulletin provides guidance to the Contractor to provide the appropriate cover and support for the existing reinforcing and complete the required repair.

FB 6: Joint Repair STPG Level 4: Distresses were identified on the 4th level at column line 37.9 between JJ & KK, which required additional investigation. It was determined to include in the construction documents an allowance pay item for the Contractor to investigate and make repairs to the distress with guidance from the EOR based on the findings of the investigation. During Construction, the Contractor issued RFI #10 identifying the distress and the EOR provided instructions for the investigation of the distress. This Field Instructions provides guidance for the repair of the joint based on observations made during the field investigation.



Also included in this Project are the CA Services required during the construction of each of the FBs. The CA Services include reviewing shop drawings, periodic inspections and RFIs related to each FB.

In the original Task I-23-PBI-A-085 PBI Garage Repairs CM/CA/RPR Services Project, the CEI related hours were determined with the understanding that the inspection work may not require full time oversight. Once construction began, it became clear that full time inspection services were required. In order to provide CEI services thru the end of July, an additional five months of full time CEI services will be required and are included in this Project.

AECOM will provide full-time on-site observations of the quality and progress of the contractor's work in-order to determine if the construction is proceeding in accordance with the Contract Documents. This Project includes providing RPR Services for an additional five (5) months, to the end of July, from the end of March.. The RPR's efforts will be directed toward determining whether the constructed project conforms to the Contract Documents. These RPR Services will include developing Daily Reports, monitoring the Contractor's progress, serving as the Owner's liaison with the Contractor, and conducting on-site observations of the construction activities in progress to assist in determining if the work is being carried out in compliance with the Contract Documents.

**5.1 Deliverables**

The development of the six (6) Field Bulletins listed in the Task.

**5.1 Schedule**

The anticipated duration for this project is 240 calendar days.

**Assumptions:**

1. CONSULTANT shall not be responsible for the means, methods, techniques, and sequences, procedures of construction or selection of materials selected by the Contractor or the safety precautions and programs incident to the work of the Contractor. The CONSULTANT shall not guarantee the performance of the Contractor nor be responsible for the acts, errors, omissions, or the failure of the Contractor to perform the construction work in accordance with the Contract Documents.

Table B

Labor/Fee Estimate Summary - CONSULTANT (AECOM Technical Services, Inc.) - Task I-23-PBI-A-019 PBI Garage Repairs Additional Services

|               |       |        |        |        |        |        |        |        |       |
|---------------|-------|--------|--------|--------|--------|--------|--------|--------|-------|
| Billing Rate: | \$ 98 | \$ 238 | \$ 270 | \$ 255 | \$ 201 | \$ 149 | \$ 128 | \$ 129 | \$ 96 |
|---------------|-------|--------|--------|--------|--------|--------|--------|--------|-------|

| Task Description  | Labor Estimate (Hours) |             |                        |                   |                             |                     |                  |            |          |           | Fee Estimate (\$) |                      |            |                      |
|---|------------------------|-------------|------------------------|-------------------|-----------------------------|---------------------|------------------|------------|----------|-----------|-------------------|----------------------|------------|----------------------|
|   | RPR                    | QC Reviewer | Senior Project Manager | Senior Structural | Design/Construction Manager | Structural Engineer | Project Engineer | Planner    | Clerical | Total     | Labor             | Expenses             | Total      |                      |
| <b>Task I-23-PBI-A-019 PBI Garage Repairs Additional Services</b> |                        |             |                        |                   |                             |                     |                  |            |          |           |                   |                      |            |                      |
| <b>Design and CA</b>  | <b>Total</b>           | <b>0</b>    | <b>63</b>              | <b>48</b>         | <b>142</b>                  | <b>95</b>           | <b>66</b>        | <b>262</b> | <b>0</b> | <b>18</b> | <b>694</b>        | <b>\$128,231</b>     | <b>\$0</b> | <b>\$128,231</b>     |
| FB 1: Short Term Garage Light Pole Repairs                        |                        |             | 24                     | 4                 | 40                          | 8                   | 40               | 40         |          | 2         | 158               | \$ 29,824            | \$ -       | \$ 29,824            |
| FB 2: Temporary Overflow Parking                                  |                        |             | 6                      | 8                 |                             | 25                  |                  | 70         |          | 2         | 111               | \$ 17,753            | \$ -       | \$ 17,753            |
| FB 3: Water Intrusion Elevator Lobby                              |                        |             | 8                      | 4                 | 30                          | 10                  | 10               | 20         |          | 2         | 84                | \$ 16,870            | \$ -       | \$ 16,870            |
| FB 4: ADA Parking Improvements STPG                               |                        |             | 3                      | 16                |                             | 16                  |                  | 36         |          | 2         | 73                | \$ 13,044            | \$ -       | \$ 13,044            |
| FB 5: Soffit Beam Repair Column 48                                |                        |             | 7                      | 2                 | 20                          | 2                   |                  | 16         |          | 2         | 49                | \$ 9,934             | \$ -       | \$ 9,934             |
| FB 6: Joint Repair STPG Level 4                                   |                        |             | 7                      | 2                 | 20                          | 2                   |                  | 16         |          | 2         | 49                | \$ 9,934             | \$ -       | \$ 9,934             |
| Additional Related CA   |                        |             | 8                      | 8                 | 32                          | 32                  | 16               | 60         |          | 2         | 158               | \$ 28,896            | \$ -       | \$ 28,896            |
| Task Management and Coordination                                  |                        |             |                        | 4                 |                             |                     |                  | 4          |          | 4         | 12                | \$ 1,976             | \$ -       | \$ 1,976             |
| <b>1B RPR</b>   | <b>Total</b>           | <b>800</b>  | <b>0</b>               | <b>2</b>          | <b>0</b>                    | <b>2</b>            | <b>0</b>         | <b>50</b>  | <b>0</b> | <b>4</b>  | <b>858</b>        | <b>\$86,126</b>      | <b>\$0</b> | <b>\$86,126</b>      |
| CEI thru June 2023 (5 months: RPR 160/mo and Pr Eng 10/month)     |                        | 800         |                        | 2                 |                             | 2                   |                  | 50         |          | 4         | 858               | \$ 86,126            | \$ -       | \$ 86,126            |
| <b>Total Fee - AECOM Technical Services, Inc.</b>                 |                        | <b>800</b>  | <b>63</b>              | <b>50</b>         | <b>142</b>                  | <b>97</b>           | <b>66</b>        | <b>312</b> | <b>0</b> | <b>22</b> | <b>1,552</b>      | <b>\$ 214,357.00</b> | <b>0</b>   | <b>\$ 214,357.00</b> |
| <b>Subconsultant Fees</b>   |                        |             |                        |                   |                             |                     |                  |            |          |           |                   |                      |            |                      |
| 1 Total Subconsultant Fee - Quantum Electrical Engineering (LS)   |                        |             |                        |                   |                             |                     |                  |            |          |           |                   | \$ 3,395.00          |            |                      |
|   |                        |             |                        |                   |                             |                     |                  |            |          |           |                   |                      |            |                      |
|   |                        |             |                        |                   |                             |                     |                  |            |          |           |                   |                      |            |                      |
|   |                        |             |                        |                   |                             |                     |                  |            |          |           |                   |                      |            |                      |
| <b>Total Fee - Subconsultants</b>                                 |                        |             |                        |                   |                             |                     |                  |            |          |           |                   | <b>\$ 3,395.00</b>   |            |                      |
| <b>GRAND TOTAL FEE - BASIC ENGINEERING SERVICES</b>               |                        |             |                        |                   |                             |                     |                  |            |          |           |                   | <b>\$ 217,752.00</b> |            |                      |

|              |                     |
|--------------|---------------------|
| Lump Sum     | \$131,626.00        |
| TM           | \$86,126.00         |
| Expenses     | \$0.00              |
| <b>Total</b> | <b>\$217,752.00</b> |

Prepared by: AECOM Technical Services, Inc.

# QUANTUM

Electrical Engineering, Inc.

June 30, 2023

AECOM Technical Services, Inc.  
Mr. Andy Kacer P.E.  
Southeast Aviation Manager  
7650 West Courtney Campbell Causeway  
Tampa, FL 33607

Subject: Electrical Design Add Services Fee Proposal for the Palm Beach County  
Department of Airports (DOA) – Overflow Parking Lot Lighting.

Dear Andy:

Quantum Electrical Engineering, Inc. (Quantum) is pleased to provide AECOM an electrical design add services fee proposal for the Palm Beach County Department of Airports (DOA) – Overflow Parking Lot Lighting.

- Includes all coordination meetings with AECOM Design Team and DOA.
- Design modifications to the existing electrical distribution systems to support the addition of new parking lot lighting. Includes riser diagrams, electrical calculations, plan layouts, panel schedules and electrical details.
- Provide photometric lighting calculations (point-by-point) in Overflow Parking Lot for conformance with Illuminating Engineering Society (IES) recommendations.
- Includes Addenda revisions and any permitting comment revisions

#### **Exclusions and Assumptions**

- AECOM shall provide all base drawings to Quantum on AutoCAD 2020 or higher.
- Quantum shall provide 1-set of electronic electrical plans, specifications and estimates to AECOM for permit/bid documents.
- AECOM shall provide all printing of plans & specifications.
- Does not include coordination study or arc flash analysis.

**Our proposed total Lump-Sum fee is:**

**\$ 3,395.00**

(See attachment breakdown)

Sincerely,



Amy L. Champagne-Baker, PE  
President

Palm Beach County  
2755 Vista Parkway, Suite I-12  
West Palm Beach, FL 33411  
561.210.9224

[www.QuantumElectricalEngineering.com](http://www.QuantumElectricalEngineering.com)

Broward County  
5571 N. University Drive, Suite 101  
Coral Springs, FL 33067  
954.369.5810

| PALM BEACH COUNTY DEPARTMENT OF AIRPORTS- PBIA OVERFLOW PARKING |               |                   |                   |                 |               |               |           |          |  |                   |
|---|---------------|-------------------|-------------------|-----------------|---------------|---------------|-----------|----------|--|-------------------|
| QUANTUM ELECTRICAL ENGINEERING, INC.                            |               |                   |                   |                 |               |               |           |          |  |                   |
| SCOPE FEE SUMMARY   |               |                   |                   |                 |               |               |           |          |  |                   |
| FEE PROPOSAL ELECTRICAL SERVICES to AE 6/30/2023                |               |                   |                   |                 |               |               |           |          |  |                   |
|   | Rate          | \$170.00          | \$150.00          | \$145.00        | \$85.00       | \$140.00      | \$50.00   |          |  |                   |
|   | Proj. Mgr.    | Prof. Eng         | Proj. Eng         | CADD/Tech       | Field Eng.    | Clerical      | Total     |          |  | TOTAL             |
| PHASE OF WORK   | Hours         | Hours             | Hours             | Hours           | Hours         | Hours         | Hours     | Expenses |  | TASK COST         |
| <b>Design Documents</b>   |               |                   |                   |                 |               |               |           |          |  |                   |
| Site Investigation, Record Drawing Review and Discovery         |               | 1                 | 2                 |                 |               |               | 3         |          |  | \$440.00          |
| Electrical Design Drawings                                      |               | 4                 | 8                 | 4               |               |               | 16        |          |  | \$2,100.00        |
| Specifications & Cost Estimate                                  |               | 2                 |                   |                 |               |               | 2         |          |  | \$300.00          |
| QA/QC & Comment Incorporation                                   |               | 1                 |                   | 2               |               |               | 3         |          |  | \$320.00          |
| Permit Responses and Revisions                                  |               | 1                 |                   | 1               |               |               | 2         |          |  | \$235.00          |
| <b>Subtotal</b>   | <b>0</b>      | <b>9</b>          | <b>10</b>         | <b>7</b>        | <b>0</b>      | <b>0</b>      | <b>26</b> |          |  | <b>\$3,395.00</b> |
|   |               |                   |                   |                 |               |               | 0         |          |  | \$0.00            |
|   |               |                   |                   |                 |               |               | 0         |          |  | \$0.00            |
| <b>Subtotal</b>   | <b>0</b>      | <b>0</b>          | <b>0</b>          | <b>0</b>        | <b>0</b>      | <b>0</b>      | <b>0</b>  |          |  | <b>\$0.00</b>     |
| <b>Grand Total Hours</b>  | <b>0</b>      | <b>9</b>          | <b>10</b>         | <b>7</b>        | <b>0</b>      | <b>0</b>      | <b>26</b> |          |  |                   |
| <b>Grand Total Labor Cost</b>                                   | <b>\$0.00</b> | <b>\$1,350.00</b> | <b>\$1,450.00</b> | <b>\$595.00</b> | <b>\$0.00</b> | <b>\$0.00</b> |           |          |  | <b>\$3,395.00</b> |

## EXHIBIT A-5

# **PALM BEACH DOA GENERAL CONSULTING SERVICES**

## **EXHIBIT A-5**

### **Miscellaneous Planning, Engineering and Construction Services**

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#### **Palm Beach County Park/Lantana Airport (LNA) Task I-23-LNA-A-020: New LNA Rotating Beacon and Tower**

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### **OVERVIEW**

The Palm Beach DOA Department of Airports (DOA) has requested that AECOM Technical Services, Inc. (CONSULTANT) provide Professional Engineering Services associated with Task I-23-LNA-A-020 New LNA Rotating Beacon and Tower Project (Project) at Palm Beach County Park/Lantana Airport (LNA). The project consists of replacing the existing beacon tower with a new beacon tower. The existing beacon tower is in conflict with the development of LNA Phases 3 and 4 Development. The new beacon tower will be located next to the electrical vault. Ricondo is determining the feasibility of locating the new beacon tower in this proposed location.

The CONSULTANT will prepare Construction Documents (CDs) for the design and bidding services of the Project. The project design shall be in accordance with the Federal Aviation Administration (FAA), Florida Department of Transportation (FDOT), and SFWMD requirements. The construction specifications will be based on FAA AC 150/5370-10H, Standards for Specifying Construction of Airports, and applicable FDOT Design Standards. The Construction Safety and Phasing Plans (CSPP) will be prepared in compliance with FAA AC 150/5370-2G Operational Safety on Airports During Construction.

In addition to the overall design and layout of the new beacon tower, the CONSULTANT will provide basic services including construction phasing, survey, utility locations, and geotechnical engineering services. The CONSULTANT will prepare construction documents and support the DOA during the bid and award services. A brief overview of pertinent tasks to be performed by the CONSULTANT for the Project includes:

1. Attend One (1) DOA Design Kick-Off Meeting and prepare meeting minutes;
2. Coordinate One (1) Internal Design Team Kick-Off Meeting;
3. Coordinate Data Collection, Records Research, and Review of As-Built information;
4. Field Coordination Meetings (At the beginning of the survey and throughout geotechnical services);
5. Prepare PowerPoint Presentations, sketches, and agenda for meetings (as applicable);

6. Validate Program Cost Estimate;
7. Facilitate Design Coordination meetings via conference calls and webinars;
8. Develop Construction Safety and Phasing Plans (CSPPs);
9. Prepare 60%, 90% and 100% Contract Documents, General Provisions, Technical Specifications, Drawings, Project Schedule, Engineer's Report, Cost Estimates, Submit Permitting Documents to SFWMD, Engineer's Report, and CSPP Report;
10. Attend Four (4) DOA Submittal Review Meetings. Prepare meeting agenda and meeting minutes (KO Meeting, 60%, 90%, and 100% Contract Documents);
11. Task Management/Task Administration – Coordination with DOA, FAA, DOA Operations, Permitting Agencies (if applicable), sub-consultants, and other stakeholders;
12. Provide Quality Assurance for all deliverables;
13. Prepare and Assemble Final Bid Documents: Project Manual, Technical Specifications and Drawings;
14. Assist DOA in Advertisement and Bidding of Tasks – Issue Addendums, attend Pre-bid conferences, prepare meeting minutes, coordinate a site visit, and answer contractor questions;
15. Evaluate Bids and Prepare Bid Recommendations, Award Letters and Bid Tabulations;
16. Task Management;
17. Task Coordination (FAA, ATCT, DOA Operations, SFWMD, Other Consultants, and other interested project stakeholders); and,
18. This task authorization will not include Construction Administration Services and Resident Project Representative Services.

**PROJECT TEAM**

This Project Team for the Basic Services and Special Services and the respective type of services to be provided by the Team are provided below:

| Firm Name<br>(CONSULTANT / SUBCONTRACTOR)               | Type of Services  |
|---|---|
| AECOM Technical Services, Inc.<br>(CONSULTANT)          | Project Management; Civil and Structural Design           |
| Quantum Electrical Engineering, Inc.<br>(SUBCONSULTANT) | Electrical Design   |
| Brown and Phillips (B&P)<br>(SUBCONSULTANT)             | Topographic Survey / Utility Locates / Utility Clearances |
| Tierra South Florida (TSF)<br>(SUBCONSULTANT)           | Geotechnical Investigations                               |

## **SCOPE OF SERVICES**

Our scope of services will follow two distinct phases: Phases 1 and 2. Phase 1 consists of three (3) subphases: sixty percent (60%) design completion of the Contract Documents (Phase 1A); ninety percent (90%) design completion (Phase 1B); and final design completion (100%) of Bid Documents (Phase 1C). Phase 2 consists of Bidding and Award of Contract requirements.

A brief definition for each of the Phases included in the scope of services is provided below:

PHASE 1A -CONSULTANT will develop the Contract Documents to a predetermined completion milestone (60% of completion). CONSULTANT will develop the Program Costs and prepare Schedule/Phasing Plans.

PHASE 1B -CONSULTANT will develop the Contract Documents to 90% to allow the Project to be reviewed and preliminarily submitted to applicable permitting agencies. CONSULTANT will update Program Costs, Schedule, and Phasing Plans.

PHASE 1C -CONSULTANT will complete the Contract Documents to 100% to allow the Project to be permitted, bid, and constructed. CONSULTANT will prepare the Final Program Cost Estimate, Schedule, and Phasing Plans.

PHASE 2 - CONSULTANT will assist the DOA in obtaining Bids and in the Award of a Construction Contract, as required.

The following paragraphs summarize the CONSULTANT'S Basic Services for Phases 1 and 2:

### **1.0 PHASE 1A – 60% CONTRACT DOCUMENTS**

The CONSULTANT will prepare a presentation/agenda for the Project's Kick Off meeting. All key stakeholders will be invited to this meeting: DOA/Airport Staff, CONSULTANT'S key staff, and Subconsultants. The Kick-Off meeting's discussion items will include stakeholder identifications, project limits, safety and operational impacts, permitting, design services, design standards, schedule, budget, and construction constraints. The CONSULTANT will prepare and distribute the meeting minutes, highlighting outstanding action items and meeting details. Immediately following the Kick-Off Meeting, field investigative services associated with the survey and geotechnical services will begin. All airfield investigative services will be coordinated with DOA Operations before starting work.

The CONSULTANT will prepare the following as a part of Phase 1A:



### **1.1. Documents Data Collection and Records Research**

The Consultant will review existing DOA designs and as-builts, record drawings, and gather information regarding the proposed Project components for use during subsequent design phases. All pertinent record documents associated with the holding apron and adjacent areas will be obtained from the DOA records database.

### **1.2. Field Investigative Services and Design Development**

#### **1.2.1 Site Evaluation**

The AECOM Team will perform two site visits to evaluate the existing conditions and collect data. AECOM will also be on-site throughout the geotechnical investigations. The AECOM Team will assess the existing condition of any other above-ground infrastructure within the project limits.

#### **1.2.2 Topographic Survey and Utility Locates**

B&P will perform the surveying services for this task. The major components of the survey are the development of a topographic survey within the area shown in **Attachment B** of the attached B&P detailed scope and fee. The topographic survey will obtain data, including pavement, utilities, and drainage structures. The points on paved surfaces will be taken at a 25' x 25' grid; the off-pavement data will be collected on a 50' x 50' grid, with all grade breaks or other visible surface anomalies picked up. B&P will also perform utility locates and clearances for the geotechnical data collection. See the attached B&P scope and fee for a more detailed description of the B&P services.

#### **1.2.3 Geotechnical/subsurface investigations**

TSF will perform the geotechnical/subsurface investigations services for this Project. The major components of the geotechnical/subsurface investigations services include the following items:

- Perform One (1) Standard Penetration Test (SPT) boring to a depth of 40 feet to determine the subsurface conditions.

#### **1.2.4 Airfield Electrical**

QEE will perform the electrical design services for this contract.

### **1.3. The 60% Plans will include, but are not limited to:**

1. Cover Sheet (60%).
2. Drawings Index and General Notes (60%).
3. Summary of Quantities (60%).
4. Safety and Phasing Plan (60%).
5. Existing Conditions and Site Demolition Plan (60%).
6. Site Plan (60%)
7. Beacon Tower Details (60%).
8. Electrical General Notes and Legend (60%).

9. Electrical Demolition Site Plan (60%).
10. Airfield Electrical Vault Building Plan (60%).
11. Electrical Schedules, Riser Diagrams, and Schematic Diagrams (60%)
12. Electrical Details (60%)

#### **1.4. Meetings**

The CONSULTANT will attend the following meetings during this Phase:

- a. Design K.O. Meeting;
- b. Team Coordination Meetings;
- c. Regulatory permitting agencies meetings, as applicable; and
- d. One (1) DOA Review Submittal Meeting.

The CONSULTANT will submit PDF copies of all Contract Documents required under this.

Phase 1A for review comments and approval by the DOA.

#### **1.5. Deliverables**

The CONSULTANT will deliver the following major Deliverables (pdf):

- a. K.O. Meeting Minutes;
- b. Topographic Survey;
- c. Geotechnical Report;
- d. Meeting minutes from all applicable meetings of this Phase;
- e. Regulatory permitting agencies' documentation;
- f. 60% Drawings;
- g. 60% Technical Specifications;
- h. 60% Construction Safety and Phasing Plan;
- i. 60% Project Program Cost Estimates; and,
- j. 60% Project Schedule

#### **1.6. Schedule**

The anticipated duration of this phase is 60 calendar days from the kick-off meeting.

## **2.0 PHASE 1B - 90% SUBMITTAL**

Following the 60% Complete Contract Documents approval, the CONSULTANT will develop 90% Complete Contract Documents from the approved 60% Complete Contract Documents. These 90% documents will consist of the information contained in the 60% documents, as well as incorporate any comments provided by DOA, Permit Agencies, or other authorized reviewers, as directed by DOA.

### **2.1 The 90% Plans will include but are not limited to:**

1. Cover Sheet (90%).
2. Drawings Index and General Notes (90%).

3. Summary of Quantities (90%).
4. Safety and Phasing Plan (90%).
5. Existing Conditions and Site Demolition Plan (90%).
6. Site Plan (90%)
7. Beacon Tower Details (90%).
8. Electrical General Notes and Legend (90%).
9. Electrical Demolition Site Plan (90%).
10. Airfield Electrical Vault Building Plan (90%).
11. Electrical Schedules, Riser Diagrams, and Schematic Diagrams (90%)
12. Electrical Details (90%)

## **2.2 Meetings**

The CONSULTANT will attend the following meetings during this Phase:

- a. Team Coordination Meetings, as applicable;
- b. Regulatory permitting agencies meetings, as applicable; and
- c. One (1) DOA Review Submittal Meeting.

The CONSULTANT will submit PDF copies of all Contract Documents required under this Phase 1B for review comments and approval by the DOA.

## **2.3 Deliverables**

- a. Meeting minutes from all applicable meetings of this Phase;
- b. Response to DOA 60% Design review comments;
- c. Regulatory permitting agencies' documentation;
- d. 90% Contract Drawings;
- e. 90% Project Manual - Technical Specifications, Front Ends, and FAA General Provisions;
- f. Construction Safety and Phasing Plan;
- g. 90% Project Cost Budget Estimates; and,
- h. 90% Project Schedule;

## **2.4 Schedule**

The anticipated duration of this phase is 30 calendar days.

## **3 PHASE 1C - 100% SUBMITTAL**

Following the approval of 90% Complete Contract Documents, the CONSULTANT will develop "Final" 100% Complete Contract Documents from the approved 90% Complete Contract Documents. They will consist of the information contained in the 90% documents, as well as incorporate any comments provided by DOA, Permit Agencies, or other authorized reviewers, as directed by DOA.

### **3.1 The 100% Plans will include but are not limited to:**

1. Cover Sheet (100%).
2. Drawings Index and General Notes (100%).

3. Summary of Quantities (100%).
4. Safety and Phasing Plan (100%).
5. Existing Conditions and Site Demolition Plan (100%).
6. Site Plan (100%)
7. Beacon Tower Details (100%).
8. Electrical General Notes and Legend (100%).
9. Electrical Demolition Site Plan (100%).
10. Airfield Electrical Vault Building Plan (100%).
11. Electrical Schedules, Riser Diagrams, and Schematic Diagrams (100%)
12. Electrical Details (100%)

In providing opinions of probable construction costs, the DOA understands that the CONSULTANT has no control over costs or the price of labor, equipment, or materials or over the Contractor's method of pricing and that the opinions of probable construction costs provided herein shall be based on the CONSULTANT'S qualifications and experience. The CONSULTANT makes no warranty, expressed or implied, regarding the accuracy of such opinions compared to bid or actual costs.

### **3.2 Meetings**

The CONSULTANT will attend the following meetings during this Phase:

- a. Team Coordination Meetings, as applicable;
- b. Regulatory permitting agencies meetings, as applicable; and
- c. One (1) DOA Review Submittal Meeting.

### **3.3 Deliverables**

The CONSULTANT will deliver the following major Deliverables for this Phase:

- a. Meeting minutes from all applicable meetings of this Phase;
- b. Response to DOA 90% Design review comments;
- c. Regulatory permitting agencies' documentation;
- d. 100% Contract Drawings;
- e. 100% Project Manual - Technical Specifications, Front Ends, and FAA General Provisions;
- f. Construction Safety and Phasing Plan;
- g. 100% Project Cost Budget Estimates; and,
- h. 100% Project Schedule;

### **3.4 Schedule**

The anticipated duration of this phase is 30 calendar days.

## **4.0 PHASE 4 - BIDDING AND AWARD OF CONTRACT**

### **Bid & Award Services**

After authorization to proceed with the Bidding Phase, CONSULTANT will assist the DOA in advertising for and obtaining bids via the County's Vendor Self-Service Website. CONSULTANT will support the DOA in conducting a pre-bid conference to share pertinent bidding and technical information and requirements with prospective bidders; issue addenda as appropriate to interpret and clarify or expand the Bidding Documents during the

Bidding phase; and attend the bid opening, prepare bid tabulation sheets and assist DOA in evaluating bids or proposals and in assembling and awarding contracts for construction, materials, equipment, and services.

**5.1 Deliverables**

- a. PDF copy of the Bid Documents
- b. Pre-Bid Conference Agenda and Meeting Minutes
- c. Addenda as required during the bid process
- , e. Bid Tabulation
- f. Bid Recommendation Letter

**5.1 Schedule**

The anticipated duration of this phase is 30 calendar days.

**Assumptions:**

- 1. DOA will provide all record documents applicable to this task.
- 2. DOA will pay for all permitting costs.
- 3. Construction Administration and Resident Project Representative Services are not included in this scope of services. The CONSULTANT will perform Construction Administration and Resident Project Representative Services via a separate task order if requested.
- 4. In providing opinions of probable construction costs, the DOA understands that the CONSULTANT has no control over costs or the price of labor, equipment, or materials or over the Contractor's method of pricing and that the opinions of probable construction costs provided herein shall be based on the CONSULTANT'S qualifications and experience. The CONSULTANT makes no warranty, expressed or implied, of the accuracy of such opinions compared to bid or actual costs.
- 5. CONSULTANT shall not be responsible for the means, methods, techniques, sequences, procedures of construction, or selection of materials selected by the Contractor or the safety precautions and programs incident to the work of the Contractor. The CONSULTANT shall not guarantee the Contractor's performance nor be responsible for the Contractor's acts, errors, omissions, or failure to perform the construction work in accordance with the Contract Documents.

Table B

Labor/Fee Estimate Summary - CONSULTANT (AECOM Technical Services, Inc.) - Task I-23-LNA-A-020 Replace LNA Rotating Beacon and Tower

|                      |        |        |        |        |        |        |        |        |       |
|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| <b>Billing Rate:</b> | \$ 340 | \$ 236 | \$ 270 | \$ 255 | \$ 201 | \$ 215 | \$ 128 | \$ 129 | \$ 96 |
|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|

| Task Description   | Labor Estimate (Hours) |             |                        |                |                               |                                   |                  |           |          |          | Fee Estimate (\$) |                 |                |                 |
|--|------------------------|-------------|------------------------|----------------|-------------------------------|-----------------------------------|------------------|-----------|----------|----------|-------------------|-----------------|----------------|-----------------|
|  | Principal              | QC Reviewer | Senior Project Manager | Senior Planner | Design / Construction Manager | Project Manager / Senior Engineer | Project Engineer | Planner   | Clerical | Total    | Labor             | Expenses        | Total          |                 |
| <b>Task I-23-LNA-A-020 Replace LNA Rotating Beacon and Tower</b> |                        |             |                        |                |                               |                                   |                  |           |          |          |                   |                 |                |                 |
| <b>Phase 1A (60% CONSTRUCTION DOCUMENTS)</b>                     | <b>Total</b>           | <b>0</b>    | <b>6</b>               | <b>0</b>       | <b>0</b>                      | <b>0</b>                          | <b>28</b>        | <b>39</b> | <b>0</b> | <b>8</b> | <b>81</b>         | <b>\$13,196</b> | <b>\$1,000</b> | <b>\$14,196</b> |
| Attend One (1) DOA Kick-Off Meeting, Agenda & Minutes            |                        |             |                        |                |                               |                                   | 1                | 1         |          |          | 2                 | \$ 343          | \$ -           | \$ 343          |
| Internal Design Team Kick-Off Meeting                            |                        |             |                        |                |                               |                                   | 1                | 1         |          |          | 2                 | \$ 343          | \$ -           | \$ 343          |
| Documents Data Collection and Records Research                   |                        |             |                        |                |                               |                                   | 1                | 1         |          |          | 2                 | \$ 128          | \$ -           | \$ 128          |
| Field Coordination for Survey and Geotechnical                   |                        |             |                        |                |                               |                                   | 1                | 2         |          |          | 3                 | \$ 471          | \$ 500         | \$ 971          |
| Site Investigations (AECOM)                                      |                        |             |                        |                |                               |                                   | 1                | 4         |          |          | 5                 | \$ 727          | \$ 500         | \$ 1,227        |
| Cover Sheet (60%).   |                        |             |                        |                |                               |                                   | 1                | 1         |          |          | 2                 | \$ 343          | \$ -           | \$ 343          |
| Drawings Index (60%).  |                        |             |                        |                |                               |                                   | 1                | 1         |          |          | 2                 | \$ 343          | \$ -           | \$ 343          |
| Summary of Quantities/General Notes (60%).                       |                        |             |                        |                |                               |                                   | 1                | 1         |          |          | 2                 | \$ 343          | \$ -           | \$ 343          |
| Safety and Phasing Plan (60%).                                   |                        |             |                        |                |                               |                                   | 3                | 3         |          |          | 6                 | \$ 1,029        | \$ -           | \$ 1,029        |
| Existing Conditions and Site Demolition Plan (60%).              |                        |             |                        |                |                               |                                   | 1                | 3         |          |          | 4                 | \$ 599          | \$ -           | \$ 599          |
| Site Plan (60%).   |                        |             |                        |                |                               |                                   | 2                | 4         |          |          | 6                 | \$ 942          | \$ -           | \$ 942          |
| Beacon Tower Details (60%).                                      |                        |             |                        |                |                               |                                   | 3                | 3         |          |          | 6                 | \$ 1,029        | \$ -           | \$ 1,029        |
| 60% Technical Specifications                                     |                        |             |                        |                |                               |                                   | 2                | 2         |          |          | 4                 | \$ 686          | \$ -           | \$ 686          |
| 60% Construction Safety and Phasing Plan                         |                        |             |                        |                |                               |                                   | 2                | 3         |          |          | 5                 | \$ 814          | \$ -           | \$ 814          |
| 60% Project Construction Cost Estimate                           |                        |             |                        |                |                               |                                   | 1                | 3         |          |          | 4                 | \$ 599          | \$ -           | \$ 599          |
| 60% Project Schedule   |                        |             |                        |                |                               |                                   | 1                | 2         |          |          | 3                 | \$ 471          | \$ -           | \$ 471          |
| ISO 9001 - QA/QC Review  |                        | 6           |                        |                |                               |                                   | 2                | 2         |          |          | 10                | \$ 2,102        | \$ -           | \$ 2,102        |
| Team Coordination Meetings                                       |                        |             |                        |                |                               |                                   | 1                | 1         |          |          | 2                 | \$ 343          | \$ -           | \$ 343          |
| One (1) DOA Review Submittal Meeting                             |                        |             |                        |                |                               |                                   | 1                | 1         |          |          | 2                 | \$ 343          | \$ -           | \$ 343          |
| Stakeholder Coordination   |                        |             |                        |                |                               |                                   | 1                |           |          |          | 1                 | \$ 215          | \$ -           | \$ 215          |
| Task Management and Coordination                                 |                        |             |                        |                |                               |                                   | 1                |           |          | 8        | 9                 | \$ 983          | \$ -           | \$ 983          |
| <b>Phase 1B (90% CONSTRUCTION DOCUMENTS)</b>                     | <b>Total</b>           | <b>0</b>    | <b>6</b>               | <b>0</b>       | <b>0</b>                      | <b>0</b>                          | <b>28</b>        | <b>24</b> | <b>0</b> | <b>0</b> | <b>58</b>         | <b>\$10,508</b> | <b>\$500</b>   | <b>\$11,008</b> |
| Cover Sheet (90%).   |                        |             |                        |                |                               |                                   |                  | 1         |          |          | 1                 | \$ 128          | \$ -           | \$ 128          |
| Drawings Index (90%).  |                        |             |                        |                |                               |                                   |                  | 1         |          |          | 1                 | \$ 128          | \$ -           | \$ 128          |
| Summary of Quantities/General Notes (90%).                       |                        |             |                        |                |                               |                                   |                  | 1         |          |          | 1                 | \$ 128          | \$ -           | \$ 128          |
| Safety and Phasing Plan (90%).                                   |                        |             |                        |                |                               |                                   | 1                | 1         |          |          | 2                 | \$ 343          | \$ -           | \$ 343          |
| Existing Conditions and Site Demolition Plan (90%).              |                        |             |                        |                |                               |                                   | 1                | 1         |          |          | 2                 | \$ 343          | \$ -           | \$ 343          |
| Site Plan (90%).   |                        |             |                        |                |                               |                                   | 2                | 2         |          |          | 4                 | \$ 686          | \$ -           | \$ 686          |
| Beacon Tower Details (90%).                                      |                        |             |                        |                |                               |                                   | 2                | 2         |          |          | 4                 | \$ 686          | \$ -           | \$ 686          |
| 90% Technical Specifications                                     |                        |             |                        |                |                               |                                   | 2                | 2         |          |          | 4                 | \$ 686          | \$ -           | \$ 686          |
| 90% Front End Specifications & FAA General Provisions            |                        |             |                        |                |                               |                                   | 2                | 2         |          |          | 4                 | \$ 686          | \$ -           | \$ 686          |
| 90% Construction Safety and Phasing Plan                         |                        |             |                        |                |                               |                                   | 2                | 2         |          |          | 4                 | \$ 686          | \$ -           | \$ 686          |
| 90% Project Construction Cost Estimate                           |                        |             |                        |                |                               |                                   | 2                | 2         |          |          | 4                 | \$ 686          | \$ -           | \$ 686          |
| 90% Project Schedule   |                        |             |                        |                |                               |                                   | 2                | 1         |          |          | 3                 | \$ 558          | \$ -           | \$ 558          |
| ISO 9001 - QA/QC Review  |                        | 6           |                        |                |                               |                                   | 2                | 2         |          |          | 10                | \$ 2,102        | \$ -           | \$ 2,102        |
| Team Coordination Meetings                                       |                        |             |                        |                |                               |                                   | 2                | 1         |          |          | 3                 | \$ 558          | \$ -           | \$ 558          |
| Perform One (1) Project Site Visit                               |                        |             |                        |                |                               |                                   | 2                | 2         |          |          | 4                 | \$ 686          | \$ 500         | \$ 1,186        |
| One (1) DOA Review Submittal Meeting                             |                        |             |                        |                |                               |                                   | 2                | 1         |          |          | 3                 | \$ 558          | \$ -           | \$ 558          |
| Stakeholder Coordination   |                        |             |                        |                |                               |                                   | 2                |           |          |          | 2                 | \$ 430          | \$ -           | \$ 430          |
| Task Management and Coordination                                 |                        |             |                        |                |                               |                                   | 2                |           |          |          | 2                 | \$ 430          | \$ -           | \$ 430          |

Table B

Labor/Fee Estimate Summary - CONSULTANT (AECOM Technical Services, Inc.) - Task I-23-LNA-A-020 Replace LNA Rotating Beacon and Tower

|               |        |        |        |        |        |        |        |        |       |
|---------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| Billing Rate: | \$ 340 | \$ 236 | \$ 270 | \$ 255 | \$ 201 | \$ 215 | \$ 128 | \$ 129 | \$ 96 |
|---------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|

| Task Description   | Labor Estimate (Hours) |                  |                        |                |                               |                                   |                  |            |          |           | Fee Estimate (\$) |                 |                |                 |
|--|------------------------|------------------|------------------------|----------------|-------------------------------|-----------------------------------|------------------|------------|----------|-----------|-------------------|-----------------|----------------|-----------------|
|  | Principal              | QC Reviewer      | Senior Project Manager | Senior Planner | Design / Construction Manager | Project Manager / Senior Engineer | Project Engineer | Planner    | Clerical | Total     | Labor             | Expenses        | Total          |                 |
| <b>Task I-23-LNA-A-020 Replace LNA Rotating Beacon and Tower</b> |                        |                  |                        |                |                               |                                   |                  |            |          |           |                   |                 |                |                 |
| <b>Phase 1C (100% CONSTRUCTION DOCUMENTS)</b>                    | <b>Total</b>           | <b>0</b>         | <b>4</b>               | <b>0</b>       | <b>0</b>                      | <b>0</b>                          | <b>12</b>        | <b>15</b>  | <b>0</b> | <b>0</b>  | <b>31</b>         | <b>\$5,444</b>  | <b>\$0</b>     | <b>\$5,444</b>  |
| Cover Sheet (100%)   |                        |                  |                        |                |                               |                                   |                  | 1          |          |           | 1                 | \$ 128          | \$ -           | \$ 128          |
| Drawings Index (100%)  |                        |                  |                        |                |                               |                                   |                  | 1          |          |           | 1                 | \$ 128          | \$ -           | \$ 128          |
| Summary of Quantities/General Notes (100%)                       |                        |                  |                        |                |                               |                                   |                  | 1          |          |           | 1                 | \$ 128          | \$ -           | \$ 128          |
| Safety and Phasing Plan (100%)                                   |                        |                  |                        |                |                               |                                   | 1                | 1          |          |           | 2                 | \$ 343          | \$ -           | \$ 343          |
| Existing Conditions and Site Demolition Plan (100%)              |                        |                  |                        |                |                               |                                   | 1                | 1          |          |           | 2                 | \$ 343          | \$ -           | \$ 343          |
| Site Plan (100%)   |                        |                  |                        |                |                               |                                   | 1                | 1          |          |           | 2                 | \$ 343          | \$ -           | \$ 343          |
| Beacon Tower Details (100%)                                      |                        |                  |                        |                |                               |                                   | 1                | 1          |          |           | 2                 | \$ 343          | \$ -           | \$ 343          |
| 100% Technical Specifications                                    |                        |                  |                        |                |                               |                                   | 1                | 1          |          |           | 2                 | \$ 343          | \$ -           | \$ 343          |
| 100% Front End Specifications & FAA General Provisions           |                        |                  |                        |                |                               |                                   | 1                | 1          |          |           | 2                 | \$ 343          | \$ -           | \$ 343          |
| 100% Construction Safety and Phasing Plan                        |                        |                  |                        |                |                               |                                   | 1                | 1          |          |           | 2                 | \$ 343          | \$ -           | \$ 343          |
| 100% Project Construction Cost Estimate                          |                        |                  |                        |                |                               |                                   | 1                | 1          |          |           | 2                 | \$ 343          | \$ -           | \$ 343          |
| 100% Project Schedule  |                        |                  |                        |                |                               |                                   | 1                | 1          |          |           | 2                 | \$ 343          | \$ -           | \$ 343          |
| ISO 9001 - QA/QC Review  |                        |                  | 4                      |                |                               |                                   | 1                | 2          |          |           | 7                 | \$ 1,415        | \$ -           | \$ 1,415        |
| Team Coordination Meetings                                       |                        |                  |                        |                |                               |                                   | 1                |            |          |           | 1                 | \$ 215          | \$ -           | \$ 215          |
| One (1) DOA Review Submittal Meeting                             |                        |                  |                        |                |                               |                                   | 1                | 1          |          |           | 2                 | \$ 343          | \$ -           | \$ 343          |
| Task Management and Coordination                                 |                        |                  |                        |                |                               |                                   |                  |            |          |           | 0                 | \$ -            | \$ -           | \$ -            |
| <b>Phase 2 BID AND AWARD SERVICES</b>                            | <b>Total</b>           | <b>0</b>         | <b>2</b>               | <b>0</b>       | <b>0</b>                      | <b>0</b>                          | <b>19</b>        | <b>28</b>  | <b>0</b> | <b>6</b>  | <b>55</b>         | <b>\$8,717</b>  | <b>\$300</b>   | <b>\$9,017</b>  |
| Bid Drawings   |                        |                  |                        |                |                               |                                   | 1                | 2          |          |           | 3                 | \$ 471          | \$ -           | \$ 471          |
| Bid Technical Specifications                                     |                        |                  |                        |                |                               |                                   | 1                | 2          |          |           | 3                 | \$ 471          | \$ -           | \$ 471          |
| Bid Front End Specifications & FAA General Provisions            |                        |                  |                        |                |                               |                                   | 1                | 4          |          |           | 5                 | \$ 727          | \$ -           | \$ 727          |
| Bid Construction Phasing and Safety Plan Report                  |                        |                  |                        |                |                               |                                   | 1                | 1          |          |           | 2                 | \$ 343          | \$ -           | \$ 343          |
| Bid Project Construction Cost Estimate                           |                        |                  |                        |                |                               |                                   | 1                | 2          |          |           | 3                 | \$ 471          | \$ -           | \$ 471          |
| ISO 9001 - QA/QC Review  |                        |                  | 2                      |                |                               |                                   | 1                | 2          |          |           | 5                 | \$ 943          | \$ -           | \$ 943          |
| Task Management and Coordination                                 |                        |                  |                        |                |                               |                                   | 1                | 1          |          | 6         | 8                 | \$ 919          | \$ -           | \$ 919          |
| Assist DOA in Advertisement and Processing of Bid Documents      |                        |                  |                        |                |                               |                                   | 1                | 2          |          |           | 3                 | \$ 471          | \$ 300         | \$ 771          |
| Prepare and attend Pre-Bid Meeting, Prepare Minutes              |                        |                  |                        |                |                               |                                   | 1                | 1          |          |           | 2                 | \$ 343          | \$ -           | \$ 343          |
| Prepare and Maintain Bid Holders Log                             |                        |                  |                        |                |                               |                                   | 1                | 1          |          |           | 2                 | \$ 343          | \$ -           | \$ 343          |
| Respond to Contractor's Request for Information (RFI's)          |                        |                  |                        |                |                               |                                   | 4                | 4          |          |           | 8                 | \$ 1,372        | \$ -           | \$ 1,372        |
| Prepare and Issue Addenda  |                        |                  |                        |                |                               |                                   | 2                | 1          |          |           | 3                 | \$ 558          | \$ -           | \$ 558          |
| Attend Bid Opening Meeting                                       |                        |                  |                        |                |                               |                                   | 1                | 1          |          |           | 2                 | \$ 343          | \$ -           | \$ 343          |
| Prepare, Review and Evaluate Bid Tabulation and Bid Forms        |                        |                  |                        |                |                               |                                   | 1                | 2          |          |           | 3                 | \$ 471          | \$ -           | \$ 471          |
| Prepare and Submit Recommendation of Bid Award Letter to DOA     |                        |                  |                        |                |                               |                                   | 1                | 2          |          |           | 3                 | \$ 471          | \$ -           | \$ 471          |
| <b>Total Fee - AECOM Technical Services, Inc.</b>                |                        | <b>0</b>         | <b>18</b>              | <b>0</b>       | <b>0</b>                      | <b>0</b>                          | <b>87</b>        | <b>106</b> | <b>0</b> | <b>14</b> | <b>225</b>        | <b>\$37,865</b> | <b>\$1,800</b> | <b>\$39,665</b> |
| <b>Subconsultant Fees</b>  |                        |                  |                        |                |                               |                                   |                  |            |          |           |                   |                 |                |                 |
| 1 Total Subconsultant Fee - Tierra (T&M)                         | \$                     | 9,800.18         |                        |                |                               |                                   |                  |            |          |           |                   |                 |                |                 |
| 2 Total Subconsultant Fee - Quantum Electrical Engineering (LS)  | \$                     | 6,210.00         |                        |                |                               |                                   |                  |            |          |           |                   |                 |                |                 |
| 3 Total Subconsultant Fee - Brown & Phillips (T&M)               | \$                     | 3,820.00         |                        |                |                               |                                   |                  |            |          |           |                   |                 |                |                 |
| <b>Total Fee - Subconsultants</b>                                | <b>\$</b>              | <b>19,830.18</b> |                        |                |                               |                                   |                  |            |          |           |                   |                 |                |                 |
| <b>GRAND TOTAL FEE - BASIC ENGINEERING SERVICES</b>              | <b>\$</b>              | <b>59,495.18</b> |                        |                |                               |                                   |                  |            |          |           |                   |                 |                |                 |

|              |                     |
|--------------|---------------------|
| Lump Sum     | \$ 44,075.00        |
| T&M          | \$ 13,620.18        |
| Expenses     | \$ 1,800.00         |
| <b>TOTAL</b> | <b>\$ 59,495.18</b> |

Prepared by: AECOM Technical Services, Inc.

December 6, 2023

Mr. Andrew Kacer, P.E.  
AECOM  
7650 West Courtney Campbell Causeway  
Tampa, FL 33607

**Re: Lantana Airport (LNA) New Beacon - Topographic Survey**

Dear Andy:

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. The scope of services is as follows:

#### **SCOPE OF SERVICES**

##### **I. HORIZONTAL PROJECT NETWORK CONTROL**

A traverse will be run through the site, and all found monumentation will be tied in. The survey will be oriented to Palm Beach County International Airport horizontal control (NAD 83/11 Adjustment). We will obtain the sectional and geodetic control information from the Palm Beach County Survey Department.

##### **II. VERTICAL PROJECT NETWORK CONTROL**

A level run will be performed onsite using the existing Palm Beach County International Airport benchmarks (NAVD 1988). At least two benchmarks will be set onsite.

##### **III. TOPOGRAPHIC SURVEY**

A complete topographic survey will be done at the site for the area hatched in red on Attachment 'B', tying in all above ground features. The survey will include the following from your email dated December 4, 2023:

- topo of the area shown in red on Attachment 'B'
- the elevation of the top of the foundation and the top of the beacon near the entrance of LNA.

##### **IV. UTILITY TARGETING SERVICES**

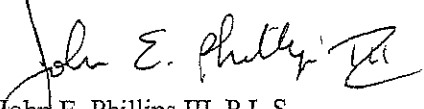
We will scan the red hatched area on Attachment 'B' and mark the underground utilities that service the site. We will then locate the designates and add them to the survey.



**V. CLOSURE**

A drawing will be produced which will show all the features located. We propose to provide AECOM with hard copies, a digitally signed PDF file, and an AutoCAD file in the version requested. We will perform the scope of services for **an hourly, not to exceed fee of \$3,820.00** (\$2,820.00 for the survey and \$1,000.00 for utility targeting), see Attachment 'A' for an hourly estimate. 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.

**Brown & Phillips, Inc.**

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

Attachment

JEP/mb

This Proposal accepted this \_\_\_\_ day of \_\_\_\_\_, 2023

By: \_\_\_\_\_  
**AECOM**

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_



**BROWN & PHILLIPS, Inc.**  
PROFESSIONAL SURVEYING SERVICES

ATTACHMENT 'A'

Lantana Airport (LNA) New Beacon

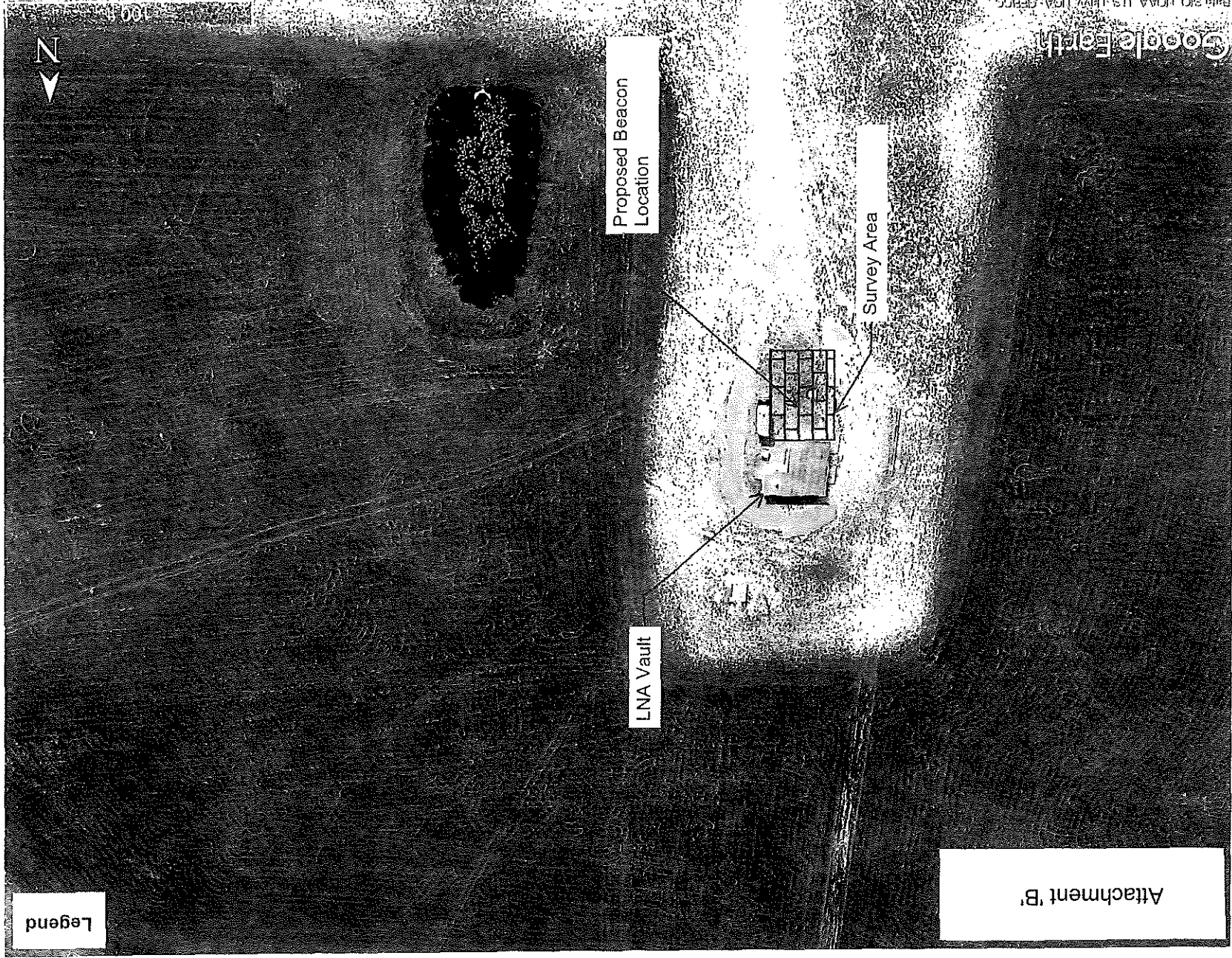
Type of Survey: Topographic

Date: December 6, 2023

| TASK  | SURVEY CREW | CADD TECH | SURVEY TECH | PLS      | COMMENTS   |
|---|-------------|-----------|-------------|----------|--|
| Meetings and Coordination                       |             |           |             | 1        |  |
| Horizontal and Vertical Project Network Control | 3           |           | 1           |          | Establish control and set benchmarks                                 |
| Tie In Improvements and Cross Sections          | 5           |           | 1           |          | Locate above ground features, 25' cross sections and spot elevations |
| Locate Geotech boring                           | 2           |           |             |          | Locate boring  |
| Topographic Survey                              |             | 6         | 2           | 1        | Prepare topographic survey   |
|   |             |           |             |          |  |
| Total Hours:                                    | 10          | 6         | 4           | 2        |  |
| Rate/Hour                                       | \$156.00    | \$96.00   | \$96.00     | \$150.00 |  |
| Subtotal:                                       | \$1,560.00  | \$576.00  | \$384.00    | \$300.00 |  |
| <b>Total Labor Cost:</b>                        |             |           |             |          | <b>\$2,820.00</b>  |

| <u>Optional S.U.E. Services</u>  | <u>quantity</u> | <u>unit</u> | <u>cost/unit</u> | <u>total</u> |                         |
|----------------------------------|-----------------|-------------|------------------|--------------|-------------------------|
| Utility Targeting                | 0.5             | day         | \$2,000.00       | \$1,000.00   | (clear Geotech borings) |
| Other                            |                 | each        | \$0.00           | \$0.00       |                         |
| <b>Total Other Direct Costs:</b> |                 |             |                  |              | <b>\$1,000.00</b>       |
| <b>TOTAL PRICE</b>               |                 |             |                  |              | <b>\$3,820.00</b>       |

Legend



Attachment 'B'

# QUANTUM

Electrical Engineering, Inc.

December 2, 2023  
Revised 12/12/23

AECOM Technical Services, Inc.  
Mr. Andy Kacer P.E.  
Southeast Aviation Manager  
7650 West Courtney Campbell Causeway  
Tampa, FL 33607

Subject: Electrical Services Fee Proposal for the Palm Beach County Department of Airports (DOA) – New LNA Lantana Airport Beacon.

Dear Andy:

Quantum Electrical Engineering, Inc. (QUANTUM) is pleased to provide AECOM an electrical services fee proposal for a new LNA Airport Beacon project.

It is anticipated that services would include, but not be limited to the following tasks:

- Includes up to (2) design coordination meetings with the DOA and AECOM Team.
- Includes record drawing reviews, on-site electrical verifications once final beacon location is sited.
- Includes all electrical calculations. The design shall be per Airport requirements, FAA, NEC and County codes & standards criteria.
- Includes demolition plans of existing beacon electrical systems.
- Includes design of electrical service from the existing Airfield electrical vault.
- Includes airfield electrical plans reflecting all new and existing conduit systems, beacon wiring details and installation details for all electrical & lighting equipment installations.

#### Exclusions and Assumptions

- AECOM shall provide all base drawings to QUANTUM on AutoCAD 2023 or higher.
- QUANTUM shall provide 1-set of electronic electrical plans & specifications to AECOM for 60%, 90%, 100% reviews, permit documents and bid documents.
- AECOM shall provide all printing of Plans & Specifications for reviews, bid phase, permits and construction phases.
- Does not include any kind of structural pole, foundation or windload calculations.
- Does not include FAA 7460 Analysis or beacon siting.
- Does not include construction services.
- Includes Bid and Award Services.

Palm Beach County  
2755 Vista Parkway, Suite I-12  
West Palm Beach, FL 33411  
561.210.9224

[www.QuantumElectricalEngineering.com](http://www.QuantumElectricalEngineering.com)

Broward County  
5571 N. University Drive, Suite 101  
Coral Springs, FL 33067  
954.369.5810

|   |                   |
|---|-------------------|
| Our proposed Lump-Sum fee for design:         | \$5,375.00        |
| Our proposed Lump-Sum fee for Bid & Award is: | <u>\$ 835.00</u>  |
| <b>Our proposed total Lump-Sum fee is:</b>    | <b>\$6,210.00</b> |

(See attachment breakdown)

Sincerely,



Amy L. Champagne-Baker, PE  
President

Palm Beach County  
2755 Vista Parkway, Suite I-9  
West Palm Beach, FL 33411  
561.210.9224

[www.QuantumElectricalEngineering.com](http://www.QuantumElectricalEngineering.com)

Broward County  
5571 N. University Drive, Suite 101  
Coral Springs, FL 33067  
954.369.5810

**PALM BEACH COUNTY DEPARTMENT OF AIRPORTS- LNA Beacon Replacement**  
**QUANTUM ELECTRICAL ENGINEERING, INC.**  
**SCOPE FEE SUMMARY**  
**FEE PROPOSAL ELECTRICAL DESIGN to AE 12/2/2023**

| Rate                                    | \$170.00      | \$150.00          | \$145.00          | \$85.00           | \$140.00      | \$50.00         |           |          |                   |
|---|---------------|-------------------|-------------------|-------------------|---------------|-----------------|-----------|----------|-------------------|
|   | Proj. Mgr.    | Prof. Eng         | Proj. Eng         | CADD/Tech         | Field Eng.    | Clerical        | Total     |          | TOTAL             |
| PHASE OF WORK                           | Hours         | Hours             | Hours             | Hours             | Hours         | Hours           | Hours     | Expenses | TASK COST         |
| <b>Task 1 Design Documents</b>          |               |                   |                   |                   |               |                 |           |          | <b>\$5,375.00</b> |
| <b>90% Design Documents</b>             |               |                   |                   |                   |               |                 |           |          |                   |
| Design Review Mtgs DOA,AE               |               | 1                 |                   |                   |               |                 | 1         |          | \$150.00          |
| On site verifications\Discovery Phase   |               | 2                 |                   |                   |               |                 | 2         |          | \$300.00          |
| Electrical Design Drawings              |               | 2                 | 4                 | 8                 |               |                 | 14        |          | \$1,560.00        |
| Specifications & Cost Estimate          |               |                   | 2                 |                   |               | 4               | 6         |          | \$490.00          |
| QA/QC & Comment Incorporation           |               |                   | 2                 | 2                 |               | 1               | 5         |          | \$510.00          |
| <b>Subtotal</b>                         | <b>0</b>      | <b>5</b>          | <b>8</b>          | <b>10</b>         | <b>0</b>      | <b>5</b>        | <b>28</b> |          | <b>\$3,010.00</b> |
| <b>100%/Permit Documents</b>            |               |                   |                   |                   |               |                 |           |          |                   |
| Design Review Mtgs DOA,AE               |               | 1                 |                   |                   |               |                 | 1         |          | \$150.00          |
| Electrical Design Drawings              |               | 2                 | 2                 | 2                 |               |                 | 6         |          | \$760.00          |
| Specifications & Cost Estimate          |               | 1                 |                   |                   |               | 1               | 2         |          | \$200.00          |
| QA/QC & Comment Incorporation           |               | 1                 |                   | 1                 |               | 1               | 3         |          | \$285.00          |
| <b>Subtotal</b>                         | <b>0</b>      | <b>5</b>          | <b>2</b>          | <b>3</b>          | <b>0</b>      | <b>2</b>        | <b>12</b> |          | <b>\$1,395.00</b> |
| <b>Bid Documents</b>                    |               |                   |                   |                   |               |                 |           |          |                   |
| Design Review Mtgs DOA,AE               |               | 1                 |                   |                   |               |                 | 1         |          | \$150.00          |
| Electrical Design Drawings              |               | 2                 |                   | 1                 |               |                 | 3         |          | \$385.00          |
| Specifications & Cost Estimate          |               | 1                 |                   |                   |               | 1               | 2         |          | \$200.00          |
| Permitting Comment Revisions            |               | 1                 |                   | 1                 |               |                 | 2         |          | \$235.00          |
| <b>Subtotal</b>                         | <b>0</b>      | <b>5</b>          | <b>0</b>          | <b>2</b>          | <b>0</b>      | <b>1</b>        | <b>8</b>  |          | <b>\$970.00</b>   |
| <b>Task 2: Bid &amp; Award Services</b> |               |                   |                   |                   |               |                 |           |          |                   |
| Pre-Bid Meeting                         |               | 2                 |                   |                   |               |                 | 2         |          | \$300.00          |
| Review of Bid Results & Recommendation  |               | 1                 |                   |                   |               |                 | 1         |          | \$150.00          |
| RFI Responses                           |               | 2                 |                   | 1                 |               |                 | 3         |          | \$385.00          |
| <b>Subtotal</b>                         | <b>0</b>      | <b>5</b>          | <b>0</b>          | <b>1</b>          | <b>0</b>      | <b>0</b>        | <b>6</b>  |          | <b>\$835.00</b>   |
| <b>Grand Total Hours</b>                | <b>0</b>      | <b>20</b>         | <b>10</b>         | <b>16</b>         | <b>0</b>      | <b>8</b>        | <b>54</b> |          | <b>\$6,210.00</b> |
| <b>Grand Total Labor Cost</b>           | <b>\$0.00</b> | <b>\$3,000.00</b> | <b>\$1,450.00</b> | <b>\$1,360.00</b> | <b>\$0.00</b> | <b>\$400.00</b> |           |          |                   |



December 6, 2023

AECOM Technical Services, Inc.  
7650 West Courtney Campbell Causeway  
Tampa, FL 33607

Attn: Alejandra Schmidt, P.E.  
Email: [Alejandra.Schmidt@AECOM.com](mailto:Alejandra.Schmidt@AECOM.com)

**RE: Proposal for Geotechnical Services  
LNA Beacon Tower  
Lake Worth, Florida  
TSFGeo Proposal No. 2312-790**

Dear Alejandra:

As requested, **Tierra South Florida (TSFGeo)** is pleased to submit this proposal for the above-referenced project. The proposal is based on information provided by AECOM on December 5, 2023. Based on our understanding of the project, the proposed construction will consist of a new beacon tower at Lantana Airport in Lake Worth, Florida. This proposal includes an outline of our proposed scope of work, an estimate of the total fees, and our anticipated schedule for completion of the work.

**PROPOSED SCOPE OF WORK**

As requested, the following field testing will be performed:

| <b>Table 1 – Proposed Field Testing</b> |  |
|---|--|
| <b>Location</b>                         | <b>Proposed Services</b>   |
| Structures                              | - One (1) Standard Penetration Test (SPT) boring to a depth of 40 feet |

Prior to drilling at the project site, TSFGeo will notify the local utility companies and request that underground utilities be marked (Sunshine State One Call). **Our experience, however, is that the utility companies will not mark privately owned or airside utilities. Our proposal assumes**

**that airside/private utility lines will be located in the field by others prior to mobilization of the drill rig. TSFGeo can recommend a utility line locating service upon request.**

**It is our understanding that AECOM personnel or others will be present on site to escort TSFGeo to the test locations, and the test location will be marked by AECOM.**

Upon completion of the field exploration some laboratory testing and visual classifications will be performed on selected samples.

A report will be issued that contains the exploration data, a discussion of the site and subsurface conditions, foundation recommendations, and a discussion of some construction considerations.

### **ESTIMATED FEES**

It is proposed that the fee for the performance of the services outlined above is determined on a unit price basis in accordance with the attached Fee Schedule and that the services be performed pursuant to TSFGeo's General Conditions enclosed herewith and incorporated into this proposal. On the basis of the proposed quantities, the estimated total fee is:

**The above estimate assumes that the site is open and accessible to our truck-mounted drill rig.** Our estimate covers the work needed to present our findings in a formal report. Not included are reviews of foundation drawings, preparation of construction specifications, special conferences and any other work requested after submittal of our report.

Boring, sampling, and testing requirements are functions of the subsurface conditions encountered. Therefore, the estimated fee previously indicated is approximate, and compensation for the exploration will be based on the actual work and tests performed. We will endeavor to keep the exploration cost at a minimum consistent with good engineering practice.

### **SCHEDULE AND AUTHORIZATION**


TSFGeo will proceed with the work after receipt of a signed copy of this proposal. With our present schedule, we can commence work within a few days of project approval (weather permitting and permit approval) and after utilities have been cleared. The fieldwork is expected to take 1 day to complete. The test results can be submitted about 4 weeks after completion of the field exploration. Verbal preliminary recommendations can be made to appropriate parties prior to submittal of the written report.

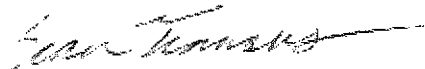


We at TSFGeo appreciate the opportunity to submit this proposal and look forward to working with you on this project. If you should have any questions concerning our proposal, please contact our office.

Respectfully submitted,

**TSFGeo**

  
Ramakumar Vedula, P.E.  
Principal Engineer

  
Sean Tromans, E.I.  
Staff Engineer

Attachments: General Conditions  
Fee Schedule  
Proposed Boring Location Plan

| <b>AUTHORIZED BY:</b> |  | <b>INVOICE TO:</b> |  |
|-----------------------|--|--------------------|--|
| <b>Name:</b>          |  | <b>Firm:</b>       |  |
| <b>Title:</b>         |  | <b>Name:</b>       |  |
| <b>Date:</b>          |  | <b>Address:</b>    |  |
|                       |  | <b>Phone :</b>     |  |

|   | Unit  | # of Units | Unit Price |         | Total           |
|---|-------|------------|------------|---------|-----------------|
| <b>I. FIELD INVESTIGATION</b>                                     |       |            |            |         |                 |
| Mobilization of Men and Equipment                                 | LS    | 1          | \$         | 450.00  | \$ 450.00       |
| Truck-Mounted Equipment   | DAY   | 1          | \$         | 150.00  | \$ 150.00       |
| Support Vehicle   |       |            |            |         |                 |
| Standard Penetration Test Borings<br>(By Truck-Mounted Equipment) |       |            |            |         |                 |
| Land: 0 - 50 ft depth   | L.F.  | 40         | \$         | 20.00   | \$ 800.00       |
| 50 - 100 ft depth   | L.F.  | 0          | \$         | 23.00   | \$ 0.00         |
| Grout-Seal Boreholes<br>(By Truck-Mounted Equipment)              |       |            |            |         |                 |
| Land: 0 - 50 ft depth   | L.F.  | 40         | \$         | 8.00    | \$ 320.00       |
| 50 - 100 ft depth   | L.F.  | 0          | \$         | 9.50    | \$ 0.00         |
| Casing<br>(By Truck-Mounted Equipment)                            |       |            |            |         |                 |
| Land: 0 - 50 ft depth   | L.F.  | 40         | \$         | 9.50    | \$ 380.00       |
| 50 - 100 ft depth   | L.F.  | 0          | \$         | 11.50   | \$ 0.00         |
| <b>I.A GPR</b>  | Night | 0          | \$         | 4300.00 | \$ 0.00         |
| <b>II. LABORATORY TESTING</b>                                     |       |            |            |         |                 |
| Natural Moisture Content Tests                                    | Test  | 2          | \$         | 15.00   | \$ 30.00        |
| Grain-Size Analysis - Full Gradation                              | Test  | 2          | \$         | 65.00   | \$ 130.00       |
| Grain-Size Analysis - Single Sieve                                | Test  | 2          | \$         | 35.00   | \$ 70.00        |
| Organic Content Tests   | Test  | 2          | \$         | 50.00   | \$ 100.00       |
| Atterberg Limit Tests   | Test  | 1          | \$         | 90.00   | \$ 90.00        |
| <b>III ENGINEERING/COORDINATION/MANAGEMENT</b>                    |       |            |            |         |                 |
| Project Manager   | Hour  | 5          | \$         | 253.06  | \$ 1,265.30     |
| Principal Engineer  | Hour  | 2          | \$         | 269.40  | \$ 538.80       |
| Project Engineer  | Hour  | 16         | \$         | 166.53  | \$ 2,664.48     |
| Senior Technician   | Hour  | 24         | \$         | 91.68   | \$ 2,200.32     |
| CADD  | Hour  | 6          | \$         | 101.88  | \$ 611.28       |
|   |       |            |            | \$      | <b>9,800.18</b> |



## EXHIBIT A-6

**PALM BEACH DOA GENERAL CONSULTING SERVICES**

**EXHIBIT A-6**

**Miscellaneous Planning, Engineering and Construction Services**

**Palm Beach International Airport (PBI)**  
**North Palm Beach County General Aviation Airport (F45)**  
**Palm Beach County Park Airport (LNA)**  
**Palm Beach County Glades Airport (PHK)**  
**Task I-23-DOA-A-021: Miscellaneous Planning & Engineering Services**

**OVERVIEW**

The Palm Beach Department of Airports (DOA) has requested that AECOM Technical Services, Inc. (AECOM or CONSULTANT) provide professional services for Task I-23-DOA-A-021: Miscellaneous Planning & Engineering Services Project (Project).

**PROJECT TEAM**

| <b>Firm Name<br/>(CONSULTANT / SUBCONTRACTOR)</b> | <b>Type of Services</b>         |
|---|---------------------------------|
| AECOM Technical Services, Inc.<br>(CONSULTANT)    | Miscellaneous As-Needed Support |

AECOM will assist the DOA with general aviation planning support tasks for the four (4) DOA airports that are frequently requested and typically require only a few hours/days of effort and are required in a short timeframe. The specific tasks expected to be developed are described below:

**SCOPE OF WORK**

- 01: The DOA periodically requests the CONSULTANT to conduct Independent Fee Estimates (IFEs) on various projects varying in size and scope of work. AECOM will submit an initial Independent Fee Estimate (Cover Letter plus Spreadsheet) for each task, followed by clarifications of our reasoning for developing our associated fees.
- 02: AECOM will assist the DOA with miscellaneous planning, programming, and engineering support services for various tasks at the DOA airports and

associated properties. These tasks typically include updating planning maps and sketches, evaluating and providing recommendations for small miscellaneous assignments, preparing preliminary cost estimates, and other miscellaneous tasks.

- 03: This task also includes developing general project scopes of work and rough order of magnitude budget estimates for DOA use in the planning, engineering, and programming of upcoming design and construction projects.

### **PROJECT SCHEDULE**

The schedule for each of these tasks will vary.

**Exhibit B-1**  
**Labor/Fee Estimate Summary - CONSULTANT (AECOM Technical Services, Inc.) - Task I-23-DOA-A-021: Miscellaneous Planning & Engineering Services**

**Billing Rate:** \$ 349 | \$ 236 | \$ 270 | \$ 255 | \$ 128 | \$ 129 | \$ 108 | \$ 96

|   |  | Labor Estimate (Hours) |             |                        |                |                  |         |          |          |       | Fee Estimate (\$) |          |           |
|---|--|------------------------|-------------|------------------------|----------------|------------------|---------|----------|----------|-------|-------------------|----------|-----------|
| Task Description  |  | Principal              | QC Reviewer | Senior Project Manager | Senior Planner | Project Engineer | Planner | Engineer | Clerical | Total | Labor             | Expenses | Total     |
| <b>Task I-23-DOA-A-021: Miscellaneous Planning &amp; Engineering Services</b> |  |                        |             |                        |                |                  |         |          |          |       |                   |          |           |
| <b>Total</b>  |  | 0                      | 0           | 75                     | 35             | 80               | 82      | 0        | 0        | 272   | \$49,993          | \$0      | \$49,993  |
| 01 Independent Fee Estimates (IFE)  |  |                        |             | 20                     |                | 28               | 30      |          |          | 78    | \$12,854          | \$0      | \$12,854  |
| 02 Miscellaneous Programming and Engineering                                  |  |                        |             | 25                     | 21             | 24               | 30      |          |          | 100   | \$19,047          | \$0      | \$19,047  |
| 03 Programming for Upcoming Tasks   |  |                        |             | 30                     | 14             | 28               | 22      |          |          | 94    | \$18,092          | \$0      | \$18,092  |
| <b>Total Fee - AECOM Technical Services, Inc.</b>                             |  | 0                      | 0           | 75                     | 35             | 80               | 82      | 0        | 0        | 272   | \$ 49,993         | 0        | \$ 49,993 |

**Subconsultant Fees Task 1.0**

|                            |                 |
|----------------------------|-----------------|
| Task 1.0 (Lump Sum)        | \$49,993        |
| Task 2.0 (Time & Material) | \$0             |
| Expenses                   | \$0             |
| <b>Total</b>               | <b>\$49,993</b> |

**GRAND TOTAL FEE - BASIC ENGINEERING SERVICES**

## EXHIBIT A-7



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# **PALM BEACH DOA GENERAL CONSULTING SERVICES**

## **EXHIBIT A-7**

Miscellaneous Architectural, Planning, Engineering and Construction Services

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Palm Beach County Department of Airports (DOA)  
Task I-23-DOA-A-022: Disadvantaged Business Enterprise (DBE) Program Outreach  
Services 2024/25

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## **OVERVIEW**

The Palm Beach Department of Airports (DOA) has requested that AECOM Technical Services, Inc. (CONSULTANT) provide services for the Task I-22-DOA-A-022: Disadvantaged Business Enterprise (DBE) Program Outreach Services 2024/25 (Project).

## **PROJECT TEAM**

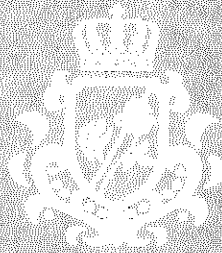
The Team for the Project will consist of:

| <b>Firm Name<br/>(CONSULTANT / SUBCONTRACTOR)</b>       | <b>Type of Services</b> |
|---|-------------------------|
| AECOM Technical Services, Inc.<br>(CONSULTANT)          | Contract management     |
| Chandler Campbelle & Daschele (CC&D)<br>(SUBCONTRACTOR) | DBE Outreach services   |

## **PROJECT OBJECTIVE AND APPROACH**

This project will include providing outreach services for the Palm Beach County Department of Airports (DOA) in regard to the DOA ACDBE/DBE Programs, the DOA business opportunities and County's EBO Program (including trade associations, chambers of commerce, etc.). The services will be performed by CC&D under the direction of the DOA, and these services are outlined in the attached detailed scope.

| Exhibit B-1   |       |           |             |                 |                |                  |         |          |          |        |   |          |             |
|---|-------|-----------|-------------|-----------------|----------------|------------------|---------|----------|----------|--------|---|----------|-------------|
| Labor/Fee Estimate Summary - CONSULTANT (AECOM Technical Services, Inc.) - Task I-23-DOA-A-022: Disadvantaged Business Enterprise (DBE) Program Outreach Services 2024/25 |       |           |             |                 |                |                  |         |          |          |        |   |          |             |
| Billing Rate:   |       |           |             |                 |                |                  |         |          |          |        |   |          |             |
|   |       |           |             | \$ 340          | \$ 236         | \$ 270           | \$ 255  | \$ 128   | \$ 129   | \$ 108 | \$ 96                                   |          |             |
| Labor Estimate (Hours)  |       |           |             |                 |                |                  |         |          |          |        | Fee Estimate (\$)                       |          |             |
| Task Description  |       | Principal | OC Reviewer | Project Manager | Senior Planner | Project Engineer | Planner | Engineer | Clerical | Total  | Labor                                   | Expenses | Total       |
| Task I-23-DOA-A-022: Disadvantaged Business Enterprise (DBE) Program Outreach Services 2024/25  | Total | 0         | 0           | 8               | 0              | 8                | 0       | 0        | 32       | 48     | \$6,256                                 | \$0      | \$6,256     |
| Task Management   |       |           |             | 8               |                | 8                |         |          | 32       | 48     | \$6,256                                 | \$0      | \$6,256     |
| <b>Total Fee - AECOM Technical Services, Inc.</b>   |       | 0         | 0           | 8               | 0              | 8                | 0       | 0        | 32       | 48     | \$ 6,256.00                             | 0        | \$ 6,256.00 |
| <b>Subconsultant Fees Task 1.0</b>  |       |           |             |                 |                |                  |         |          |          |        |   |          |             |
|   |       |           |             |                 |                |                  |         |          |          |        | Task 1.0 (Lump Sum) \$ 59,256.00        |          |             |
| 1 Total Subconsultant Fee - Chandler Campbell & Daschle (LS)  |       |           |             |                 |                |                  |         |          |          |        | \$ 52,950.00                            |          |             |
| 2 Total Subconsultant Fee - Chandler Campbell & Daschle (T&M)   |       |           |             |                 |                |                  |         |          |          |        | \$ 36,300.00                            |          |             |
| 3 Total Subconsultant Fee - Chandler Campbell & Daschle (Expenses)  |       |           |             |                 |                |                  |         |          |          |        | \$ 2,750.00                             |          |             |
|   |       |           |             |                 |                |                  |         |          |          |        | Task 2.0 (Time & Material) \$ 36,300.00 |          |             |
|   |       |           |             |                 |                |                  |         |          |          |        | Expenses \$ 2,750.00                    |          |             |
|   |       |           |             |                 |                |                  |         |          |          |        | Total \$ 98,256.00                      |          |             |
| <b>Total Fee - Subconsultants</b>   |       |           |             |                 |                |                  |         |          |          |        | \$ 92,000.00                            |          |             |
| <b>GRAND TOTAL FEE - BASIC ENGINEERING SERVICES</b>   |       |           |             |                 |                |                  |         |          |          |        | \$ 98,256.00                            |          |             |



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## Palm Beach International Airport DBE & ACDBE Support Services Scope Of Work

### **Task 1: Monthly Outreach Services**

**\$47,700 Lump Sum (\$4,770/mo.)**

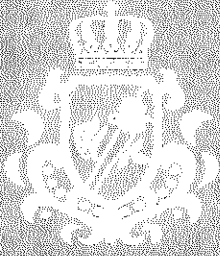
**\$2,750 Expenses**

CC&D will develop, implement and manage an outreach program under the direction of, and in coordination with, the DOA for the purpose of encouraging participation and awareness of the Disadvantaged Business Enterprise Program and Equal Opportunity Program, associated construction, professional services, goods and services and concession opportunities, which shall include, at a minimum the following services ("Outreach Services"):

- Conducting a minimum of ten (10) outreach meetings at the DOA offices (or other available County facility) per year, which should include the following:
  - Certification requirements for the DBE Program, addressing the benefits of certification and processes and procedures.
  - Upcoming DOA business opportunities.
  - Business networking sessions.
  - Marketing and business development.
  - Contracting with government, including procurement resources.
  - Working with prime contractors.
  - Bonding and insurance; and
  - Access to capital and credit.
- Promoting outreach meetings by direct notification to small/minority/women-owned/disadvantaged businesses within Palm Beach, Broward and Miami Dade Counties utilizing available directories, trade organizations and other similar organizations; coordination with prime contractors for scheduling of networking sessions; and providing the DOA with information materials for website posting and meeting handouts.
- Providing small/minority/women-owned business organizations with information regarding the DOA ACDBE/DBE Program, DOA business opportunities and the County's EBO Program (including trade associations, chambers of commerce, etc.).
- Attending meetings of small/minority/women-owned business organizations to provide information regarding the DOA ACDBE/DBE Program, DOA business opportunities and the County's EBO Program (including trade associations, chambers of commerce, etc.).

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- Participating in local small/minority/women-owned conferences and meetings to provide information about upcoming DOA business opportunities and to encourage participation in such opportunities.
- Identifying eligible non-certified firms interested in participating in DOA business opportunities and performing directed outreach to encourage interested firms to become ACDBE / DBE certified.
  - Providing small/minority and women-owned firms interested in participating in DOA business opportunities with guidance on the applicable DBE & ACDBE certification processes and procedures, bonding requirements, funding sources, training opportunities, procurement resources, etc.; and
  - Staffing the DOA's vendor table at the annual Palm Beach Partners Business Matchmaker Conference & EXPO to provide information regarding the DBE & ACDBE Program and DOA project opportunities to attendees.
  - Attending DOA solicitation meetings upon request.
  - Providing a written Outreach Program, including the elements provided for in this Task 1 and a calendar of activities for each month of service, for review and approval of the DOA.
  - Identifying and coordinating with speakers to participate in outreach meetings.
  - Providing and updating event calendar(s) for posting.
  - Preparing materials to be used in connection with the Outreach Services, including meeting presentations, handouts, sign-in sheets, participant surveys, etc. Copies of all materials shall be provided to the DOA for prior review and approval.
  - CC&D shall provide a written monthly report documenting the Outreach Services performed in the preceding month to the DOA, which shall include a detailed log of hours and expenses incurred by each employee. All expenses shall be documented in accordance with County policies and procedures and applicable laws.

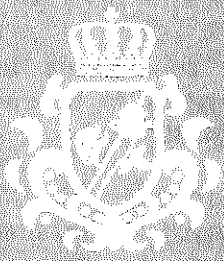
#### **Task 2 Supportive Services.**

**\$23,100 T&M**

- CC&D will offer certification review services to small/minority/women-owned businesses interested in performing work on DOA projects as a DBE/ACDBE certified firm. Individual certification review services shall consist of identifying outstanding items required for submission and

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providing general guidance on certification processes, procedures and submission requirements.

- Services to assist with the County's EBO Program certification and review should be coordinated with that office directly.
- CC&D shall provide a written monthly report to the DOA documenting the number of applications reviewed, the name and contact information of the firms assisted, the type of certification(s) being sought; the results of any applications submitted; and any other documentation reasonably requested by the DOA regarding the services provided.
- All expenses shall be documented in accordance with County policies and procedures and applicable laws.

### **Task 3 Quarterly Educational Services.**

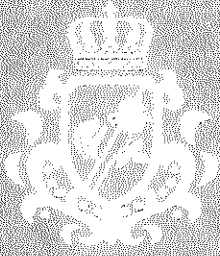
**\$5,250 Lump Sum (\$437.50/mo)**

CC&D will develop, implement and manage an educational program under the direction of, and in coordination with, the DOA for the purpose of educating airport tenants, concessionaires, service providers, contractors and employees about their obligations under the Title VI of the Civil Rights Act, which shall include the following services ("Educational Services"):

- Conducting four (4) quarterly educational meetings at the DOA offices per year, covering the following topics:
  - Responsibilities of all airport tenants, concessionaires, service providers, contractors and employees under Title VI to ensure nondiscrimination in their activities and programs, including participation in the DOA's Limited English Proficiency Plan ("LEP Plan");
  - Responsibilities of all airport tenants, concessionaires, service providers, contractors and employees to ensure that their programs, services and facilities are accessible to all individuals with disabilities under the ADA;
  - Sensitivity training to provide guidance on how to effectively and appropriately interact with individuals with disabilities or those with limited English proficiency; and
  - Information regarding how to access LEP Plan resources.
- Providing a written Educational Program, including the elements provided for in this Task 3 and a calendar of activities for review and approval of the DOA.
- Identifying and coordinating with local speakers to participate in educational meetings where appropriate, including advocacy groups.

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- Preparing materials to be used in connection with the Educational Services, including meeting presentations, handouts, sign-in sheets, participant surveys, voice/audio recordings and or other requested accommodations, etc. Copies of all materials shall be provided to the DOA for prior review and approval.
- CC&D shall provide a written quarterly report to the DOA documenting the Educational Services performed in the preceding quarter, which shall include a detailed log of hours for each employee and expenses incurred. All expenses shall be documented in accordance with County policies and procedures and applicable laws.

**Task 4 Staff Extension Services.**  
**\$13,200 T&M**

CC&D will provide on-call staff extension services, on an as-needed basis, related to the ACDBE/DBE Program(s) and the Title VI Civil Rights Program, upon the request of DOA staff.

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**Exhibit B**

**Labor/Fee Estimate Summary - CONSULTANT (AECOM Technical Services, Inc.) - Task I-23-DOA-A-022: DBE Outreach**

**Billing Rate:** \$ 150

|  |   | Labor Estimate (Hours) |            | Fee Estimate (\$) |                 |                |                 |
|--|---|------------------------|------------|-------------------|-----------------|----------------|-----------------|
| Task Description                         |   | Program Manager        | Total      | Labor             | Expenses        | Total          |                 |
| <b>Task I-23-DOA-A-022: DBE Outreach</b> |   |                        |            |                   |                 |                |                 |
|  | <b>OUTREACH SERVICES (LS + REIM.)</b>     | <b>Total</b>           | <b>595</b> | <b>595</b>        | <b>\$89,250</b> | <b>\$2,750</b> | <b>\$92,000</b> |
| 1  | Monthly Outreach Services (LS + Expenses) |                        | 318        | 318               | \$47,700        | \$2,750        | \$50,450        |
| 2  | Supportive Services (T&M)                 |                        | 154        | 154               | \$23,100        | \$0            | \$23,100        |
| 3  | Quarterly Educational Services (LS)       |                        | 35         | 35                | \$5,250         | \$0            | \$5,250         |
| 4  | Staff Extension Services (T&M)            |                        | 88         | 88                | \$13,200        | \$0            | \$13,200        |
| <b>Total Fee - CCD</b>                   |   |                        | <b>595</b> | <b>595</b>        | <b>89,250</b>   | <b>2,750</b>   | <b>92,000</b>   |

Subconsultant Fees Task 1.0

**GRAND TOTAL FEE - BASIC ENGINEERING SERVICES**

## EXHIBIT B:

# DETAILED FEES, EXPENSES AND PAYMENTS

EXHIBIT B-I Summary of Fees

EXHIBIT B-II Schedule of Payments



## EXHIBIT B-I SUMMARY OF FEES

| Project  | Lump Sum     | T&M         | Reimbursable Expenses | Total                 |
|--|--------------|-------------|-----------------------|-----------------------|
| <b>TASK I SERVICES</b>   |              |             |                       |                       |
| Task I-23-PBI-A-016 PBI Holding Apron at TW A and C                                  | \$479,825.00 | \$77,760.66 | \$2,800.00            | \$560,385.66          |
| Task I-23-PBI-A-017 PBI Taxiway M, M1 and M2 Reconstruction Improvements             | \$308,883.00 | \$46,966.82 | \$2,800.00            | \$358,649.82          |
| Task I-23-PBI-A-018 PBI Stormwater Master Plan                                       | \$302,738.00 |             |                       | \$302,738.00          |
| Task I-23-PBI-A-019 PBI Garage Additional Services                                   | \$131,626.00 | \$86,126.00 |                       | \$217,752.00          |
| Task I-23-LNA-A-020 New LNA Rotating Beacon and Tower                                | \$44,075.00  | \$13,620.18 | \$1,800.00            | \$59,495.18           |
| Task I-23-DOA-A-021 Miscellaneous Planning & Engineering Services                    | \$49,993.00  |             |                       | \$49,993.00           |
| Task I-23-DOA-A-022 DBE Program Outreach Services 2024/25                            | \$59,206.00  | \$36,300.00 | \$2,750.00            | \$98,256.00           |
| <b>TASK III SERVICES</b>   |              |             |                       |                       |
| Task III: Deliverable(s) As required in accordance with specific Task Authorizations |              |             |                       | \$250,000.00          |
| <b>TOTAL</b>   |              |             |                       | <b>\$1,897,269.66</b> |

## EXHIBIT B-II SCHEDULE OF PAYMENTS

The Scope of Work to be completed by CONSULTANT as defined in Exhibit "A" consists of specific completion phases which shall be clearly identified upon submission to the COUNTY of certain "deliverables" as expressly indicated below. Compensation for the work tasks stated herein shall be in accordance with the following Schedule of Payments:

**Tasks to Be Completed:**

| Project  | Duration  | Total                 |
|--|-----------|-----------------------|
| <b>TASK I SERVICES</b>   |           |                       |
| Task I-23-PBI-A-016 PBI Holding Apron at TW A and C                                  | 195 Days  | \$560,385.66          |
| Task I-23-PBI-A-017 PBI Taxiway M, M1, and M2 Reconstruction Improvements            | 195 Days  | \$358,649.82          |
| Task I-23-PBI-A-018 PBI Stormwater Master Plan                                       | 180 Days  | \$302,738.00          |
| Task I-23-PBI-A-019 PBI Garage Additional Services                                   | 240 Days  | \$217,752.00          |
| Task I-23-PBI-A-020 New LNA Rotating Beacon and Tower                                | 150 Days  | \$59,495.18           |
| Task I-23-DOA-A-021: Miscellaneous Planning & Engineering Services                   | TBD       | \$49,993.00           |
| Task I-23-DOA-A-022 DBE Program Outreach Services 2024/25                            | 12 Months | \$98,256.00           |
| <b>TASK III SERVICES</b>   |           |                       |
| Task III: Deliverable(s) As required in accordance with specific Task Authorizations | TBD       | \$ 250,000.00         |
| <b>TOTAL</b>   |           | <b>\$1,897,269.66</b> |

## EXHIBIT C

### PROPOSED SCHEDULES

| <b>Project</b>   | <b>Duration</b> |
|--|-----------------|
| <b>TASK I SERVICES</b>   |                 |
| Task I-23-PBI-A-016 PBI Holding Apron at TW A and C                                  | 195 Days        |
| Task I-23-PBI-A-017 PBI Taxiway M, M1, and M2 Reconstruction Improvements            | 195 Days        |
| Task I-23-PBI-A-018 PBI Stormwater Master Plan                                       | 180 Days        |
| Task I-23-PBI-A-019 PBI Garage Additional Services                                   | 240 Days        |
| Task I-23-PBI-A-020 New LNA Rotating Beacon and Tower                                | 150 Days        |
| Task I-23-DOA-A-021: Miscellaneous Planning & Engineering Services                   | TBD             |
| Task I-23-DOA-A-022 DBE Program Outreach Services 2024/25                            | 12 Months       |
| <b>TASK III SERVICES</b>   |                 |
| Task III: Deliverable(s) As required in accordance with specific Task Authorizations | TBD             |

## EXHIBIT D

### DBE

**SCHEDULE 1(A)  
LIST OF PROPOSED DBE FIRMS  
(Professional Services)**

LOI/SOQ Project Description: Airport General Consulting  
 Name of Respondent: AECOM Technical Services, Inc. Change Order/Task/Amendment No. (if applicable): Amendment 2  
 Contact Person: Andrew Kacer E-mail Address: Andy.Kacer@aecom.com  
 Address: 7650 West Courtney Campbell Causeway, Tampa, FL 33607  
 Phone No: (O) 813.636.2425 (C) 352.634.4363 Fax No: 813.287.8591

| Name, Address & Phone No. of DBE Firm  | Description of Type of Work | Classification (Check applicable box)  | Dollar Amount |          |               |                                |
|--|-----------------------------|--|---------------|----------|---------------|--------------------------------|
|  |                             |  | Black         | Hispanic | Women         | Other (Please Specify)         |
| Quantum Electrical Engineering, Inc.<br>2755 Vista Parkway, Suite I-9<br>West Palm Beach, FL 33411<br>(561) 210-9224 | Electrical Services         | <input type="checkbox"/> Prime Consultant<br><input checked="" type="checkbox"/> Subcontractor<br><input type="checkbox"/> Supplier<br><input type="checkbox"/> Manufacturer | _____ %       | _____ %  | <u>3.90</u> % | _____ %                        |
| Tierra South Florida<br>2765 Vista Parkway, Suite 10<br>West Palm Beach, FL 33411<br>(561) 687-8536                  | Geotechnical Services       | <input type="checkbox"/> Prime Consultant<br><input checked="" type="checkbox"/> Subcontractor<br><input type="checkbox"/> Supplier<br><input type="checkbox"/> Manufacturer | _____ %       | _____ %  | _____ %       | Asian Pacific<br><u>4.68</u> % |
| Brown & Phillips.<br>1800 Old Okeechobee Road<br>Suite 509, West Palm Beach, FL<br>(561) 615-3988                    | Surveying                   | <input type="checkbox"/> Prime Consultant<br><input checked="" type="checkbox"/> Subcontractor<br><input type="checkbox"/> Supplier<br><input type="checkbox"/> Manufacturer | <u>2.61</u> % | _____ %  | _____ %       | _____ %                        |
| Chandler Campbelle & Daschie, LLC.<br>401 N. Rosemary Ave.<br>West Palm Beach, FL 33401<br>(561) 461-6770            | DBE Outreach Services       | <input type="checkbox"/> Prime Consultant<br><input checked="" type="checkbox"/> Subcontractor<br><input type="checkbox"/> Supplier<br><input type="checkbox"/> Manufacturer | _____ %       | _____ %  | <u>4.85</u> % | _____ %                        |

**Total Percentage of DBE Participation: 16.04 %**

**Notes:**

- The percentages listed on this form for each DBE Firm must be supported by the percentages included on Schedule 2(A), "Letter of Intent to Perform as a Disadvantaged Business Enterprise", in order to be counted toward attainment of the DBE goal.
- Firms identified on this form must be certified as a DBE by the State of Florida's Unified Certification Program. Certification status can be verified on the Florida Department of Transportation's Biznet website at <https://www3.dot.state.fl.us/EqualOpportunityOffice/biznet/mainmenu.asp>.
- If materials or supplies are proposed to be purchased from a DBE regular dealer, the undersigned acknowledges that only sixty percent (60%) of the proposed expenditure will be counted toward attainment of the DBE goal.

By signing this form the undersigned Respondent is committing to utilize the above referenced DBE Firms on the Project and that the Respondent will monitor the DBE Firms to ensure that the work is actually performed by the by the DBE Firms.

By: *Andrew Kacer* Date: 12/13/2023

Signature  
Andrew Kacer - Vice President  
 Print Name/Title of Person Executing on Behalf of the Respondent

**SCHEDULE 2(A)**  
**LETTER OF INTENT TO PERFORM AS A DISADVANTAGED BUSINESS ENTERPRISE**  
**(Professional Services)**

LOI/SOQ Project Description: Airport General Consulting

Change Order/Task /Amendment No. (if applicable): Amendment No. 2

Name of Prime Respondent: AECOM Technical Services, Inc

Name of DBE Firm: Quantum Electrical Engineering, Inc.

The undersigned is certified as a Disadvantaged Business Enterprise by the State of Florida's Unified Certification Program. Check one or more classifications as applicable:

- Black       Hispanic       Women       Other (Please Specify)  
 Prime Consultant    Subcontractor    Manufacturer       Supplier

The undersigned is prepared to perform the following described work in connection with the above-referenced project (specify in detail the particular work and/or parts thereof to be performed):

Electrical Services

(Additional Sheets may be used as necessary.)

**Total Percentage of Participation by DBE Firm for this Project: 3.90 %**

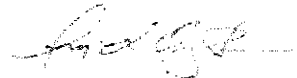
and will enter into a formal agreement for work with you conditioned upon your execution of a contract with Palm Beach County.

**If the undersigned intends to subcontract any portion of the work described above to another subcontractor, please complete the following:**

|                         |   |  |
|-------------------------|---|--|
| _____                   | _____ %                                 | <input type="checkbox"/> DBE Certified |
| (Name of Subcontractor) | Percentage of work to be subcontracted) | <input type="checkbox"/> Non-DBE       |

**The undersigned affirms that it has the resources necessary to perform the work described above without subcontracting the work to another subcontractor, except as noted above.**

Quantum Electrical Engineering, Inc.  
Printed Name of DBE Subcontractor

By: 

\_\_\_\_\_  
Signature

Date: 12-13-2023

**SCHEDULE 2(A)  
LETTER OF INTENT TO PERFORM AS A DISADVANTAGED BUSINESS ENTERPRISE  
(Professional Services)**

LOI/SOQ Project Description: Airport General Consulting

Change Order/Task /Amendment No. (if applicable): Amendment 2

Name of Prime Respondent: AECOM Technical Services, Inc

Name of DBE Firm: Tierra South Florida, Inc.

The undersigned is certified as a Disadvantaged Business Enterprise by the State of Florida's Unified Certification Program. Check one or more classifications as applicable:

- Black         Hispanic         Women       Other (Please Specify) (Asian Pacific)
- Prime Consultant    Subcontractor    Manufacturer       Supplier

The undersigned is prepared to perform the following described work in connection with the above-referenced project (specify in detail the particular work and/or parts thereof to be performed):

Geotechnical/Material Testing Services

(Additional Sheets may be used as necessary.)

**Total Percentage of Participation by DBE Firm for this Project: 4.68%**

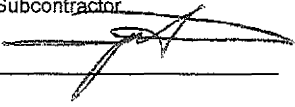
and will enter into a formal agreement for work with you conditioned upon your execution of a contract with Palm Beach County.

**If the undersigned intends to subcontract any portion of the work described above to another subcontractor, please complete the following:**

|                         |  |  |                                  |
|-------------------------|--|--|----------------------------------|
|                         | %  |  |                                  |
| (Name of Subcontractor) | (Percentage of work to be subcontracted) | <input type="checkbox"/> DBE Certified | <input type="checkbox"/> Non-DBE |

**The undersigned affirms that it has the resources necessary to perform the work described above without subcontracting the work to another subcontractor, except as noted above.**

Tierra South Florida, Inc.  
Printed Name of DBE Subcontractor

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

Date: 12-6-2023

**SCHEDULE 2(A)**  
**LETTER OF INTENT TO PERFORM AS A DISADVANTAGED BUSINESS ENTERPRISE**  
**(Professional Services)**

LOI/SOQ Project Description: Airport General Consulting

Change Order/Task /Amendment No. (if applicable): Amendment 2

Name of Prime Respondent: AECOM Technical Services, Inc

Name of DBE Firm: Brown & Phillips, Inc.

The undersigned is certified as a Disadvantaged Business Enterprise by the State of Florida's Unified Certification Program. Check one or more classifications as applicable:

- Black       Hispanic       Women       Other (Please Specify)  
 Prime Consultant     Subcontractor     Manufacturer       Supplier

The undersigned is prepared to perform the following described work in connection with the above-referenced project (specify in detail the particular work and/or parts thereof to be performed):

Survey

(Additional Sheets may be used as necessary.)

**Total Percentage of Participation by DBE Firm for this Project: 2.61 %**

and will enter into a formal agreement for work with you conditioned upon your execution of a contract with Palm Beach County.

**If the undersigned intends to subcontract any portion of the work described above to another subcontractor, please complete the following:**

\_\_\_\_\_ %       DBE Certified  
(Name of Subcontractor)      (Percentage of work to be subcontracted)       Non-DBE

**The undersigned affirms that it has the resources necessary to perform the work described above without subcontracting the work to another subcontractor, except as noted above.**

Brown & Phillips, Inc.  
Printed Name of DBE Subcontractor

By: John E. Phillips, III  
Signature

Date: 12-13-2023



**SCHEDULE 2(A)**  
**LETTER OF INTENT TO PERFORM AS A DISADVANTAGED BUSINESS ENTERPRISE**  
**(Professional Services)**

LOI/SOQ Project Description: Airport General Consulting

Change Order/Task /Amendment No. (if applicable): Amendment 2

Name of Prime Respondent: AECOM Technical Services, Inc

Name of DBE Firm: Chandler Campbelle & Daschle LLC

The undersigned is certified as a Disadvantaged Business Enterprise by the State of Florida's Unified Certification Program. Check one or more classifications as applicable:

- Black       Hispanic       Women       Other (Please Specify)  
 Prime Consultant     Subcontractor     Manufacturer       Supplier

The undersigned is prepared to perform the following described work in connection with the above-referenced project (specify in detail the particular work and/or parts thereof to be performed):

Small Business Outreach Services

(Additional Sheets may be used as necessary.)

**Total Percentage of Participation by DBE Firm for this Project: 4.85%**

and will enter into a formal agreement for work with you conditioned upon your execution of a contract with Palm Beach County.

**If the undersigned intends to subcontract any portion of the work described above to another subcontractor, please complete the following:**

\_\_\_\_\_ %       DBE Certified  
(Name of Subcontractor)      (Percentage of work to be subcontracted)       Non-DBE

**The undersigned affirms that it has the resources necessary to perform the work described above without subcontracting the work to another subcontractor, except as noted above.**

Chandler Campbelle & Daschle LLC  
Printed Name of DBE Subcontractor

By: Darrell Searcy  
Signature

Date: 12-13-2023

24-0286

BOARD OF COUNTY COMMISSIONERS  
PALM BEACH COUNTY, FLORIDA  
BUDGET TRANSFER

FUND 4111      Airport Improvement & Development Fund

Advantage Document Numbers  
BGRV:  
BGEX:                    121-121423\*612

| ACCT.NUMBER                         | ACCOUNT NAME                 | ORIGINAL BUDGET    | CURRENT BUDGET     | INCREASE         | DECREASE         | ADJUSTED BUDGET    | EXPENDED/ ENCUMBERED As of 12/11/23 | REMAINING BALANCE |
|-------------------------------------|------------------------------|--------------------|--------------------|------------------|------------------|--------------------|-------------------------------------|-------------------|
| <b><u>REVENUES/EXPENDITURES</u></b> |                              |                    |                    |                  |                  |                    |                                     |                   |
| 121-A463-6505                       | Design/Eng/Mgmt - CIP Adm    | 113,000            | 113,000            | 447,386          | 0                | 560,386            | 0                                   | 560,386           |
| 121-A465-6505                       | Design/Eng/Mgmt - CIP Adm    | 150,000            | 150,000            | 208,650          | 0                | 358,650            | 0                                   | 358,650           |
| 121-A107-6505                       | Design/Eng/Mgmt - CIP Adm    | 8,808,773          | 7,725,903          | 700,987          | 0                | 8,426,890          | 4,803,134                           | 3,623,756         |
| 121-A900-9909                       | Reserves Improvement Program | 17,216,760         | 11,467,670         | 0                | 1,357,023        | 10,110,647         | 0                                   | 10,110,647        |
| <b>Total Receipts and Balances</b>  |                              | <b>217,226,377</b> | <b>213,797,817</b> | <b>1,357,023</b> | <b>1,357,023</b> | <b>213,797,817</b> |                                     |                   |

Signatures & Dates

By Board of County Commissioners

Office of Financial Management & Budget

At Meeting of

INITIATING DEPARTMENT/DIVISION

*Kenneth A. Hall*

12/11/23

Tuesday, January 23, 2024

Administration/Budget Department Approval

*A. A. [Signature]*

12/20/23

Deputy Clerk to the

OFMB Department - Posted

Board of County Commissioners