

PALM BEACH COUNTY
BOARD OF COUNTY COMMISSIONERS

AGENDA ITEM SUMMARY

Meeting Date: March 22, 2022

Consent Regular
 Workshop Public Hearing

Submitted By: Department of Airports

I. EXECUTIVE BRIEF

Motion and Title: Staff recommends motion to approve: Amendment No. 5 to the General Consulting Agreement with RS&H, Inc. for Consulting/Professional Services in the amount of \$1,325,943.87 and to exercise the second one (1) year renewal option for the continued performance of professional planning and design services related to the approved Palm Beach County Airports Capital Improvement Program.

Summary: The Consulting Agreement with RS&H, Inc. for general airport planning and design was approved by the Board on May 7, 2019 (R-2019-0612) in the amount of \$2,004,570.58 in order to carry out the approved Capital Improvement Programs for the County's Airports. Amendment No. 1 was approved by the Board on May 5, 2020 (R-2020-0414) increasing the amount of the contract by \$2,304,608.30. Amendment No. 2 was approved by the Board on October 20, 2020 (R-2020-1607) increasing the amount of the contract by \$3,196,990.03. Amendment No. 3 was approved by the Board on May 4, 2021 (R-2021-0576) exercising the first one (1) year renewal option for the continuation of services provided under this agreement. Amendment No. 4 was approved by the Board on June 15, 2021 (R-2021-0844) increasing the amount of the contract by \$2,644,110.87. Approval of Amendment No. 5 will allow the County, at its sole discretion, to exercise the second one-year renewal option for the continuation of services provided under this agreement and will provide an additional \$1,325,943.87 to complete the following tasks: Palm Beach International Airport (PBI) Switchgear Normal Power Distribution System (NPDS) Replacement Construction Administration (CA) & Resident Project Representative (RPR) Services; PBI 400Hz Ground Power Unit (GPU) Replacement CA & RPR Services; PBI Pre-Conditioned Air (PCA) and GPU Point-of-Use Design & Bidding Services (Supplemental); and Task III Services - Miscellaneous Planning and Engineering Services. Work to be completed under these Task III Services will be issued in accordance with PPM CW-F-050, by way of a separate proposal or task authorization. RS&H, Inc. is a Jacksonville, Florida based firm; however, the majority of the work to be completed in this agreement will be managed through their Fort Lauderdale, Florida offices in conjunction with several Palm Beach County-based and South Florida-based sub-consultants and firms. A Disadvantaged Business Enterprise (DBE) goal of 18% was set for this contract. RS&H, Inc. committed to 23% DBE participation for this agreement. The anticipated DBE participation based upon the approved tasks is 33.76%. The current paid to date DBE participation is 32.05%. The DBE participation for this Amendment is 41.13%. Pursuant to changes to Chapter 332, Florida Statutes, effective October 1, 2020, a governing body of a commercial service airport may not approve purchases of contractual services in excess of the Category Five threshold amount of \$325,000 provided in Section 287.017, Florida Statutes, on a consent agenda. This amendment exceeds the threshold amount and must be approved on the regular agenda. Countywide (AH)

Background and Policy Issues: In order to carry out the approved Capital Improvement Program for the County, the Department of Airports requires professional planning and design engineering services. This agreement is for 2 years with 2 one (1) year renewal options. This amendment allows for the continuation of services necessary for the development and operation of the County's airport system.

Attachments:

- 1. Amendment No. 5 with RS&H, Inc. – 2 Originals
- 2. DBE Goal Information

Recommended By: Paul Anna Beck 2/25/22
Department Director Date

Approved By: M. Baker 3/9/22
County Administrator Date

II. FISCAL IMPACT ANALYSIS

A. Five Year Summary of Fiscal Impact:

Fiscal Years	2022	2023	2024	2025	2026
Capital Expenditures	\$1,325,944				
Operating Costs					
External Revenues (Grants)					
Program Income (County)					
In-Kind Match (County)					
NET FISCAL IMPACT	\$1,325,944				

ADDITIONAL FTE POSITIONS (Cumulative) _____

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

Budget Account No: Fund 4111 Department 121 Unit A436 Object 6504
 Reporting Category _____ 121 A107 6505
 121 A342 6504

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

Funds are available in the above referenced accounts.

C. Departmental Fiscal Review:

III. REVIEW COMMENTS

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

OFMB 3-1-22
3-1-22

Contract Dev. and Control 3/17/22
3-7-22

B. Legal Sufficiency:

3-8-22
 Assistant County Attorney

C. Other Department Review:

 Department Director

REVISED 11/17

(THIS SUMMARY IS NOT TO BE USED AS A BASIS FOR PAYMENT)

**AMENDMENT NO. 5 TO CONTRACT
BETWEEN
PALM BEACH COUNTY DEPARTMENT OF AIRPORTS
AND
RS&H, INC.
FOR
FOR CONSULTING / PROFESSIONAL SERVICES
AT
PALM BEACH COUNTY AIRPORTS**

This Amendment No. 5 to the Contract is made as of the _____ day of _____, 2022, by and between **Palm Beach County**, a Political Subdivision of the State of Florida, by and through its Board of Commissioners, hereinafter referred to as the **COUNTY**, and **RS&H, Inc.**, [] an individual, [] partnership, [X] a corporation authorized to do business in the State of Florida, hereinafter referred to as the **CONSULTANT**, whose Federal Tax I.D. number is 59-2986466.

WITNESSETH

WHEREAS, on May 7, 2019, the COUNTY entered into an Agreement (R2019-0612) with the CONSULTANT for the CONSULTANT to provide Consulting / Professional Services for the Palm Beach County Department of Airports at Palm Beach County Airports (PBI, F45, LNA, & PHK); and

WHEREAS, on May 5, 2020, the COUNTY entered into an Amendment No. 1 (R-2020-0414) 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, on October 20, 2020, the COUNTY entered into an Amendment No. 2 (R-2020-1607) 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, on May 4, 2021, the COUNTY entered into an Amendment No. 3 (R-2021-0576) with the CONSULTANT to exercise the first one (1) year renewal option for the continuation of services; and

WHEREAS, on July 1, 2021, the COUNTY entered into an Amendment No. 4 (R-2021-0844) 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,

WHEREAS, Article 2 of the Contract defines the performance period of the contract as two (2) years, with two (2) one (1) year renewal options, the exercise of which are within the COUNTY'S sole control and discretion, and

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 second one (1) year renewal option for the continuation of services provided by the CONSULTANT under this Contract.
2. 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, Three-Hundred Twenty-Five Thousand, Nine Hundred Forty-Three Dollars and Eighty-Seven Cents (\$1,325,943.87) for the services in Amendment No. 5 to the original Contract.
3. The parties hereby agreed to amend the Contract Article 1 Services. The CONSULTANT'S representative/liaison during the performance of this Contract shall be Mr. Pat Hargrove, telephone no. 904-256-2437.
4. The parties hereby agreed to amend the Contract Article 27 Notice. The CONSULTANT'S notices shall be addressed to:

Mr. Pat Hargrove, AIA NCARB
RS&H, Inc.
10748 Deerwood Park Blvd S
Jacksonville, FL 32256
5. Except as specifically amended herein, all other terms and conditions of the Contract shall remain in full force and effect.

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IN WITNESS WHEREOF, the parties have caused the Fifth 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, RS&H, Inc., has caused these presents to be signed in its corporate name by its duly authorized officer (Name) Rodney L. Bishop, (Title) Senior Vice President, Aviation, 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

JOSEPH ABRUZZO
CLERK OF THE COUNTY COURT
AND COMPTROLLER

BOARD OF COUNTY COMMISSIONERS

By: _____
Deputy Clerk

By: _____
Robert S. Weinroth, Mayor

WITNESS:

CONSULTANT:

DocuSigned by:
Holly Harper
E50C7E49476A4E8...
SIGNATURE

RS&H, Inc.
COMPANY NAME

Holly Harper
Name (type or print)

DocuSigned by:
Rodney Bishop
1402EE8199E0486...
Signature

Rodney L. Bishop
Name (type or print)

APPROVED AS TO FORM
AND LEGAL SUFFICIENCY

Senior Vice President, Aviation
Title

BY: _____
County Attorney

(Corporate Seal)

APPROVED AS TO TERMS
AND CONDITIONS

By: [Signature]
Department Director

AMENDMENT NO 5 INDEX

CERTIFICATE OF INSURANCE

EXHIBIT A: AMENDMENT NO. 5

EXHIBIT A-1 – Task I-22-PBI-R-024: Switchgear NPDS Replacement Construction Administration & RPR Services

EXHIBIT A-2 – Task I-22-PBI-R-025: 400Hz GPU Replacement Construction Administration & RPR Services

EXHIBIT A-3 – Task I-22-PBI-R-026: PCA and GPU Point of Use Design & Bidding Services (Supplemental)

EXHIBIT A-4 – Task III Services

EXHIBIT B: DETAILED FEES, EXPENSESE AND PAYMENTS

EXHIBIT B-I: Summary of Fees

EXHIBIT B-II: Schedule of Payments

EXHIBIT C – PROPOSED SCHEDULES

EXHIBIT D – DISADVANTAGED BUISINESS ENTERPRISE COMPLIANCE

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
DX00000525	RS&H, Inc.	Modified	Compliant					DOA 18-2A	Consulting/Professional Services
		A+p , XV	Hartford Casualty Insurance Company	21UENOL5660	6/28/2021	6/28/2022	Auto Liability		
		A+p , XV	Hartford Casualty Insurance Company	20xhuoz0019	6/28/2021	6/28/2022	Excess Liability		
		A+p , XV	Hartford Casualty Insurance Company	20uunoz0018	6/28/2021	6/28/2022	General Liability		
		A , XV	Lloyd's	b0146ldusa1904894	6/28/2021	6/28/2022	Professional Liability		
		A+p , XV	Twin City Fire Insurance Company	21wbo6h5a	12/1/2021	12/1/2022	Workers Comp		

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

EXHIBIT A: AMENDMENT NO. 5

This Amendment No 5 is in accordance with the Contract for Consulting/Professional Services (Agreement R-2019-0612) between Palm Beach County (COUNTY) and RS&H, Inc. (CONSULTANT) dated May 7, 2019.

CERTIFICATE OF INSURANCE

EXHIBIT A: AMENDMENT NO. 5

EXHIBIT A-1 – Task I-22-PBI-R-024: Switchgear NPDS Replacement Construction Administration & RPR Services

EXHIBIT A-2 – Task I-22-PBI-R-025: 400Hz GPU Replacement Construction Administration & RPR Services

EXHIBIT A-3 – Task I-22-PBI-R-026: PCA and GPU Point of Use Design & Bidding Services (Supplemental)

EXHIBIT A-4 – Task III Services

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 – DISADVANTAGED BUSINESS ENTERPRISE COMPLIANCE

**EXHIBIT A-1 – Task I-22-PBI-R-024: Switchgear NPDS Replacement Construction
Administration & RPR Services**

Switchgear NPDS Replacement Construction Administration & RPR Services

Version 3.0

January 26, 2022

Palm Beach County (PBC) Department of Airports (DOA)
West Palm Beach, FL

Task Authorization No. I-22-PBI-R-024

RS&H Project No. 206-3101-024

Prepared by RS&H, Inc. at the direction
of PBC DOA

RS&H

I PROJECT DESCRIPTION

The Airport has requested that RS&H (Consultant) under the Agreement with RS&H for Airport Facilities and System Consulting Services for Palm Beach County Department of Airports Project No. DOA 18-2A provide a scope and fee for Construction Administration (CA) Services for the NPDS Switchgear Replacement Project at Palm Beach International Airport (Project).

The following professional disciplines/services/specialties are expected to play a significant role in the development of the Project:

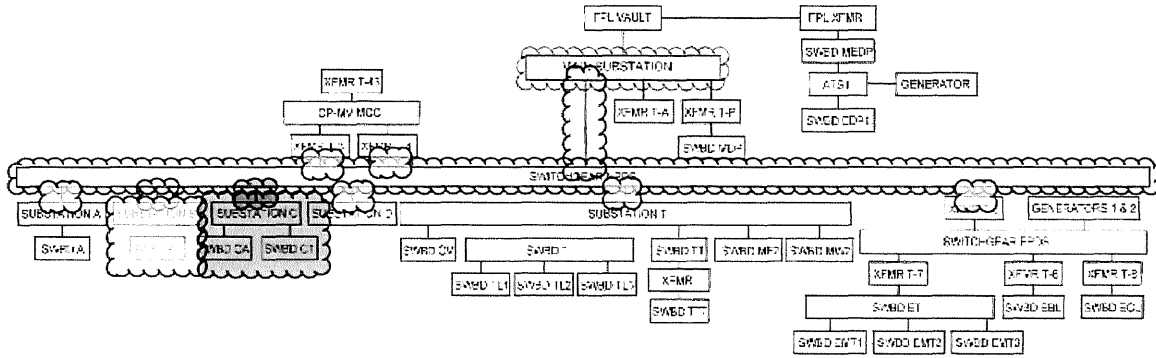
- Project Management
- Structural Engineering CA
- Electrical Engineering CA
 - Lighting
 - Power
 - Updating Short Circuit Device Coordination and Arc Flash Study
- Low Voltage Systems CA
- Civil Engineering CA
- Mechanical Engineering CA
- Partial Resident Project Representative (RPR) Services

The Consultant design team is made up of the following professionals:

<u>Consultant/Subconsultant</u>	<u>Involvement</u>
RS&H	PM, Civil Engineering CA, Structural Engineering CA, Mechanical Engineering CA, Low Voltage System CA
Quantum Electrical Engineering, Inc.	Electrical Engineering CA including warranty inspection, Partial RPR Services

This proposal is to provide construction administration and partial RPR services to support the construction phase of the Switchgear NPDA replacement project. The project includes the replacement of primary electrical components that provide electrical service to the Terminal Complex at Palm Beach International Airport (PBI). As part of this project, the main substation, Switchgear "NPDS" and Substation B & Substation C and electrical distribution systems.

FIGURE 1:



PBIA ELECTRICAL DISTRIBUTION BLOCK DIAGRAM

Project Estimate – The Project’s total construction cost is estimated to be \$12,578,174.00 based on the GMP dated October 22, 2021 provided by Turner Construction Company (CMAR).

Project Duration – The Project’s schedule is defined in the accompanying Project Schedule which has been developed by the CMAR. The Project time is approximately (27) twenty-seven months from Notice to Proceed (NTP) to Substantial Completion (SC). The estimated construction time is approximately (20) twenty months. The actual construction schedule may vary as the Construction progresses. Changes to the construction schedule may require changes in the Consultant’s efforts and require adjustments to the compensation indicated in this proposal. Proposal includes an additional month after substantial completion for project closeout.

II PROJECT TASKS

Construction Administration tasks will include support services to confirm the project construction is in compliance with the contract documents. These services include, submittal/shop drawing review, Response to Requests for Information, Attendance of regular construction progress meetings, periodic site visits, partial RPR services, substantial completion and final punch list site visits, and project closeout. These tasks are further described below.

TASK 1 CONSTRUCTION ADMINISTRATION & PARTIAL RPR SERVICES

The scope (and fee) proposed under this task is based upon an estimated total construction duration noted above. The scope and fee may need to be modified should the construction duration exceed this time. Specific task breakdowns are as follows:

Task 1.1 Pre-Construction Conference

The Consultant shall attend one (1) pre-construction conference meeting at the Airport. The CMAR will prepare the Pre-Construction Meeting agenda and meeting minutes, and distribute the minutes to appropriate parties

The following disciplines/individuals will be present from the Consultant team:

- Project Manager
- Electrical Engineer

Task 1.2 RFI/Substitutions/Submittal Review

The Consultant shall review and respond to Request for Information (RFI's), substitution requests, shop drawings, samples, and other submissions furnished by the CMAR and submitted to the Consultant. The Consultant shall review and approve as required. The Consultant will utilize Newforma for tracking, reviewing, and responding to RFIs and submittals.

Submittal review will be limited to the initial review and a single resubmittal. Any submittal reviews beyond two is excluded.

Task 1.3 Witnessing Factory Testing

The Consultant shall participate as a witness in the factory testing required by Specifications 261126, 261319 and 261326 for Substations B & C, MSC-1 & 2 and SWGR NPDS. Each test is anticipated to be (4) four hours.

- Electrical Engineer will participate in up to (16) sixteen hours of factory testing via ZOOM or another virtual program.

Task 1.4 Construction Progress Meetings

Members of the Consultant Team shall participate in bi-weekly construction coordination meetings until the Contractor has mobilized, approximately (7) seven months. Once the Contractor has mobilized and is on-site, members of the Consultant Team shall participate in weekly construction coordination meetings, approximately (20) twenty months. Each meeting is anticipated to be (1) one hour.

- Pre-Mobilization: (14) meetings total
 - (14) Meetings - The Consultant will participate via ZOOM or another virtual program.
 - The following individuals will be present from the Consultant team at each construction meeting (remote or on-site as noted above):
 - Project Manager
 - Electrical Engineer
- Post-Mobilization: (80) eighty meetings total

- (20) Meetings - The Consultant will be on-site. On-site participation in construction meetings will be coupled with regularly scheduled monthly site visits of Task 1.5
 - The following disciplines/individuals will be present from the Consultant team at each construction meeting (remote or on-site as noted above):
 - Project Manager
 - Electrical Engineer
 - Resident Project Representative (included in Task 3.1)
- (60) Meetings - The Consultant will participate via ZOOM or another virtual program throughout the duration of construction.
 - The following disciplines/individuals will be present from the Consultant team at each construction meeting (remote or on-site as noted above):
 - Project Manager
 - Electrical Engineer
 - Resident Project Representative (included in Task 3.1)
- » Post-Mobilization: Meeting total varies
 - The Consultant will participate via ZOOM or another virtual program.
 - The following disciplines/individuals from the Consultant team can be available as necessary for the number indicated:
 - Civil Engineer: Up to (4) four construction meetings
 - Mechanical Engineer: Up to (4) four construction meetings
 - Low Voltage Systems: Up to (4) four construction meetings

The CMAR shall conduct the meetings, prepare agendas and provide the meeting minutes.

Task 1.5 Construction Progress Site Visits

The Consultant will conduct construction progress site visits as follows and a written observation report, documenting the findings of the site visit will be provided for each site visit:

- » Project Manager will conduct monthly construction progress site visits, (20) twenty visits averaging (1) one site visit per month
- » Electrical Engineer will conduct weekly construction progress site visits, averaging (4) four hours per week while the Contractor is on-site (20 months)
- » Civil Engineer will visit site as necessary for up to (5) five site visits
- » Mechanical Engineer will visit site as necessary for up to (5) five site visits
- » Low Voltage Systems will visit site as necessary for up to (5) five site visits
- » Unassigned Site Visits: An additional (10) ten site visits to be used as necessary.

Task 1.6 FPL Utility Coordination Meetings

The Consultant will participate in coordination meetings with FPL and provide a meeting minutes. Consultant anticipates (4) four meetings with each meeting anticipated to be (3) three hours.

The following disciplines/individuals will be present from the Consultant team at each coordination meeting:

- Project Manager: Virtual
- Electrical Engineer: On-Site or Virtual

Task 1.7 Shutdown Coordination Effort

The Consultant will participate in construction shutdown coordination site visits and meetings. These meetings are anticipated to be required beyond the weekly progress meetings. The Contractor shall conduct the meetings, prepare agendas and provide the meeting minutes. The Consultant anticipates (2) two hours each week during construction.

The following disciplines/individuals will be present from the Consultant team at each coordination meeting:

- Project Manager: Virtual
- Electrical Engineer: On-Site or Virtual

Task 1.8 Change Directives and Change Notices

The Consultant will prepare documentation to issue Change Directives and Change Notices with the approval of the Airport.

Owner directed changes that require additional design and documentation effort from the Consultant will be handled through an amendment to the contract. No changes will be executed, and no work progressed associated with those changes without prior approval from the Airport.

Task 1.9 Substantial Completion Observation and Punchlist

The Consultant shall perform, together with the Airport's authorized representative(s), a substantial completion observation of the project at each phase of the Project. The Consultant shall prepare a punchlist of items that must be completed or that are deficient. The CMAR shall submit phase punchlist to the Consultant prior to observation. There are (4) four phases to the project.

The following disciplines/individuals will be present from the Consultant team at each Substantial Completion Observation:

- » Project Manager
- » Electrical Engineer
- » Mechanical Engineer

Task 1.10 Final Observation

The Consultant shall perform a final observation at each phase to determine if the project has been completed in accordance with the contract documents, completion of punchlist of Task 1.9, and if the CMAR has fulfilled all of its obligations thereunder so that the Consultant may recommend approval (from Airport) if applicable, in writing, the issuance of a Certificate of Substantial Completion for each phase (ie Partial Certificate of Substantial Completion) and final payment to the CMAR. There are (4) four phases to the project.

The following disciplines/individuals will be present from the Consultant team at each Final Observation:

- » Project Manager
- » Electrical Engineer

Task 1.11 Short Circuit, Device Coordination & Arc Flash Analysis

Consultant's Electrical Engineer will update the existing Short Circuit, Device Coordination & Arc Flash Study pertaining to the electrical equipment added, removed and/or modified as part of the PBI 400Hz GPU Replacement Project. The scope shall include

- » Updating the existing power system model in SKM Power Tools for Windows
- » Re-run the Short Circuit, Device Coordination and Arc Flash Calculations
- » Updating one-lines, written report and tabular data
- » Develop arc flash labels on new/modified equipment

Task 1.12 Project Management

Consultant will oversee scheduling, resource allocation, monitoring, oversight, direction, and control for all aspects of the Consultant team's efforts including assembly and coordination of all documentation.

The Consultant will issue monthly progress reports with each invoice to the Airport project manager during this portion of the project.

TASK 2 PROJECT CLOSEOUT

Project closeout includes the preparation of the record documents, final BIM models, and final invoicing.

Task 2.1 Record Documents

The Consultant shall obtain red-line as-built drawings from Construction Contractor and prepare "Record Drawings", which shall become the property of the Airport corrected to show significant changes made in the work during the construction of the project. Such corrections shall be the "as-built" prints, drawings, field sketches and other data furnished to the Consultant by the Airport and the contractor, and any amendments issued during construction.

- Electronic updated drawings (.pdf)
- Electronic updated specifications (.pdf)
- Electronic updated drawings (CAD)

Task 2.2 Electrical Equipment Warranty Period Inspection

The Consultant shall conduct an on-site observation of the Project prior to the expiration of any electrical equipment warranty period and advise the Owner of recommended action, if any, to be taken under the terms of any warranty. The project will include an (11) eleven-month electrical equipment warranty inspection for each phase of the project. There are (4) four phases to the project.

The following disciplines/individuals will be present from the Consultant team to complete the warranty inspections:

Electrical Engineer

Task 2.3 Project Management and Discipline Coordination

Consultant will oversee scheduling, resource allocation, monitoring, oversight, direction, and control for all aspects of the team's efforts including assembly and coordination of all documentation.

The Consultant will issue monthly progress reports with each invoice to the Airport project manager during this portion of the project.

TASK 3 PARTIAL RESIDENT PROJECT REPRESENTATIVE (RPR) SERVICES**Task 3.1 Partial RPR Services**

The Consultant shall provide part-time RPR services for the project that will consist of on-site presence and observation for (10) ten hours per week. The RPR will observe the on-site construction to confirm the work is in compliance with the contract documents and is progressing according to the construction schedule. The RPR will provide a weekly observation report identifying the progress of the construction and any deficiencies or discrepancies observed. The RPR will attend the construction progress meetings noted above as well as

coordinate with other discipline team members for support during site visits. RPR will be provided by Quantum Electrical Engineering, Inc.

III MEETINGS AND PRESENTATIONS

The following meetings and presentations will be attended as part of this proposal:

Task	Presentation / Meeting / Site Visit	Total Meetings	In-Person Meetings/Site Visits	Conference Calls/ Web-Based
1.1	Pre-Construction Conference	1	2	0
1.4	Construction Progress Meetings	108	27	81
1.10	Substantial Completion Observation and Punchlist	4	4	0
1.11	Final Observation	4	4	0
2.2	Electrical Equipment Warranty Period Inspection	4	4	0

IV DELIVERABLES

The following deliverables will be submitted as part of this proposal:

Task	Deliverable	Format
1.5	Construction Progress Site Visit Report	.pdf
1.6	FPL Utility Coordination Meeting Minutes	.pdf
1.10	Substantial Completion Observation Punchlist Report	.pdf
1.12	Short Circuit, Device Coordination & Arc Flash Report	.pdf
1.12	Monthly Project Status Reports	.pdf
2.1	Record Documents (Drawings and Specifications)	.pdf & CAD
2.3	Monthly Project Status Reports	.pdf

V PROPOSED PROJECT CONSTRUCTION SCHEDULE

See Schedule Attachment. Schedule is provided by CMAR.

VI ASSUMPTIONS AND EXCLUSIONS

The following assumptions have been made for this Scope of Work:

- » CMAR will provide punchlist to Consultant at each phase prior to Substantial Completion site visit
- » The CMAR shall conduct the meetings, prepare agendas and provide the meeting minutes.

The following items are excluded from this Scope of Work unless otherwise noted:

- Fees associated with permitting
- Submittal reviews beyond two
- Construction Progress Site Visits other than listed herein RS&H will only perform services/work related in any way to PFAS chemicals or substances possibly containing PFAS chemicals (including but not limited to sampling, handling and remediating) to the extent the Palm Beach County Department of Airports specifically directs, in writing, RS&H to perform such services/work, and RS&H shall not be liable for the nonperformance of such services/work.

VII PROFESSIONAL SERVICES FEE AND FEE TYPE

RS&H will provide for a Fixed Lump Sum Fee as shown below. See Attachment for a breakdown of costs.

RS&H (Task 1 & 2) =	\$233,577.08
Quantum (Task 1 & 2) =	<u>\$163,983.27</u>
Total	\$397,560.35

RS&H will provide for a Maximum Fee, utilizing agreed to billing rates, Not-To-Exceed as shown below. See Attachment for a breakdown of costs.

Quantum (Task 3) =	\$120,459.20
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RS&H will provide the above referenced services for a Maximum Not-to-Exceed Fee as shown below. See Attachment for a breakdown of costs.

RS&H (Expenses)	\$ 8,880.00
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Total Fee as follows:

Lump Sum Fee (Task 1 & 2) =	\$397,560.35
Maximum Fee, Not-to-Exceed (Task 3) =	\$120,459.20
Cost-Plus, Not-to-Exceed (Expenses) =	<u>\$ 8,880.00</u>

Total Project Fee (Not-To-Exceed) = \$526,899.55

Should scope items/activities/efforts/durations be modified at the request of the Airport or need to be adjusted based on construction scheduling, the Consultant Team will need to modify the fee to accommodate the changes. Such changes will be compensated through an amendment (through Additional Services requested by the Consultant) to the Task Order or similar vehicle. Effort, fee, and schedule adjustments resulting from a change in scope will be assessed and approved by the Airport prior to the execution of the change.

PALM BEACH COUNTY DEPARTMENT OF AIRPORTS
 Airport Facilities & Systems Planning, Design, Engineering and Construction Management Professional Services

RS&H, INC.
 Switchgear NPDS Replacement Construction Administration & RPR Services
 Task Authorization No. I-22-PBI-R-024

<u>Task</u>	<u>Description</u>	<u>Hours</u>	<u>Fee</u>
Task 1	Construction Administration Services (Lump Sum)	812	\$ 224,012.88
Task 2	Project Closeout (Lump Sum)	42	\$ 9,564.20
Task 3	Partial RPR Services (Maximum Fee, Not-To-Exceed)	0	\$ -
		Subtotal RS&H Labor Hours	854
		Subtotal RS&H Labor Fee	\$ 233,577.08
<u>Subconsultants</u>			
	Quantum Electrical Engineering, Inc. (Lump Sum)		\$ 163,983.27
	Quantum Electrical Engineering, Inc. (Maximum Fee, Not-To-Exceed)		\$ 120,459.20
		Subtotal Subconsultant Fee	\$ 284,442.47
<u>Expenses</u>			
	Travel		\$ 8,480.00
	Other		\$ 400.00
		Subtotal Expenses	\$ 8,880.00
		Total Project Fee	\$ 526,899.55

Switchgear NPDS Replacement Construction Administration

Average Burdened Labor Rate

		HOURS								HOURS	TOTAL COST (\$)
		Principal	Sr. Project Manager	Sr. Engineer	Engineer	Sr. Engineer	Sr. Engineer	Engineer	Admin. Assistant		
		Principal	PM	Mechanical	Mechanical	IT	Civil	Civil	PM		
	Burdened Rate	\$249.89	\$287.02	\$246.63	\$151.25	\$246.63	\$246.63	\$161.55	\$50.17		
Electrical Engineering, Inc. (Lump Sum)											
Task 1	Construction Administration Services										
1.1	Pre-Construction Conference										\$0.00
	Project Manager		6							6	\$1,722.12
1.2	RFI's Reviews										\$0.00
	Project Manager		24							24	\$6,888.48
	Civil						5			5	\$1,233.15
	Mechanical			13						13	\$3,082.88
	IT				13					13	\$3,082.88
	Submittal Reviews										\$0.00
	Project Manager		24							24	\$6,888.48
	Civil						5			5	\$1,233.15
	Mechanical			13						13	\$3,082.88
	IT				13					13	\$3,082.88
	Substitution Reviews										\$0.00
	Project Manager		8							8	\$2,296.16
	Civil										\$0.00
	Mechanical			5						5	\$1,233.15
	IT				5					5	\$1,233.15
1.3	Witnessing Factory Testing										\$0.00
1.4	Construction Progress Meetings										\$0.00
	Project Manager		74							74	\$21,239.48
	Civil						4			4	\$986.52
	Mechanical			4						4	\$986.52
	IT				4					4	\$986.52
1.5	Construction Progress Site Visits										\$0.00
	Project Manager		120							120	\$34,442.40
	Civil						30			30	\$7,398.90
	Mechanical			30						30	\$7,398.90
	IT				30					30	\$7,398.90
	Unassigned (up to 10)		60							60	\$17,221.20
1.6	FPL Utility Coordination Meetings										\$0.00
	Project Manager		12							12	\$3,444.24
1.7	Shutdown Coordination Effort										\$0.00
	Project Manager		160							160	\$45,923.20
1.8	Change Directives and Change Notices										\$0.00
	Project Manager		8							8	\$2,296.16
	Civil						8			8	\$1,973.04
	Mechanical			8						8	\$1,973.04
	IT				8					8	\$1,973.04
1.10	Substantial Completion and Punchlist										\$0.00
	Project Manager		28							28	\$8,036.56
	Mechanical			28						28	\$6,905.64
1.11	Final Observation										\$0.00
	Project Manager		24							24	\$6,888.48
1.12	Short Circuit, Device Coordination & Arc Flash Analysis										\$0.00
1.13	Project Management and Project Coordination										\$0.00
	Project Manager		40							40	\$11,480.80
	Task Total		588	100	-	72	52	-	-	812	\$224,012.88
Task 2	Project Closeout										
2.1	Record Documents										\$0.00
	Project Manager		2							2	\$574.04
	Civil							8		8	\$1,212.40
	Mechanical				8					8	\$1,212.40
	IT					8				8	\$1,973.04
2.2	Electrical Warranty Period Inspection										\$0.00
2.3	Project Management and Project Coordination										\$0.00
	Project Manager		16							16	\$4,592.32
	Task Total		18	-	8	8	-	8	-	42	\$9,564.20
Task 3	Partial RPR Services										
3.1	Partial Resident Project Representative (RPR) Services										\$0.00
	Task Total		-	-	-	-	-	-	-	-	\$0.00
TOTAL FOR ALL TASKS (RS&H)			606	100	8	80	52	8	-	854	\$233,577.08

Switchgear NPDS Replacement Construction Administration

EXPENSES										
TRAVEL										
Task	Description	# Trips	# People	# Days	Airfare \$600	Car \$80	Lodging \$200	Per Diem \$40	Pkg \$25	
1.1	Pre-Construction Conference	1	1	1	\$0	\$80	\$0	\$40	\$0	\$120
1.5	Construction Progress Site Visits - Project Manager	27	1	1	\$0	\$2,160	\$0	\$1,080	\$0	\$3,240
	Construction Progress Site Visits - Civil Engineer	5	1	1	\$0	\$400	\$0	\$200	\$0	\$600
	Construction Progress Site Visits - Mechanical Engineer	5	1	1	\$0	\$400	\$0	\$200	\$0	\$600
	Construction Progress Site Visits - Low Voltage Systems	5	1	2	\$600	\$800	\$1,000	\$400	\$0	\$2,800
1.9	Substantial Completion and Punchlist	4	2	1	\$0	\$320	\$0	\$320	\$0	\$640
1.10	Final Observation	4	1	1	\$0	\$320	\$0	\$160	\$0	\$480
	Quantum Electrical Engineering, Inc. (Lump Sum)									
SUBTOTAL TRAVEL										\$8,480
OTHER EXPENSES										
	Reprographics				\$0					\$0
	Badging				\$400					\$400
	Specific Airport Fees				\$0					\$0
	Others				\$0					\$0
SUBTOTAL OTHER EXPENSES										\$400
TOTAL EXPENSES										\$8,880

Switchgear NPDS Replacement Construction Administration

Sub Consultant Effort by Major Task Item		Task 1	Task 2	Task 3	
Quantum Electrical Engineering, Inc.	<i>Electrical & RPR</i>	\$ 158,791.03	\$ 5,192.24	\$ 120,459	\$ 284,442.47
TOTAL SUBCONSULTANTS					\$ 284,442.47

QUANTUM

Electrical Engineering, Inc.

January 19, 2022

RS&H, Inc.
Mr. Aaron Jackson, PE, LEED AP
Aviation Structural Engineer
10748 Deerwood Park Blvd South,
Jacksonville, FL 32256

Subject: Electrical Engineering Construction Administration (CA) Services Fee Proposal for the Palm Beach County Department of Airports (DOA) – Switchgear NPDS Replacement Project. Includes Task 1, 2 and 3 as reflected in RSH Scope of Services, Dated January 2022

Dear Aaron,

Quantum Electrical Engineering, Inc. (QUANTUM) is pleased to provide RS&H an electrical engineering Construction Administration (CA) services fee proposal for the Palm Beach International Airport Switchgear Replacement Project Task 1, 2 and 3 with an anticipated construction duration of 20 months from notice to proceed to substantial completion. The following tasks are included in our scope:

Task 1: Construction Administration Services

Task 1.1: Pre-Construction Conference

- Includes attendance at (1) pre-construction meeting.

Task 1.2: RFI/Substitutions/Submittal Review

- Includes requests for information reviews & approvals.
- Includes substitution request reviews & approvals.
- Includes electrical shop drawings submittals reviews & approvals. Assumption of 38 shop drawings.

Task 1.3: Witnessing Factory Testing

- Includes participation in up to 16 hours of factory testing via virtual program for SWGR NPDS, MSC-1 & 2 and Substation B & C.

Task 1.4: Construction Progress Meetings

- Includes attendance for up to 94 (1hr) progress construction meetings that will be attended as follows:
 - Attend 74 (1hr) progress construction meetings either virtually or via teleconference.
 - Attend 20 (1hr) on-site progress construction meetings.

Task 1.5: Construction Progress Site Visits

- Includes 80 weekly (4hrs each) on-site observation visits.
- Includes a written observation reports, documenting the findings of each site visit.

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

www.QuantumElectricalEngineering.com

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

Task 1.6: FPL Utility Coordination Meetings

- Includes attendance for 4 (3hr) FPL coordination meetings that will be attended either virtually or on-site.

Task 1.7: Shutdown Coordination Efforts

- Includes attendance for up to 160 hours of shutdown coordination site visits and meetings that will be attended either virtually, teleconference or on-site.

Task 1.8: Change Directives and Change Notices

- Includes change order reviews.
- Includes minor plan alterations and revisions.

Task 1.9: Substantial Completion Observation and Punchlist

- Includes 4 site visits for substantial completion inspections (1 visit per phase) (4 phases).
- Development of electrical punch list per each substantial completion inspection.

Task 1.10: Final Observation

- Includes 4 site visits for final observation to verify completion of punch list (1 visit per phase) (4 phases).

Task 1.11: Short Circuit, Device Coordination & Arc Flash Analysis

- Up-dating the existing power system model in SKM Power Tools for Windows for the modifications to the electrical distribution systems. This update will be extensive as it impacts the entire upstream electrical distribution system in the Terminal, Concourses and Old Long Term Parking.
- Perform Short Circuit, Device Coordination and Arc Flash Calculations using SKM.
- Review and evaluate device settings on approximately 100 circuit breakers/relays. Replace existing and/or create new Time Current Curves (TCC) for approximately 50 devices.
- Update one-lines, written report and tabular data.
- Develop new Arc Flash labels and replace the arc flash labels (approximately 580 labels) impacted by the Switchgear Replacement.
- Modify circuit breaker and relay settings for new and existing equipment as required by the study.

Task 2: Project Closeout

Task 2.1: Record Documents

- Include review of Contractor "Red Line Plan Mark-ups."
- Includes development of record drawings and specifications based on Contractor "Red Line Plan Mark-ups."

Task 2.2: Warranty Period Inspection

- Includes 4 site visits for warranty period inspections (1 visit per phase) (4 phases).
- Development of electrical warranty discrepancy list per each inspection.

Task 3: Resident Project Representative (RPR) Services

Task 3.1: Partial Resident Project Representative (RPR) Services

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2755 Vista Parkway, Suite I-9
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Page 3

Mr. Aaron Jackson, P.E.

Electrical Engineering CA Services Fee Proposal for the Switchgear NPDS Replacement

- Includes part-time RPR services of on-site presence and observation for five visit per week, 2 hours per visit for 80 weeks.
- Includes a written observation report, documenting the findings of each site visit.
- Includes attendance at up to 80 progress construction meetings.

Exclusions and Assumptions

- QUANTUM shall provide one electronic set of record drawings in PDFs and AutoCAD and record specifications in PDF. RS&H shall provide all distribution and printing of all documents to DOA.

Our proposed Lump Sum Fee for Task 1 is:	\$ 158,791.03
Our proposed Lump Sum Fee for Task 2 is:	\$ 5,192.24
Our proposed Not-To-Exceed for Task 3 is:	\$ 120,459.20

Our proposed total fee is: \$ 284,442.47
(See Attachment for Breakdown)

Sincerely,



Amy Champagne-Baker, PE
President

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PALM BEACH COUNTY DEPARTMENT OF AIRPORTS- SWITCHGEAR NPDS REPLACEMENT										
QUANTUM ELECTRICAL ENGINEERING, INC.										
SCOPE FEE SUMMARY										
FEE PROPOSAL ELECTRICAL SERVICES TO RS&H 01/19/22										
	Rate	\$161.54	\$144.23	\$138.46	\$69.23	\$132.69	\$46.15			
	Proj. Mgr.	Prof. Eng	Proj. Eng	CADD/Tech	Field Eng.	Clerical	Total	Lump Sum	TOTAL	
PHASE OF WORK	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Task	TASK COST	
Task 1: Construction Administration Services										
Task 1.1: Pre-Construction Conference (1 meetings at 2hr ea)		2	2				4		\$565.38	
Task 1.2: RF/Substitutions/Submittal Review		124		25		20	169		\$20,538.27	
Task 1.3: Witnessing Factory Testing		16					16		\$2,307.68	
Task 1.4: Construction Progress Meetings (94 meetings at 1hr ea)		94					94		\$13,557.62	
Task 1.5: Construction Progress Site Visits (80 visits at 4hrs ea)		320				26	346		\$47,353.50	
Task 1.6: FPL Utility Coordination Meetings (4 meetings at 3hrs ea)		12				2	14		\$1,823.06	
Task 1.7: Shutdown Coordination Site Visits and Meetings		160					160		\$23,076.80	
Task 1.8: Change Directives and Change Notices		80		52		4	136		\$15,322.96	
Task 1.9: Substantial Completion Observation and Punchlist (4 visits at 8hrs ea)		32				6	38		\$4,892.26	
Task 1.10: Final Observation (4 visits at 4hrs ea)		16				6	22		\$2,584.58	
Task 1.11: Short Circuit, Device Coordination & Arc Flash Analysis		80	54	40	32	16	222		\$26,768.92	
Subtotal	0	936	56	117	32	80	1221		\$158,791.03	
Task 2: Project Closeout										
Task 2.1: Record Documents		4	8	16	8	4	40		\$4,038.40	
Task 2.2: Warranty Period Inspection (4 visits at 2hr ea)		8					8		\$1,153.84	
Subtotal	0	12	8	16	8	4	48		\$5,192.24	
Task 3: Project Closeout										
Task 3.1: Partial Resident Project Representative (RPR) Services (80weeks visits at 11hrs ea)						880	80	960	\$120,459.20	
Subtotal	0	24	16	32	896	88	1056		\$120,459.20	
Grand Total Hours	0	948	64	133	40	84	1269			
Grand Total Labor Cost	\$0.00	\$136,730.04	\$8,861.44	\$9,207.59	\$5,307.60	\$3,876.60			\$284,442.47	

EXHIBIT A-2 – Task I-22-PBI-R-025: 400Hz GPU Replacement Construction Administration & RPR Services

400Hz GPU Replacement Construction Administration & RPR Services

Version 3.0

January 26, 2022

Palm Beach County (PBC) Department of Airports (DOA),
West Palm Beach, Florida

Task Authorization No. I-22-PBI-R-025

RS&H Project No. 206-3101-025

Prepared by RS&H Inc.

at the direction of Palm Beach

County, Department of Airports

RS&H

I PROJECT DESCRIPTION

The Palm Beach County of Airports has requested that RS&H (Consultant) under Agreement with RS&H for Airport Facilities and System Consulting Services for Palm Beach County Department of Airports Project No. DOA 18-2A provide a scope and fee for Construction Administration Services for the 400Hz GPU Point of Use Replacement Project at Palm Beach International Airport (Project).

The following professional disciplines/services/specialties are expected to play a significant role in the development of the Project:

- » Project Management
- » Architecture CA
- » Mechanical Engineering CA
- » Electrical Engineering CA
 - o Lighting
 - o Power
 - o Addressable Fire Alarm
 - o Updating Short Circuit, Device Coordination and Arc Flash Analysis
- » Partial Resident Project Representative (RPR) Services
- » Low Voltage Systems CA
 - o Security (Access Control)
 - o IT Network Systems
- » Airfield Engineering CA
- » Structural Engineering CA
- » Fire Protection Engineering CA
- » Special Inspection / Threshold Inspection (SI/TI)

The Consultant design team is made up of the following professionals:

Consultant/Subconsultant	Involvement
RS&H	Project Management, Airfield Engineering CA, Mechanical Engineering CA, Architecture CA, Structural Engineering CA, Fire Protection Engineering CA, Low Voltage Systems CA
Quantum Electrical Engineering, Inc.	Electrical Engineering, Partial RPR Services, Updating Short Circuit, Device Coordination and Arc Flash Analysis
Tierra South Florida, Inc.	SI/TI

This proposal is to provide construction administration services and partial RPR services to support the construction phase of the 400 Hz GPU replacement project. The project includes the removal of existing central 400 Hz converter equipment and 400Hz/28vDC equipment at 28

boarding bridges on Concourses B and C. New point of use 400 Hz ground power units will be provided at each boarding bridge, new electrical panels and switchgear equipment, and new HVAC equipment will be provided in the 400Hz electrical rooms in Concourses B and C. New doors, door hardware, access control and associated structural modifications will be provided at the 400Hz and Main Switchgear rooms as part of the project.

Funding Expectations – The Project’s total budgeted construction cost is estimated to be approximately \$7,900,000.

Project Duration – The Project’s construction schedule is anticipated to be 430 calendar days from the issuance of Notice to Proceed to the successful contractor, including project closeout. The project will also include 11 month warranty inspections for the GPU units and central 400Hz electrical rooms. The actual construction schedule may vary as the Construction progresses. Changes to the construction schedule may require changes in the Consultant’s efforts and require adjustments to the compensation indicated in this proposal.

II PROJECT TASKS

Construction Administration tasks will include support services to confirm the project construction is in compliance with the contract documents. These services include, submittal/shop drawing review, Response to Requests for Information, Attendance of regular construction progress meetings, periodic site visits, partial RPR services, substantial completion and final punch list site visits, project closeout and warranty period inspections. These tasks are further described below.

TASK 1 CONSTRUCTION ADMINISTRATION SERVICES

The scope (and fee) proposed under this task is based upon an estimated total construction duration of 430 calendar days, with additional warranty inspections at 11 months for each GPU and 400 Hz electrical rooms. The scope and fee may need to be modified should the construction duration exceed this time. Specific task breakdowns are as follows:

Task 1.1 Pre-Construction Conference

The Consultant shall attend one (1) pre-construction conference meeting at the Airport. The Consultant will prepare the Pre-Construction Meeting agenda and meeting minutes and distribute the minutes to appropriate parties.

The following disciplines/individuals will be present from the Consultant team:

- Project Manager
- Electrical Engineer

» Resident Project Representative

Task 1.2 RFI/Substitutions/Submittal Review

The Consultant shall review and respond to Request for Information (RFI's), substitution requests, shop drawings, samples, and other submissions furnished by the contractor and submitted to the Consultant. The Consultant Project Manager shall review and approve as required. The Consultant will utilize Newforma for tracking, reviewing, and responding to RFIs and submittals.

Submittal review will be limited to the initial review and a single resubmittal. Any submittal reviews beyond two is excluded.

Task 1.3 Construction Progress Meetings

Members of the Consultant Team shall participate in bi-weekly construction coordination meetings until the Contractor has begun work on site. Once Contractor has begun work on site, Members of the Consultant Team shall participate in weekly construction coordination meetings. Each meeting is anticipated to be (1) one hour. The Consultant will prepare the meeting agendas and meeting minutes and distribute the minutes to appropriate parties.

- » Pre-Mobilization: (4) meetings total
 - (4) Meetings - The Consultant will participate via ZOOM or another virtual program.
 - The following individuals will be present from the Consultant team at each meeting:
 - Project Manager
 - Electrical Engineer
- » Post-Mobilization: (55) meetings total
 - (14) Meetings - The Consultant will be on-site. On-site participation in construction meetings will be coupled with regularly scheduled monthly site visits of Task 1.4. The number of meetings averages to (1) one on-site meeting per month for the duration of construction.
 - The following individuals will be present from the Consultant team at each meeting:
 - Project Manager
 - Resident Project Representative (included in Task 3.1)
 - (41) Meetings - The Consultant will participate via ZOOM or another virtual program. The number of meetings averages to (3) three virtual meeting per month for the duration of construction
 - The following individuals will be present from the Consultant team at each meeting:

- Project Manager
 - Resident Project Representative (included in Task 3.1)
- Post-Mobilization: Meeting total varies
 - The Consultant will participate via ZOOM or another virtual program. The number of meetings averages to (3) three virtual meeting per month for the duration of construction
 - The following disciplines/individuals from the Consultant team can be available as necessary for the number indicated:
 - Electrical Engineering: Up to 15 progress meetings
 - Mechanical Engineering: Up to 4 progress meetings
 - Architectural Engineering: Up to 4 progress meetings
 - Structural Engineering: Up to 4 progress meetings
 - Low Voltage/Systems: Up to 4 progress meetings

Task 1.4 Construction Progress Site Visits

The Consultant will conduct construction progress site visits as follows:

- Project Manager will conduct monthly construction progress site visits, (14) fourteen visits averaging (1) one site visit per month once the Contractor has started work on site.
- Electrical Engineer will visit site as appropriate during the construction progress for up to (6) six site visits
- Mechanical Engineer will visit site as appropriate during the construction progress for up to (2) two site visits
- Structural Engineer will visit site as appropriate during the construction progress for up to (2) two site visits
- Architectural will visit site as appropriate during the construction progress for up to (2) two site visits
- Low Voltage/Systems will visit site as appropriate during the construction progress for up to (2) two site visits

A written observation report, documenting the findings of the site visit will be provided for each site visit.

Task 1.5 Change Directives and Change Notices

The Consultant will prepare documentation to issue Change Directives (Field Bulletins) and Change Notices (Field Instructions) with the approval of the Airport. The Consultant will review change proposals submitted by Contractor associated with Change Directives (Field Bulletins).

Owner directed changes that require additional design and documentation effort from the Consultant will be handled through an amendment to the contract. No changes will be

executed, and no work progressed associated with those changes without prior approval from the Airport.

Task 1.6 Special Inspection / Threshold Inspection

Tierra South Florida, Inc. shall perform Special Inspection / Threshold Inspection services in accordance with the building code. All Inspections will be performed in accordance with the Structural Special Inspection Plan / Threshold Inspection Plan. All elements will be inspected for compliance with the reference drawings and special inspection / threshold inspection plan.

Inspections by the Special Inspector / Threshold Inspector will be performed on an as needed basis and coordinated with the progress of construction. A conformance / non-conformance log will be performed and updated on a monthly basis. Daily inspection logs will be provided on a daily basis. Additionally, a monthly report will be submitted to the authority having jurisdiction and Owner. Report will be a summary of the daily reports and the material testing reporting.

Task 1.7 Substantial Completion Observation and Punchlist

The Consultant shall perform, together with the Airport's authorized representative(s), a substantial completion observation of the project at each turnover. The Consultant shall prepare a punchlist of items that must be completed or that are deficient.

Substantial completion site visits will be provided for each 400Hz GPU unit turn-over during the construction of the project. Substantial completion site visits will also be provided at each 400 Hz electrical room turn-over and completion of door modifications. It is anticipated that the following quantity of substantial completion site visits will be provided:

- » Project Manager: Up to 14 site visits for GPU unit turnover and 400 Hz electrical room turnovers.
- » Electrical Engineering: Up to 14 site visits for GPU unit turnover and 400 Hz electrical room turnovers.
- » Mechanical Engineering: Up to 2 site visits for 400Hz electrical room turnover.
- » Architectural: Up to 2 site visits for 400Hz electrical room turnover.
- » Structural Engineering: Up to 2 site visits for 400Hz electrical room turnover.
- » Low Voltage/Systems: Up to 2 site visits for 400Hz electrical room turnover.

Task 1.8 Final Observation

The Consultant shall perform a final observation at each turnover to determine if the project has been completed in accordance with the contract documents and if the contractor has fulfilled all of its obligations thereunder so that the Consultant may recommend approval (from Airport) if

applicable, in writing, the issuance of a Certificate of Substantial Completion and final payment to the contractor.

The following disciplines/individuals will be present from the Consultant team at each Final Observation:

Project Manager: Up to 14 site visits for GPU unit turnover and 400 Hz electrical room turnovers.

Task 1.9 Project Management

Consultant will oversee scheduling, resource allocation, monitoring, oversight, direction, and control for all aspects of the Consultant team's efforts including assembly and coordination of all documentation.

The Consultant will issue monthly progress reports with each invoice to the Airport project manager during this portion of the project.

Task 1.10 Short Circuit, Device Coordination & Arc Flash Analysis

Consultant's Electrical Engineer will update the existing Short Circuit, Device Coordination & Arc Flash Study pertaining to the electrical equipment added, removed and/or modified as part of the PBI 400Hz GPU Replacement Project. The scope shall include

- Updating the existing power system model in SKM Power Tools for Windows
- Re-run the Short Circuit, Device Coordination and Arc Flash Calculations
- Updating one-lines, written report and tabular data
- Develop arc flash labels on new/modified equipment

TASK 2 PROJECT CLOSEOUT

Project closeout includes the preparation of the record documents, final BIM models, and final invoicing.

Task 2.1 Record Documents

The Consultant shall obtain red-line as-built drawings from Construction Contractor and prepare "Record Drawings", which shall become the property of the Airport corrected to show significant changes made in the work during the construction of the project. Such corrections shall be the "as-built" prints, drawings, field sketches and other data furnished to the Consultant by the Airport and the contractor, and any amendments issued during construction.

- Full size electronic to scale drawings updated sets of drawings in PDF and CAD format.
- Electronic updated sets of specifications in PDF format.

Task 2.2 Warranty Period Inspection

The Consultant shall conduct an on-site observation of the Project prior to the expiration of any warranty period and advise the Owner of recommended action, if any, to be taken under the terms of any warranty. As the project will have various phased warranty periods for the GPU replacement equipment and 400 Hz electrical equipment, there will be a requirement for multiple warranty period inspections. The Consultant will coordinate to conduct warranty period inspections concurrent with later construction progress site visits to the greatest extent possible, but this proposal includes the following anticipated warranty period inspection site visits:

- » Project Manager: Up to 14 site visits for warranty period inspection.
- » Electrical Engineering: Up to 14 site visits for warranty period inspection
- » Mechanical Engineering: Up to 2 site visits for warranty period inspection.
- » Architectural: Up to 2 site visits for warranty period inspection.
- » Structural Engineering: Up to 2 site visits for warranty period inspection.
- » Low Voltage/Systems: Up to 2 site visits for warranty period inspection.

Task 2.3 Project Management and Discipline Coordination

Consultant will oversee scheduling, resource allocation, monitoring, oversight, direction, and control for all aspects of the team's efforts including assembly and coordination of all documentation.

The Consultant will issue monthly progress reports with each invoice to the Airport project manager during this portion of the project.

TASK 3 PARTIAL RESIDENT PROJECT REPRESENTATIVE (RPR) SERVICES**Task 3.1 Partial RPR Services**

The Consultant shall provide part-time RPR services for the project that will consist of on-site presence and observation for (30) thirty hours per week. The RPR will observe the on-site construction to confirm the work is in compliance with the contract documents and is progressing according to the construction schedule. The RPR will provide a weekly observation report identifying the progress of the construction and any deficiencies or discrepancies observed. The RPR will attend the construction progress meetings noted above as well as coordinate with other discipline team members for support during site visits. RPR will be provided by Quantum Electrical Engineering, Inc.

III MEETINGS AND PRESENTATIONS

The following meetings and presentations will be attended as part of this proposal:

Task	Presentation / Meeting / Site Visit	Total Meetings	In-Person Meetings/Site Visits	Conference Calls/ Web-Based
1.1	Preconstruction Conference	1	1	0
1.3	Construction Progress/Coordination Meetings	55	14	41
1.4	Construction Progress Site Visits	14	14	0
1.7	Substantial Completion Site Visits	14	14	0
2.2	Warranty Period Inspection Site Visits	14	14	0
3.1	Partial RPR Site Observations	55	55	0

IV DELIVERABLES

The following deliverables will be submitted as part of this proposal:

Task	Deliverable	Format
1.1	Preconstruction Meeting Agenda and Meeting Minutes	PDF
1.4	Construction Progress Site Visit Reports	PDF
1.6	Special Inspection / Threshold Inspection Reports	PDF
1.7	Substantial Completion Punch List Reports	PDF
1.8	Monthly Project Status Reports	PDF
1.10	Short Circuit, Device Coordination & Arc Flash Report	PDF
2.1	Record Documents -Drawings and Specifications	PDF & CAD
2.2	Warranty Period Inspection Reports	PDF
2.3	Monthly Project Status Reports	PDF
3.1	Weekly RPR Project Progress Reports	PDF

V ASSUMPTIONS AND EXCLUSIONS

The following assumptions have been made for this Scope of Work:

Site Observations and RPR on-site presence will be during normal working hours while the contractor is on-site.

Contractor will provide field mark-ups in electronic format for the completion of Record Documents.

Warranty Period inspections will occur at 11 months from each substantial completion turn-over of 400 Hz GPU units and Electrical Rooms.

The following items are excluded from this Scope of Work unless otherwise noted:

- » Submittal reviews beyond two
- » Fees associated with permitting
- » Attendance of contractor/building inspector testing or site inspection visits.
- » RS&H will only perform services/work related in any way to PFAS chemicals or substances possibly containing PFAS chemicals (including but not limited to sampling, handling and remediating) to the extent the Palm Beach County Department of Airports specifically directs, in writing, RS&H to perform such services/work, and RS&H shall not be liable for the nonperformance of such services/work.

VI PROFESSIONAL SERVICES FEE AND FEE TYPE

RS&H will provide for a Fixed Lump Sum Fee as shown below. See Attachment for a breakdown of costs.

RS&H (Task 1 & 2) =	\$298,420.26
Quantum (Task 1 & 2) =	\$ 28,938.16
Tierra South Florida, Inc (Task 1) =	<u>\$ 3,165.00</u>
Total	\$330,523.42

RS&H will provide for a Maximum Fee, utilizing agreed to billing rates, Not-To-Exceed as shown below. See Attachment for a breakdown of costs.

Quantum (Task 3) =	\$228,774.70
--------------------	--------------

RS&H will provide the above referenced services for a Maximum Not-to-Exceed Fee as shown below. See Attachment for a breakdown of costs.

RS&H (Expenses)	\$ 20,251.00
-----------------	--------------

Total Fee as follows:

Lump Sum Fee (Task 1 & 2) =	\$330,523.42
Maximum Fee, Not-to-Exceed (Task 3)) =	\$228,774.70
Cost-Plus, Not-to-Exceed (Expenses) =	<u>\$ 20,251.00</u>

Total Project Fee (Not-To-Exceed) = \$579,549.12

Should scope items/activities/efforts/durations be modified at the request of the Airport or need to be adjusted based on design/construction scheduling, the Consultant Team will need to modify the fee to accommodate the changes. Such changes will be compensated through an amendment (through Additional Services requested by the Consultant) to the Task Order or

similar vehicle. Effort, fee, and schedule adjustments resulting from a change in scope will be assessed and approved by the Airport prior to the execution of the change.

PALM BEACH COUNTY DEPARTMENT OF AIRPORTS
 Airport Facilities & Systems Planning, Design, Engineering and Construction Management Professional Services

RS&H, INC.
 400 Hz Construction Administration & RPR
 Task Authorization No. I-22-PBI-R-025

h Florida		Hours	Threshold Inspec
<u>Task</u>	<u>Description</u>		<u>Fee</u>
Task 1	Construction Administration Services (Lump Sum)	1,069	\$239,525.90
Task 2	Project Closeout (Lump Sum)	228	\$58,894.36
Task 3	Partial RPR Services (Maximum Fee, Not-To-Exceed)	0	\$0.00
		Subtotal RS&H Labor Hours	1,297
		Subtotal RS&H Labor Fee	\$298,420.26
<u>Subconsultants</u>			
	Quantum Electrical Engineering, Inc. (Lump Sum)		\$28,938.16
	Quantum Electrical Engineering, Inc. (Maximum Fee, Not-To-Exceed)		\$228,774.70
	Tierra South Florida, Inc. (Lump Sum)		\$3,165.00
		Subtotal Subconsultant Fee	\$260,877.86
<u>Expenses</u>			
	Travel		\$19,851.00
	Other		\$400.00
		Subtotal Expenses	\$20,251.00
		Total Project Fee	\$579,549.12

400 Hz Construction Administration & RPR
Average Burdened Labor Rate

Task	Description	HOURS													HOURS	TOTAL COST (\$)
		Principal	Sr. Project Manager	Senior Architect	Architect	Sr. Engineer	Engineer	Sr. Engineer	Engineer	Sr. Engineer	Engineer	Sr. Engineer	Engineer	Admin. Assistant		
Construction Administration Services																
Project Closeout (Lump Sum)																
Partial RPR Services (Maximum Fee, Not-To-Exceed)																
Task 1 Construction Administration Services																
1.1	Pre-Construction Conference															
	Project Manager		6													
1.2	RFI's Reviews															
	Project Manager		40											23	63	\$12,839
	Architecture			10	10										20	\$3,713
	Civil													5	5	\$1,991
	Structural					8	8								16	\$3,185
	Mechanical							16	16						32	\$6,371
	Fire Protection									8					8	\$1,973
	IT												24		24	\$5,919
	Submittal Reviews															
	Project Manager		40											23	63	\$12,839
	Architecture			24	24										48	\$8,910
	Civil													5	5	\$1,991
	Structural					8	8								16	\$3,185
	Mechanical							16	16						32	\$6,371
	Fire Protection									8					8	\$1,973
	IT												16		16	\$3,946
	Substitution Reviews															
	Project Manager		4											4	8	\$1,390
	Architecture			1											1	\$245
	Interior Design															
	Civil															
	Structural					1									1	\$247
	Mechanical							1							1	\$247
	Fire Protection									1					1	\$247
	Electrical															
	IT												1		1	\$247
1.3	Construction Progress Meetings (Virtual)															
	Project Manager		45												80	\$17,746
	Architecture			4											4	\$982
	Interior Design															
	Civil															
	Structural					4									4	\$987
	Mechanical							4							4	\$987
	Fire Protection															
	Electrical															
	IT												4		4	\$987
	Construction Progress Meetings (On-site)															
	Project Manager		14												14	\$4,018
1.4	Construction Progress Site Visits															
	Project Manager		84												84	\$24,110
	Architecture			12											12	\$2,945
	Structural						12								12	\$1,819
	Mechanical							12							12	\$1,819
	IT												12		12	\$2,960
1.5	Change Directives and Change Notices															
	Project Manager		8												8	\$2,296
	Architecture			8											8	\$1,983
	Structural					8									8	\$1,973
	Mechanical							8							8	\$1,973
	Fire Protection									8					8	\$1,973
	IT											8			8	\$1,973
1.6	Special Inspection / Threshold Inspection															
	Project Manager		2												2	\$574
	Structural						24								24	\$5,919
1.7	Substantial Completion and Punchlist															
	Project Manager		84												84	\$24,110
	Architecture			12											12	\$2,945
	Structural						12								12	\$2,960
	Mechanical							12							12	\$2,960
	IT												12		12	\$2,960
1.8	Final Observation															
	Project Manager		84												84	\$24,110
1.9	Project Management and Project Coordination															
	Project Manager		64											40	104	\$20,784
1.10	Short Circuit, Device Coordination & Arc Flash Analysis															
	Project Manager		4												4	\$1,148
	Task Total		479	71	34	65	40	57	32	25	77	10	10	169	1,069	\$238,526
Task 2 Project Closeout																
2.1	Record Documents															
	Project Manager		4												4	\$1,148
	Architecture			4	8										12	\$1,989
	Structural					4	8								12	\$2,199
	Mechanical							4	8						12	\$2,199
	Fire Protection									8					8	\$1,973
2.2	Warranty Period Inspection															
	Project Manager		84												84	\$24,110
	Architecture			12											12	\$2,945
	Structural						12								12	\$2,960
	Mechanical							12							12	\$2,960
	IT												12		12	\$2,960
2.3	Project Management and Project Coordination															
	Project Manager		40												40	\$11,481
	Task Total		128	16	8	16	8	16	8	8	20	-	-	-	228	\$58,894
Task 3 Partial RPR Services																
3.1	Partial Resident Project Representative (RPR) Services															
	Task Total		-	-	-	-	-	-	-	-	-	-	-	-	-	\$0
TOTAL FOR ALL TASKS (RS&H)																
			607	87	42	81	48	73	40	33	97	10	10	169	1,297	\$288,420

400 Hz Construction Administration & RPR

EXPENSES										
TRAVEL										
South Florida	Description	Threshold	Inspection							
		# Trips	\$ 3,525.00	# Days	Airfare	Car	Lodging	Per Diem	Pkg	
1.1	Pre-Construction Conference	1		1	\$0	\$80	\$200	\$93	\$0	\$173
1.4	Construction Progress Site Visits - Project Manager	14		1	\$0	\$1,120	\$0	\$1,302	\$0	\$2,422
	Construction Progress Site Visits - Structural Engineer	2		1	\$0	\$160	\$0	\$186	\$0	\$346
	Construction Progress Site Visits - Mechanical Engineer	2		1	\$0	\$160	\$0	\$186	\$0	\$346
	Construction Progress Site Visits - Low Voltage Systems	2		2	\$1,200	\$320	\$400	\$372	\$0	\$2,292
	Construction Progress Site Visits - Architectural	2		1	\$0	\$160	\$0	\$186	\$0	\$346
1.7	Substantial Completion and Punchlist - Project Manager	14		1	\$0	\$1,120	\$0	\$1,302	\$0	\$2,422
	Substantial Completion and Punchlist - Mechanical Engineer	2		1	\$0	\$160	\$0	\$186	\$0	\$346
	Substantial Completion and Punchlist - Structural Engineer	2		1	\$0	\$160	\$0	\$186	\$0	\$346
	Substanti: Construction Administration Services (Lump Sum)	2		2	\$1,200	\$320	\$400	\$372	\$0	\$2,292
	Substanti: Project Closeout (Lump Sum)	2		1	\$0	\$160	\$0	\$186	\$0	\$346
1.8	Final Obs Partial RPR Services (Maximum Fee, Not-To-Exceed)	14		1	\$0	\$1,120	\$0	\$1,302	\$0	\$2,422
2.2	Warranty Period Inspection - Project Manager	14		1	\$0	\$1,120	\$0	\$1,302	\$0	\$2,422
	Warranty Period Inspection - Mechanical Engineer	2		1	\$0	\$160	\$0	\$186	\$0	\$346
	Warranty Period Inspection - Structural Engineer	2		1	\$0	\$160	\$0	\$186	\$0	\$346
	Warranty Period Ins: 257712.86	2		2	\$1,200	\$320	\$400	\$372	\$0	\$2,292
	Warranty Tierra So 3165	2		1	\$0	\$160	\$0	\$186	\$0	\$346
	Quantum 228774.7									
SUBTOTAL TRAVEL										\$19,851
OTHER EXPENSES										
	Reprographics				\$0					\$0
	Badging				\$400					\$400
	Specific Airport Fees				\$0					\$0
	Others				\$0					\$0
SUBTOTAL OTHER EXPENSES										\$400
TOTAL EXPENSES										\$20,251

400 Hz Construction Administration & RPR

Sub Consultant Effort by Major Task Item		Task 1	Task 2	Task 3	
Quantum Electrical Engineering, Inc.	<i>Electrical & RPR</i>	\$25,090.12	\$3,848.04	\$ 228,775	\$257,712.86
Tierra South Florida	<i>Threshold Inspection</i>	\$ 3,165.00			\$3,165.00
TOTAL SUBCONSULTANTS					\$260,877.86



January 18, 2022

RS&H, Inc.
Mr. Keith Nix, PE, LEED AP
Senior Aviation Buildings Engineer
10748 Deerwood Park Blvd South,
Jacksonville, FL 32256

Subject: Electrical Engineering Construction Administration (CA) Services Fee Proposal for the Palm Beach County Department of Airports (DOA) - Palm Beach International Airport 400Hz Ground Power Unit (GPU) Replacement. Includes Task 1 and 2 as reflected in RSH Scope of Services, Dated September 2021

Dear Keith:

Quantum Electrical Engineering, Inc. (QUANTUM) is pleased to provide RS&H an electrical engineering Construction Administration (CA) services fee proposal for the Palm Beach International Airport 400Hz Ground Power Unit (GPU) Replacement Task 1 and 2 with an anticipated construction duration of 430 calendar days. The following tasks are included in our scope:

Task 1: Construction Administration Services

Task 1.1: Pre-Construction Conference

- Includes attendance at pre-construction meeting.

Task 1.2: RFI/Substitutions/Submittal Review

- Includes requests for information reviews & approvals.
- Includes substitution request reviews & approvals.
- Includes electrical shop drawings submittals reviews & approvals. Assumption of 15 shop drawings.

Task 1.3: Construction Progress Meetings

- Includes attendance at up to 19 progress construction meetings either virtually or via teleconference.

Task 1.4: Construction Progress Site Visits

- Includes up to 6 periodic on-site observation visits.
- Includes a written observation report, documenting the findings of each site visit.

Task 1.5: Change Directives and Change Notices

- Includes change order reviews.
- Includes minor plan alterations and revisions.

Task 1.6: Substantial Completion and Final Observations

- Includes up to 14 site visits for substantial completion inspections.
- Development of electrical punch list per each substantial completion inspection.

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

www.QuantumElectricalEngineering.com

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

Task 1.9: Short Circuit, Device Coordination & Arc Flash Analysis

- Up-dating the existing power system model in SKM Power Tools for Windows for the modifications to the electrical distribution systems serving the 400Hz Rooms.
- Perform Short Circuit, Device Coordination and Arc Flash Calculations using SKM.
- Update one-lines, written report and tabular data.
- Develop Arc Flash labels on new/modified equipment.
- Modify circuit breaker settings and adhere new arc flash labels to equipment.

Task 2: Project Closeout

Task 2.1: Record Documents

- Include review of Contractor "Red Line Plan Mark-ups."
- Includes development of record drawings based on Contractor "Red Line Plan Mark-ups."

Task 2.2: Warranty Period Inspection

- Includes up to 14 site visits for warranty period inspections.
- Development of electrical warranty discrepancy list per each inspection.

Task 3: Resident Project Representative (RPR) Services

Task 3.1: Partial Resident Project Representative (RPR) Services

- Includes part-time RPR services of on-site presence and observation for five visit per week, 6 hours per visit for 55 weeks.
- Includes a written observation report, documenting the findings of each site visit.
- Includes attendance at up to 55 progress construction meetings.

Exclusions and Assumptions

- QUANTUM shall provide one electronic set of record plans for Task 2 to RS&H in PDFs and AutoCAD. RS&H shall provide all distribution and printing of all documents to DOA.

Our proposed Lump Sum Fee for Task 1 is:	\$ 25,090.12
Our proposed Lump Sum Fee for Task 2 is:	\$ 3,848.04
Our proposed Not-To-Exceed Fee for Task 3 is:	<u>\$ 228,774.70</u>
Our proposed total fee is:	\$ 257,712.86

(See Attachment for Breakdown)

Sincerely,



Amy Champagne-Baker, PE
President

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

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5571 N. University Drive, Suite 101
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954.369.5810

PALM BEACH COUNTY DEPARTMENT OF AIRPORTS- PBI A 400HZ GPU REPLACEMENT									
QUANTUM ELECTRICAL ENGINEERING, INC.									
SCOPE FEE SUMMARY									
FEE PROPOSAL ELECTRICAL SERVICES TO RS&H 01/18/2022									
	Rate	\$161.54	\$144.23	\$138.46	\$69.23	\$132.69	\$46.15		
	Proj. Mgr.	Prof. Eng	Proj. Eng	CADD/Tech	Field Eng.	Clerical	Total	Lump Sum	TOTAL
PHASE OF WORK	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Task	TASK COST
Task 1: Construction Administration Services									
Task 1.1: Pre-Construction Conference		1			1		2		\$276.92
Task 1.2: RFI/Substitutions/Submittal Review		30				10	40		\$4,788.40
Task 1.3: Construction Progress Meetings (1hr meeting)		19					19		\$2,740.37
Task 1.4: Construction Progress Site Visits (6 visits at 4hrs ea)		24				3	27		\$3,599.97
Task 1.5: Change Directives and Change Notices		16		16		4	36		\$3,599.96
Task 1.7: Substantial Completion and Final Observations (14 visits at 2hrs ea)		28				6	34		\$4,315.34
Task 1.10: Short Circuit, Device Coordination & Arc Flash Analysis		24	12	4		8	48		\$5,769.16
Subtotal	0	142	12	20	1	31	206		\$25,090.12
Task 2: Project Closeout									
Task 2.1: Record Documents		1	4	8	4	1	18		\$1,828.82
Task 2.2: Warranty Period Inspection (14 visits at 1hr ea)		14					14		\$2,019.22
Subtotal	0	15	4	8	4	1	32		\$3,848.04
Task 3: Project Closeout									
Task 3.1: Partial Resident Project Representative (RPR) Services (55weeks visits at 30hrs ea)					1705	55	1760		\$228,774.70
Subtotal	0	30	8	16	1713	57	1824		\$228,774.70
Grand Total Hours	0	157	16	28	5	32	238		
Grand Total Labor Cost	\$0.00	\$22,644.11	\$2,215.36	\$1,938.44	\$663.45	\$1,476.80			\$257,712.86



December 22, 2021
Revised January 26, 2022

RS&H
10478 Deerwood Park Blvd South
Jacksonville, FL 32256

Attention: Mr. Keith Nix, PE
Senior Aviation Buildings Engineer

Subject: Proposal for Threshold Inspection Services
PBLA 400 HZ Replacement
Palm Beach International Airport
West Palm Beach, Florida
TSFGeo Proposal No. 2112-911

Dear Keith:

As requested, TSFGeo is pleased to submit this proposal for providing Threshold Inspection Services for the above referenced project. Herein, we provide a general discussion of services that we understand will be required for this project, present our Schedule of Fees for such services.

PROJECT DESCRIPTION

Based on the available information, we understand that the project will consist of a replacing 6 doors in Concourse C. this will involve demolition of existing headers and installation of new headers and CMU block.

QUALIFICATIONS

TSFGeo is a recognized MBE consulting engineering and testing firm providing integrated services in several disciplines, including geotechnical engineering, construction services, materials engineering & testing, roof & pavement consulting, threshold services, and facilities consulting and engineering.

TSFGeo's Florida offices, located in Miami Lakes, West Palm Beach, Orlando, and Tampa, have over 45 engineers, inspectors, and support staff available to assist our clients. Our inspectors are ACI, CTQP and FDOT trained/certified in their respective disciplines, as required by industry standards. Our engineering staff includes registered professional engineers with significant construction experience in South Florida.

PBIA 400 HZ Replacement
TSFGeo Proposal No. 2112-911

TSFGeo has earned a reputation for delivering quality service at reasonable costs. TSFGeo has successfully completed thousands of projects for a variety of industries and organizations, including private, corporate and industrial clients; medical facilities, civilian and military agencies of the federal, state and local governments, colleges and universities, and local education agencies.

PROPOSED SCOPE OF SERVICES

We recognize that construction projects are built in the "real world" and that proposed schedules do not always work out. Therefore, we appreciate the importance of being able to respond to requests for our services on short notice and of working hours other than the normal schedule, including nighttime work and weekend work.

Based on our understanding of the project requirements, we anticipate that the following testing services will be required during the design and construction phases of the project.

THRESHOLD INSPECTION SERVICES

- Provide Threshold Inspector Representative to observe installation of structural steel, CMU walls, concrete placement and grout placement and other inspections necessary to comply with permitted construction documents and Threshold inspection plan;
- Mold compressive strength test cylinders (5 cylinders per set);
- Test compressive strength concrete cylinders; and,
- Provide final compliance letter that all inspected work was performed as per Florida Building Code, project specifications and city requirements.

Please note that our services do not include supervision or direction of the actual work. Job site safety will be the sole responsibility of the contractor. Construction defects not related to structural works, such as water penetration (in roofing, windows, doors, louvers), and building finishings (interior, exterior), stairs (railings, surface finish, tread/riser ratio) are not part of our scope of work. TSFGeo cannot be responsible for non-structural defects that could lead to structural elements failures down the road.

ESTIMATED COST


The actual cost of our services will be highly dependent on the construction schedule. We propose to provide our services on a unit cost basis; based on the actual work performed and the unit fees attached to this proposal. Invoices will be submitted monthly for the portion of work completed. An estimate for each proposed task is indicated below:

- Threshold Inspection Services \$ 3,165.00

PBIA 400 HZ Replacement
TSFGEO Proposal No. 2112-911

We appreciate the opportunity to offer our services for your project. Should you have any questions or need additional information, do not hesitate to contact me at (561) 687-8536.

Respectfully submitted,
TSFGEO


R. Morgan Dickinson, P.E.
Principal Engineer

Stephen Hey
Engineering Specialist

Attachments: Unit Fee Schedule

PBIA 400 HZ Replacement
 TSFGEO Proposal No. 2112-911

**Fees Breakdown for
 Construction Materials Testing Services**

THRESHOLD INSPECTION SERVICES

1. Concrete tests, estimate 3 sets @ \$45.00/set	\$ 135.00
2. Threshold Inspector Representative, Estimate 36 hours @ \$75.00/hour	\$ 2700.00
2. Principal Engineer, P.E. (Coordination, site visits, sign and seal reports) Estimate 2 hours @ \$175.00/hour	\$ 330.00
TOTAL THRESHOLD INSPECTION SERVICES:	\$ 3,165.00

General Notes:

Please note the following procedures will apply to our services:

- 1- Field work hours for inspectors are Monday thru Friday, 8:00AM to 5:00PM.
- 2- We need 24 hours' notice by contacting our office (561) 687-8536 prior to any site visit.
- 3- We can accommodate weekend inspections if necessary with a minimum of 48 hours' notice.
- 4- Field work beyond 8 hours/day, night time and weekends (OT) will be billed at the regular rate times 1.5
- 5- Stand-by time will be billed at hourly rate listed.

AUTHORIZATION

AUTHORIZED BY:	INVOICE TO:
Firm:	Firm:
Name:	Name:
Title:	Address:
Date:	Phone #:
	Fax #:

EXHIBIT A-3 – Task I-22-PBI-R-026: PCA and GPU Point of Use Design & Bidding Services (Supplemental)

***PCA and GPU Point of Use
Design & Bidding Services
(Supplemental)
Scope of Work***

Version 1.0

January 24, 2022

Palm Beach County (PBC) Department of Airports (DOA)
West Palm Beach, FL

Task Authorization No. I-22-PBI-R-026

Prepared by RS&H, Inc. at the
direction of PBC DOA

RS&H

I PROJECT DESCRIPTION

The Airport has requested that RS&H (Consultant) under the Agreement with RS&H for Airport Facilities and System Consulting Services for Palm Beach County Department of Airports Project No. DOA 18-2A provide a scope and fee to replace the existing central 400 Hz system in Concourses B and C, installation of point of use, stand-alone PC Air units, and the removal of the existing central glycol plant and piping distribution network under Task I-19-PBI-R-020 (Project).

II PROJECT TASKS

TASK 1 TWO DESIGN PACKAGES

Task 1.1 Two Design Packages

Due to funding, the Project separated the project into two separate packages: (1) for the 400Hz and (1) for the PCA after the 60% Document Submittal. This required the Consultant to revise the drawings to remove scope, and required additional, duplicate efforts to recreate these drawings, and specs for the PCA package, and administer a separate bidding package and bidding process, as well as a separate permit effort.

TASK 2 FACILITY MANAGEMENT SYSTEM

Task 2.1 Facility Management System

During design of the Project, PBI asked the Consultant to design an independent facility management network for the 400Hz/PCA control/monitoring system. The original intent in our proposal for Project was that the new 400Hz GPUs and PCA units would be connected into the existing network that monitored these systems previously. After further research by PBI into the capabilities of the existing system, the Consultant was directed to design a new independent network.

III PROFESSIONAL SERVICES FEE AND FEE TYPE

For Lump Sum fee:

RS&H will provide the above referenced services for a Fixed Lump Sum Fee of \$19,495.20. See Attachment for a breakdown of costs.



PALM BEACH COUNTY DEPARTMENT OF AIRPORTS
Airport Facilities & Systems Planning, Design, Engineering and
Construction Management Professional Services

RS&H, INC.
PROJECT PROPOSAL

	<u>Total</u>
<u>DESIGN SERVICES</u> Task 1.1 and 2.1	\$ 19,495.20
	<hr/> \$ 19,495.20 <hr/>
<u>SUBCONSULTANTS</u>	\$ -
	<hr/> \$ - <hr/>
<u>REIMBURSABLE EXPENSES</u> Reimbursable Expenses	\$ -
	<hr/> \$ - <hr/>
SUMMARY: Total Proposed Fee for:	\$ 19,495.20



PALM BEACH COUNTY DEPARTMENT OF AIRPORTS
 Airport Facilities & Systems Planning, Design, Engineering and
 Construction Management Professional Services

RS&H, INC.
 PROJECT PROPOSAL

SCOPE / TASK TITLE	SR. PROJ. MANAGER	SENIOR ARCHITECT	ARCHITECT	INTERN ARCHITECT	SENIOR ENGINEER	ENGINEER	INTERN ENGINEER	TECH/ DESIGNER	ADMIN. ASSISTANT	TOTAL
Task Authorization No. I-22-PBI-R-026 - PCA and GPU Point of Use Design & Bidding Services (Supplemental)										
LABOR EFFORT (Lump Sum)										
Task										
1.1 Two Design Packages	4		8	4		8	16	16	4	60
2.1 Facility Management System	4				8	60				72
SUBTOTAL HOURS	8	0	8	4	8	68	16	16	4	132
RATE	\$287.02	\$245.39	\$125.87	\$85.16	\$246.63	\$151.55	\$96.47	\$111.75	\$60.37	
TOTAL DIRECT LABOR \$	\$2,296.16	\$0.00	\$1,006.96	\$340.64	\$1,973.04	\$10,305.40	\$1,543.52	\$1,788.00	\$241.48	\$19,495.20
Total Proposed Fee for:										LABOR EFFORT (Lump Sum) \$19,495.20
REIMBURSABLES (Not-To-Exceed)										
REPRODUCTION	# DWGS	# PAGES								
	@	@								
Permit Set	\$1.60	\$0.10	# SETS							\$0
TOTAL REPRODUCTION										\$0
POSTAGE / DELIVERY	# PKGS	# PKGS								
	@	@								
Report	\$15.00	\$3.00								\$0
TOTAL POSTAGE / DELIVERY										\$0
TRAVEL	Airfare @	Car @	Lodging @	Meals @	Parking	# of				
	\$420	\$75	\$180	\$40	\$40	Trips	0			\$0
TOTAL TRAVEL										\$0
MILEAGE		Mileage @								\$0
		\$0.58								\$0
TOTAL MILEAGE										\$0
MISCELLANEOUS										\$0
TOTAL MISCELLANEOUS										\$0
REIMBURSABLES (Not-to-Exceed)										\$0.00
SUMMARY										
LABOR EFFORT (Lump Sum)										\$19,495.20
REIMBURSABLES (Not-to-Exceed)										\$0.00
TOTAL BASIC SERVICES CONTRACT VALUE	Task Authorization No. I-22-PBI-R-026 - PCA and GPU Point of Use Design & Bidding Services (Supplemental)									\$19,495.20

EXHIBIT A-4 – Task III Services

TASK III SERVICES

Level 3 Tasks – Miscellaneous Planning and Engineering Services: Work to be completed under Level 3 Tasks will be issued per the level of authority contained in PPW CW-F-050, by way of a separate proposal or task authorization, as described in the original Consulting Agreement (R-2019-0612).

TASK LEVEL / NO.	DESCRIPTION	BUDGET
Task III-19-DOA-R-001	Misc. AEP and Construction Consulting Services Amendment #5	\$ 200,000.00
Sub-total (Level 3)		\$ 200,000.00

EXHIBIT B: DETAILED FEES, EXPENSESE AND PAYMENTS

EXHIBIT B-I: Summary of Fees

This Amendment #5, as described herein, consists of multiple tasks. As summarized below, these initial efforts have an overall budget of \$1,325,943.87.

LEVEL 1 TASKS:

TASK Level / No.	DESCRIPTION	LUMP SUM	NOT-TO-EXCEED	REIMBURSABLE EXPENSES	TOTAL
I-22-PBI-R-024:	Switchgear NPDS Replacement Construction Administration & RPR Services	\$ 397,560.35	\$ 120,459.20	\$ 8,880.00	\$ 526,899.55
I-22-PBI-R-025:	400Hz GPU Replacement Construction Administration & RPR Services	\$ 330,523.42	\$ 228,774.70	\$ 20,251.00	\$ 579,549.12
I-22-PBI-R-026:	PCA and GPU Point of Use Design & Bidding Services (Supplemental)	\$ 19,495.20	\$ 0.00	\$ 0.00	\$ 19,495.20

LEVEL 3 TASKS:

TASK LEVEL / NO.	DESCRIPTION	TOTAL
Task III-19-DOA-R-001	Misc. AEP and Construction Consulting Services Amendment #5	\$ 200,000.00

Grand Total (Amendment #5)	\$1,325,943.87
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EXHIBIT B-II: Schedule of Payments

The Scope of Work to be completed by CONSULTANT as defined in Exhibit "A" consist of specific completion phases which shall be clearly identified on phase-by-phase basis upon submission to the COUNTY of certain "deliverables"¹ as expressly indicated below. Compensation for the work tasks stated herein shall be in accordance with the following schedule of payment.

The following is a list of projects in the Work Program #2: Amendment #5:

LEVEL 1 TASKS:**Task I-22-PBI-R-024 Switchgear NPDS Replacement Construction Administration & RPR Services**

Duration: 655 Working Days
 (~917 Calendar Days)
Compensation: \$526,899.55

Task I-22-PBI-R-025 400Hz Replacement Construction Administration & RPR Services

Duration: 306 Working Days
 (~430 Calendar Days)
Compensation: \$579,549.12

Task I-22-PBI-R-026 PCA and GPU Point of Use Design & Bidding Services (Supplemental)

Duration: Per Contract
Compensation: \$19,495.20

LEVEL 3 TASKS:**Task III-19-DOA-R-001 Misc. AEP and Construction Consulting Services Amendment #5**

Duration: As required in accordance with specific
 Task Authorizations
Compensation: \$200,000.00

TOTAL = \$1,325,943.87

1. "Deliverables" shall be defined as progress reports, prepared maps, bid documents, completed drawings, specific reports, work plans, documentation of meetings attended, assessment study reports, analysis reports, summary reports, recommendation reports and related draft reports and verifiable deliverables.

EXHIBIT C – PROPOSED SCHEDULES

Task I-22-PBI-R-024 **Switchgear NPDS Replacement Construction Administration**
Duration: 655 Working Days
 (~917 Calendar Days)

Task I-22-PBI-R-025 **400Hz Replacement Construction Administration and RPR Services**
Duration: 306 Working Days
 (~430 Calendar Days)

Task I-22-PBI-R-026 **PCA and GPU Point of Use Design & Bidding Services (Supplemental)**
Duration: Per Contract

EXHIBIT D – DISADVANTAGED BUSINESS ENTERPRISE COMPLIANCE

Table D-1 summarizes the estimated fee for each of our team members that are certified DBE firms for Amendment 5.

Table D-1: DBE Firms, Scheduled Payment, Scheduled % of Fee

Firm	Amendment 5 Totals	% of Amendment 5
Quantum	\$ 542,155.33	40.89%
Tierra South Florida	\$ 3,165.00	0.24%

TOTALS \$ 545,320.33 41.13%

THE REST OF THIS PAGE IS INTENTIONALLY LEFT BLANK.

Table D-2 summarizes the estimated fee for each of our team members that are certified DBE firms for the Total Contract.

Table 2: DBE Firms, Scheduled Payment, Scheduled % of Total Fee

Firm	Base (R2019-0612) Totals	Amendment 1 (R2020-0414) Totals	Amendment 2 (R2020-1607) Totals	Amendment 4 (R2021-0844) Totals	Amendment 5 Totals	Total Fees	% of Total Contract
Colome	\$ 73,966.80 ¹	\$ 164,286.41	\$ 0.00	\$ 0.00	\$ 0.00	\$ 238,253.21	2.12%
Tierra South Florida	\$ 28,715.00	\$ 26,985.00	\$ 29,240.00	\$ 0.00	\$ 3,165.00	\$ 88,105.00	0.78%
Brown & Phillips	\$ 20,021.45 ²	\$ 18,202.62 ³	\$ 18,979.53	\$ 0.00	\$ 0.00	\$ 57,203.60	0.51%
CECOS	\$ 0.00	\$ 5,403.70	\$ 0.00	\$ 0.00	\$ 0.00	\$ 5,403.70	0.05%
MOBIO	\$ 161,533.98 ¹	\$ 0.00	\$ 176,600.00	\$ 323,400.00	\$ 0.00	\$ 661,533.98	5.87%
Lakdas-Yohalem	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	0.00%
Connico	\$ 90,000.00 ¹	\$ 107,100.00	\$ 89,948.59 ⁴	\$ 79,100.00	\$ 0.00	\$ 366,148.59	3.25%
Digital Building Services	\$ 0.00	\$ 0.00	\$ 183,689.00	\$ 0.00	\$ 0.00	\$ 183,689.00	1.63%
Master Consulting Engineers	\$ 0.00	\$ 83,865.96 ³	\$ 4,960.00	\$ 32,078.44	\$ 0.00	\$ 120,904.40	1.07%
Quantum	\$ 0.00	\$ 176,934.11 ⁴	\$ 1,222,288.80 ⁴	\$ 149,029.00	\$ 542,155.33	\$ 2,090,407.24	18.56%
CRJ	\$ 0.00	\$ 117,500.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 117,500.00	1.04%
TOTALS	\$ 374,237.23	\$ 700,277.80	\$ 1,725,705.92	\$ 583,607.44	\$ 545,608.33	\$ 3,929,148.72	34.89%

1. Value varies from previous contract Table D-2. Amendment 5 Table D-2 value updated to include:
 - a. Fee Reduction Letter dated 2021-06-24.
2. Value varies from contract Table D-2; value matches value on Amendment 4 Table D-2. Amendment 1 & 2 Table D-2 indicated value was \$20,021.35 which was a mistype; Amendment 4 Table D-2 value updated to correct value of \$20,021.45.
3. Value varies from contract Table D-2. Amendment 5 Table D-2 value updated to include:
 - a. Fee Reallocation & Reduction Letter dated 2021-12-08.
4. Value varies from contract Table D-2. Amendment 5 Table D-2 value updated to reflect:
 - a. Level I Tasks & Level III Tasks
 - b. Fee Reduction Letter dated 2021-06-24

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

Airport Facilities & Systems Planning, Design, Engineering and Construction Management Professional Services for
LOI/SOQ Project Description: Palm Beach County Department of Airports

Name of Respondent: RS&H, Inc. Change Order/Task/Amendment No. (if applicable): Amendment No 5
 Contact Person: Pat Hargrove E-mail Address: pat.hargrove@rsandh.com
 Address: 10748 Deerwood Park Blvd S, Jacksonville FL 32256 Phone No.: 904-256-2437 Fax No: 800-464-4358

Name, Address & Phone No. of DBE Firm	Description of Type of Work	Classification (Check applicable box)	Percentage of DBE Participation			
			Black	Hispanic	Women	Other (Please Specify)
Quantum Electrical	Electrical Engineering Design Services	<input type="checkbox"/> Prime Consultant <input checked="" type="checkbox"/> Subcontractor <input type="checkbox"/> Supplier <input type="checkbox"/> Manufacturer	_____ %	_____ %	40.89 %	_____ %
Tierra South Florida	Threshold Inspection Services	<input type="checkbox"/> Prime Consultant <input checked="" type="checkbox"/> Subcontractor <input type="checkbox"/> Supplier <input type="checkbox"/> Manufacturer	_____ %	_____ %	_____ %	0.24 % (Asian / Pacific)
		<input type="checkbox"/> Prime Consultant <input type="checkbox"/> Subcontractor <input type="checkbox"/> Supplier <input type="checkbox"/> Manufacturer	_____ %	_____ %	_____ %	_____ %
		<input type="checkbox"/> Prime Consultant <input type="checkbox"/> Subcontractor <input type="checkbox"/> Supplier <input type="checkbox"/> Manufacturer	_____ %	_____ %	_____ %	_____ %

Total Percentage of DBE Participation: 41.13 %

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: Pat Hargrove
Signature

Date: 2/23/2022

Pat Hargrove, AIA NCARB, Vice President, Aviation
 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 Facilities & Systems Planning, Design, Engineering and Construction Management Professional Services for Palm Beach County Department of Airports

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

Name of Prime Respondent: RS&H, 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 Engineering Design Services

(Additional Sheets may be used as necessary.)

Total Percentage of Participation by DBE Firm for this Project: 40.89 %

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, Inc.

Printed Name of DBE Subcontractor

By: 
Signature

Date: 1/27/2022

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

LOI/SOQ Project Description: Airport Facilities & Systems Planning, Design, Engineering and Construction Management Professional Services for Palm Beach County Department of Airports

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

Name of Prime Respondent: RS&H, 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):

Threshold Inspection Services

(Additional Sheets may be used as necessary.)

Total Percentage of Participation by DBE Firm for this Project: 0.24 %

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: Morgan Dickinson
Signature

Date: 1/27/2022

Airport General Consulting Professional Services - 2018					
RFP #: DOA-18-2A - Facilities & Systems					
Date: November 29, 2017					
Marketplace: BC, PBC, MDC					
DBE Project Goal: 18% - adjusted for past participation					
NAICS Description	NAICS Code	Estimated Percentage of	Available DBE	Total Available	Weighted Percentage
Engineering Services	541330	30.00%	149	1286	3.48%
Architectural Services	541310	45.00%	40	667	2.70%
Construction Management	236220	10.00%	239	815	2.93%
Testing Services	541380	2.50%	12	92	0.33%
Land Surveying & Mapping	541370	2.50%	24	144	0.42%
Planning Services	541320	10.00%	15	166	0.90%
Other Consulting Services	541690	0.00%	64	571	0.00%
Total		100.00%			10.75%

General Consulting Services Contracts	DBE Participation (to date)
R2006-2418	21%
R2009-1643	31%
R2011-1333	29%
R2014-0031	13%
Median Participation	25%
Adjustment for Past Participation	18%
DBE Project Goal	Percentage
	18%