

PALM BEACH COUNTY BOARD OF COUNTY COMMISSIONERS AGENDA ITEM SUMMARY

Meeting Date: October 20, 2020

☐ Consent ☒ Regular
☐ Workshop ☐ Public Hearing

Submitted By: Department of Airports

I. EXECUTIVE BRIEF

Motion and Title: Staff recommends motion to approve: Amendment No. 2 to the General Consulting Agreement with RS&H, Inc. for Consulting/Professional Services in the amount of \$3,196,990.03 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 (R-2019-0612) with RS&H, Inc. for general airport planning and design was approved on May 7, 2019 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 on May 5, 2020 (R-2020-0414) increasing the total amount of the agreement by \$2,304,608.30. Amendment No. 2 will provide an additional \$3,196,990.03 to complete the following tasks: Task I Services – Palm Beach International Airport (PBI) Switchgear Normal Power Distribution System (NPDS) Replacement; PBI Concourse B Expansion Conceptual and Schematic Design; PBI Terminal Public Address (PA) System Construction Engineering Inspection (CEI) Services – Phase 2; PBI Pre-Conditioned Air and Ground Power Unit Point of Use; PBI Federal Inspection Service Facility and Building 846 Storm Resiliency Modifications Package 3 Construction Documents & Bidding and Award; PBI Terminal Elevator Assessment Report; 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 will be managed through their Fort Lauderdale, Florida office 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 agreement. RS&H, Inc. has committed to 23% DBE participation for this agreement. The anticipated DBE participation based upon the currently approved tasks and those contained within this amendment is approximately 35%. The current paid to date DBE participation is approximately 20%. The DBE participation for this Amendment is approximately 51.21%. 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. 2 with RS&H, Inc. – 3 Originals
2. DBE Goal Information

Recommended By: Sms Anna Beebe 9-23-20
Department Director Date

Approved By: _____
County Administrator

Date: 10/5/2020

II. FISCAL IMPACT ANALYSIS

A. Five Year Summary of Fiscal Impact:

Fiscal Years	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>
Capital Expenditures	<u>\$3,196,990</u>				
Operating Costs					
External Revenues (Grants)					
Program Income (County)					
In-Kind Match (County)					
NET FISCAL IMPACT	<u>\$3,196,990</u>				
# 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	<u>4111</u>	Department	<u>121</u>	Unit	<u>A107</u>	Object	<u>6505</u>
	Reporting Category					<u>A342</u>		<u>6504</u>
						<u>A369</u>		<u>6504</u>
						<u>A394</u>		<u>6504</u>
						<u>A377</u>		<u>6504</u>



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


Funds are available in the referenced accounts which include grant and local funding. A determination of the portion of the grant and local funding will be done at a later time.

C. Departmental Fiscal Review:

III. REVIEW COMMENTS

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


 9/24/2020
 OFMB
 
 9/24/20


Contract Dev. and Control
9-30-2020

B. Legal Sufficiency:

Anne Helgand 10/2/2020
Assistant County Attorney

C. Other Department Review:

Department Director

REVISÉ 11/17

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



3125 W Commercial Blvd
Suite 130
Fort Lauderdale, FL 33309
O 954 474 3005
F 954 474 3006
rsandh.com

CORPORATE RESOLUTION
AUTHORIZING SIGNATORY FOR
PALM BEACH COUNTY CONTRACTS

I, John J. Bottaro, the undersigned Corporate Secretary of RS&H, Inc., a Florida Corporation (the "Corporation"), hereby certify that: The Corporation is duly organized and existing under the laws of the State of Florida and the following is a true, accurate and complete transcript of a resolution contained in the minute book of the Board of Directors of said Corporation duly held the 13th day of November, 2019, at which meeting there was present and acting throughout a quorum with full power and authority to adopt this resolution and confer the powers granted to the person hereinafter described, and that the proceedings of said meeting were in accordance with the charter and by-laws of said Corporation, and that said resolution has not been amended or revoked and is in full force and effect.

RESOLVED, that Lisa M. Robert, Executive Vice President of the Corporation, is hereby authorized and empowered to execute in the name of the Corporation all proposals, agreements, supplements, contracts, and other documents she may deem necessary or appropriate, in connection with Palm Beach County, Florida.

IN WITNESS WHEREOF, I have executed my name as Assistant Corporate Secretary and affixed the seal of the Corporation on this 24th day of January, 2020.

DocuSigned by:

John Bottaro

D145939G0B964A5...

John J. Bottaro

Corporate Secretary

DocuSigned by:



AMENDMENT NO. 2 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. 2 to the Contract is made as of the _____ day of _____, 2020, 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, Article 26 of the Contract requires an amendment when the parties are able to define additional services and the parties have now defined those services,

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

1. The parties hereby agree to amend the Contract to include the Scope of Services and Fees as outlined in Exhibit I. The total amount to be paid by the COUNTY to the CONSULTANT for professional services, including any out of pocket expenses, shall not exceed Three Million, One-Hundred Ninety-Six Thousand, Nine Hundred Ninety Dollars and Three Cents (\$3,196,990.03) for the services in Amendment No. 2 to the original Contract.
2. Except as specifically amended herein, all other terms and conditions of the Contract shall remain in full force and effect.

REMAINDER OF PAGE INTENTIONALLY LEFT BLANK

IN WITNESS WHEREOF, the parties have caused the First 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) Lisa M. Robert, (Title) Executive Vice President, acting on behalf of said CONSULTANT, and the Seal of said CONSULTANT to be affixed hereto and attested by the Secretary of said CONSULTANT, the day and year first written above.

ATTEST:

SHARON R. BOCK
CLERK AND COMPTROLLER

PALM BEACH COUNTY, FLORIDA
BOARD OF COUNTY COMMISSIONERS

By: Deputy Clerk

By: Dave Kerner, Mayor

WITNESS:

DocuSigned by:
Holly Harper

SIGNATURE

Holly Harper

Name (type or print)

APPROVED AS TO FORM
AND LEGAL SUFFICIENCY

CONSULTANT:

RS&H, Inc.

COMPANY NAME

DocuSigned by:
Lisa Robert

Signature

Lisa M. Robert

Name (type or print)

Executive Vice President

Title

BY: County Attorney

APPROVED AS TO TERMS
AND CONDITIONS

By: Laura Burke
Department Director

DocuSigned by:
(Corporate Seal)
RS&H, INC.
CORPORATE SEAL
1989
FLORIDA

RS&H, INC.
AUGUST 2020

AMENDMENT 2 TO R2019-0612
2 CONTRACT FOR CONSULTING/PROFESSIONAL SERVICES

AMENDMENT NO 2 INDEX

CERTIFICATE OF INSURANCE

EXHIBIT A: AMENDMENT NO. 2

- EXHIBIT A-1 – Task I-20-PBI-R-017: PBI Switchgear NPDS Replacement
- EXHIBIT A-2 – Task I-20-PBI-R-018: PBI Concourse B Expansion (Conceptual and Schematic Design)
- EXHIBIT A-3 – Task I-20-PBI-R-019: Terminal Public Address (PA) System Construction Engineering Inspection (CEI) Services – Phase 2
- EXHIBIT A-4 – Task I-20-PBI-R-020: PCA and GPU Point of Use
- EXHIBIT A-5 – Task I-20-PBI-R-021: FIS & Bldg 846 Storm Resiliency Modifications Package 3 (Construction Documents & Bidding and Award)
- EXHIBIT A-6 – Task I-20-PBI-R-022: Terminal Elevator Assessment Report
- EXHIBIT A-7 – 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

EXHIBIT E – CONTRACT REVISION

CERTIFICATE OF INSURANCE

Search

Insured Name

RS&H, Inc. (DX00000525)

RS&H, Inc. (DOA 18-2A)

Active Records Only

Advance Search

Insured Tasks

Admin Tools

View

Insured

Notes

History

Deficiencies

Coverages

Requirements

Contract Screen

Add

Edit

Help

Video Tutorials

Project Information

Name:	RS&H, Inc.
Account Number:	DX00000525
Address:	10748 Deerwood Park Blvd South, Jacksonville, FL, 32256
Status:	Currently in Compliance.

Contract Screen

Contract Information

Vendor Number	Contract Number	Contract Name	Description	Contract Value	Action
DX00000525	DOA 18-2A	Consulting/Professional Services			View

Account Information

Contract Number:	DOA 18-2A	Name:	Consulting/Professional Services
Description:			
Contract Value:		Country:	
Work State:		City:	
Contact:		License:	
MilePost:		Crossing Location:	

Contact Details

Name:	
Address:	
City:	Zip:
State:	Phone:
Email:	Email2:

Contract Information

Start Date:	End Date:
Effective Date:	Expiration Date:
Cancelled Date:	

EXHIBIT A: AMENDMENT NO. 2

This Amendment No 2 is in accordance with the Contract for Consulting/Professional Services (Agreement R2019-0612) between Palm Beach County (COUNTY) and RS&H, Inc. (CONSULTANT) dated May 7, 2019.

CERTIFICATE OF INSURANCE

EXHIBIT A: AMENDMENT NO. 2

EXHIBIT A-1 – Task I-20-PBI-R-017: PBI Switchgear NPDS Replacement

EXHIBIT A-2 – Task I-20-PBI-R-018: PBI Concourse B Expansion (Conceptual and Schematic Design)

EXHIBIT A-3 – Task I-20-PBI-R-019: Terminal Public Address (PA) System Construction Engineering Inspection (CEI) Services – Phase 2

EXHIBIT A-4 – Task I-20-PBI-R-020: PCA and GPU Point of Use

EXHIBIT A-5 – Task I-20-PBI-R-021: FIS & Bldg 846 Storm Resiliency Modifications Package 3 (Construction Documents & Bidding and Award)

EXHIBIT A-6 – Task I-20-PBI-R-022: Terminal Elevator Assessment Report

EXHIBIT A-7 – Task III Services

EXHIBIT B: DETAILED FEES, EXPENSESE AND PAYMENTS

EXHIBIT B-I: Summary of Fees

EXHIBIT B-II: Schedule of Payments

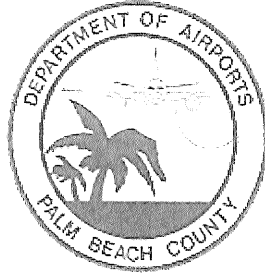
EXHIBIT C – PROPOSED SCHEDULES

EXHIBIT D – DISADVANTAGED BUISINESS ENTERPRISE COMPLIANCE

EXHIBIT E – CONTRACT REVISION

EXHIBIT A-1 – Task I-20-PBI-R-017: PBI Switchgear NPDS Replacement

Palm Beach County Department of Airports



Airport Facilities & Systems Planning, Design, Engineering and Construction Management Professional Services

**Task Authorization No.
I-20-PBI-R-017**

Palm Beach International Airport

Switchgear NPDS Replacement



3125 West Commercial Boulevard, Suite 130
Fort Lauderdale, Florida 33309

August 10, 2020

EXHIBIT "A-1"
SCOPE OF SERVICES

Description of the services outlined below in Section 0 - General is intended to be general in nature and should not be construed to be a complete description of the services or a limitation on the Scope of Services to be provided, unless otherwise noted. Refer to Sections 1 through 7 for the definition of specific scope items to be performed by RS&H.

0. GENERAL

0.1 The Project

The RS&H Team in this project will design the replacement of primary electrical components that provide electrical service to the Terminal Complex at Palm Beach International Airport (PBI). This project will provide the design services to support the replacement of primary electrical distribution components as well as needed phasing, sequencing, and temporary power to maintain the operation of the PBI terminal complex. As part of this project, the main substation, Switchgear “NPDS” and Substation B will be replaced.

Phase 3C and following phases design fee for the design of Substation C replacement is provided herein as an additional service as it is believed that the Substation C work cannot be included within a \$4 million construction budget that the PBC DOA has for this project. All feeders and components to be addressed as part of this project are highlighted in the following graphic:

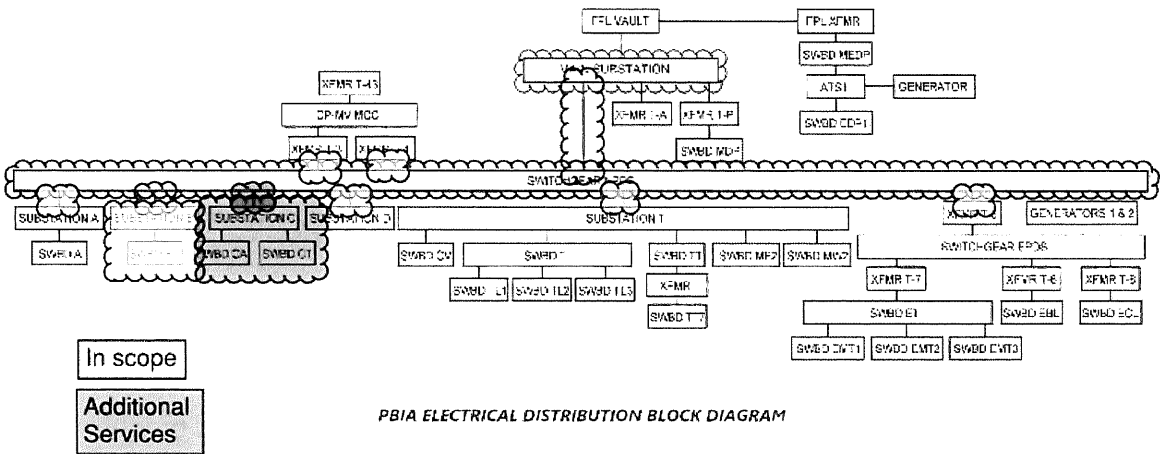


Figure 1



Item A: Replacement of “Main Substation” and Switchgear “NPDS” Scope of Work

- Includes on-site verifications of the existing 13.2kV and 480V electrical distribution systems.
- Design the replacement of the existing outdoor 13.2kV “Main Substation”, located adjacent to the FP&L Vault Building. Includes the design of new outdoor weather resistance switchgear with two incoming main switches and three outgoing feeder switches along with new 13.2kV medium voltage primary service conductors between FP&L Vault Building and new “Main Substation”.
 - Assumes new equipment pads
- Includes FP&L coordination for the modification of existing primary service and to the existing FP&L distribution system to accommodate the new “Main Substation”. Includes FP&L coordination for a new 13.2kV conduit and conductor systems to existing FP&L Vault Building.
- Includes demo of existing fence around “main substation” and new fence with access control.
- Design the replacement of existing Switchgear “NPDS”, located in the Terminal Main Electrical Room. Includes new switchgear with a main-tie-main configuration and thirteen (13) medium voltage feeder breakers. Includes the selection and design of protective relay system for the medium voltage mains and feeder breakers.
 - Assumes new equipment pad
 - Includes partial demo / replacement of fence and pedestrian gate with access control at loading ramp to get equipment removed and reinstalled
- Includes design of extensive phasing and extensive temporary wiring and temporary equipment/power systems to maintain operations of Main Terminal, Concourses, Revenue Building, and Parking Garages during construction.
- Design the replacement of existing 13.2kV medium voltage feeder conductors between Switchgear “NPDS” and five substations and three distribution transformers.
- Includes preliminary short circuit calculations for sizing of electrical equipment withstand ratings for permitting and bidding purposes. Final short circuit calculation, device coordination and arc flash analysis along with arc flash labeling to be completed under CA services, which will be in a separate future proposal.

Item B: Replacement of Substation “B” Scope of Work

- Includes on-site verifications of the existing 13.2kV and 480V electrical distribution systems.
- Design the replacement of existing Substation “B”, located in Concourse B Main Electrical Room. Includes new main-tie-main substation with two 13.2kV:480Y/277V stepdown transformers, two 13.2kV load break switches and

- 480V draw-out distribution breakers. Includes increased capacity and breaker space for future Concourse B Expansion.
- Includes design of phasing and extensive temporary wiring and temporary equipment/power systems to maintain operations of Concourse B during construction.
 - Includes preliminary short circuit calculations for sizing of electrical equipment withstand ratings for permitting and bidding purposes. Final short circuit calculation, device coordination and arc flash analysis along with arc flash labeling to be completed under CA services, which will be in a separate future proposal.
 - Includes enlarging the opening into the room to allow existing equipment to be removed and replaced with new equipment
 - Includes demo and new taller doors
 - Includes structural analysis of wall to determine reinforcement required to enlarging the opening.
 - Includes calculation of wind pressures and create diagrams with wall pressures
 - Assumes existing substation equipment pads may require footprint modification for new equipment
 - Includes demo and new access control at door

Item C: Replacement of Substation “C” Scope of Work

- Includes on-site verifications of the existing 13.2kV and 480V electrical distribution systems.
- Design the replacement of existing Substation “C”, located in Concourse C Main Electrical Room. Includes new main-tie-main substation with two 13.2kV:480Y/277V stepdown transformers, two 13.2kV load break switches and 480V draw-out distribution breakers.
- Includes design of phasing and extensive temporary wiring and temporary equipment/power systems to maintain operations of Concourse C during construction.
- Includes preliminary short circuit calculations for sizing of electrical equipment withstand ratings for permitting and bidding purposes. Final short circuit calculation, device coordination and arc flash analysis along with arc flash labeling to be completed under CA services, which will be in a separate future proposal.
- Includes enlarging the opening into the room to allow existing equipment to be removed and replaced with new equipment
 - Includes demo and new taller doors
 - Includes structural analysis of wall to determine reinforcement required to enlarging the opening.
 - Includes calculation of wind pressures and create diagrams with wall pressures



- Assumes existing substation equipment pads may require footprint modification for new equipment
- Includes demo and new access control at door

The following RS&H Team members will be involved in this project for the roles defined as follows. Their respective scope and fee proposals are herein.

- **Quantum Electrical Engineering, Inc. (Quantum):** Shall provide Electrical Engineering services in support of the project.
- **KEITH Team:** Subsurface utility investigation.
- **Brown & Phillips:** Shall provide site survey services in support of design.
- **RS&H, Inc. (RS&H):** RS&H will provide overall project management efforts for this Project and the following design services that are incidental to the electrical component replacement:
 - Civil: Layout and grading plans for proposed “Main Substation” pad and incidental patching of existing site components affected by underground infrastructure installation for feeders. Minimal fence and pedestrian gate demo / replacement
 - Architectural: Design of room modifications in the terminal that are needed for the removal and installation of Switchgear “NPDS”, Substation B and Substation C (add service).
 - Structural: Design of CMU wall modifications and slab patching that are incidental to the electrical work. Manhold lid modification next to Main Substation.
 - Mechanical: Perform checks of the existing HVAC systems that serve electrical rooms with new equipment to determine if any modifications are needed to accommodate temperature loads of new equipment rooms.
 - Electrical: Perform thorough quality control reviews of each design submittal, including sequencing and temporary power. Minimal time for collaboration with Quantum during the design process is also included.
 - Low Voltage / IT: Design of access control modifications to new electrical rooms, as well as coordination of the communication integration of new electrical components with the existing facility management monitoring and controls systems.

THIS PROPOSAL IS ONLY FOR PHASE 3 AND 4 AS PHASE 1 & 2 SERVICES WERE PROVIDED IN A PREVIOUS PROPOSAL (Task I-20-PBI-R-012: ELECTRICAL DISTRIBUTION ASSESSMENT REPORT). PHASE 5 WILL BE PROVIDED IN FUTURE PROPOSAL.

The following are assumptions included for the scope of work included in this proposal:



- CMAR construction delivery method.
- CMAR would provide cost estimate for Phase 3A: 60% Construction Documents, Phase 3B: 90% Construction Document deliverable. A/E will review estimate to confirm design elements are captured and provide comments as required to CMAR.
- Technical Specification Division 2 thru 33 only required. Front End documents by PBC DOA.
- FAA 7460 Coordination meeting not anticipated to be required
- Civil site plan review and permitting through Palm Beach County Building Department is not anticipated to be required

The following are excluded from the scope of work and are not included in this proposal:

- Cost Estimating coordination with CMAR for 100% Construction Documents
- Value Engineering
- LEED Design & Certification
- Any soil contaminants and subsurface remediation.
- Phase 5: Construction Administration and RPR Services. Shall be performed under a separate proposal.
- FAA 7460 Coordination Meeting
- Project Manual Development other than Technical Specifications Div. 2 thru 33
- Revit modeling of project areas.
- Fire Alarm System modification.



1. PLANNING AND PROGRAMMING (PHASE 1A) – Not included in Proposal

This Phase is not included in this proposal. Phase was completed in Task I-20-PBI-R-012 Electrical Distribution Report.

2. CONCEPTUAL DESIGN (PHASE 1B) – Not included in Proposal

This Phase is not included in this proposal. Phase was completed in Task I-20-PBI-R-012 Electrical Distribution Report.

3. SCHEMATIC DESIGN (30% DESIGN) (PHASE 2) – Not included in Proposal

This Phase is not included in this proposal. Phase was completed in Task I-20-PBI-R-012 Electrical Distribution Report.

4. 60% CONSTRUCTION DOCUMENTS (PHASE 3A)

Upon receipt of the DOA’s written authorization to initiate Phase 3, the RS&H Team will prepare 60% Construction Documents from the approved Schematic Design Documents which clearly define the engineering and/or architectural elements of the Project.

Performance of this Task will be based on the approved Schematic Design submittal and shall further refine the design and establish the scope, relationships, forms, size and appearance of the project through plans, sections, elevations, details and specifications. The documents will include Drawings and Specifications that establish, in detail sufficient for 60% construction documents, the configuration and quality of the materials, components and systems required for the Project. Specific task breakdowns are as follows:

4.1 Project Initiation / Setup

This task includes coordination with the Client and Subconsultant(s); and to hold an internal kickoff meeting to review schedules, project goals and requirements for team members to ensure consistency with Client goals. This task includes coordination of sub access to internal project file server, standards coordination, and shared file coordination.

4.2 Code and Permitting Research

Preliminary determination and documentation of jurisdictional authority requirements for Building Code, Fire Protection and Life Safety. Interpretations of requirements will be incorporated in the design documents for jurisdictional reviews.

4.3 Civil 60% Construction Documents

Design and documentation for the site and demo / patching plans and details incidental to the electrical underground infrastructure installation for electrical feeders.

4.3.1. Site Survey

Perform survey of any utilities located while performing SUE work described below as well as areas not located in the previous New Parking Revenue Facility design project survey.

4.3.2. Subsurface Utility Engineering (SUE)

Perform utility locate services, including soft locates for possible utilities that could be impacted by the installation of conduits and the "Main Substation" pad. The utility location data from the New Parking Revenue Facility design project will be used primarily, the services within this scope will supplement any data not picked up in the previous project.

4.4 Life Safety and Architectural 60% Construction Documents

Design and documentation of space layout, envelope (exterior walls) and related plans, sections and details for the Project.

4.5 Structural 60% Construction Documents

Design and documentation of the equipment pads, and enlargement of openings.

4.6 Mechanical HVAC 60% Construction Documents

Design and documentation of modifications of heating, ventilation, air conditioning and building automation systems in support of the installation of the new electrical equipment.

4.7 Electrical 60% Construction Documents - Quantum

Design and documentation of modifications in power service, and premise distribution systems.

4.8 Electrical 60% Construction Documents – RS&H

Provide general quality control and review for work completed in Task 4.7

4.9 Low Voltage / IT 60% Construction Documents

Design and documentation of modifications in security, facility management and premise distribution systems as required for the new electric rooms and their infrastructure.



4.10 60% Construction Document Submittal

RS&H will submit four (4) hard copies and (1) electronic copy of all Documents required under this Phase 3 for review comments and approval by the DOA. RS&H shall prepare 60% Construction Document plans, and technical specifications in accordance with applicable DOA standards. Plans and specifications will be prepared for one single Bid Package.

4.11 Estimate of Probable Construction Cost

60% Construction Documents submitted to PBC DOA will be provided to CMAR at same time to develop estimate. RS&H Team (RS&H / Quantum) will respond to CMAR questions to facilitate CMAR development of a draft estimate of probable construction costs of the 60% Construction Documents to establish the relative value of the project components. Responses will be provided within 7 calendar days of receipt. Questions assumed to be provided at (1) one single time.

Draft Estimate assumed to be provided to RS&H within approximately 30 calendar days after 60% Construction Documents are submitted to CMAR. RS&H will review estimate to confirm general compliance with Project Scope and provide comments within 7 calendar days to CMAR. Final Estimate assumed to PBC DOA within 14 calendar days after RS&H provides responses to draft estimate.

Based on CMAR’s estimate, RS&H Team will discuss with PBC DOA potential alternates for funding or provide Project recommendations to PBC DOA to conform to the overall project budget if necessary.

4.12 60% Construction Document Review Meeting

RS&H will attend one 60% Construction Document Review meeting with the Project Manager, Architect and Electrical Engineer (Quantum). Structural, Mechanical, and Low Voltage / IT will be attending by phone. RS&H will not reissue the deliverable for concurrence with comments from review meeting.

Project Meeting anticipated to be 14 calendar days after Final Estimate submittal.

4.13 PBC PZB Meeting

RS&H will have their Project Manager and Electrical Engineer (Quantum) coordinate and attend one (1) meeting each with PBC Planning, Zoning & Building Departments (Fire, Bldg., etc.) regarding the project and will document the comments and judgements of such agencies. Impacts on project scope and strategies to accommodate requirements will be defined. The formal extents included for Code upgrades will be reviewed, discussed and a written Memorandum of Understanding (MOU) developed with the AHJ.



Meeting anticipated to be completed during same time as 60% Construction Document Review Meeting. RS&H will coordinate with PBC DOA to include PBC DOA at meeting.

4.14 Project Management and Discipline Coordination

Scheduling, resource allocation, monitoring, oversight, direction and control for all aspects of the team’s efforts including assembly and coordination of all documentation.

5. 90% CONSTRUCTION DOCUMENTS (PHASE 3B)

Following the 60% Construction Documents approval by the DOA, RS&H will develop 90% Construction Documents from the approved 60% Construction Documents. They will consist of the information contained in the 60% documents, as well as incorporate into the 90% Construction Documents submittal any comments provided by DOA or the CMAR. RS&H will not reissue the prior deliverable for concurrence.

5.1 Civil 90% Construction Documents

Final design and documentation for site installation of underground utilities and establishment of site configurations for construction access, securing of the site, providing staging areas and the completed project’s geometry, grading and site plans as associated details.

5.2 Life Safety and Architectural 90% Construction Documents

Design and final documentation of space layout, envelope (exterior walls) and related plans, sections and details for the Project.

5.3 Structural 90% Construction Documents

Design and final documentation of the equipment pads, and enlargement of openings.

5.4 Mechanical HVAC 90% Construction Documents

Design and final documentation of modifications of heating, ventilation, air conditioning and building automation systems in support of the installation of the new electrical equipment.

5.5 Electrical 90% Construction Documents - Quantum

Design and final documentation of modifications in power service, fire alarm and premise distribution systems.

5.6 Electrical 90% Construction Documents – RS&H



Provide general quality control and review for work completed in Task 5.5

5.7 Low Voltage / IT 90% Construction Documents

Further detail the design and documentation of modifications in security and facility management and premise distribution systems as required for the new electric rooms and their infrastructure, including equipment and mounting details.

5.8 90% Construction Document Submittal

RS&H will submit four (4) copies of all Documents required under this Phase 3 for review comments and approval by the DOA. RS&H shall prepare 90% Construction Document plans, and technical specifications in accordance with applicable DOA standards. Plans and specifications will be prepared for one single Bid Package.

5.9 Estimate of Probable Construction Cost

90% Construction Documents submitted to PBC DOA will be provided to CMAR at same time to develop estimate. RS&H Team (RS&H / Quantum) will respond to CMAR questions to facilitate CMAR development of a draft estimate of probable construction costs of the 90% Construction Documents to establish the relative value of the project components. Responses will be provided within 7 calendar days of receipt. Questions assumed to be provided at (1) one single time.

Draft Estimate assumed to be provided to RS&H within approximately 30 calendar days after 90% Construction Documents are submitted to CMAR. RS&H will review estimate to confirm general compliance with Project Scope and provide comments within 7 calendar days to CMAR. Final Estimate assumed to PBC DOA within 14 calendar days after RS&H provides responses to draft estimate.

Based on CMAR’s estimate, RS&H Team will discuss with PBC DOA potential alternates for funding or provide Project recommendations to PBC DOA to conform to the overall project budget if necessary.

5.10 90% Construction Document Review Meeting

RS&H will attend one 90% Construction Document Review meeting with the Project Manager, Architect and Electrical Engineer (Quantum). Structural, Mechanical, and Low Voltage / IT will be attending by phone. RS&H will not reissue the deliverable for concurrence with comments from review meeting.

Project Meeting anticipated to be 14 calendar days after Final Estimate submittal.

5.11 Project Management and Discipline Coordination



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

6. 100% CONSTRUCTION DOCUMENTS (PHASE 3C)

Following the 90% Complete Contract Documents approval by the DOA, RS&H will develop "Final" 100% Complete Contract Documents from the approved 90% Complete Contract Documents. They will consist of the information contained in the 90% documents, as well as incorporate any comments provided by DOA or CMAR. RS&H will not reissue the prior deliverable for concurrence.

This task shall provide the detailed requirements for construction of the Project. The documents will include Drawings and Specifications that establish, in detail sufficient for production of shop drawings and construction, the configuration and quality of the materials, components and systems required for the Project. Specific task breakdowns are as follows:

6.1 100% Construction Documents

Design and final documentation of the Project drawings and specifications.

6.2 100% Construction Document Submittal

RS&H will submit four (4) copies of all Documents required under this Phase 3 for review comments and approval by the DOA. RS&H shall prepare 60% Construction Document plans, and technical specifications in accordance with applicable DOA standards. Plans and specifications will be prepared for one single Bid Package.

6.3 Estimate of Probable Construction Cost

Not included.

6.4 100% Construction Document Review Meeting

RS&H will attend one 100% Construction Document Review meeting with the Project Manager, Architect, and Electrical Engineer (Quantum) in attendance. Structural, Mechanical, and Low Voltage / IT will be attending by phone.

Project Meeting anticipated to be 14 calendar days after 100% Construction Document submittal.

6.5 Project Management and Discipline Coordination

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

7. BIDDING AND AWARD OF CONTRACT (PHASE 4)

Following the 100% Complete Contract Documents approval by the DOA, RS&H will develop Permit Contract Documents from the approved 90% Complete Contract Documents. They will consist of the information contained in the 90% documents, as well as incorporate any comments provided by DOA or CMAR. RS&H will not reissue the prior deliverable for concurrence.

7.1 Bid / Permit Document

RS&H Team will update 100% Construction Documents with any PBC DOA or CMAR review comments provided during review meeting and provide Bid Documents (electronic deliverable) (plans and specifications) for the DOA / CMAR to use for bidding and Permit Documents.

7.1.1. Bid Document Submittal

RS&H Team will submit Bid Document (plans and specifications) electronically for the DOA / CMAR to use for bidding.

7.1.1.1. Bidder Communications / Questions / Addenda

RS&H will respond to written questions from CMAR regarding questions concerning bid documents. RS&H shall issue all required addenda to revise plans, specifications and other contract documents prepared by RS&H in order to (1) provide clarifications, (2) correct discrepancies, or (3) correct errors and/or omissions.

7.1.2. Permit Document Submittal

RS&H Team will provide signed and sealed documents (plans and specifications) for the DOA / CMAR to use to file for a County building permit. RS&H Team will provide the necessary portions of the Contract Documents for approval by DOA, and assist in obtaining any such applicable certifications of "permit approval" by such authorities prior to issuance of Bid Documents

7.1.2.1. PZB Review Communication / Questions / Addenda

After receipt (if any) of Palm Beach County (PBC) Planning, Zoning and Building (PZB) review comments of the Permit Documents (thru CMAR), RS&H will provide responses and reissuance of documents as required to obtain "permit approval."

7.2 Conformed Documents



RS&H will update Permit / Bid documents to include any issued documentation under Task 7.1.1 and Task 7.1.2 to create a single set of documents to be used for construction. Conformed documents will be electronic copy only.

8. CONSTRUCTION ADMINISTRATION SERVICES (PHASE 5)

Not included. Will be performed under a subsequent proposal.

9. PROJECT DESIGN SUBMITTALS AND SCHEDULE

Ph 1A: Planning and Programming	Not Included in Project
Ph 1B: Conceptual Design	Not Included in Project
Ph 2: Schematic Design	Not Included in Project
Ph 3A: 60% Construction Documents	90 working days total
60% CD Submittal	65 working days after NTP
Draft Cost Estimate (assumed)	20 working days after 60% CD Submittal
Final Cost Estimate (assumed)	15 working days after Draft Estimate
Review Meeting	10 working days after Cost Estimate Submittal
Ph 3B: 90% Construction Documents	90 working days total
90% CD Submittal	65 working days after Ph 3A Review Meeting
Draft Cost Estimate (assumed)	20 working days after 90% CD Submittal
Final Cost Estimate (assumed)	15 working days after Draft Estimate
Review Meeting	10 working days after Cost Estimate Submittal
Ph 3C: 100% Construction Documents	
100% CD Submittal	15 working days after Ph 3B Review Meeting
Review Meeting	10 working days after 100% CD Submittal
Ph 4: Bidding and Award	Tied to County and Bidding Process
Bid / Permit Document Submittal	10 working days after 100% Review Meeting
Conformed Document Submittal	TBD - Tied to Bidding and Permitting Process- 10 working days after Permit approval



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

RS&H, INC.
PROJECT PROPOSAL - PBI SWITCHGEAR NPDS REPLACEMENT

TOTAL DESIGN SERVICES - BASIC (ITEMS A & B) AND ADDITIONAL (ITEM C)

	<u>Total</u>
<u>TOTAL DESIGN SERVICES</u>	
PHASE 1A - PLANNING AND PROGRAMMING - Not Included in Proposal	\$ -
PHASE 1B - CONCEPTUAL DESIGN - Not Included in Proposal	\$ -
PHASE 2 - SCHEMATIC DESIGN (30% DESIGN) - Not Included in Proposal	\$ -
PHASE 3A - 60% CONSTRUCTION DOCUMENTS (Lump Sum)	\$ 70,869.19
PHASE 3B - 90% CONSTRUCTION DOCUMENTS (Lump Sum)	\$ 55,703.44
PHASE 3C - 100% CONSTRUCTION DOCUMENTS (Lump Sum)	\$ 39,546.01
<u>BIDDING AND AWARD SERVICES</u>	
PHASE 4 - BIDDING AND AWARD OF CONTRACT (Lump Sum)	\$ 30,645.69
<u>CONSTRUCTION ADMINISTRATION SERVICES</u>	
PHASE 5 - CONSTRUCTION ADMINISTRATION - Not Included in Proposal	\$ -
	\$ 196,764.33
<u>SUBCONSULTANTS</u>	
Quantum (Lump Sum) - Electrical	\$ 573,374.44
Keith (Lump Sum) - SUE	\$ 7,067.45
Brown and Phillips (Lump Sum) - Survey	\$ 977.90
	\$ 581,419.79
<u>REIMBURSABLE EXPENSES</u>	
Reimbursable Expenses (Not-to-Exceed)	\$ 4,542.68
SUMMARY:	
Total Proposed Fee for:	\$ 782,726.80



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

RS&H, INC.
PROJECT PROPOSAL - PBI SWITCHGEAR NPDS REPLACEMENT

BASIC DESIGN SERVICES (ITEMS A & B)

	Total
<u>BASIC DESIGN SERVICES</u>	
PHASE 1A - PLANNING AND PROGRAMMING - Not Included in Proposal	\$ -
PHASE 1B - CONCEPTUAL DESIGN - Not Included in Proposal	\$ -
PHASE 2 - SCHEMATIC DESIGN (30% DESIGN) - Not Included in Proposal	\$ -
PHASE 3A - 60% CONSTRUCTION DOCUMENTS (Lump Sum)	\$ 54,847.93
PHASE 3B - 90% CONSTRUCTION DOCUMENTS (Lump Sum)	\$ 43,572.08
PHASE 3C - 100% CONSTRUCTION DOCUMENTS (Lump Sum)	\$ 29,960.38
<u>BIDDING AND AWARD SERVICES</u>	
PHASE 4 - BIDDING AND AWARD OF CONTRACT (Lump Sum)	\$ 20,670.44
<u>CONSTRUCTION ADMINISTRATION SERVICES</u>	
PHASE 5 - CONSTRUCTION ADMINISTRATION - Not Included in Proposal	
	\$ 149,050.83
<u>SUBCONSULTANTS</u>	
Quantum (Lump Sum) - Electrical	\$ 452,752.74
Keith (Lump Sum) - SUE	\$ 7,067.45
Brown and Phillips (Lump Sum) - Survey	\$ 977.90
	\$ 460,798.09
<u>REIMBURSABLE EXPENSES</u>	
Reimbursable Expenses (Not-to-Exceed)	\$ 4,542.68
SUMMARY:	
Total Proposed Fee for:	\$ 614,391.60

		\$900	\$1,080	\$480	\$0	\$2,460
	TOTAL TRAVEL					\$2,460
MILEAGE			Mileage @			
			\$0.58			
Miles			246			\$142.68
	TOTAL MILEAGE					\$142.68
MISCELLANEOUS						
	TOTAL MISCELLANEOUS					\$0
					REIMBURSABLES (Not-to-Exceed)	\$4,542.68
	SUMMARY					
	PHASE 1A - PLANNING AND PROGRAMMING - Not Included in Proposal					\$0.00
	PHASE 1B - CONCEPTUAL DESIGN - Not Included in Proposal					\$0.00
	PHASE 2 - SCHEMATIC DESIGN (30% DESIGN) - Not Included in Proposal					\$0.00
	PHASE 3A - 60% CONSTRUCTION DOCUMENTS (Lump Sum)					\$54,847.93
	PHASE 3B - 90% CONSTRUCTION DOCUMENTS (Lump Sum)					\$43,572.08
	PHASE 3C - 100% CONSTRUCTION DOCUMENTS (Lump Sum)					\$29,960.38
	PHASE 4 - BIDDING AND AWARD OF CONTRACT (Lump Sum)					\$20,670.44
	PHASE 5 - CONSTRUCTION ADMINISTRATION - Not Included in Proposal					\$0.00
	SUBCONSULTANTS (Lump Sum)					\$452,752.74
	REIMBURSABLES (Not-to-Exceed)					\$4,542.68
	TOTAL BASIC SERVICES CONTRACT VALUE					
				Task Authorization No. I-20-PBI-R-017 - PBI Switchgear NPDS Replacement		\$606,346.25



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

RS&H, INC.
PROJECT PROPOSAL - PBI SWITCHGEAR NPDS REPLACEMENT

ADDITIONAL DESIGN SERVICES (ITEM C)

	Total
ADDITIONAL DESIGN SERVICES	
PHASE 1A - PLANNING AND PROGRAMMING - Not Included in Proposal	\$ -
PHASE 1B - CONCEPTUAL DESIGN - Not Included in Proposal	\$ -
PHASE 2 - SCHEMATIC DESIGN (30% DESIGN) - Not Included in Proposal	\$ -
PHASE 3A - 60% CONSTRUCTION DOCUMENTS (Lump Sum)	\$ 16,021.26
PHASE 3B - 90% CONSTRUCTION DOCUMENTS (Lump Sum)	\$ 12,131.36
PHASE 3C - 100% CONSTRUCTION DOCUMENTS (Lump Sum)	\$ 9,585.63
BIDDING AND AWARD SERVICES	
PHASE 4 - BIDDING AND AWARD OF CONTRACT (Lump Sum)	\$ 9,975.25
CONSTRUCTION ADMINISTRATION SERVICES	
PHASE 5 - CONSTRUCTION ADMINISTRATION - Not Included in Proposal	\$ -
	\$ 47,713.50
SUBCONSULTANTS	
Quantum (Lump Sum) - Electrical	\$ 120,621.70
	\$ 120,621.70
REIMBURSABLE EXPENSES	
Reimbursable Expenses (Not-to-Exceed)	\$ -
SUMMARY:	
Total Proposed Fee for:	\$ 168,335.20

Total Proposed Fee for:				PHASE 3A - 60% CONSTRUCTION DOCUMENTS (Lump Sum)						\$16,021.26	
PHASE 3B - 90% CONSTRUCTION DOCUMENTS (Lump Sum)											
5.1	Civil 90% Construction Documents										
5.2	Life Safety and Architectural 90% Construction Documents										
	Substation C		2		6						8
	QA/QC Review		2								2
5.3	Structural 90% Construction Documents										
	Substation C - New Pads & Door Opening					2			6		8
	QA/QC Review					1				1	2
5.4	Mechanical 90% Construction Documents										
	Substation C					2	8	12			22
	QA/QC Review					4	4	8			16
5.6	Electrical 90% Construction Documents - QA/QC						24				24
5.7	Low Voltage / IT 90% Construction Documents										
	Substation C						1				1
	QA/QC Review						1				1
5.8	90% Construction Document Submittal										
	Life Safety / Arch										0
	Structural										0
	Mechanical										0
	Electrical										0
	Low Voltage / IT										0
5.9	Estimate of Probable Construction Cost										0
5.10	90% Construction Document Review Meeting										0
5.11	Project Management and Discipline Coordination										0
SUBTOTAL HOURS		0	4	0	6	9	38	20	6	1	84
RATE		\$287.02	\$245.39	\$125.87	\$85.16	\$246.63	\$151.55	\$96.47	\$111.75	\$60.37	
TOTAL DIRECT LABOR \$		\$0.00	\$981.56	\$0.00	\$510.96	\$2,219.67	\$5,758.90	\$1,929.40	\$670.50	\$60.37	\$12,131.36
Total Proposed Fee for:				PHASE 3B - 90% CONSTRUCTION DOCUMENTS (Lump Sum)						\$12,131.36	
PHASE 3C - 100% CONSTRUCTION DOCUMENTS (Lump Sum)											
6.1	100% Construction Documents										
	Life Safety and Architectural 100% Construction Documents										
	Substation C		2		4						6
	QA/QC Review		2								2
	Structural 100% Construction Documents										
	Substation C - New Pads & Door Opening					2			4		6
	QA/QC Review					1					1
	Mechanical 100% Construction Documents										
	Substation C						8	8			16
	QA/QC Review					4	4	8			16
	Electrical 100% Construction Documents - QA/QC						16				16
	Low Voltage / IT 100% Construction Documents										
	Substation C						1				1
	QA/QC Review						1				1
6.2	100% Construction Document Submittal										
	Life Safety / Arch										0
	Structural										0
	Mechanical										0
	Electrical										0
	Low Voltage / IT										0
6.3	Estimate of Probable Construction Cost - Excluded										0
6.4	100% Construction Document Review Meeting										0
6.5	Project Management and Discipline Coordination										0
SUBTOTAL HOURS		0	4	0	4	7	30	16	4	0	65
RATE		\$287.02	\$245.39	\$125.87	\$85.16	\$246.63	\$151.55	\$96.47	\$111.75	\$60.37	
TOTAL DIRECT LABOR \$		\$0.00	\$981.56	\$0.00	\$340.64	\$1,726.41	\$4,546.50	\$1,543.52	\$447.00	\$0.00	\$9,585.63
Total Proposed Fee for:				PHASE 3C - 100% CONSTRUCTION DOCUMENTS (Lump Sum)						\$9,585.63	
PHASE 4 - BIDDING AND AWARD OF CONTRACT (Lump Sum)											
7.1	Bid / Permit Documents			2		4	4		4		14
7.1.1	Bid Document Submittal	1						2		1	6
7.1.1.1	Bidder Communication / Questions / Addenda										
	Bidder's Questions					2	4	4			10
	Addenda					1	4	4	2		11
7.1.2	Permit Document Submittal	1				2	2	2	2	1	10
7.1.2.1	PZB Communication / Questions / Addenda										
	PZB Review Comments					2					2
	Addenda					1			2		3
7.2	Conformed Documents			1		2	4		2		9
SUBTOTAL HOURS		2	0	3	0	14	18	12	14	2	65
RATE		\$287.02	\$245.39	\$125.87	\$85.16	\$246.63	\$151.55	\$96.47	\$111.75	\$60.37	

QUANTUM

Electrical Engineering, Inc.

August 14, 2020

RS&H, Inc.
Mr. John Carrigan, PE, LEED AP+
Vice President, Aviation
3125 W Commercial Blvd, Suite 130,
Fort Lauderdale, FL 33309

Subject: Electrical Engineering Design Services Fee Proposal for the Palm Beach County Department of Airports (DOA) – TASK I-20-PBI-R-017 – Palm Beach International Airport Switchgear NPDS Replacement includes Phase 3A, 3B, 3C and 4.

Dear John:

Quantum Electrical Engineering, Inc. (Quantum) is pleased to provide RS&H an electrical engineering design services fee proposal for the PBI Switchgear NPDS Replacement. The following items are included in our scope:

Item A: Replacement of “Main Substation” and Switchgear “NPDS” Scope of Work

- Includes on-site verifications of all impacted equipment including physical equipment dimensions, measurements of conduit entrance into equipment along with the terminations in the existing equipment, removal and installation access pathways for equipment, determination if existing feeders are long enough to be re-terminated, phasing of the work for temporary power, and identification of all downstream loads of the existing 13.2kV and 480V electrical distribution systems that are being replaced.
- Design the replacement of the existing outdoor 13.2kV “Main Substation”, located adjacent to the FP&L Vault Building. Includes the design of new outdoor weather resistance switchgear with two incoming main switches and three outgoing feeder switches along with new 13.2kV medium voltage primary service conductors between FP&L Vault Building and new “Main Substation”.
- Includes FP&L coordination for the modification of existing primary service and to the existing FP&L distribution system to accommodate the new “Main Substation”. Includes FP&L coordination for a new 13.2kV conduit and conductor systems to existing FP&L Vault Building.
- Design the replacement of existing Switchgear “NPDS”, located in the Terminal Main Electrical Room. Includes new switchgear with a main-tie-main configuration and thirteen (13) medium voltage feeder breakers. Includes the selection and design of protective relay system for the medium voltage mains and feeder breakers.
- Includes design of extensive phasing and extensive temporary wiring and temporary equipment/power systems to maintain operations of Main Terminal, Concourses, Revenue Building, and Parking Garages during construction.
- Design the replacement of existing 13.2kV medium voltage feeder conductors between Switchgear “NPDS” and five substations and three distribution transformers.

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

- Includes preliminary short circuit calculations for sizing of electrical equipment withstand ratings for permitting and bidding purposes. Final short circuit calculation, device coordination and arc flash analysis along with arc flash labeling to be completed under CA services, which will be in a separate future proposal.

Item B: Replacement of Substation "B" Scope of Work

- Includes on-site verifications of the existing 13.2kV and 480V electrical distribution systems.
- Design the replacement of existing Substation "B", located in Concourse B Main Electrical Room. Includes new main-tie-main substation with two 13.2kV:480Y/277V stepdown transformers, two 13.2kV load break switches and 480V draw-out distribution breakers. Includes increased capacity and breaker space for future Concourse B Expansion.
- Includes design of phasing and extensive temporary wiring and temporary equipment/power systems to maintain operations of Concourse B during construction.
- Includes preliminary short circuit calculations for sizing of electrical equipment withstand ratings for permitting and bidding purposes. Final short circuit calculation, device coordination and arc flash analysis along with arc flash labeling to be completed under CA services, which will be in a separate future proposal.

Item C: Replacement of Substation "C" Scope of Work

- Includes on-site verifications of the existing 13.2kV and 480V electrical distribution systems.
- Design the replacement of existing Substation "C", located in Concourse C Main Electrical Room. Includes new main-tie-main substation with two 13.2kV:480Y/277V stepdown transformers, two 13.2kV load break switches and 480V draw-out distribution breakers.
- Includes design of phasing and extensive temporary wiring and temporary equipment/power systems to maintain operations of Concourse C during construction.
- Includes preliminary short circuit calculations for sizing of electrical equipment withstand ratings for permitting and bidding purposes. Final short circuit calculation, device coordination and arc flash analysis along with arc flash labeling to be completed under CA services, which will be in a separate future proposal.

Task 4: 60% Construction Documents (Phase 3A) (Item A, B & C)

Task 4.1: Project Initiation / Setup

- Includes design coordination meetings with the DOA and RS&H Design Team.

Task 4.2: Code and Permitting Research

- Preliminary determination and documentation of jurisdictional authority requirements. Interpretations of requirements will be incorporated in the design documents for jurisdictional reviews.

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Task 4.7: Electrical 60% Construction Documents

- Includes providing 60% design level electrical information reflecting required one-line diagrams, riser diagrams, panel schedules, details and plan layouts for design & specification and electrical budget estimates.
- Includes 60% design level electrical calculations.
- Coordination with the RS&H Team on the electrical requirement of other disciplines and provide 60% Construction Plans and technical specifications for electrical design.
- Includes responses to RS&H QC comments for incorporation into final 60% submittal

Task 4.11: Estimate of Probable Construction Cost

- Include review of 60% Electrical Probable Construction Cost and provide comments to RSH Team.

Task 4.12: 60% Construction Document Review Meeting

- Includes attending 60% design review meeting with DOA and RSH Team.
- Includes responses to review comments generated by the DOA and RSH Team.

Task 4.13: PBC PZB Meeting

- Includes attending meeting with Palm Beach County Planning and Zoning to discuss project scope and strategies to accommodate requirements.

Task 5: 90% Construction Documents (Phase 3B) (Item A, B & C)

Task 5.5: Electrical 90% Construction Documents

- Includes providing 90% design level electrical information reflecting required one-line diagrams, riser diagrams, panel schedules, details and plan layouts for design & specification and electrical budget estimates.
- Includes 90% design level electrical calculations.
- Coordination with the RS&H Team on the electrical requirement of other disciplines and provide 90% Construction Plans and technical specifications for electrical design.
- Includes incorporation of all 60% related comments from the DOA, PBC Planning & Zoning and RS&H Design Team into 90% Construction Documents.
- Includes responses to RS&H QC comments for incorporation into final 90% submittal

Task 5.9: Estimate of Probable Construction Cost

- Include review of 90% Electrical Probable Construction Cost and provide comments to RSH Team.

Task 5.10: 90% Construction Document Review Meeting

- Includes attending 90% design review meeting with DOA and RSH Team.
- Includes responses to review comments generated by the DOA and RSH Team.

Task 6: 100% Construction Documents (Phase 3C) (Item A, B & C)

Task 6.1: 100% Construction Documents

- Includes providing 100% design level electrical information reflecting required one-line diagrams, riser diagrams, panel schedules, details and plan layouts for design & specification and electrical budget estimates.
- Includes 100% design level electrical calculations.
- Coordination with the RS&H Team on the electrical requirement of other disciplines and provide 100% Construction Plans and technical specifications for electrical design.
- Includes incorporation of all 90% related comments from the DOA, PBC Planning & Zoning and RS&H Design Team into "Final" 100% Contract Documents.
- Includes responses to RS&H QC comments for incorporation into final 100% submittal
- Review of shop drawings for DOA direct purchase equipment.

Task 6.4: 100% Construction Document Review Meeting

- Includes attending 100% design review meeting with DOA and RSH Team.
- Includes responses to review comments generated by the DOA and RSH Team.

Task 7: Bidding and Award of Contract (Phase 4) (Item A, B & C)

Task 7.1: Bid / Permit Document Submittal

- Includes incorporation of all 100% related comments from the DOA, CMAR and RS&H Design Team into Bid / Permit Documents.
- Incorporation of the approved DOA direct purchase equipment information into the contract documents
- Includes signing and sealing drawings and specifications.
- Includes incorporation of all comments from the PBC Planning & Zoning and RS&H Design Team into Documents.

Task 7.1.1.1: Bidding Communications / Questions / Addenda

- RFI and Addendum Responses
- Review of CMAR pricing results.

Task 7.1.2.1: Bidding Communications / Questions / Addenda

- PZB Review Responses and Addendum

Task 7.2: Conformed Documents

- Includes incorporation of all issued documentation under Task 7.1 into Conformed Documents to be used for construction.

Exclusions and Assumptions

- Assumption that the "Main Substation", Switchgear "NPDS", Substation "B" and Substation "C" will be DOA direct purchase and separate submittal will be provided at 90% to DOA.
- Assumption that project will be bid as a CMAR.
- Assumption that the existing DOA medium voltage ductbanks between are viable and can be reused for the installation of new medium voltage cables.

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954.369.5810

Mr. John Carrigan, P.E.
Electrical Engineering Design Services Proposal for the PBIA Switchgear NPDS Replacement

- QUANTUM shall provide one electronic set of plans and specifications for Phase 3 and 4 to RS&H. RS&H shall provide all distribution and printing of all documents to DOA.
- Quantum shall provide AutoCAD to RS&H for all electrical base plans and sheet files.
- RS&H shall provide base plans and sheet files in AutoCAD 2018 or newer.
- Does not include Construction Administration Services.
- Does not include any upgrades or replacement of existing fire alarm systems.
- Does not include any type of IT communications, CCTV, PA system & access control / security systems.
- Does not include final short circuit calculation, device coordination or arc flash analysis along with arc flash labeling. To be completed under CA services.

Item A: Replacement of “Main Substation” and Switchgear “NPDS”

Our proposed Lump Sum Fee for Task 3A is:	\$152,467.64
Our proposed Lump Sum Fee for Task 3B is:	\$ 81,691.32
Our proposed Lump Sum Fee for Task 3C is:	\$ 29,941.97
Our proposed Lump Sum Fee for Task 4 is:	\$ 20,999.72
Our proposed total Lump-Sum fee for “Main Substation” and Switchgear “NPDS” is:	\$ 285,100.65

Item B: Replacement of Substation “B”

Our proposed Lump Sum Fee for Task 3A is:	\$ 88,222.16
Our proposed Lump Sum Fee for Task 3B is:	\$ 56,745.52
Our proposed Lump Sum Fee for Task 3C is:	\$ 14,053.69
Our proposed Lump Sum Fee for Task 4 is:	\$ 15,922.92
Our proposed total Lump-Sum fee for Substation “B” is:	\$ 174,944.29

Item C: Replacement of Substation “C”

Our proposed Lump Sum Fee for Task 3A is:	\$ 61,193.53
Our proposed Lump Sum Fee for Task 3B is:	\$ 34,239.95
Our proposed Lump Sum Fee for Task 3C is:	\$ 13,961.39
Our proposed Lump Sum Fee for Task 4 is:	\$ 15,784.46
Our proposed total Lump-Sum fee for Substation “C” is:	\$125,179.33

Our proposed Grand Total Lump-Sum fee is: \$585,224.27
(See Attachment for Breakdown)

Sincerely,



Amy Champagne-Baker, PE
President

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PALM BEACH COUNTY DEPARTMENT OF AIRPORTS- PBIA SWITCHGEAR REPLACEMENT									
QUANTUM ELECTRICAL ENGINEERING, INC.									
SCOPE FEE SUMMARY									
FEE PROPOSAL ELECTRICAL SERVICES TO RSH 08-14-20									
	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
	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Task	TASK COST
PHASE OF WORK - Item A: Replacement of "Main Substation" & Switchgear "NPDS"									
Task 4: 60% Construction Documents (Phase 3A)									
Task 4.1: Project Initiation / Setup		4				1	5		\$623.07
Task 4.2: Code and Permitting Research		20	24				44		\$6,207.64
Task 4.7: Electrical 60% Construction Documents		436	400	220		80	1136		\$137,190.88
Task 4.11: Estimate of Probable Construction Cost		4				2	6		\$669.22
Task 4.12: 60% Construction Document Review Meeting		24	24			8	56		\$7,153.76
Task 4.13: PBC PZB Meeting		4				1	5		\$623.07
Subtotal	0	492	448	220	0	92	1252		\$152,467.64
Task 5: 90% Construction Documents (Phase 3B)									
Task 5.5: Electrical 90% Construction Documents		236	220	100		78	634		\$75,022.18
Task 5.9: Estimate of Probable Construction Cost		4				2	6		\$669.22
Task 5.10: 90% Construction Document Review Meeting		16	24			8	48		\$5,999.92
Subtotal	0	256	244	100	0	88	688		\$81,691.32
Task 6 100% Construction Documents (Phase 3C)									
Task 6.1: 100% Construction Documents		90	90	32		24	236		\$28,765.06
Task 6.4: 100% Construction Document Review Meeting		4	4			1	9		\$1,176.91
Subtotal	0	94	94	32	0	25	245		\$29,941.97
Task 7: Bidding and Award of Contract (Phase 4)									
Task 7.1 Bid / Permit		44	42	24		25	135		\$14,976.71
Task 7.1.1.1: Bidding Communications / Questions / Addenda		9	8	4		2	23		\$2,774.97
Task 7.1.2.1: PZB Review Communications / Questions / Addenda		9	8	4		2	23		\$2,774.97
Task 7.2: Conformed Documents		2		2		1	5		\$473.07
Subtotal	0	64	58	34	0	30	186		\$20,999.72
Item A Subtotal Hours									
	0	906	844	386	0	235	2371		
Item A Subtotal Labor Cost									
	\$0.00	\$130,672.38	\$116,860.24	\$26,722.78	\$0.00	\$10,845.25			\$285,100.65
PHASE OF WORK - Item B: Replacement of Substation "B"									
Task 4: 60% Construction Documents (Phase 3A)									
Task 4.1: Project Initiation / Setup		4				1	5		\$623.07
Task 4.2: Code and Permitting Research		20	24				44		\$6,207.64
Task 4.7: Electrical 60% Construction Documents		236	240	80		40	596		\$74,653.08
Task 4.11: Estimate of Probable Construction Cost		4				2	6		\$669.22
Task 4.12: 60% Construction Document Review Meeting		16	20			8	44		\$5,446.08
Task 4.13: PBC PZB Meeting		4				1	5		\$623.07
Subtotal	0	284	284	80	0	52	700		\$88,222.16
Task 5: 90% Construction Documents (Phase 3B)									
Task 5.5: Electrical 90% Construction Documents		160	160	46		36	402		\$50,076.38
Task 5.9: Estimate of Probable Construction Cost		4				2	6		\$669.22
Task 5.10: 90% Construction Document Review Meeting		16	24			8	48		\$5,999.92
Subtotal	0	180	184	46	0	46	456		\$56,745.52
Task 6 100% Construction Documents (Phase 3C)									
Task 6.1: 100% Construction Documents		40	40	16		10	106		\$12,876.78
Task 6.4: 100% Construction Document Review Meeting		4	4			1	9		\$1,176.91
Subtotal	0	44	44	16	0	11	115		\$14,053.69
Task 7: Bidding and Award of Contract (Phase 4)									
Task 7.1 Bid / Permit		44	26	16		5	91		\$11,284.51
Task 7.1.1.1: Bidding Communications / Questions / Addenda		9	4	2		2	17		\$2,082.67
Task 7.1.2.1: PZB Review Communications / Questions / Addenda		9	4	2		2	17		\$2,082.67
Task 7.2: Conformed Documents		2		2		1	5		\$473.07
Subtotal	0	64	34	22	0	10	130		\$15,922.92
Item B Subtotal Hours									
	0	572	546	164	0	119	1401		
Item B Subtotal Labor Cost									
	\$0.00	\$82,499.56	\$75,599.16	\$11,353.72	\$0.00	\$5,491.85			\$174,944.29
PHASE OF WORK - Item C: Replacement of Substation "C"									
Task 4: 60% Construction Documents (Phase 3A)									
Task 4.1: Project Initiation / Setup		4				1	5		\$623.07
Task 4.2: Code and Permitting Research		19	23				42		\$5,924.95
Task 4.7: Electrical 60% Construction Documents		150	143	50		46	359		\$48,460.98
Task 4.11: Estimate of Probable Construction Cost		4				2	6		\$669.22
Task 4.12: 60% Construction Document Review Meeting		16	16			8	40		\$4,892.24
Task 4.13: PBC PZB Meeting		4				1	5		\$623.07
Subtotal	0	207	182	50	0	58	497		\$61,193.53
Task 5: 90% Construction Documents (Phase 3B)									
Task 5.5: Electrical 90% Construction Documents		83	83	40		32	238		\$27,709.27
Task 5.9: Estimate of Probable Construction Cost		4				2	6		\$669.22
Task 5.10: 90% Construction Document Review Meeting		16	23			8	47		\$5,861.46
Subtotal	0	103	106	40	0	42	291		\$34,239.95
Task 6 100% Construction Documents (Phase 3C)									
Task 6.1: 100% Construction Documents		40	40	16		8	104		\$12,784.48
Task 6.4: 100% Construction Document Review Meeting		4	4			1	9		\$1,176.91
Subtotal	0	44	44	16	0	9	113		\$13,961.39
Task 7: Bidding and Award of Contract (Phase 4)									
Task 7.1 Bid / Permit		44	25	16		5	90		\$11,146.05
Task 7.1.1.1: Bidding Communications / Questions / Addenda		9	4	2		2	17		\$2,082.67
Task 7.1.2.1: PZB Review Communications / Questions / Addenda		9	4	2		2	17		\$2,082.67
Task 7.2: Conformed Documents		2		2		1	5		\$473.07
Subtotal	0	64	33	22	0	10	129		\$15,784.46
Item C Subtotal Hours									
	0	418	365	128	0	119	1030		
Item C Subtotal Labor Cost									
	\$0.00	\$60,288.14	\$50,537.90	\$8,861.44	\$0.00	\$5,491.85			\$125,179.33
Grand Total Hours									
	0	1896	1755	678	0	473	4802		
Grand Total Labor Cost									
	\$0.00	\$273,460.08	\$242,997.30	\$46,937.94	\$0.00	\$21,828.95			\$585,224.27



August 14, 2020

Aaron Jackson, P.E.
RS&H
10748 Deerwood Park Boulevard South
Jacksonville, FL 32256

**Re: Palm Beach International Airport (PBI) New Parking Revenue Facility
Switchgear Replacement - Test Hole Locations**

Dear Aaron:

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

SCOPE OF SERVICES

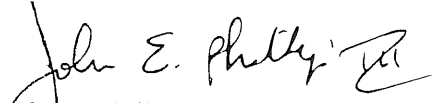
I. TEST HOLE LOCATIONS

Utilizing the survey control from the survey prepared previously for the new parking revenue facility (B&P Project #19-077.01), we will locate ten (10) test holes for underground utilities performed by Keith and Associates, Inc. The project limits are shown on Attachment 'B'. We will then update the survey to include the test hole locations.

II. CLOSURE

A drawing will be produced which will show all the features located. We propose to provide RS&H with hard copies, a digitally signed PDF file, and an AutoCAD file in the version requested. Any additional work will be done on an hourly basis as approved by you. We will perform the scope of services for an **hourly, not to exceed fee of \$977.90** (see Attachment 'A' for an estimated hourly breakdown). Please do not hesitate to call me with any questions you might have regarding this proposal. We look forward to working with you on this project.

Brown & Phillips, Inc.


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

Attachment

JEP/mb

This Proposal accepted this ____ day of_____, 2020

By: _____
RS&H

Print Name: _____

Title: _____

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



ATTACHMENT 'A'

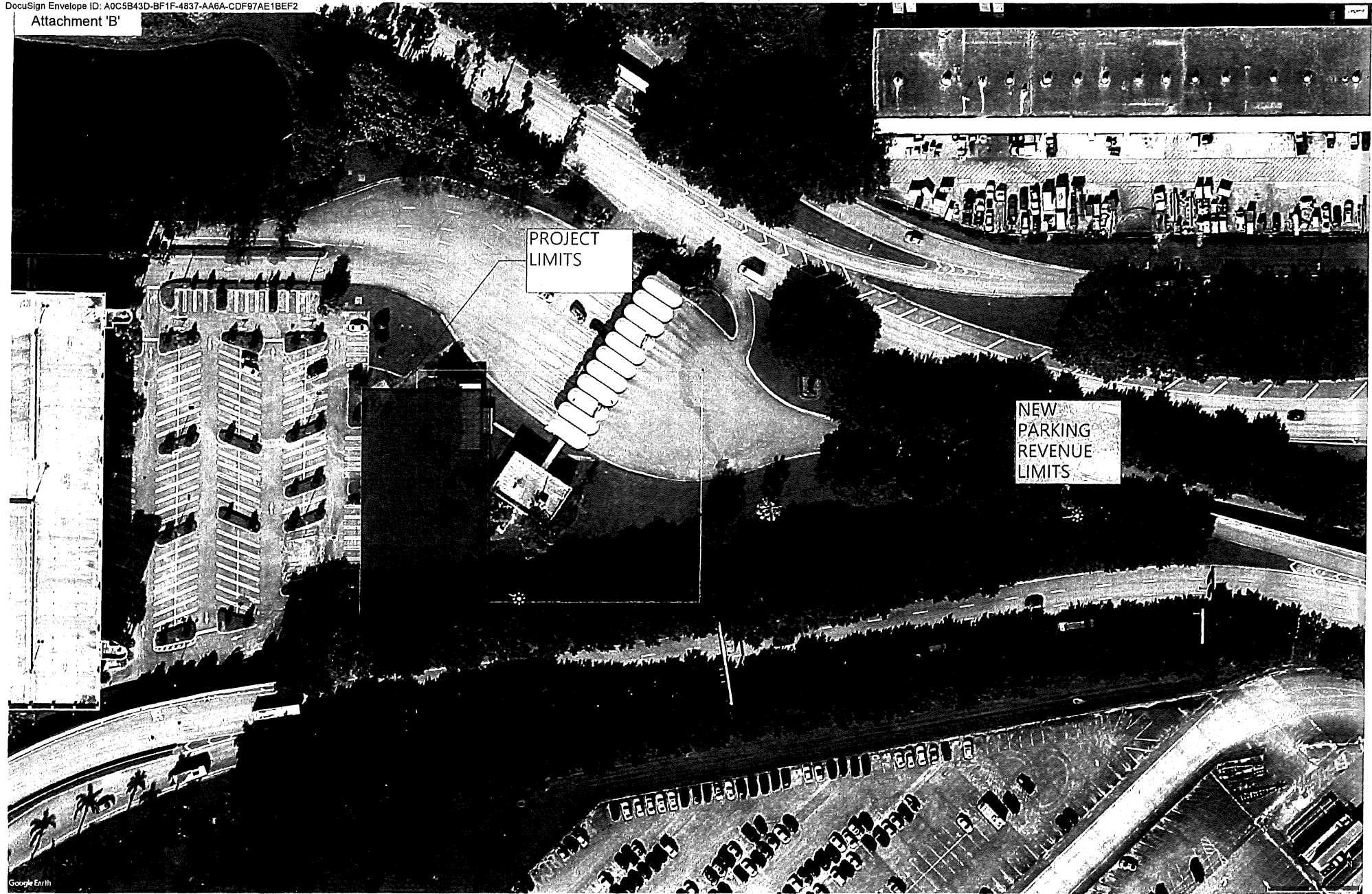
Palm Beach International Airport (PBIA) New Parking Revenue Facility
Switchgear Replacement - Test Hole Locations

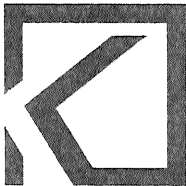
Type of Survey: Topographic
Size:
Date: August 14, 2020

TASK	2 MAN CREW	CADD TECH	SURVEY TECH	PLS	COMMENTS
Meetings and Coordination					
Horizontal & Vertical Project Network Control	1		0.5		Find/recover control
Locate ten (10) test holes	3		1		
Drawing		2	1	0.5	Update survey with test hole locations
Total Hours:	4	2	2.5	0.5	
Rate/Hour	\$134.52	\$82.94	\$82.94	\$133.18	
Subtotal:	\$538.08	\$165.88	\$207.35	\$66.59	
Total Labor Cost:					\$977.90

Other Direct Costs:	quantity	unit	cost/unit	total	
Prints		sheet	\$1.50	\$0.00	
Shipping		cost x markup	1.20	\$0.00	
Other				\$0.00	
Total Other Direct Costs:					\$0.00
TOTAL PRICE					\$977.90

Attachment 'B'





KEITH

CONTRACT

August 18, 2020

Aaron Jackson, PE, LEED AP
RS&H, Inc.
O 904-256-2276 | M 812-525-7455
Aaron.jackson@rsandh.com

Project Name: PBIA Switchgear Replacement
KEITH Project Number: 10216.M0 (07)

DESCRIPTION OF SERVICES

KEITH will provide professional SUE Services to support the expansion of PBIA Switchgear replacement project.

Project Location Map:



Corporate Office 301 E Atlantic Blvd Pompano Beach FL 33060 954.788.3400	Miami-Dade County 5805 Blue Lagoon Drive Suite 218 Miami, FL 33126 305.667.5474	Broward County 2312 S Andrews Ave Fort Lauderdale FL 33316 954.788.3400	Palm Beach County 120 N Federal Hwy Suite 208 Lake Worth, FL 33460 561.469.0992	Orange County 2948 E. Livingston St Suite 100 Orlando, FL 32803 954.788.3400
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10216.M0 (07) RS&H
PBIA Switchgear Replacement

SUBSURFACE UTILITY ENGINEERING (SUE) SERVICES

KEITH will follow ASCE Standard 38-02 – “Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data” during the field and office operations for this project. The quality levels discussed below are defined within the standard. KEITH is to provide professional services associated with designation, location and mapping of existing subsurface utilities. KEITH shall designate all known tone able and non-tone able utilities (Description) Gravity systems, service laterals, irrigation or overhead facilities are not included in this investigation.

Task 201 Horizontal Designation Services

KEITH will horizontally mark any known tone able and non-tone able underground utilities that are represented on as-built plans, above ground appurtenances, and other miscellaneous utility records (to be provided by CLIENT). Conductive utilities will be marked on the surface utilizing active geophysical prospecting techniques in conjunction with electromagnetic equipment utilizing passive radio and audio frequencies. Known non-conductive utilities and/or structures will be marked on the surface utilizing Ground Penetrating Radar (GPR), above ground features, professional judgment, utility plats and/or as-builts. This task does not include identifying gravity systems, service laterals, irrigation, or overhead facilities unless specifically requested by the CLIENT and included in the scope of services.

Task 202 Location Services

KEITH will perform up to (10) test holes at specific sites requested by the design engineer. Test holes will be utilized to expose utilities to minimize any potential for damage. Test holes performed will be of minimum size (usually 1’ by 1’). Backfill of test holes will be performed utilizing the removed material, if suitable. Areas will be restored back as close as possible to their original condition. Installation of an identifiable above ground marker will be performed at each test hole location. Field markers will consist of a nail and disk in asphalt, or an iron rod and cap with survey stake in grassed areas. Test holes performed in the street will be patched using cold patch. The test hole number and utility will be identified on the ground or on the stake, as appropriate. A test hole summary report will be created providing coordinates, depth of cover, type, size and material if applicable. **Mapping of Test Holes to be performed by others.**

Subsurface Utility Engineering Conditions and Understandings

CLIENT is required by law to contract Sunshine State One Call of Florida forty-eight (48) hours in advance of any CLIENT excavation. KEITH will not access confined spaces. If confined spaces need to be accessed for locating purposes, then the client will be notified, and further arrangements will be made for said access. Additional fees may be applicable. If additional MOT is required beyond the capability of KEITHS standard MOT operations, KEITH will notify the client. Additional requests outside the scope of services, when requested by client and/or client’s representative, will be invoiced on an hourly basis. This proposal assumes site access is available and work can be performed between the hours of 7:30 AM and 5:00 PM Monday through Friday.

Lump Sum Fee for Subsurface Utility Engineering services will be.....\$7,067.45



Engineering Inspired Design.



Palm Beach County Airport General Services
Labor Rate Schedule: 2019 Rates

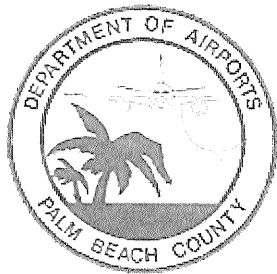
PBIA Switchgear Replacement

Subconsultant Name: RS&H
Rate Proposal Date: 08/17/2020

KEITH SUBSURFACE UTILITY ENGINEERING SERVICES				
Employee Title		Total Hourly Rate \$/Hour	HOURS	TOTALS
Technician I		\$64.83	4	\$259.32
Subsurface Utility Location Manager		\$162.07	2	\$324.14
Subsurface Utility Field Supervisor		\$94.30		
Utility Coordination Manager		\$132.60		
Utility Coordinator		\$103.14		
UNIT PRICE				
ITEM	UNIT	UNIT PRICE		
Survey Crew - 2 Person	Per Crew (\$/HR)	\$130.00		\$0.00
Subsurface Designation	Per Crew (\$/HR)	\$200.00	8	\$1,600.00
Impervious Coring >8"	Per Core / Each	\$150.00		\$0.00
Vacuum Excavations Pervious	Per Hole / Each	\$400.00	10	\$4,000.00
Vacuum Excavations Impervious	Per Hole / Each	\$550.00		\$0.00
Total Lump Sum Fee				\$7,067.45

EXHIBIT A-2 – Task I-20-PBI-R-018: PBI Concourse B Expansion (Conceptual and Schematic Design)

Palm Beach County Department of Airports



**Airport Facilities & Systems Planning, Design,
Engineering and Construction Management
Professional Services**

**Task Authorization No.
I-20-PBI-R-018**

Palm Beach International Airport

**PBI Concourse B Expansion
(Conceptual and Schematic Design)**



3125 West Commercial Boulevard, Suite 130
Fort Lauderdale, Florida 33309

August 10, 2020

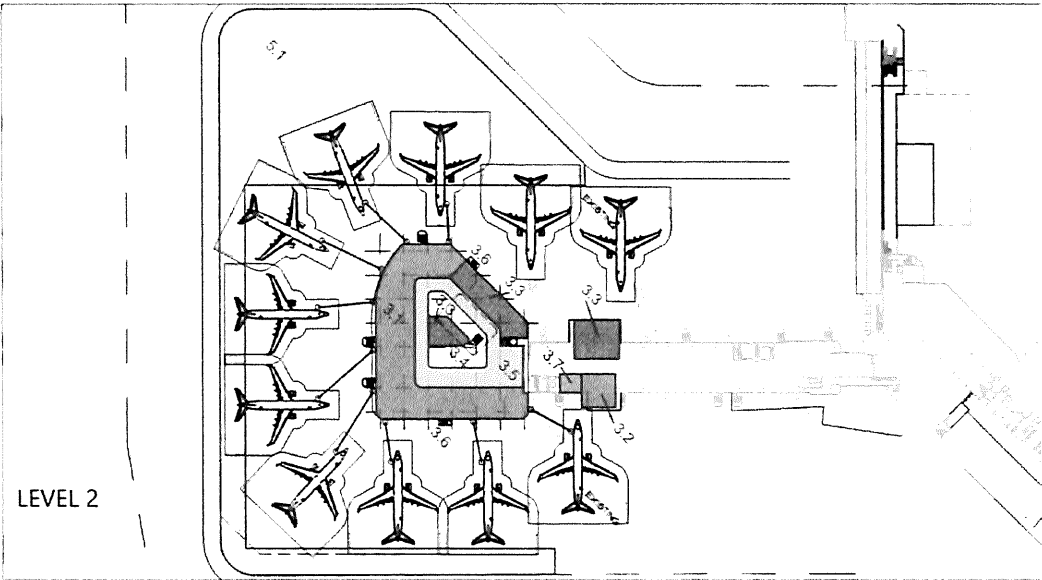
EXHIBIT "A-2"
SCOPE OF SERVICES

Description of the services outlined below in Section 0 - General is intended to be general in nature and should not be construed to be a complete description of the services or a limitation on the Scope of Services to be provided. Refer to Sections 1 through 8 for the definition of specific scope items to be performed by RS&H.

0. GENERAL

0.1 The Project

This project is for the design and documentation of the expansion of Concourse B Hold Room and Concessions Areas. The basis of this project will be the September 30, 2019 “Palm Beach International Airport (PBI) Terminal Expansion Program Study,” by RS&H. Based on the project definition in that report, the expanded Concourse will be approximately 56,000 square feet and have a budget cost of \$27 million for the building and \$5 million for the associated Apron/Site works. The new expansion will be located at the end of Concourse B as shown below. Multiple phases of construction are anticipated in order to minimize the impact to flight and airline operations. The following image shows the general location and extents of the proposed Concourse B expansion at Boarding Level:



The A/E shall develop its services to assure a properly coordinated design for construction of the Project. At the completion of the Schematic Design Phase (Phase 2), the A/E will continue design of subsequent phases (i.e. 60%, 90% and 100% Construction Documents) under a separate task authorization.



The scope for the work under this agreement shall include the conceptual and schematic level of design to begin to define the required elements, systems, equipment, and facilities typical of a passenger terminal complex including, and limited to:

- The interior space for the public circulation, seating and secure holdroom areas and Palm Beach County Department of Airports (DOA) administrative, operations and security areas. This includes flooring, wall and column coverings, ornamentals, ceiling, skylights, lighting, special effects, architectural millwork, seating (incorporating existing holdroom furniture, if possible), furnishings, commercial TV, flight information display systems (FIDS), artwork (incorporating existing and new as selected by the DOA), interior landscaping, commercial advertising, and limited other specialty features requested by DOA.
- The Sterile Corridor leading to FIS entrance shall be extended from Gate B-2 to include Gate B-4 to enable B-4 to function as an additional swing International Arrival Gate.
- The interior basic shell for concession tenant spaces. The project will provide shell space with stubbed utilities, electrical panel, conditioned air supply and return, exhaust ventilation, heating, cold/hot water, sanitary, natural gas, telephone/data/CCTV conduit, all as required at the interfaces per the tenant needs. Distribution of utilities, interior walls and finishes will be by tenant.
- The architectural millwork including complete counter shells without inserts for boarding lounge passenger processing. RS&H will continue DOA's existing millwork standards at new gates created with Concourse expansion. Existing gates not in the "boot" at the end of Concourse B will maintain their existing gate counter millwork.
- The gate systems including apron drive passenger boarding bridges (new and existing to be relocated) with required pivot foundation, bridge mounted preconditioned air units to provide heating and cooling to aircraft, bridge mounted 400Hz converters for aircraft power, lighted exterior gate numbering, 60Hz 120/220 wall receptacles, telephone service (wall and bridge mounted), potable water hose cabinets, water spigots (wall mounted), exterior PA system, ramp security CCTV system and exterior door security access control requirements.
- In association with DOA and the airlines, the RS&H Team will begin the definition of an aircraft parking plan around the Concourse B expansion and adjoining gates to remain to establish size and location of the boarding bridges, gates, building stairs, mechanical and electrical systems. Impacts to the existing vehicle service road will be considered per phase.
- All the mechanical and plumbing systems including HVAC, chilled water, compressed air, steam and hot water, fire protection, domestic hot and cold water, plumbing, natural gas, sanitary and storm sewer systems, etc.



- All the electrical building systems and other such items as the boarding bridges, 400Hz converters, preconditioned air, heated potable water hose cabinets, public information systems, lighted signage, security systems, tenant power and distribution as required. This includes cable routing and cabling as needed for voice/data/radio communications, including airline systems.
- Signage and wayfinding provided in this project will match the existing facility wayfinding program. This project will not include the development of a new wayfinding signage design program.
- Extension of the existing public address system throughout the expanded Concourse, including local paging, override for emergencies, announcements, etc.
- Extension of the existing Commercial video and telecommunication systems in the expanded Concourse.
- Specification of furnishings, fixtures and equipment ("FFE"), including but not limited to, holdroom, and public area seating, administrative office furnishings, common area furnishings, etc., and where applicable, the reuse of furniture and equipment.
- Project phasing and systems relocation, including continued use of existing Concourse and new temporary facilities during construction to maintain uninterrupted airport operations. RS&H Team will prepare design(s) for all necessary temporary facilities, system relocation, etc., and coordinate with DOA and the impacted Airlines and Tenants. Special priority shall be given to facilitating passenger and vehicle access to and through Concourse B during construction.

The RS&H Team will provide professional civil, architectural, structural, mechanical, plumbing, electrical, and communication/technology engineering design services and associated permitting, and bidding services related to the Concourse B Expansion Project.

The following RS&H Team members will be involved in this project for the roles defined as follows. Their respective scope and fee proposals are attached herein.

- **Tierra South Florida:** Shall provide geotechnical investigation services in support of design.
- **Brown & Phillips:** Shall provide site survey services in support of design.
- **Digital Building Services:** Shall provide Digital/3D "point-scan" survey of existing facilities in support of design via As-Built BIM Model creation.
- **MOBIO:** Shall provide architectural design services related to the Concourse B Expansion Project in support of and in coordination with RS&H's architectural design services.
- **Quantum Electrical Engineering, Inc.:** Shall provide Electrical Engineering design services including Power, Lighting & Fire Alarm systems for the Concourse B Expansion Project.



- **Master Consulting Engineers:** Shall provide QC Review for Structural Engineering Design Documents & Specifications in support of RS&H's engineering design services.
- **Connico:** Shall provide cost estimating services.
- **KEITH Team:** Subsurface utility investigation and civil utility (water and sanitary) design.
- **JLRD:** Shall provide peer review and quality assurance on all mechanical, fire protection and plumbing deliverables. JLRD shall also provide institutional knowledge of existing systems at PBIA as well as potential future outside projects. JLRD shall also provide a chiller plant capacity study as part of the schematic design.
- **RS&H:** Shall provide airside civil architectural, structural, mechanical, fire protection and communication / technology design services. Included in these services shall be stormwater permitting, NEPA permitting, development of a Construction Safety and Phasing Plan (CSPP) and the start of development of required 7460 submittals. RS&H will also provide oversight of all other design services performed by Team members noted above. RS&H shall serve as Architect and Engineer of Record (AOR & EOR) for the Concourse B Expansion Project.

The following are assumptions included for the scope of work included in this proposal:

- Design/Bid/Build construction delivery method
- Code-upgrades limited to footprint of Concourse B only.
- Expansion of existing signage/wayfinding standards only (Excludes development of new standards)
- Design phases past Schematic Design (i.e. 60% and beyond) will be performed under a separate proposal.
- Existing concrete apron area meets NFPA 415 slope requirements and does not require reconstruction to meet such codes.

The following are excluded from the scope of work and are not included in this proposal:

- Coordination with CMAR
- Value Engineering
- LEED Design & Certification
- Any soil contaminants and subsurface remediation.
- Phase 3: Construction Documents, Phase 4: Bidding and Award, Phase 5: Construction Administration and RPR Services. Shall be performed under a separate proposal.
- Jet fuel line design
- Natural gas line design



- Stormwater Modelling

1. Phase 1A: PLANNING AND PROGRAMMING

The Planning and Programming scope was previously addressed via Charettes #1 & 2 and documented via September 30, 2019 “Palm Beach International Airport (PBI) Terminal Expansion Program Study”.

2. Phase 1B: CONCEPTUAL DESIGN

2.1 Kick-Off Meeting

A kick-off meeting is anticipated to be held with the DOA and should include the Airport Staff and other affected stakeholders.

The following members will be in attendance: Project Manager (RS&H), Architect (RS&H), Structural (RS&H), Stormwater (RS&H), Mechanical (RS&H), Mechanical (JLRD), Electrical (Quantum), Plumbing (RS&H), Fire Protection (RS&H), and Communication / Technology (RS&H).

2.2 Review of Existing Documentation and Project Constraints

The RS&H Team will review the accuracy and adequacy of all drawings, budget costs, and other data and information furnished by DOA with emphasis on the following areas:

- RS&H will also examine and collect from the DOA all applicable record drawings of the existing facility and its surrounding site affected by the work.
- Examine in detail the DOA estimated project construction costs and inform DOA in writing of any serious discrepancies and/or deficiencies that would require additional funds to construct and complete the Project.
- Identify any apparent deficiencies in the available information and prepare specific requirements in writing depicting any further investigations required to develop that additional information. Review for the validity, interpretation, application and use of all such supplemental information and data obtained by others.

2.3 3D Point Scan (Digital Building Services)

RS&H Team will perform Digital/3D “point-scan” survey of existing facilities to create an As-Built BIM Model as defined in the attached subconsultant proposal. BIM model will be used to develop drawings for the project. Consultant will perform an after-hours “point-scan” 3D digital survey of Concourse B above and below ceiling level to establish the baseline BIM Model.



2.4 On-Site Existing Condition Verification

RS&H Team, after the point-scan survey is delivered and initial BIM Model transmitted, will perform an on-site survey of the existing terminal building to determine the accuracy of the as-built drawings, to supplement them as required and to determine the current condition of the various elements of the facility as necessary for temporary relocation, selective demolition and renovation. Included is the building envelope, interiors and other architectural components, the structural mechanical and electrical systems and components. An evaluation will be performed to determine the adequacy and useful service life of the various elements of the building and the applicability of incorporating them in the renovated facility.

2.5 Survey (Brown and Phillips), Geotech (Tierra South Florida) & SUE (KEITH)

RS&H Team will perform geotechnical investigation, site survey programs and Subsurface Utility Engineering (SUE) as defined in this task description and the attached subconsultant proposals. Soil borings, laboratory testing and geotechnical engineering analysis will be performed for foundation, pavement, and earthwork design. On-site horizontal and topographical surveys will be performed and incorporated into electronic files for drainage design and civil/site project documentation. SUE shall designate and mark all tone able and non-tone able utilities in the vicinity of the Project (further clarified in subconsultant proposal)

2.6 Tenant and Stakeholder Programming

RS&H Team will schedule and hold programming meetings (3-4 anticipated) over a maximum of two consecutive calendar days to with DOA, Airlines and Concession Tenants to determine the spatial requirements and functions that need to be accommodated in the expanded Concourse as well as determination of proposed fleet mix for proposed gates and gate standards. Limits of project design elements will be established and agreed upon.

RS&H will have their Project Manager, Architect (RS&H) and Electrical (Quantum) Engineer in attendance with Mechanical (RS&H & JLRD), Plumbing (RS&H), Stormwater (RS&H), Fire Protection (RS&H), & Communication / Technology (RS&H) Engineers in attendance via conference call.

2.7 Concept Refinement

RS&H Team will refine the preliminary theme and sketches created during the Programming Charettes to convey the general appearance. This development will seek to take consideration of energy efficiency implications and relative construction cost impacts (an all-encompassing cost estimate will not yet be provided). RS&H



Team will present findings to DOA for direction for further development of the Architectural design in the next project phase.

2.8 National Environmental Policy Act (NEPA) Services

This project will require Federal Aviation Administration (FAA) approval of a change in the Airport Layout Plan (ALP). This is a federal action and to comply with the requirement for the DOA to meet FAA grant assurances, RS&H Team will prepare a Documented Categorical Exclusion (CATEX) in compliance with the National Environmental Policy Act (NEPA).

2.8.1 Description of the Proposed Project

RS&H Team will provide a brief description of the Proposed Project and the project study area, including any unique features of the project study area. The Proposed Project is described and illustrated previously in Section 0.1 of this scope of services.

The project description will include any graphics/exhibits to describe the Proposed Project. Based on this description, RS&H Team will identify and describe the section(s) of FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, which most closely describes the Proposed Project as a categorically excluded action. RS&H Team will include that paragraph in the section of the Documented CATEX addressing the project description.

2.8.2 Conduct Environmental Analysis

The Consultant will use FAA Orders 1050.1F and 5050.4B, *NEPA Implementing Instructions for Airport Actions*, and the 1050.1F Desk Reference, as well as other guidance documents to determine what information needs to be provided about the environmental resource topics to address the potential impacts. The Consultant will indicate whether or not there would be any effects under the particular resource topic and, if needed, cite available references to support these conclusions.

While the Proposed Project would add two new gates to Concourse B. The number of new aircraft operations associated with these new gates, along with the Airport’s current aircraft operations (approximately 140,000 operations), are not expected to significantly change the Airport’s future noise contours. Therefore, completing an Area Equivalent Model (AEM) aviation noise analysis is included in this scope of services to help the FAA make an informed decision. If the FAA deems it necessary to conduct an Aviation Environmental Design Tool (AEDT) analysis, additional scope and fee will be required.

The temporary impacts relating to construction activities will be investigated and described. Specific attention will be devoted to construction impacts on dust, noise, and erosion control. To address construction-related air quality impacts, a construction air emissions inventory will be conducted. In addition, where applicable,



construction practices to reduce impacts will be identified, and provisions of FAA Advisory Circular 150/5370-10, Standards for Specifying Construction at Airports, will be referenced.

2.8.3 Prepare Documented Categorical Exclusion

RS&H Team will prepare a Draft Documented CATEX based on the FAA Standard Operating Procedure (SOP) 5.1, dated June 2017. RS&H will use the SOP to inform the FAA if the Proposed Project would or would not involve extraordinary circumstances that would require further analysis.

An electronic version (.pdf) of the Draft Documented CATEX will be provided to the DOA for review. One round of the DOA’s comments will be incorporated. Upon the DOA’s approval, RS&H Team will submit an electronic copy of the Draft Documented CATEX to the FAA Orlando ADO for review and comment. Hard copies of the Draft Documented CATEX will not be provided.

After the FAA reviews the Draft Documented CATEX, RS&H Team will revise that documentation based on the comments provided. One round of FAA comments will be incorporated. RS&H Team will provide an electronic file (pdf) containing the Final Documented CATEX with the signature of an RS&H Team associate to the DOA. The DOA will sign the Final Documented CATEX and submit it to the FAA Orlando ADO for their decision.

2.9 Project Management and Discipline Coordination

Scheduling, resource allocation, monitoring, oversight, direction, and control for all aspects of the team’s efforts including assembly and coordination of all documentation.

3. Phase 2: SCHEMATIC DESIGN

Following submission of Phase 1B documentation, the RS&H Team will prepare Schematic Design Documents which clearly define the architectural and engineering elements of the Project.

Performance of this Task will define the general design parameters of scope, scale and relationship of components of the Project. Documentation will include plans, layouts, sections, elevations and/or written descriptions. Outline Specifications will also be provided for review. Specific task breakdowns are as follows:

3.1 Code and Permitting Research

Preliminary determination of jurisdictional authority requirements for Building Code, Fire Protection and Life Safety.



RS&H will have their Project Manager and Architect coordinate and attend one (1) meeting each with PBC Building Departments (Fire, Bldg., etc.) regarding the project and will document the comments and judgements of such agencies. Impacts on project scope and strategies to accommodate requirements will be defined. The formal extents included for Code upgrades will be reviewed, discussed and a written Memorandum of Understanding (MOU) developed with the AHJ.

RS&H will investigate permitting requirements for stormwater management with South Florida Water Management District.

3.2 Schematic Design Documents

Multi-discipline project definition of civil, architectural, structural, mechanical, electrical, plumbing, fire protection and technology disciplines will be provided through drawings, narratives, and selected outline specifications for cost evaluation.

Civil (RS&H)

Elevations of the existing concourse will be studied to determine/confirm the optimum elevation of the new aircraft parking positions. Relative costs will be evaluated to assess optimum solutions around the lower level of the Concourse for physical, operational, and cost impacts. Major elements to be considered include:

- Baggage tug transit ways.
- Stormwater requirements.
- Drainage requirements.
- Fueling and NFPA slope and drainage requirements.
- Boarding heights and baggage system clearances. (Apron Coordination between Architectural & Civil Disciplines)
- Unsuitable soil removal costs.

Civil (KEITH)

Preliminary civil engineering plans shall be prepared in accordance with PBI and regulatory requirements and will include Water and Sewer System adjustments and services. Preliminary water and sanitary sewer calculations shall be performed to address the impacts of the proposed development relating to the requirements of the site plan submission. KEITH shall attend coordination meeting with PBI to review the Schematic Design, code and integration of the design with the existing conditions (including utilities/aircraft/etc.) and environmental impacts of the project.

Architectural (RS&H)

Design and preliminary documentation of the space layout, functional features, envelope, exterior and interior appearance and related plans, sections and details for



the Project. Evaluations of alternative approaches based on preferences and affordability will be made for the Authority’s direction for further refinement during the Schematic Design phase.

Structural (RS&H)

Structural system alternatives will be studied for the expansion of the Concourse to determine feasibility of floor elevations, ramping, clearances, selective demolition and incremental constructability. Relative costs will be evaluated to assess optimum solutions. Major elements to be considered include:

- Concourse expansion interface with existing elevations and ramp.
- Concourse expansion boarding elevations.
- Concourse expansion stability.
- Baggage system clearances.

Mechanical (RS&H)

Impacts to the existing mechanical system will be addressed, and alternatives will be developed for life-cycle cost analysis to respond to impacts to the existing system and to accommodate the expanded Concourse. Major elements to be considered include:

- Relocation of cooling towers.
- Chiller plant capacity.
- Energy code evaluation of theme.
- Evaluation of BAS control system expandability.
- PBB mechanical systems

Mechanical (JLRD)

JLRD will be involved in the concept and schematic design phases to provide historical knowledge and knowledge of the other projects on-going at PBIA to identify impacts of those projects to the Concourse B expansion and vice-versa. JLRD will also act in a peer review/QA role for project deliverables for Mechanical, Plumbing, and Fire Protection. Additional specific tasks that JLRD will provide are:

- Attend/accompany RS&H during the Site Verification visit to provide historical guidance and knowledge of M-P-FP system modifications (both past and potential future).
- Attend the 2-day stake holder coordination meeting to provide input on outside projects that could affect the design of the Concourse B systems.
- Prepare a chiller plant capacity study of the existing plant and coordinate with RS&H for modifications to the HVAC system design as part of the concourse B expansion project. This would include options for capacity expansion if needed, and piping distribution modifications that could or should be included in the project



to enable construction efficiencies for future projects. This study would be included as part of the 30% deliverable for the project.

- Provide an initial assessment of impacts the Concourse B expansion may have on the Fire Pump upgrade project.

Plumbing (RS&H)

Review of existing domestic water supply, sanitary sewer and storm drainage utilities in the expansion area to assess the capacity to support the proposed Concourse expansion. Identification of potential connection points to existing utilities or requirements for new utility service extensions from the site utilities to the new Concourse expansion will be included. Major elements to be considered will include: Storm Drainage Capacity requirements and available site storm drainage connection points.

- Sanitary Sewer Drainage system capacity requirements and available sewer connection points, either within the building or nearby site utility connection points.
- Grease waste drainage system strategy for serving potential concessions in the expansion.
- Domestic water system flow and pressure capacity requirements. Evaluation of available existing connection points inside the building, and requirements for potential pressure boosting. Identification of potential site utility connection points.

Fire Protection (RS&H)

Review of existing fire sprinkler piping systems to identify potential sources for the fire sprinkler system to serve the Concourse expansion. Main items considered during this design phase include:

- Identification of Occupancy hazard classifications for various areas of the proposed Concourse.
- Identification of potential deluge zones on building exterior. Definition of fire pump capacity requirements and potential water supply sources if deluge system required.
- Review of nearby fire sprinkler system piping inside the building for potential connection points to feed new sprinkler systems.



Electrical (Quantum)

Review of the present electrical and communications service capacity and service plan to accommodate the proposed Concourse expansion. Major elements to be considered include:

- Utility Company’s power sources and substation growth plans.
- Communication company utility infrastructure and future plans.
- Reliability and redundancy plan for an essential public facility.
- Maintenance of operations during construction phasing.

Communication / Technology (RS&H)

Preliminary security system needs and costs will be identified. Major elements to be considered include:

- Site assessment of existing system.
- Expandability analysis of equipment and infrastructure.
- Maintenance of operations during construction phasing.

3.3 Schematic Design Modeling

RS&H Team will produce BIM Models for presentation of interior and exterior 3D models for review with DOA for confirmation of concept, layout, proposed parking model and adjacencies.

3.4 Schematic Design Submittal

RS&H will submit four (4) copies of all Documents required under this Phase 2 for review comments and approval by the DOA. It is assumed that current site plans and airfield layout plans (ALP) will be provided by the DOA in AutoCAD format. Graphics and Wayfinding review to occur at this stage for compliance with current ADA requirements. Scope assumes reuse/expansion of existing signage standards.

3.5 Cost Estimate Budget Development

An estimate of probable construction cost of the schematic design submittal documents will be completed by Connico to establish the relative value of project components, potential alternates for funding limitations and the conformance to the overall project budget. The probable construction cost is an estimate representing the judgment of the estimators who have no control over the cost of labor, materials or equipment, over the Contractor’s methods of determining prices, or over competitive bidding, market or negotiating conditions. Accordingly, RS&H cannot and does not warrant or represent that bids or negotiated prices will not vary from the budget, funding or from any



estimate or evaluation by the RS&H. PFC/AIP availability analysis will be included at each stage. RS&H will review draft estimate to determine if scope was properly captured and provided comments to Connico for incorporation into the document submitted to PBC DOA. Excluded from the review will be review of the unit costs, only quantity and scope will be reviewed.

Submission of Probable Construction Cost is anticipated to be 4 weeks after Task 3.4 submittal.

3.6 Schematic Design Review Meeting

RS&H will attend one (1) Schematic Design Review meeting to be held with the DOA and should include affected stakeholders.

The following members will be in attendance: Project Manager (RS&H), Architect (RS&H), Structural (RS&H), Stormwater (RS&H), Mechanical (RS&H), Mechanical (JLRD), Electrical (Quantum), Plumbing (RS&H), Fire Protection (RS&H), and Communication / Technology (RS&H).

Review meeting anticipated to be 7 calendar days after submission of cost estimate of Task 3.5.

3.7 Project Management and Discipline Coordination

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

4. Phase 3A: 60% CONSTRUCTION DOCUMENTS

Not included. Will be performed under a subsequent proposal.

5. Phase 3B: 90% CONSTRUCTION DOCUMENTS

Not included. Will be performed under a subsequent proposal.

6. Phase 3C: 100% CONSTRUCTION DOCUMENTS

Not included. Will be performed under a subsequent proposal.

7. Phase 4: BIDDING AND AWARD OF CONTRACT

Not included. Shall be provided under a separate proposal if required.

8. Phase 5: CONSTRUCTION ADMINISTRATION SERVICES

Not included. Shall be provided under a separate proposal.



9. PROJECT DESIGN SCHEDULE

Ph 1B: Conceptual Design	90 working total
Submittal	90 working days after Ph NTP
Ph 2: Schematic Design	90 working day total
Submittal	65 working days after Ph 1B Submittal
Cost Estimate	20 working days after Ph 2 Submittal
Review Meeting	5 working days after Cost Estimate Submittal

END OF EXHIBIT A-2



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

RS&H, INC.

PROJECT PROPOSAL - PBI CONCOURSE B EXPANSION - Conceptual and Schematic Design

		<u>Total</u>
<u>DESIGN SERVICES</u>		
PHASE 1A - PLANNING AND PROGRAMMING - Not included in this proposal	\$	-
PHASE 1B - CONCEPTUAL DESIGN (Lump Sum)	\$	208,466.90
PHASE 2 - SCHEMATIC DESIGN (Lump Sum)	\$	319,622.02
PHASE 3A - 60% CONSTRUCTION DOCUMENTS - Not included in proposal	\$	-
PHASE 3B - 90% CONSTRUCTION DOCUMENTS - Not included in Proposal	\$	-
PHASE 3C - 100% CONSTRUCTION DOCUMENTS - Not included in Proposal	\$	-
<u>BIDDING AND AWARD SERVICES</u>		
PHASE 4 - BIDDING AND AWARD OF CONTRACT - Not included in this proposal	\$	-
<u>CONSTRUCTION ADMINISTRATION SERVICES</u>		
PHASE 5 - CONSTRUCTION ADMINISTRATION SERVICES - Not included in this proposal	\$	-
	\$	528,088.92
<u>SUBCONSULTANTS</u>		
Quantum (Electrical)	\$	86,514.00
Connico (Cost Estimating)	\$	22,900.00
MOBIO (Architectural Support)	\$	176,600.00
Digital Building Services (3D PointScan)	\$	183,689.00
Brown & Phillips (Survey)	\$	18,001.63
Tierra South Florida (Geotech)	\$	29,240.00
KEITH Team (SUE & Water/Sanitary)	\$	83,911.77
JLRD (Mechanical)	\$	20,060.00
Master Consulting Engineers (QC Structural)	\$	4,960.00
	\$	625,876.40
<u>REIMBURSABLE EXPENSES</u>		
Reimbursable Expenses	\$	8,092.00
SUMMARY:		
Total Proposed Fee for:	\$	1,162,057.32



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

RS&H, INC.

PROJECT PROPOSAL - PBI CONCOURSE B EXPANSION - Conceptual and Schematic Design

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-20-PBI-R-018 - Concourse B Expansion - Conceputal and Schematic Design (Lump Sum)											
PHASE 1A - PLANNING AND PROGRAMMING - Not included in this proposal											
PHASE 1B - CONCEPTUAL DESIGN (Lump Sum)											
2.1	Kick-Off Meeting	4	4	8	8	16	12	8			60
2.2	Review of Existing Documentation & Project Constraints										0
	Civil	4					40	56			100
	Architectural		8	24	16						48
	Structural					16	16				32
	Mechanical					16	16				32
	Plumbing							16			16
	Fire Protection					16					16
	Communication / Technology					24	16				40
	PM / Coordination	4		8							12
2.3	3D Point Scan										0
	PM / Coordination	4		8							12
2.4	On-Site Existing Condition Verification										0
	Civil						24	32			56
	Architectural		8	32	16						56
	Structural					32		40			72
	Mechanical					24		24			48
	Plumbing						24				24
	Fire Protection					24					24
	Communication / Technology					32	32				64
	PM / Coordination	4		8							12
2.5	Survey & Geotech <i>(Report Review/Coord)</i>			4	4		8				16
2.6	Tenant and Stakeholder Programming	4	40	60	40	24	20	20			208
2.7	Concept Refinement	4	12	24	40	8	12	4			104
2.8	NEPA Services					50		104			154
2.9	Project Management and Discipline Coordination	40	8			8				40	96
SUBTOTAL HOURS		68	80	176	124	290	220	304	0	40	1302
RATE		\$287.02	\$245.39	\$125.87	\$85.16	\$246.63	\$151.55	\$96.47	\$111.75	\$60.37	
TOTAL DIRECT LABOR \$		\$19,517.36	\$19,631.20	\$22,153.12	\$10,559.84	\$71,522.70	\$33,341.00	\$29,326.88	\$0.00	\$2,414.80	\$208,466.90
Total Proposed Fee for:									PHASE 1B - CONCEPTUAL DESIGN (Lump Sum)		\$208,466.90

SCOPE / TASK TITLE		SR. PROJ. MANAGER	SENIOR ARCHITECT	ARCHITECT	INTERN ARCHITECT	SENIOR ENGINEER	ENGINEER	INTERN ENGINEER	TECH/ DESIGNER	ADMIN. ASSISTANT	TOTAL
PHASE 2 - SCHEMATIC DESIGN (Lump Sum)											
3.1	Code and Permitting Research	2	12	32	40	2	32	56			178
3.2	Schematic Design Documents										
	Civil										0
	Develop Concourse "B" Aviplan Gate Model						16	60			76
	Civil Plan Sheets										0
	Cover Sheet							4			4
	Drawing Index							4			4
	Safety & Security Notes and Details							8			8
	Contract Layout Plan & General Contract Notes							16			16
	Horizontal & Vertical Control Plan & Notes							6			6
	Geotechnical Boring Layout and Information							8			8
	Existing Conditions Plans						2	10			12
	Demolition Plan – Sheet 1 of 4						2	6			8
	Demolition Plan – Sheet 2 of 4						2	6			8
	Demolition Plan – Sheet 3 of 4						2	6			8
	Demolition Plan – Sheet 4 of 4						2	6			8
	Geometry Plan – Sheet 1 of 4							4			4
	Geometry Plan – Sheet 2 of 4							4			4
	Geometry Plan – Sheet 3 of 4							4			4
	Geometry Plan – Sheet 4 of 4							4			4
	Typical Pavement Sections							8			8
	Erosion & Sedimentation Control Plan							8			8
	Erosion & Sedimentation Control Notes and Details							8			8
	Utility Plan – Sheet 1 of 4							8			8
	Utility Plan – Sheet 2 of 4							8			8
	Utility Plan – Sheet 3 of 4							8			8
	Utility Plan – Sheet 4 of 4							8			8
	Specifications					1	32	56		8	97
	Apron						8				8
	Architectural		60	140	160						360
	Structural					48	80	120			248
	Mechanical					40	80	80			200
	Plumbing						40	80			120
	Fire Protection					40		40			80
	Electrical					20		32			52
	Communication / Technology					48	64				112
3.3	Schematic Design Modeling		8	32	80	8	24	40			192
3.4	Schematic Design Submittal										
	Submittal Preparation & QC	4		8	16	6	42	60			136
3.5	Cost Estimate Budget Development		8	12		12	24	12			68
3.6	Schematic Design Review Meeting	4		8	8	56		2			78
3.7	Project Management and Discipline Coordination	56		42	4	1				60	163
SUBTOTAL HOURS		66	88	274	308	282	452	790	0	68	2328
RATE		\$287.02	\$245.39	\$125.87	\$85.16	\$246.63	\$151.55	\$96.47	\$111.75	\$60.37	
TOTAL DIRECT LABOR \$		\$18,943.32	\$21,594.32	\$34,488.38	\$26,229.28	\$69,549.66	\$68,500.60	\$76,211.30	\$0.00	\$4,105.16	\$319,622.02
Total Proposed Fee for:									PHASE 2 - SCHEMATIC DESIGN (Lump Sum)		\$319,622.02

QUANTUM

Electrical Engineering, Inc.

January 13, 2020

RS&H, Inc.
Mr. John Carrigan, PE, LEED AP+
Vice President, Aviation
3125 W Commercial Blvd, Suite 130,
Fort Lauderdale, FL 33309

Subject: Electrical Engineering Services Fee Proposal for the Palm Beach County
Department of Airports (DOA) – TASK I-19-PBI-R-011 – CONCOURSE B
EXPASION AS REFLECTED IN RS&H SCOPE OF SERVICES, DATED
NOVEMBER 19, 2019.

Dear John:

Quantum Electrical Engineering, Inc. (QUANTUM) is pleased to provide RS&H an electrical engineering services fee proposal for the proposed new Concourse B Expansion project. **This proposal is based on the assumption that the 400Hz Replacement project has replaced the Concourse B electrical Substation B equipment and the electrical normal power conductor feeders between the NPDS Switchgear in the Main Terminal Electrical room and the Concourse B electrical room.**

The following design tasks are included in our scope:

Phase 1B Conceptual Design Services

- Attend the kick off meeting with DOA and RS&H Team.
- Review record drawings of the impacted areas for understanding of impacts to the normal and emergency electrical system. Identify apparent deficiencies in the current electrical system that could impact supported infrastructure of the new expansion.
- Includes on-site verifications of the existing electrical distribution and fire alarm system throughout the proposed concourse expansion.
- Preliminary lighting and electrical calculations for normal and emergency power.
- Attend meetings with DOA, PBC Planning & Zoning Airlines and Concession tenants to determine electrical and fire alarm requirements for the proposed shell/tenant spaces.
- Coordinate with the RS&H Team for electrical room size and location and provide conceptual sketches and write ups for the proposed electrical, lighting and fire alarm system design.

Phase 2 Schematic Design Services

- Includes design coordination meetings with the DOA, PBC Planning & Zoning, Fire Marshal and RS&H Design Team
- Includes providing schematic electrical information reflecting required details and plan layouts and written descriptions that are necessary to define the scope elements for design & specification and electrical budget estimates.
- Preliminary lighting and electrical calculations for normal and emergency power.
- Coordinate with the RS&H Team on the electrical requirement of other disciplines and provide conceptual plans and write up for electrical, lighting and fire alarm design

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

Phase 3A, 3B, 3C Construction Documents Phase 3A, 3B, 3C excluded from Proposal. Will be provided in future proposal.

- Includes design coordination meetings with the DOA, PBC Planning & Zoning, Fire Marshal and RS&H Design Team.
- Design electrical modifications to the existing DOA 13.2 KV electrical distribution equipment located in the existing Concourse B electrical room. Includes extending new primary 13.2 KV to new electrical room located within the new Concourse B expansion.
- Provide new normal power distribution system for Concourse B Expansion. Includes new 13.2KV to 480V step down transformers and new main-tie-main substation for normal power with new transformers, switchboard, breakers, cable & conduit systems.
- Provide new emergency power distribution system for existing Concourse B and Concourse B Expansion. Includes new 4160V emergency power feeders routed in the existing ductbank between EPDS switchboard in the main terminal electrical room and existing Concourse B electrical room. Includes replacement of existing 4160V to 480V step down transformer and switchboard for emergency power with new larger sized transformer and cable & conduit systems. Includes extending emergency power to new Concourse B expansion electrical room.
- Design new 480/277Volt & 208/120V 3 Phase 4 wire, normal & emergency main electrical service at the proposed Concourse B Expansion electrical room. Includes all electrical calculations, HVAC air handler circuits, switchboards, panelboard layouts, cable & conduit systems, grounding, and lightning protection systems.
- Includes design of power systems for new and relocated jet bridges, 400HZ and PC Air point-of-use systems, apron aircraft grounding receptacles, apron high mast lighting, power for heated water hose cabinets and lighted exterior gate numbering for the Concourse B Expansion.
- Design LED lighting systems (fixtures selected by Architect) with point-by-point lighting calculations for apron, concourse and DOA interior spaces along with modifications to the existing lighting control system to meet current County lighting codes, Florida Building Code, Energy code and DOA requirements.
- Design new Concourse B interior & exterior normal & emergency electrical power, lighting and fire alarm systems to meet current County, Florida Building, NEC, NFPA codes and DOA standards. Includes electrical risers, panel schedules, power for DOA spaces, power for concourse signage and advertising, equipment electrical circuits, interior & exterior lighting circuits, (telephone & computer equipment / systems for DOA and airlines designed & provided by Others), grounding system, and lightning protection systems.
- Integration of the control of the smoke evacuation system into the fire alarm system.
- Design of expansion of the fire alarm system into the concourse B expansion. Includes notification and signalization devices and equipment layout, calculations and riser diagrams to meet current NFPA 72, Florida Building Code and DOA requirements.
- Include power for gate desks, seating, FIDS, passenger information displays, TV and charging stations in the concourse/holdroom(s) level.
- Includes electrical capacity and infrastructure for normal and emergency power for proposed future mezzanine level.
- Design electrical infrastructure with new electrical panels located in tenant shell spaces for tenant(s) buildout(s). DOA to provide minimum capacity of electrical panels per tenant space.
- Includes preliminary short circuit calculations for sizing of electrical equipment withstand ratings for permitting and bidding purposes. Final coordination study and arc flash analysis and labeling to be completed under CA services.

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561.210.9224


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Page 3
Mr. John Carrigan, P.E.
Electrical Engineering Services Proposal for the PBCDOA PBI Concourse B Expansion

- RS&H shall provide base plans, sheet files, and information from each Design Team disciplines in Autocad 2018 or newer.
- RS&H shall convert electrical, lighting and fire alarm plans into Concourse REVIT model.
- QUANTUM shall provide one electronic set of plans and specifications for Phases 1B, 2, 3A, 3B, 3C, and construction set to RS&H. RS&H shall provide all printing of plans & specifications to the County for all reviews, permitting, bidding and construction phases.
- Does not include any type of IT communications, PA system & access control / security systems (by others)
- Does not include new chillers, new cooling towers for expansion or upgrades to the existing chiller plant electrical systems.
- Does not include replacement of existing emergency power generators.
- Does not include replacement of existing fire pump.

Our proposed Lump Sum fee for Concourse B Expansion Design is: ~~\$235,543.30~~
(See Attachment for Breakdown) \$86,514.30

Sincerely,


Amy Champagne-Baker, PE
President

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2755 Vista Parkway, Suite I-9
West Palm Beach, FL 33411
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PALM BEACH COUNTY DEPARTMENT OF AIRPORTS- New PBI Concourse B Expansion									
QUANTUM ELECTRICAL ENGINEERING, INC.									
SCOPE FEE SUMMARY									
FEE PROPOSAL ELECTRICAL DESIGN to RSH 01/13/20									
	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		TOTAL
PHASE OF WORK	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Expenses	TASK COST
									\$0.00
Planning & Design							0		\$0.00
							0		\$0.00
Conceptual Design	Ph 1B	80	80	60		32	252		\$28,245.80
Schematic Desgin	Ph 2	140	180	150		60	530		\$58,268.50
60% Design	Ph 3A	200	180	120		64	564		\$65,030.00
90% Construction Documents	Ph 3B	140	160	120		40	460		\$52,499.40
100% Construction Documents	Ph 3C	100	80	60		40	280		\$31,499.60
	Phase 3A, 3B, 3C excluded from Proposal. Will be provided in future proposal.						0		\$0.00
							0		\$0.00
							0		\$0.00
							0		\$0.00
							0		\$0.00
							0	\$86,514.30	\$0.00
Subtotal	0	660	680	510	0	236	2086		-\$235,543.30
Construction Administration									\$0.00
							0		\$0.00
							0		\$0.00
							0		\$0.00
							0		\$0.00
							0		\$0.00
							0		\$0.00
Subtotal	0	0	0	0	0	0	0		\$0.00
Grand Total Hours	0	660	680	510	0	236	2086		\$86,514.30
Grand Total Labor Cost	\$0.00	\$95,191.80	\$94,152.80	\$35,307.30	\$0.00	\$10,891.40			-\$235,543.30



Concourse B Expansion
Palm Beach International Airport
November 18, 2019
CI Project No. 4312.19.09 idk
Page 1

EXHIBIT A – SCOPE OF WORK AND FEE

Project Scope

This project is for the design and documentation of the expansion of Concourse B Hold Room and Concessions Areas. The basis of this project will be the September 30, 2019 “Palm Beach International Airport (PBI) Terminal Expansion Program Study,” by RS&H. Based on the project definition in that report, the expanded Concourse will be approximately 56,000 square feet and have a budget cost of \$27 million for the building and \$5 million for the associated Apron/Site works. The new expansion will be located at the end of Concourse B. Multiple phases of construction are anticipated in order to minimize the impact to flight and airline operations

The construction budget has been estimated at \$42.7M (inclusive of Apron & Building scopes, GC markups & escalation; soft costs are not included).

Scope of Services

Connico proposes to provide an Opinion of Probable Construction Cost services as follows:

- ↓ Schematic Design Estimate (35% Design)
- ↓ 60% Construction Document Estimate
- ↓ 90% Construction Document Estimate
- ↓ 100% Construction Document Estimate (Update)

Each estimating phase includes an initial scope of work review meeting, and an estimate draft review meeting prior to issuing the estimate via teleconference. A limited site visit for the purposes of providing an Opinion of Probable Cost is not included. This proposal is for planning, design phase services only; construction phase services are not included.

Hazardous Materials Abatement is not included. If consultant provides an estimate for hazardous materials, Connico will include in the estimate and cite source.

In providing estimates of probable construction cost, the Client understands that the Consultant has no control over the cost or availability of labor, equipment or materials, or over market conditions or the Contractor's method of pricing, and that the Consultant's estimates of probable construction costs are made on the basis of the Consultant's professional judgment and experience. The Consultant makes no warranty, express or implied, that the bids or the negotiated cost of the Work will not vary from the Consultant's estimate of probable construction cost.

We require one (1) set of drawings and narrative/specifications, an electronic version of the drawings (PDF) and a copy of the soil borings report, if available and applicable.

Connico will provide an electronic copy of the estimate.

Deliverables

The estimate will be prepared in a CSI format or Unifomat and can be summarized in a customized format to fit the requirements of the Client provided the format is established at the beginning of the estimating task. The estimate will identify our opinion of probable construction cost of the project, based on the documents provided



Concourse B Expansion
Palm Beach International Airport
November 18, 2019
CI Project No. 4312.19.09 idk
Page 2

EXHIBIT A – SCOPE OF WORK AND FEE

by the Client. Connico is entitled to rely and will rely on the accuracy and completeness of all such documents without undertaking an independent investigation to confirm the same.

Also included within the estimate shall be our Estimate Notes. The notes will contain allowances, criteria, and clarifications for the estimate, based on our assumptions and verbal information provided by the design team. The notes will also include any other comments about the project estimate that we feel are relevant. Connico will provide an electronic copy of the estimate report.

The estimate(s) shall be prepared within twelve (12) business days from the date all design information required is received by Connico. In the event that supplemental information is furnished to Connico after a task has begun, and such information requires changes to any quantity take-off currently in progress, Connico reserves the right to request additional compensation for any such additional take-off. No additional time shall be expended on work affected by such supplemental information without the prior written consent of the Client and an agreement having been reached as to the scope and additional fee required.

Proposed Fees (Basic Scope of Services)

↓ Schematic Design Estimate (35%)	\$22,900.00
↓ 60% Construction Document Estimate	\$35,100.00
↓ 90% Construction Document Estimate	\$31,300.00
↓ 100% Construction Document Estimate (Update)	\$12,700.00
Total Proposed Fees	\$102,000.00 \$22,900.00

Phase 3A, 3B, 3C excluded from Proposal.
Will be provided in future proposal.

The proposed fees are based on providing all listed phase of estimates. Should the Client elect to change the scope of services, Connico reserves the right to renegotiate our fees.

Proposed fees are based on providing one draft estimate for review and comment and one final estimate. Should additional revisions be requested, these shall be considered additional services.

Services not set forth above are specifically excluded from the scope of the Consultant's services. The Consultant assumes no responsibility to perform any services not specifically listed.

Additional Services

Additional services are not included as part of the Basic Scope of Services and shall be paid for by the Client, in addition to payment for Basic Services, in accordance with Connico’s schedules below, or as agreed to by the Client and Connico.

Basic Services do not include, cost management, evaluating or making recommendations regarding substitution of materials, products, or equipment proposed, design alternatives or value engineering building or site systems; reconciliation estimates or services, and meetings not included within the base proposal. Connico shall be reimbursed for additional services at the rates included within the agreement.



January 24, 2020

RS&H, Inc
3125 W Commercial Blvd,
Suite 130,
Fort Lauderdale, FL 33309

Attn.: **Richard Emerson, AIA, LEED AP**
Aviation Architect

Re: Proposal for Professional Architectural Support Services
Palm Beach International Airport (PBI)
Expansion of Concourse ‘B’
Task Authorization No. I-19-PBI-R-011

Dear Richard;

Thank you for giving our team the great opportunity to support you and RS&H, Inc. in the development of this exciting project. MOBIO Architecture, Inc. (MOBIO) is pleased to provide you with professional architectural support services for the PBI Concourse ‘B’ Expansion, which scope of professional services is listed further in this document.

SCOPE:

Based on our understanding, professional services (“Services”) required of MOBIO would encompass architecture and planning professional services support to the expansion of Concourse ‘B’ at PBI. RS&H furnished initial scope document with general overview of the project and understanding of Owner’s expectations. MOBIO professional services will be consistent with the extent of scope specified in the executed Subcontract for Professional Services for the RSH’s PBI Facilities On-Call Contract (Prime Agreement).

DELIVERABLES:

Per scope document for Task No. I-19-PBI-R-011 ‘Palm Beach International Airport – Concourse B Expansion (Construction Documents Only)’, the following deliverables or project milestones were identified for this project.

- Phase 1B – Conceptual Design.
- Phase 2 – Schematic Design.
- Phase 3A – 60% Construction Documents.
- Phase 3B – 90% Construction Documents.
- Phase 3C – 100% Construction Documents.
- Phase 4 – Permitting, Bid, & Award Services.

Phase 3A, 3B, 3C, & 4 excluded from Proposal. Will be provided in future proposal.



ASSUMPTIONS:

- 1. MOBIO shall have no responsibility for the discovery, presence, handling, removal, disposal of or exposure of persons to hazardous materials in any form at the Project site, including but not limited to asbestos, asbestos products, polychlorinated biphenyl (PCB), mold, or other toxic substances.
- 2. MOBIO will have access to the area of work throughout the development of this project.

SUB-CONSULTANT:

MOBIO will not be required to sub-contract any technical or professional services for this project.

COMPENSATION:

Stipulated Sum in the amount of amount of Five Hundred Thousand dollars and Zero cents (\$ 500,000.00).

In support of RS&H’s design & construction documentation efforts, MOBIO will provide the services of two (2) full-time, dedicated staff members (average of 40 hours/week) for the period of sixty (60) weeks for the Concourse B Expansion project with proper supervision from MOBIO’s partners. Specific work scope definitions remain to be defined at this time. Efforts are not to exceed ~~\$ 500,000.00~~ without prior written agreement of the parties.

\$176,600.00
20 weeks for Phase 1B & 2

REIMBURSABLE COSTS:

In addition, MOBIO will be reimbursed for expenditures specifically for the Project including, but not limited to: out of town (north of Palm Beach County boundary) transportation, including air travel; lodging and subsistence; PBIA DOA document reproduction; professional photography (if required); shipping, postage, messenger or courier service charges; any sales, usage, occupation, service or similar taxes; purchase of maps and similar documents; other similar expenses; and as authorized in advanced by RS&H. Our billings for such reimbursable expenses will not be marked up.

SCHEDULE:

Based on the scope document prepared and furnished by RS&H, we understand the following are milestones for the various project deliverables.

Design Activities/ Phases	Estimated duration (Calendar Days)
Notice to Proceed (NTP)	One (1) Day
Phase 1B – Conceptual Design	Ninety (90) Days
Phase 2 – Schematic Design	Sixty (60) days
Phase 3A – 60% Construction Documents	One Hundred-Twenty (120) Days
Phase 3B – 90% Construction Documents	Ninety (90) Days
Phase 3C – 100% Construction Documents	Sixty (60) Days
Phase 4 – Permitting, Bid, & Award Services	Tied to County Process

CHANGE IN SERVICES:

Services required of MOBIO that are not defined in the scope of work above shall be considered Change-In-Service. A Proposal for additional services will be presented in the event these are necessary or as requested by the RS&H and PBIA Department of Airports (DOA.)

Professional Hourly Rates



MOBIO Architecture, Inc.	
Category:	Billing Rate:
Partner	\$ 250.00
Senior Project Manager	\$ 185.00
Project Manager	\$ 165.00
Senior Professional	\$ 175.00
Professional	\$ 145.00
Pre-Professional	\$ 100.00
Technical	\$ 95.00
Clerical	\$ 75.00

Professional services rendered by MOBIO will follow requirements of the Agreement Between the Consultant (RS&H) and the Sub-Consultant (MOBIO), executed on 7/2/2019. Should this proposal meet your needs and requirements for this project, please provide us with a Work Order for MOBIO to begin professional services. Richard, it is our pleasure to be of professional service to support you and RS&H for this exciting project at Palm Beach International Airport.

Cordially,
MOBIO Architecture, Inc.

A handwritten signature in black ink, appearing to read "Abdel F. Martel", is written over the company name.

Abdel F. Martel
President

Cc: MOBIO Proposal File 19-000-40



EXHIBIT 'A'
TASK AUTHORIZATION NO. 1-19-PBI-R-011
PALM BEACH INTERNATIONAL AIRPORT
CONCOURSE 'B' EXPANSION
(CONSTRUCTION DOCUMENTS ONLY)

MOBIO Architecture, Inc. . License No. AA26003775
6303 Blue Lagoon Drive, Suite 310, Miami, Florida 33126 . e. contact@mobioarchitecture.com . www.mobioarchitecture.com

PALM BEACH COUNTY DEPARTMENT OF AIRPORTS- New PBI Concourse B Expansion										
MOBIO ARCHITECTURE, INC.										
SCOPE FEE SUMMARY										
FEE PROPOSAL ARCHITECTURE-PLANNING SUPPORT to RSH 11-19-2019										
Rate					\$145.00	\$100.00				
		Principal	Project Manager	Sr. Professional	Professional	Pre-Professional	Clerical	Total		TOTAL
PHASE OF WORK		Hours	Hours	Hours	Hours	Hours	Hours	Hours	Expenses	TASK COST
										\$0.00
Planning & Design										\$0.00
										\$0.00
Conceptual Design	Ph 1B				420	460				\$106,900.00
Schematic Design	Ph 2				260	320				\$69,700.00
60% Construction Documents	Ph 3A				580	640				\$148,100.00
90% Construction Documents	Ph 3B				420	447				\$105,600.00
100% Construction Documents	Ph 3C				260	320				\$69,700.00
										\$0.00
										\$0.00
										\$0.00
										\$0.00
										\$0.00
										\$0.00
Subtotal		0	0	0	1940	2187	0	4127		\$500,000.00
Construction Administration										\$0.00
								0		\$0.00
								0		\$0.00
								0		\$0.00
								0		\$0.00
								0		\$0.00
								0		\$0.00
								0		\$0.00
Subtotal		0	0	0	0	0	0	0		\$0.00
Grand Total Hours		0	0	0	1940	2187	0	4127		
Grand Total Labor Cost		\$0.00	\$0.00	\$0.00	\$281,300.00	\$218,700.00	\$0.00			\$500,000.00

12 weeks
8 weeks
16 weeks
12 weeks
8 weeks
56 weeks

\$176,600.00

\$176,600.00



11290 SW 30th Street
Miami, FL 33165
P: (305) 202-1208
jmesa@dbuilds.com

Palm Beach International Concourse B Expansion

Proposal Date: 11/18/2019

Project: PBI – Concourse B Expansion

Prepared for: Richard Emerson, AIA, LEED AP
RS&H
1715 N. Westshore Blvd, Suite 500
Tampa, FL 33607

Digital Building Services, LLC is pleased to provide this proposal for the laser scanning and 3D Revit modeling of specified interior and exterior spaces of PBI. The scope of this proposal is determined based on the scope provided by RS&H. The following proposal shall detail the scope of work we believe appropriate to accomplish your goals and the means and methods by which to accomplish the tasks. Please review this document and let me know if you have any questions. We are always available to discuss via conference call at your convenience. Thank you for the opportunity to submit a proposal on this project and we look forward to working together.

Scope of Work

Boundary

The scope has been tailored to the interior spaces of the building that will be impacted by the design project. These areas are shown below shaded in green. The scope to be scanned and subsequently converted to a Revit deliverable is approximately 168,612 sf of the Ramp and Boarding Levels of Concourse B. Also, as part of this proposal, DBS is also scanning and modeling a portion of the roof and exterior façade.

Detailed Scope of Work for the Ramp Level, Boarding Level, Roof and Exterior.
Scanning Areas Shaded in Green for Ramp and Boarding Levels.

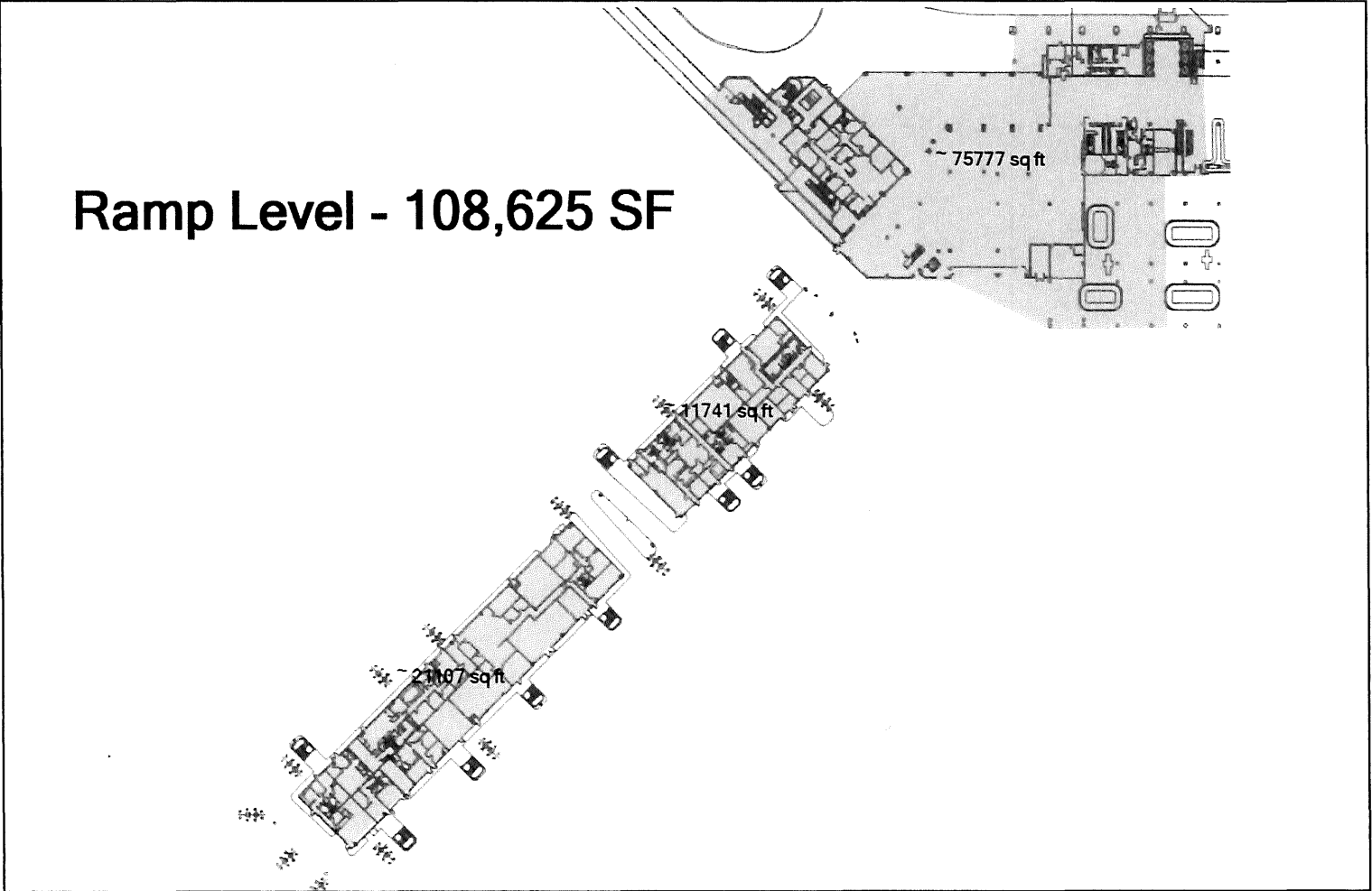


Figure One Ramp Level – 108,625 sf

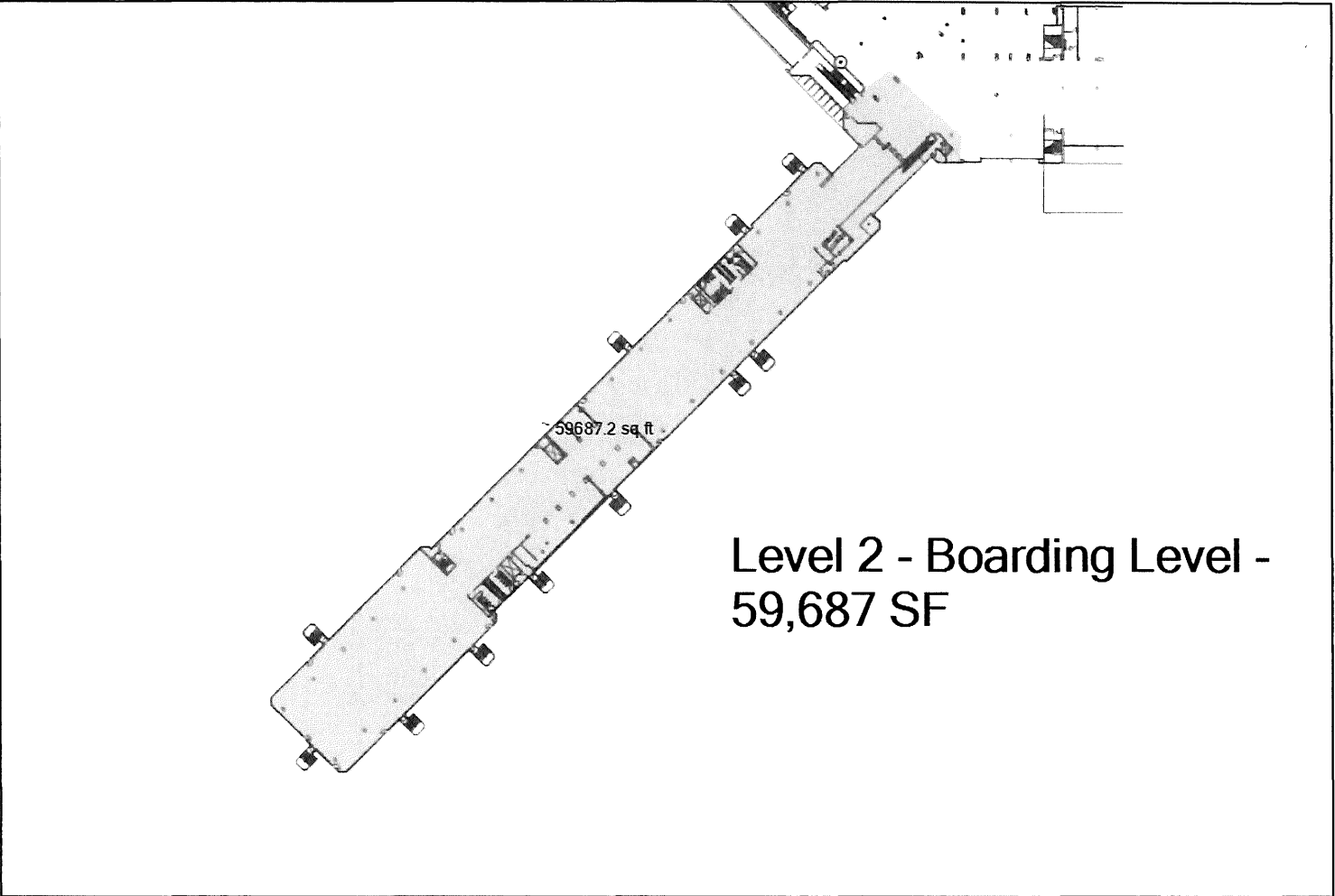
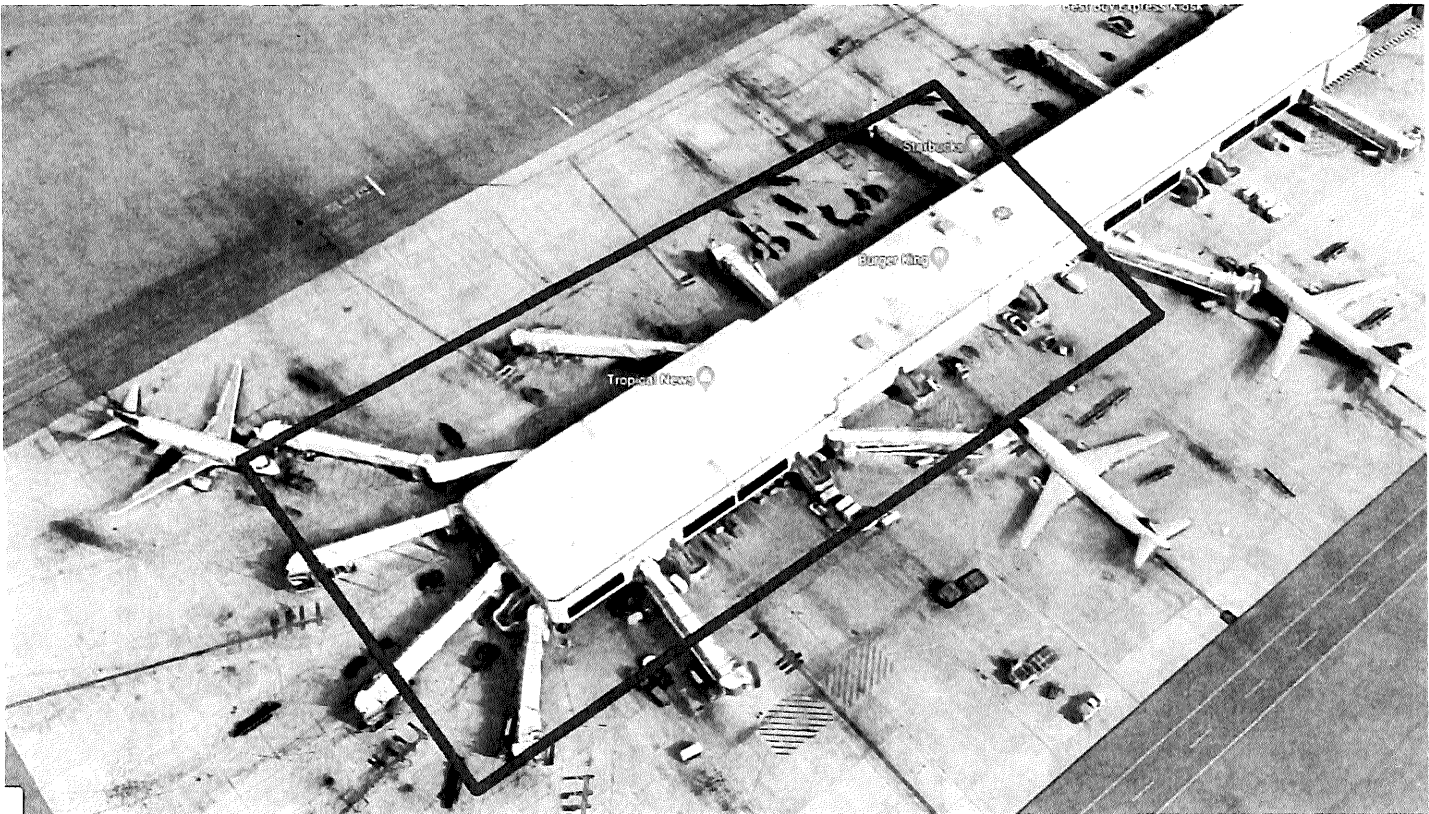
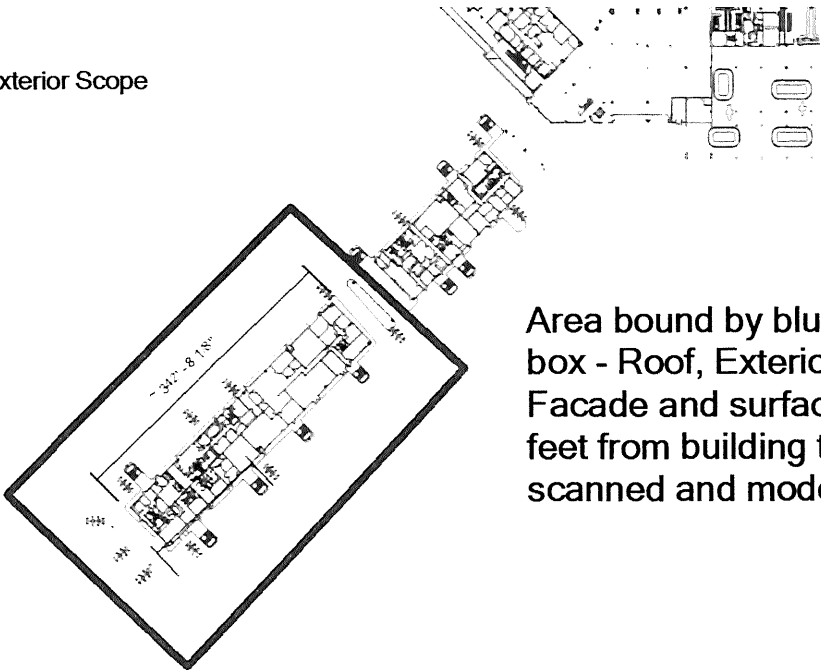


Figure Two Boarding Level – 59,687 SF

Regarding the Roof and Exterior Scope, RS&H is requesting that the exterior and roof scan begin at the Ramp Level Tug crossover extending to the end of the Concourse. Also, it is noted that along with the scanning and modeling of the roof and exterior façade, DBS will scan and Revit model the surface 50 ft extending from the vertical façade of the Concourse.



Roof and Exterior Scope

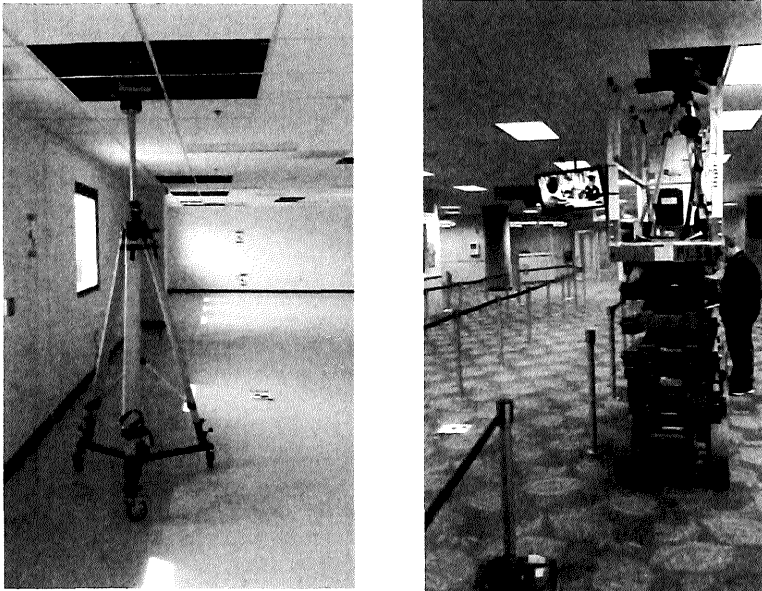


Area bound by blue box - Roof, Exterior Facade and surface 50 feet from building to be scanned and modeled.

Figure Three - Roof and Exterior Scope

Means, Methods and Georeferencing

The Faro X330, the Leica “P” series laser scanner (or similar) shall be used to scan the project. All scan data (point cloud) will be collected in black and white. However, the Revit model will be delivered to RS&H in color. This type of scanner shall be used due to their high-accuracy and spatial density at longer ranges. Interstitial spaces in will be collected using a telescopic tripod as seen in image to the left below for areas under 12.5 feet from the floor. Areas above 12.5 feet will require DBS to rent a small scissor lift to acquire the data and remove/replace ceiling tiles. Shown below are examples of our methods of gaining access to the interstitial spaces at Orlando International Airport and Ft. Lauderdale Hollywood International Airport.



On a large project such as this to ensure critical accuracy, DBS will incorporate conventional survey practices to record several of our scan targets and our control points to give us optimum accuracy within the scan data for registration and subsequently the model. Automated registration practices and scan data void of strong survey control is a recipe for disaster on larger scale projects requiring hundreds of individual scan positions. If desired, the client/owner shall provide any existing survey control information that will be required to orient the scan data to enable symmetry between the model and any airport wide proprietary coordinate system. DBS may opt to hire a local survey company to either provide survey control inside the areas we will be scanning or direct them to shoot several of our targets to tie the scan and model to the desired survey coordinate system. In addition, DBS will coordinate with the survey crew to ensure that this portion of the project is completed and that we receive the information we need. DBS will request all existing survey data that is currently being used by the project team as it may assist us with our work and limit the additional survey work we need to complete our task. If RS&H does not desire to have the final model georeferenced to a specific survey coordinate system, DBS will best fit the model to existing features on existing cad file or set a project relative coordinate system. ***DBS HAS COMPLETED MANY AVIATION FACILITY SCANNING OPERATIONS AND UNDERSTANDS THAT WE WILL NEED TO COORDINATE WITH OPERATIONS AND VENDORS. AIRPORT OPERATIONS MAY REQUIRE US TO WORK AT CERTAIN TIMES OR OVERNIGHTS TO MITIGATE DISRUPTION TO DAILY IAH OPERATIONS.***

Level of Scanning Accuracy conforms to USIBD LOA 30. DBS has an internal set standard of 6-8 mm before the USIDB existed which is well within the USIBD LOA 30 standard.

Level	Upper Range	Lower Range
LOA10	User defined	5cm *
LOA20	5cm *	15mm *
LOA30	15mm *	5mm *
LOA40	5mm *	1mm *
LOA50	1mm *	0 *

Assumptions

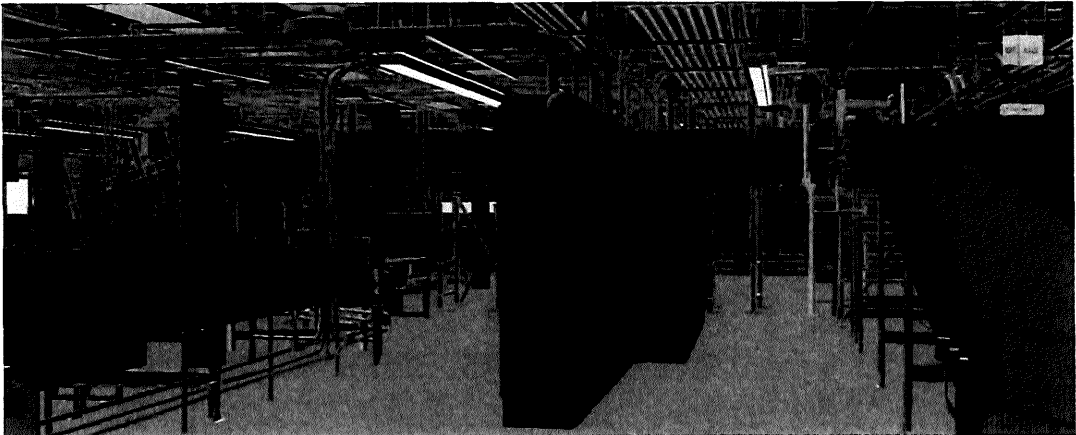
The price quoted below is based on the following assumptions:

- 1. Field crews will have access to the jobsite a minimum of 10 hours a day, six days a week during evening non-peak hours. The customer is responsible for initial coordination with all tenants and facility managers access into all spaces within the scope. DBS will manage coordination once on site.
- 2. The jobsite has power and it is available to our field crews. Standard wall outlets may be used to power laptops or re-charge batteries for the equipment.
- 3. Parking at the airport’s garage is included in this proposal.
- 4. Customer to provide a secure lockable space for DBS to stow equipment on a nightly basis for the duration of the project.
- 5. Expenses for badging of 3 employees included in this proposal.
- 6. DBS plans to have a minimum of 2 scan crews and one PM onsite for this project.
- 7. DBS to be responsible for ceiling tile removal and replacement.

Level of Detail

The survey shall include the following details:

- 1. Architectural details (walls, windows, doors, columns, etc.) larger than 1” in size to match AIA LOD 300
- 2. All visible MEPF building elements larger than 1” in diameter. Fittings shall be modeled using standard Revit families that closely match site conditions.
- 3. Electrical and mechanical panels.
- 4. Floors shall be modeled as Revit Surfaces and not DTM meshes.



Revit Model – McCarran International BHS

Exclusions

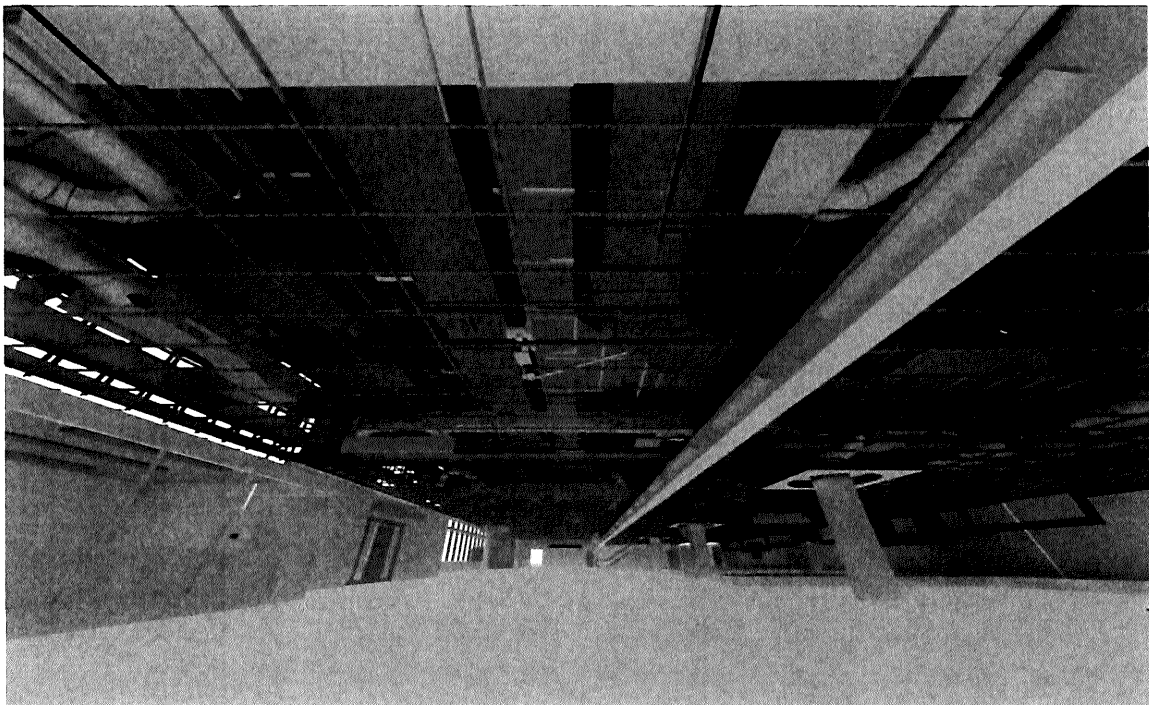
The following shall be excluded from the scope or otherwise priced separately.

- 1. Civil survey details of roadways/taxiways
- 2. Colorized Scan Data
- 3. Interstitial spaces above hard gypsum ceilings found in wet areas such as restrooms/kitchens that are typically non- removable that our technicians cannot access.
- 4. Permanent survey monumentation and benchmarks.
- 5. Topographical information on roadways, taxiways, and runways
- 6. Manhole or hand-holes on the roadways
- 7. Temporary structures such as carts, kiosks, tugs and carts, trash cans, non-permanent furniture, etc.
- 8. Logos and branding materials
- 9. Banners or printed signage that is not raised or permanent (scanners cannot always see this signage)
- 10. Speakers, TV's and other A/V equipment

Deliverables

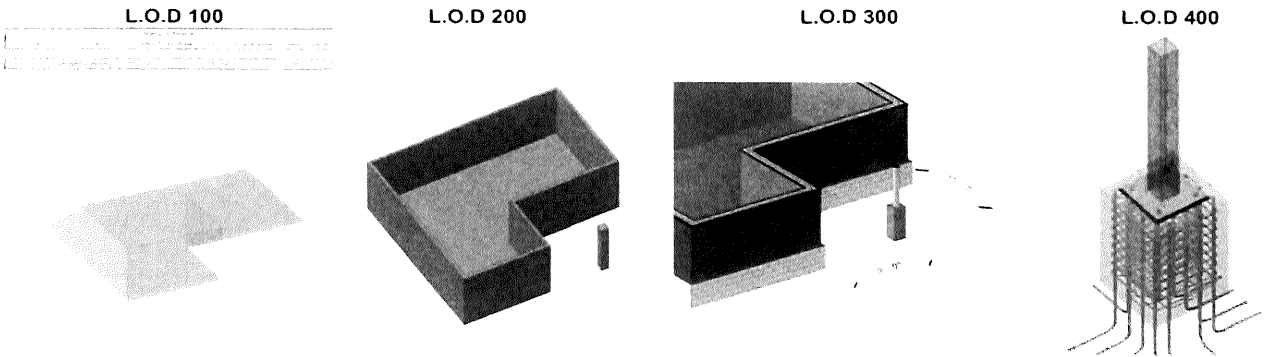
The customer will receive the following deliverables:

- 1. **3D model in Autodesk Revit** – Model shall be generated in Revit using standard Revit families. The geometry/elements in the Revit model will be separated by trade (HVAC, Mechanical Piping, Plumbing, Baggage Conveyor, Electrical, architectural, structural, etc.) and include fittings (essentially trying to avoid generic models so the model can be used to develop their coordination models). No custom families shall be included unless supplied by the customer.
- 2. **Point cloud data** – The customer shall receive an Autodesk Recap (.rcp) database containing all the scan data collected on-site. This data shall be registered and geo-referenced to project coordinates. Any additional format requirements are not included in this proposal and may incur an additional fee.



Ft. Lauderdale International Airport –Scan and Revit Model

All building elements shall be captured and modeled to AIA Level of Development (LOD) 300. Model elements are modeled as specific assemblies accurate in terms of quantity, size, shape, location, and orientation. Non-geometric information may also be attached to model elements. Fabrication, material type, assembly and detailing information will not be included are not included in a LOD 300 model.



Price and Schedule

This proposal is valid for 90 days and includes all expenses including travel and lodging. DBS reserves the right to review and revise the proposal beyond the quoted timeframe. The DBS project manager will notify the customer if there are any unforeseen circumstances in the field that exceed the allowances in this proposal. Any reimbursable expenses shall be approved by the customer, in writing, prior to incurring the expense.

DBS assumes that the project shall commence within 30 days of project award. Please notify DBS is an extension is required as this may affect equipment availability and any travel expenses.

	Price and Schedule			
Scope	Description	Square Footage	Price	Onsite Schedule
As shown in Figures 1-3.	3D Laser Scan Data Acquisition onsite including all Travel, Expenses, Labor, and Delivery of raw point cloud and 3D Revit 2019 model to complete the scope in Figures 1-3	168,612 Interior <u>81,000 Exterior(estimated)</u> 249,612 Estimated Total SF	\$183,689	15-20 days onsite with 2 scan crews.

Thank you for the opportunity to submit a proposal on this project and we look forward to working together. Please let me know if you have any questions. We are always available to discuss via conference call at your convenience.

Jose Mesa
Digital Building Services, LLC
11290 SW 30th Street
Miami, FL 33165
P: (305) 202-1208



August 3, 2020

Mr. Richard Emerson, AIA, LEED AP
RS&H
1715 N. Westshore Boulevard
Suite 500
Tampa, FL 33607

Re: Palm Beach International Airport (PBI) Concourse B Expansion - Topographic Survey

Dear Richard:

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

SCOPE OF SERVICES

I. HORIZONTAL PROJECT NETWORK CONTROL

A traverse will be run through the site and all found monumentation will be tied in. The survey will be oriented to Palm Beach County Airport horizontal control (NAD 83/90 Adjustment). We will obtain the sectional and geodetic control information from the Palm Beach County Survey Department, along with utilizing the PACS & SACS. All work will be in conformance with Florida Minimum Technical Standards. Horizontal Accuracy per FGDC Standards will be, at a minimum, 3rd Order, Class 1.

II. VERTICAL PROJECT NETWORK CONTROL

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

III. TOPOGRAPHIC SURVEY

A complete topographic survey will be done at the site (limits shown on Attachment 'B'), tying in all above ground features. This will include but not be limited to buildings, pavement, walks, utilities, pavement markings and drainage structures (no interior building locations are proposed). We will obtain as-built data on all drainage structures and cross sections will be done on a 25' grid.

The survey will include the following requested by Joe Barbera, P.E. in his email dated November 15, 2019 and will include the additional area requested by John Carrigan on July 31, 2020. No interior building locations are proposed except as listed below:

- Finish floor elevations for both first and 2nd level.
- Passenger Boarding Bridge rotunda center and elevation at base for all gates at Concourse B.
- Passenger boarding Bridge floor elevation at the rotunda for all gates at Concourse B.

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

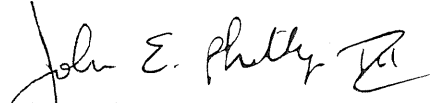
Emerson
August 3, 2020
Page 2

- Standard topo survey for entire area within the limits shown on Attachment ‘B’. Shots will be taken at a distance no greater than 25’ and will pick up all surface fixtures/structures, concrete joints, grade breaks, curbs/sidewalks (top and bottom), door entry locations, markings, stormwater/sanitary pipe inverts.
- The remaining area of Concourse B outside of the limit shown on Attachment ‘B’, we will obtain the remaining passenger boarding bridge rotunda center locations and elevation at base, passenger boarding bridge floor height at rotundas, and gate markings including elevations.

IV. CLOSURE

This survey will require working closely with Palm Beach International Airport Operations and might be time consuming depending on airplane traffic. There might be some waiting time due to usual airport traffic in the area of the concourse. A drawing will be produced which will show all the features located. We propose to provide RS&H with hard copies, a digitally signed PDF file, and an AutoCAD file in the version requested. Any additional work will be done on an hourly basis as approved by you. We will perform the scope of services for an ~~hourly~~ **LUMP SUM fixed fee of \$18,001.63** (see Attachment ‘A’ for an estimated hourly breakdown). Please do not hesitate to call me with any questions you might have regarding this proposal. We look forward to working with you on this project.

Brown & Phillips, Inc.


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

Attachment

JEP/mb

This Proposal accepted this ____ day of _____, 2020

By: _____
RS&H

Print Name: _____

Title: _____



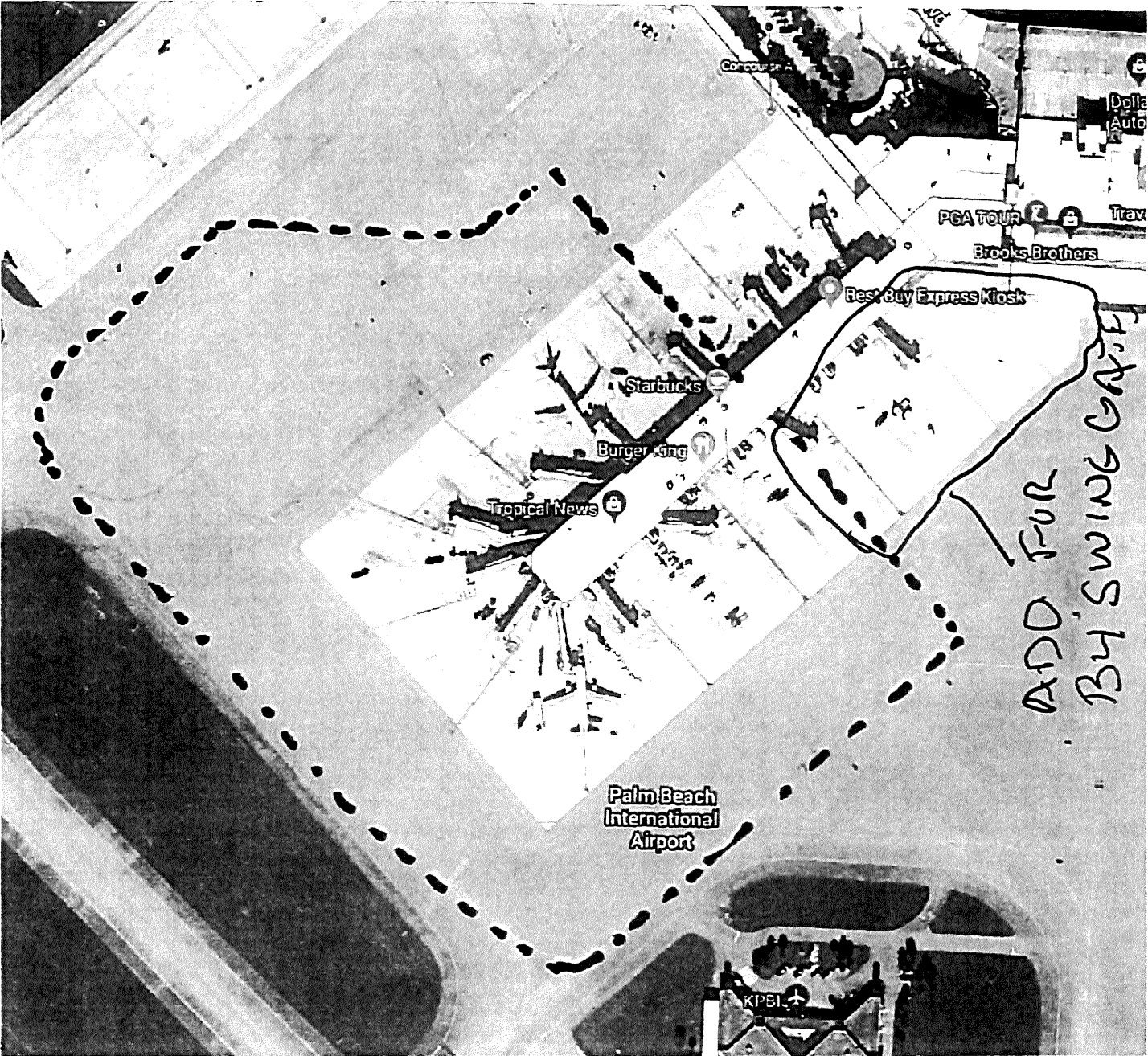
ATTACHMENT 'A'

PBIA Concourse B Expansion

Type of Survey: Topographic
Size:
Date: August 3, 2020

TASK	2 MAN CREW	CADD TECH	SURVEY TECH	PLS	COMMENTS
Meetings and Coordination					
Horizontal Project Network Control	5		2	1	Establish control
Vertical Project Network Control	3		1		Set benchmarks
Topography	25		5	2	Locate above ground improvements
Pavement marking	7		1		Locate pavement marking
Cross Sections	35		10	3	Cross sections on a maximum 25' grid, prepare TIN file
Drainage Structures & Culverts	5		2		Asbuilt drainage structures including rim, invert, material
Topographic Survey		36	8	3	Prepare survey drawing
Total Hours:	80	36	29	9	
Rate/Hour	\$140.90	\$84.54	\$84.54	\$137.17	
Subtotal:	\$11,272.00	\$3,043.44	\$2,451.66	\$1,234.53	
Total Labor Cost:					\$18,001.63

TOTAL PRICE \$18,001.63





**RELIABLE
IN-DEPTH
SOLUTIONS**

Geotechnical Engineering • Material Testing • Inspection Services

November 18, 2019

RS&H

3125 W Commercial Blvd, Suite 1307

Fort Lauderdale, FL 33309

Attn: Mr. Richard Emerson, AIA, LEED AP

email: richard.emerson@rsandh.com

**Re: Proposal for Geotechnical Services
 Palm Beach International Airport Improvements
 Concourse B Expansion
 Palm Beach County, Florida
 TASK No. I-19-PBI-R-011
 TSF Proposal No.: 1911-780**

Dear Richard:

As requested, **TSF** is pleased to submit this proposal for the above-referenced project. The proposal is based on information provided by RS&H.

We understand that the project consists of the expansion of Concourse B Hold Room and Concessions areas. The expanded concourse will be approximately 56,000 square feet and will include associated apron and site works. Current plans are to support the structure on shallow foundations matching existing structure.

This proposal includes an outline of our proposed scope of work, an estimate of the total fees, and our anticipated schedule for completion of the work.

PROPOSED SCOPE OF WORK

Geotechnical Investigation Services will include the following:

- Attend one (1) field coordination meeting;
- Seven (7) pavement cores and SPT borings to a depth of 30 feet within the building expansions;
- Twelve (12) pavement cores and SPT borings to a depth of 10 feet within concrete apron;
- Soil Boring and Concrete Coring Location Plan in AutoCAD format;
- Soil Boring Logs in AutoCAD format denoting boring number, Unified Soil Classification (USC), location of groundwater table depth, number of blows, standard penetration resistance in blows per foot, date performed, and depth in feet;
- Foundation recommendation including subgrade K value for pavement design;

2765 Vista Parkway, Suite 10 • West Palm Beach, Florida 33411

561-687-8536 • www.TSFGEO.com

State of Florida Professional Engineers License # 28073

- Final Geotechnical Report.

The Geotechnical Report will include a summary of findings, USGS Quadrangle Map, USDA/SCS Soil Survey for Palm Beach County, Laboratory results including Water Content %, Organic Content %, Percent Finer than No. 200 Sieve, and will be signed and sealed by a registered professional geotechnical engineer in the State of Florida. The report will include exhibits and figures to illustrate the geotechnical investigation and findings.

Prior to drilling at the project site, TSF will notify the local utility companies and request that underground utilities be marked. Our experience, however, is that the utility companies will not mark privately owned utilities. We believe that significant coordination will likely be required to perform the field operations and the work will be conducted at nighttime. Our field work will be performed by TSF personnel with a security badge with our own escort.

It is our understanding that the Surveyor or others will locate utility lines in the field and clear utilities at boring locations prior to mobilization of the drill rig. We believe significant coordination will likely be required to perform the field operation.

ESTIMATED FEES

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

Field and Lab	Labor	Total
\$19,640.00	\$9,600.00	\$29,240.00

Our estimate covers the work needed to present our findings and recommendations in a formal report. Not included are reviews of foundation drawings, preparation of construction specifications, special conferences and any other work requested after submittal of our report.

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

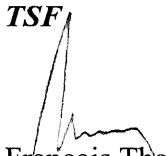
SCHEDULE AND AUTHORIZATION


TSF will proceed with the work after receipt of a signed copy of this proposal. With our present schedule, we can commence work within several days of project approval (weather permitting) and fieldwork will take about six nights to complete. The written report can be submitted in about three weeks after completion of the field exploration, depending on the extent of the laboratory-testing program. Verbal preliminary recommendations can be made to appropriate parties prior to submittal of the written report.

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

Respectfully submitted,

TSF


Francois Thomas, P.E.
Principal Engineer


Ramakumar Vedula, P.E.
Principal Engineer

- Attachments:
1. Fee Estimate

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

TIERRA SOUTH FLORIDA, INC 2016
STANDARD UNIT FEE SCHEDULE

I.		Unit	# of Units		Unit Price		Total
FIELD INVESTIGATION							
	Mobilization of Men and Equipment	LS	1	\$	350.00	\$	350.00
	Truck-Mounted Equipment	Day	6	\$	150.00	\$	900.00
	Support Vehicle						
	Standard Penetration Test Borings						
	(By Truck-Mounted Equipment)						
	Land: 0 - 50 ft depth	L.F.	0	\$	13.00	\$	0.00
	50 - 100 ft depth	L.F.	0	\$	15.00	\$	0.00
	Standard Penetration Test Borings						
	(By Truck-Mounted Equipment, Night Time)						
	Land: 0 - 50 ft depth (Night Time)	L.F.	330	\$	18.00	\$	5,940.00
	50 - 100 ft depth	L.F.	0	\$	21.00	\$	0.00
	Grout-Seal Boreholes						
	(By Truck-Mounted Equipment)						
	Land: 0 - 50 ft depth	L.F.	0	\$	6.00	\$	0.00
	50 - 100 ft depth	L.F.	0	\$	7.00	\$	0.00
	Grout-Seal Boreholes						
	(By Truck-Mounted Equipment, Night Time)						
	Land: 0 - 50 ft depth (Night Time)	L.F.	330	\$	7.00	\$	2,310.00
	50 - 100 ft depth	L.F.	0	\$	8.50	\$	0.00
	Casing						
	(By Truck-Mounted Equipment)						
	Land: 0 - 50 ft depth	L.F.	0	\$	7.00	\$	0.00
	50 - 100 ft depth	L.F.	0	\$	9.00	\$	0.00
	Casing						
	(By Truck-Mounted Equipment, Night Time)						
	Land: 0 - 50 ft depth	L.F.	330	\$	8.50	\$	2,805.00
	50 - 100 ft depth	L.F.	0	\$	10.50	\$	0.00
	Auger Borings	L.F.	0	\$	10.00	\$	0.00
	Pavement Cores, Asphalt/Concrete	Each	19	\$	225.00	\$	4,275.00
	Coring Machine plus generator rental	Trip	1	\$	400.00	\$	400.00
	Double Ring Infiltration Test	Test	0	\$	500.00	\$	0.00
II.	LABORATORY TESTING						
	Visual Examination/Stratify	Per Hour	14	\$	100.00	\$	1,400.00
	Natural Moisture Content Tests	Test	10	\$	10.00	\$	100.00
	Grain-Size Analysis - Full Gradation	Test	10	\$	65.00	\$	650.00
	Grain-Size Analysis - Single Sieve	Test	0	\$	35.00	\$	0.00
	Organic Content Tests	Test	4	\$	35.00	\$	140.00
	Atterberg Limit Tests	Test	0	\$	75.00	\$	0.00
	Liquid Limit Tests (Only)	Test	0	\$	52.00	\$	0.00
	Plastic Limit Tests (Only)	Test	0	\$	33.50	\$	0.00
	Laboratory CBR + Sampling	Test	0	\$	500.00	\$	0.00
	Grain-Size with Hydrometer	Test	0	\$	115.00	\$	0.00
	Proctor Test a) - Soil	Test	0	\$	105.00	\$	0.00
	b) - Limerock	Test	0	\$	125.00	\$	0.00
	FDOT Corrosion series	Each	2	\$	185.00	\$	370.00
III	ENGINEERING/COORDINATION/MANAGEMENT						
	Project Manager	Hour	4	\$	175.00	\$	700.00
	Principal Engineer	Hour	8	\$	175.00	\$	1,400.00
	Senior Engineer	Hour	12	\$	150.00	\$	1,800.00
	Project Engineer	Hour	20	\$	125.00	\$	2,500.00
	Senior Technician	Hour	20	\$	75.00	\$	1,500.00
	CADD	Hour	20	\$	85.00	\$	1,700.00
						\$	29,240.00



5523 WEST CYPRESS ST., SUITE 200
TAMPA, FLORIDA 33607
P (813) 287-3600 F (813) 287-3622

4101 RAVENSWOOD RD., SUITE. 307
FT. LAUDERDALE, FLORIDA 33312
P (954) 210-7671 F (813) 287-3622

5950 LAKEHURST DR., SUITE. 183
ORLANDO, FLORIDA 32819
P (407) 351-2384 F (813) 287-3622
www.mcengineers.com

November 19, 2019

Mr. Richard Emerson, AIA, LEED AP
Aviation Architect
1715 N. Westshore Blvd.
Suite 500
Tampa, FL 33607

RE: Palm Beach International Airport.
Concourse B Expansion

Gentlemen:

Master Consulting Engineers, Inc. (MCE) is pleased to present this proposal for structural engineering services for the expansion of the Concourse B at the Palm Beach International Airport, Florida.

Project Description/ Scope of Work:

Based on information provided, the following is MCE’s understanding and assumptions of the required tasks for this project:

- a) MCE will assist RS&H Structural team with the design of the expansion of the Concourse B at PBI. Our scope will be to provide Quality Control review of the construction documents and provided comments and recommendations to the design team.

\$4,960.32

MCE proposes to provide the Basic Scope of Services indicated above for a lump sum fee of ~~\$37,040.00~~ plus expenses. A detailed schedule of charges is included in the “Scope Fee Summary” enclosed with this proposal.

Invoicing will be on a monthly basis in accordance with the amount of work done. Invoices for all phases are due in thirty (30) days from the date they are submitted.



Should you be in agreement with this proposal, please signify by signing in the space provided below and return a copy to our office for our files. If drawings are received for us to proceed with work in this project, it will be understood that the proposal has been accepted as is, even though a signed copy has not been received.

Very truly yours,
Master Consulting Engineers, Inc.

A handwritten signature in black ink, appearing to read 'Armando Castellon', is written over a horizontal line.

Armando Castellon
Sr. Principal

Accepted by _____

(enclosures)

Title _____



STANDARD SCHEDULE OF CHARGES

I. PAYMENT FOR SERVICES

- A. When Master Consulting Engineers, Inc. (MCE) is to be paid on the basis of time expended and expenses incurred on the project, compensation shall be determined as noted in Sections I and II hereunder.
- B. All time spent by MCE personnel, will be billed at the rates below. Current rates for each personnel classification are as noted in the table below. These rates will remain effective for a period of one year from the Effective Date of this schedule. The noted rates may thereafter be modified by MCE at six-month intervals depending on market conditions in accordance with the standard rates then being charged by MCE to other clients. However, any increase in the minimum and maximum rates will not exceed ten percent (10%) in any six-month period.

<u>Classification</u>	<u>Rate Per Hour</u>
Sr. Principal	\$ 225.00
Principal	\$ 200.00
Project Manager	\$ 150.00
Sr. Engineer	\$ 125.00
Project/ Design Engineer	\$ 105.00
Technician / CAD Operator	\$ 85.00
Administrative	\$ 90.00

A 50% premium (1 ½ times) will be charged over the rates indicated above for those hours required to be spent during Saturday, Sunday, Holidays or any day between 7:00pm and midnight and between midnight and 7:00am.

II. PAYMENT FOR OTHER DIRECT NON-SALARY EXPENSES

- A. All other expenses incurred will be separately billed at actual cost plus 10%. Such expenses include, but are not necessarily limited to, subcontractor, consultant, laboratory, and other outside vendor charges; Courier services, special delivery, long-distance phone and other communications; reproduction; special equipment costs necessary for project execution; special insurance premiums; and any other costs not otherwise part of general office overhead.
- B. The use of company or employee owned cars on the project will be billed at the rate authorized by the Internal Revenue Service (\$0.58) per mile as of the Effective Date of this Schedule. In the event rental vehicles are used at the option of the firm, the actual rental charges plus 15% will be billed in lieu of the mileage rate.

III. INVOICES AND PAYMENT TERMS

Unless otherwise agreed to in writing, invoices for all services regardless of billing type (time and expense, fixed fee, etc.) will be issued every month, payable within 30 days of the invoice date. Interest of one percent per month (but not exceeding the maximum rate allowable by law) will be payable on any amounts not paid within 30 days, payment thereafter to be applied first to accrued interest and then to the principal unpaid



amount. All reasonable attorneys' fees or other costs incurred in collecting any delinquent amount shall be paid by the Client.

MCE has the right to suspend services or terminate its obligations under this agreement if any invoiced amounts are not paid within 60 days. Once services are suspended for nonpayment, they will be resumed at the convenience of MCE when all principal amounts and accrued interest are paid in full. In the event of termination, MCE has the right to payment from the Client for reasonable costs associated with termination. Any election to suspend services shall not preclude a later election to terminate. Any failure by MCE to terminate or suspend services shall not constitute a waiver of these or any other rights. All rights and remedies in this Section III are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available at law or equity.

IV. TAXES

The Client shall pay the cost of any sales, use, excise, value added or similar tax which is or may become applicable to the services provided by MCE. All invoiced amounts shall be increased by the amount of any such tax.

PALM BEACH COUNTY DEPARTMENT OF AIRPORTS- New PBI Concourse B Expansion									
Master Consulting Engineers, Inc.									
SCOPE FEE SUMMARY									
FEE PROPOSAL "Quality Control and Review of Structural Const. Documents" to RSH 11-18-2019									
	Rate	\$196.82	\$128.65	\$119.51	\$81.55	\$79.85	\$29.40		
		Sr. Principal	Principal	Sr. Struct. Eng.	Struct. Eng.	Sr. CAD / BIM	Clerical	Total	TOTAL
PHASE OF WORK		Hours	Hours	Hours	Hours	Hours	Hours	Hours	TASK COST
									\$0.00
Planning & Design									\$0.00
									\$0.00
Conceptual Design Ph 1B									\$0.00
Schematic Desgin Ph 2	4			24	16				\$4,960.32
60% Design Ph 3A	24			48	40				\$13,722.16
90% Construction Documents Ph 3B	24			56	40				\$14,678.24
100% Construction Documents Ph 3C	4			16	12				\$3,678.04
									\$0.00
									\$0.00
Subtotal	56	0	144	108	0	0	308		\$37,038.76
Construction Administration									\$0.00
								0	\$0.00
								0	\$0.00
								0	\$0.00
								0	\$0.00
Subtotal	0	0	0	0	0	0	0		\$0.00
Grand Total Hours	56	0	144	108	0	0	308		
Grand Total Labor Cost	\$11,021.92	\$0.00	\$17,209.44	\$8,807.40	\$0.00	\$0.00			\$37,038.76

\$4,960.32

\$4,960.32

J L
R D
JOHNSON, LEVINSON,
RAGAN, DAVILA, INC.
CONSULTING ENGINEERS
1450 Centrepark Boulevard, Suite 350
West Palm Beach, FL 33401
(561) 689-2303 • (561) 689-2302 Fax
www.jlrdinc.com

July 15, 2020

Mr. John Carrigan, P.E., Vice President Aviation
RS&H, Inc.
3125 West Commercial Blvd., Suite 130
Ft. Lauderdale, Florida 33309

Re: PBIA Concourse B Expansion Concept and SD - Scope and Fee Proposal to RS&H

PALM BEACH COUNTY GENERAL CONSULTING SERVICES

Task Scope Sheet

Task -----	PBIA Concourse B Expansion Concept and SD
------------	---

Scope – Subcontractor Johnson, Levinson, Ragan, Davila (JLRD)

The Consultant (JLRD Engineers) shall provide support in the efforts to develop the design concept and a schematic design submission package to PBI with RS&H. The following shall define the scope and involvement by JLRD as agreed upon mutually. The services of JLRD shall be provided as follows:

Concept and Schematic Design Phase

- Visit the facility with RS&H for the initial site verification to provide familiarity with the existing plumbing, fire protection, HVAC, and Smoke Evacuation systems as they are presently and possible future modifications that could affect the design concept for related services.
- Attend a local two-day stake holder program planning and coordination meeting with PBI and RS&H.
- Provide quality assurance and peer review of the plumbing, fire protection, HVAC, and smoke evacuation schematic deliverables.

Mr. John Carrigan, P.E., Vice President, Aviation
July 15, 2020
Page - 2

Re: PBIA Concourse B Expansion Concept and SD

- Evaluate possible impact of existing fire protection system with the new expansion of Concourse B as it relates to the current fire pump replacement project.
- Coordinate with third-party estimator for rough order of magnitude estimation efforts for the schematic design.
- Attend a local schematic design review meeting with RS&H and PBI.
- JLRD shall perform a thorough study of the central energy plant serving the HVAC equipment for terminals and concourses. This shall include assessment of chiller, pumps, and cooling tower capacities and evaluate room for expansion to serve not only Concourse B expansion but other future projects. Assessment will be made of the piping distribution system for expansion to serve Concourse B expansion and the future FIS expansion. JLRD shall provide any recommendations for piping modifications and equipment upgrades (chillers, cooling towers, pumps) to serve the expanded areas and anticipated future projects. A rough order of magnitude cost estimate shall be provided for the central energy plant study only.

Fees:

For the above scope of services, the Engineer shall be paid a lump sum fee of Twenty Thousand Sixty Dollars (\$20,060.00).

Assumptions Specifically Excluded

1. Construction documents and project specifications are excluded.
2. Cost estimating for the concept design and schematic design are provided by third-party estimator and are excluded.

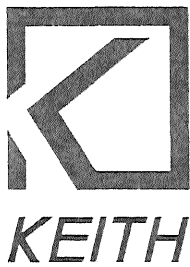
Sincerely,

JOHNSON, LEVINSON, RAGAN, DAVILA, INC.



Michael P. Linden, P.E., LEED AP®
Vice President

MPL/khg



CONTRACT

July 21, 2020

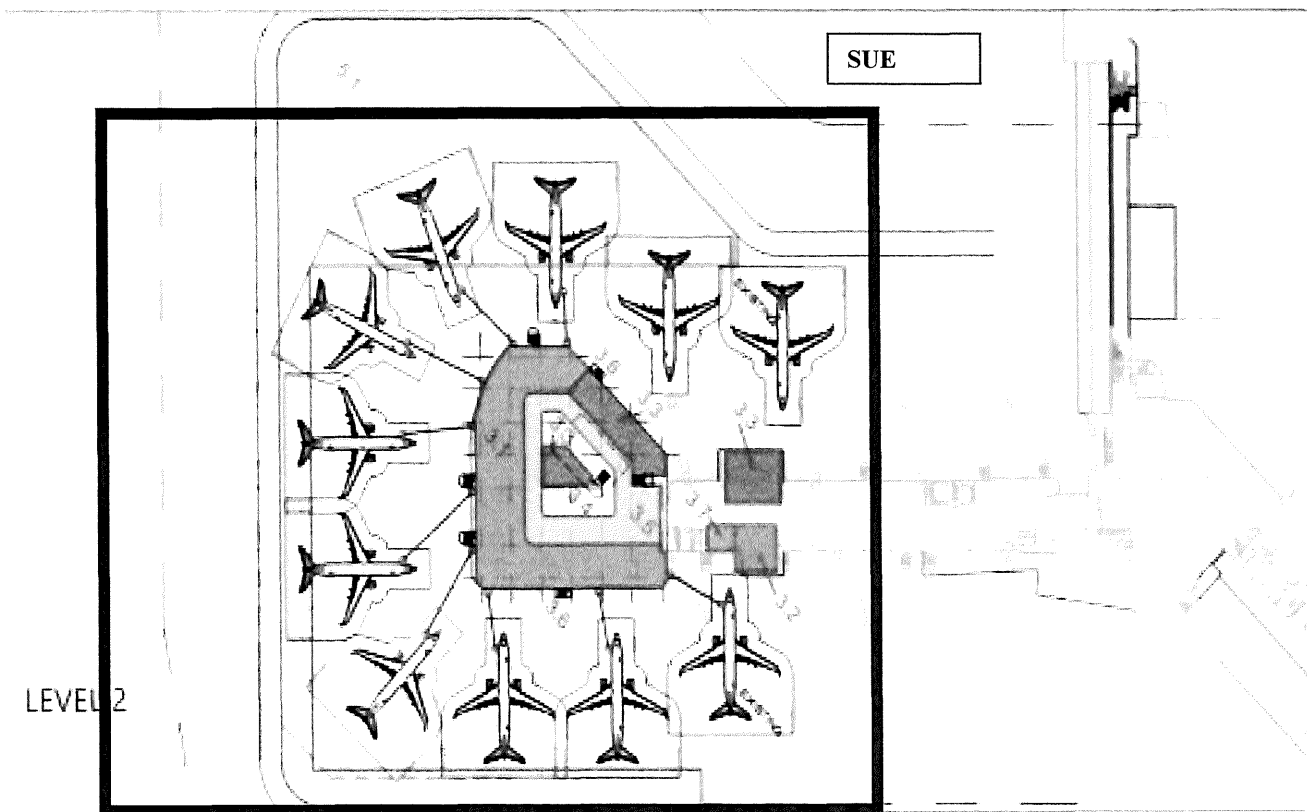
Richard Emerson, AIA, LEED AP
RS&H, Inc.
O 813 636 2642 | M 813 449 3581
Richard.Emerson@rsandh.com

Project Name: PBI Concourse B Expansion
KEITH Project Number: 10216.M0 (06)

DESCRIPTION OF SERVICES

KEITH will provide professional SUE, and Civil (Water/Sewer) services to support the expansion of PBIA Concourse B.

Project Location Map:



Corporate Office
301 E Atlantic Blvd
Pompano Beach
FL 33060
954.788.3400

Miami-Dade County
5805 Blue Lagoon Drive
Suite 218
Miami, FL 33126
305.667.5474

Broward County
2312 S Andrews Ave
Fort Lauderdale
FL 33316
954.788.3400

Palm Beach County
120 N Federal Hwy
Suite 208
Lake Worth, FL 33460
561.469.0992

Orange County
2948 E. Livingston St
Suite 100
Orlando, FL 32803
954.788.3400

10216.M0 (06) RS&H
PBI Concourse B Expansion

SUBSURFACE UTILITY ENGINEERING (SUE) SERVICES

KEITH will follow ASCE Standard 38-02 – “Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data” during the field and office operations for this project. The quality levels discussed below are defined within the standard. KEITH is to provide professional services associated with designation, location and mapping of existing subsurface utilities. KEITH shall designate all known tone able and non-tone able utilities (within the red outlined area on the provided drawing) Gravity systems, service laterals, irrigation or overhead facilities are not included in this investigation.

Horizontal Designation Services

KEITH will horizontally mark any known tone able and non-tone able underground utilities that are represented on as-built plans, above ground appurtenances, and other miscellaneous utility records (to be provided by CLIENT). Conductive utilities will be marked on the surface utilizing active geophysical prospecting techniques in conjunction with electromagnetic equipment utilizing passive radio and audio frequencies. Known non-conductive utilities and/or structures will be marked on the surface utilizing Ground Penetrating Radar (GPR), above ground features, professional judgment, utility plats and/or as-builts. This task does not include identifying gravity systems, service laterals, irrigation, or overhead facilities unless specifically requested by the CLIENT and included in the scope of services.

Location Services

KEITH will perform up to ten (10) test holes at specific sites requested by the design engineer. Test holes will be utilized to expose utilities to minimize any potential for damage. Test holes performed will be of minimum size (usually 1’ by 1’). Backfill of test holes will be performed utilizing the removed material, if suitable. Areas will be restored back as close as possible to their original condition. Installation of an identifiable above ground marker will be performed at each test hole location. Field markers will consist of a nail and disk in asphalt, or an iron rod and cap with survey stake in grassed areas. Test holes performed in the street will be patched using cold patch. The test hole number and utility will be identified on the ground or on the stake, as appropriate. A test hole summary report will be created providing coordinates, depth of cover, type, size and material if applicable.

Subsurface Utility Engineering Conditions and Understandings

CLIENT is required by law to contract Sunshine State One Call of Florida forty-eight (48) hours in advance of any CLIENT excavation. KEITH will not access confined spaces. If confined spaces need to be accessed for locating purposes, then the client will be notified, and further arrangements will be made for said access. Additional fees may be applicable. If additional MOT is required beyond the capability of KEITHS standard MOT operations, KEITH will notify the client. Additional requests outside the scope of services, when requested by client and/or client’s representative, will be invoiced on an hourly basis. This proposal assumes site access is available and work can be performed between the hours of 7:30 AM and 5:00 PM Monday through Friday.

Utility Mapping

KEITH will perform surveying services to collect the surface markings completed in Horizontal Designation and Location Services that mark the underground utilities. Survey of said markings shall be based on Real-Time Kinematic (RTK) GPS observations and referenced to the Florida State Plane Coordinate System (NAD83/11) and the North American Vertical Datum of 1988 (NAVD88). Survey of Horizontal Designations shall be delivered in a geo-referenced (NAD83/11) AutoCAD file. Survey of Location Services (Test Holes) shall be delivered in Excel in PNEZD format.

Records Research

KEITH shall perform utility record research to assist in identifying utility owners that may have facilities on or be affected by the project. KEITH shall collect any applicable utility owner records for review, assistance and development of a composite drawing or equivalent. All procured utility information will



10216.M0 (06) RS&H
PBI Concourse B Expansion

have the corresponding quality levels indicated; utility type and/or ownership; date of depiction; accuracy of depicted appurtenances; end points of any utility data; active, abandoned, or out-of-service status; size; condition; number of jointly buried cables; and encasement.

Lump Sum Fee for Subsurface Utility Engineering services will be\$35,292.17

CIVIL ENGINEERING SERVICES

Preliminary Civil Engineering Design Plans

KEITH shall research existing available records for the project and prepare preliminary civil engineering plans for the infrastructure improvements to support the processing of the site plan layout for the Project. The preliminary civil engineering plans shall be prepared in accordance with the CLIENT and regulatory agency requirements and will include Water and Sewer System adjustments and services.

The Preliminary Plans are for regulatory agency, Site Plan review and approval.

The preliminary engineering plan shall include available existing utility information collected from various sources (Government Agencies, Utility providers etc.). This preliminary utility information will be relied upon by KEITH in the preliminary design phase. Final design will require additional survey and Subsurface Utility investigation to verify the preliminary information supplied to or obtained by KEITH. KEITH will utilize a topographic survey and site plan supplied by others as a base for the preliminary civil plans.

Preliminary water and sanitary sewer calculations shall be performed to address the impacts of the proposed development relating to the requirements of the site plan submission. One preliminary engineering plan will be prepared based on the supplied site plan design.

KEITH shall attend up to three (3) coordination meetings with the CLIENT to review the schematic design, code and integration of the design with existing conditions (including utilities/aircraft/etc.) and environmental impacts of the project. KEITH will coordinate with the CLIENT and other team members in the preparation of plans to avoid conflicts between disciplines.

Lump Sum Fee for Civil Engineering services will be.....\$48,619.60

The CLIENT is required to execute this Addendum and return it to the CONSULTANT prior to commencement of the additional services described herein. All items, terms and conditions of the original Agreement (as amended to include the scope defined herein) remain unchanged and in full force and effect.

IN WITNESS WHEREOF, CONSULTANT and CLIENT have executed this agreement the day and year indicated below.

KEITH

Alex Lazowick
President

DATED: _____

CLIENT APPROVAL

Signature: _____

Print Name: _____

Title: _____

DATED: _____



Engineering Inspired Design.



Palm Beach County Airport General Services

PBI Concourse B Expansion

Labor Rate Schedule: 2019 Rates

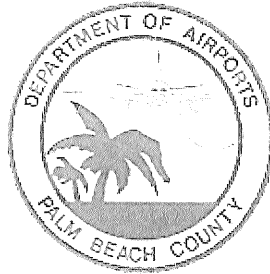
Subconsultant Name: RS&H
Rate Proposal Date: 07/21/2020

KEITH SUBSURFACE UTILITY ENGINEERING SERVICES				
Employee Title		Total Hourly Rate \$/Hour	HOURS	TOTALS
Senior Project Manager		\$294.66	0	\$0.00
Project Manager I		\$147.33	0	\$0.00
Project Manager II		\$176.80	10	\$1,768.00
Surveyor I		\$117.87	6	\$707.22
Surveyor II		\$147.33	0	\$0.00
Technician I		\$64.83	15	\$972.45
Subsurface Utility Location Manager		\$162.07	20	\$3,241.40
Subsurface Utility Field Supervisor		\$94.30	25	\$2,357.50
Utility Coordination Manager		\$132.60	0	\$0.00
Utility Coordinator		\$103.14	40	\$4,125.60
UNIT PRICE				
ITEM	UNIT	UNIT PRICE		
Survey Crew - 2 Person	Per Crew (\$/HR)	\$130.00	24	\$3,120.00
Subsurface Designation	Per Crew (\$/HR)	\$200.00	60	\$12,000.00
Impervious Coring >8"	Per Core / Each	\$150.00	10	\$1,500.00
Vacuum Excavations Pervious	Per Hole / Each	\$400.00	0	\$0.00
Vacuum Excavations Impervious	Per Hole / Each	\$550.00	10	\$5,500.00
Total Lump Sum Fee			\$35,292.17	

KEITH ENGINEERING SERVICES				
Employee Title		Total Hourly Rate \$/Hour	HOURS	TOTALS
Project Manager III		220.99	40	\$8,839.60
Engineer III		132.6	140	\$18,564.00
Technician II		88.4	240	\$21,216.00
Total Lump Sum Fee			\$48,619.60	

**EXHIBIT A-3 – Task I-20-PBI-R-019: Terminal Public Address (PA) System
Construction Engineering Inspection (CEI) Services – Phase 2**

Palm Beach County Department of Airports



Airport Facilities & Systems Planning, Design, Engineering and Construction Management Professional Services

**Task Authorization No.
I-20-PBI-R-019**

Palm Beach International Airport

**Terminal Public Address (PA) System
Construction Engineering Inspection (CEI)
Services - Phase 2**



3125 West Commercial Boulevard, Suite 130
Fort Lauderdale, Florida 33309

August 10, 2020



EXHIBIT "A-3"
SCOPE OF SERVICES

Description of the services outlined below in Section 0 - General is intended to be general in nature and should not be construed to be a complete description of the services or a limitation on the Scope of Services to be provided. Refer to Sections 0 through 2 for the definition of specific scope items to be performed by RS&H.

0. GENERAL

0.1 The Project

This project is for CEI Services associated with the Replacement of the Current Public Address System Project (PA System Project) at Palm Beach International Airport (PBIA). The total project contract includes a 60-day procurement period, 365 days for commissioning, 180 days for demolition, then 30 days to final acceptance.

Phase 1 included in a previous proposal.

Phase 2 will include the following CEI services:

- Bi-Weekly Meetings: Attend bi-weekly meetings (a maximum of 21 meetings for Phase 2, 26 total meetings between Phase 1 and Phase 2) between Owner, Engineer, Contractor(s), and Stakeholders. Minutes for these meetings will be prepared by others (the Engineer).
- CEI Services: The RS&H Team will provide on-site observations of the quality and progress of the Contractor's work in order to determine if the construction is proceeding in accordance with the Contract Documents, and develop Daily Reports outlining the Contractor activities. RS&H Team efforts will be directed toward determining whether the constructed project conforms to the Contract Documents. The RS&H Team will review applications for payment with quantities observed and recorded in Daily Inspection Reports while performing CEI duties, and forward recommendations to the Engineer. These on-site inspections will include daytime and night-time work, with an estimated 10 hours per day, for 3 days of the week, for 42 weeks for Phase 2 (52 total weeks between Phase 1 and Phase 2).
- Substantial and Final Completion: Conduct substantial and final completion inspection in the company of the Owner and Engineer, and a final punch list of items in conjunction with Owner and Engineer to be completed or corrected. Provide CEI Services as the Contractor implements punch list items.



The following RS&H Team members will be involved in this project for the roles defined as follows. Their respective scope and fee proposals are herein.

- **Quantum Electrical Engineering, Inc. (Quantum):** Shall provide Construction Engineering Inspection (CEI) services in support of the project.
- **RS&H, Inc. (RS&H):** RS&H will provide overall project management efforts for this Project. The following elements are excluded from the scope of this project:
 - No design or construction administration for the PA System project.
 - Meeting minutes for bi-weekly meeting shall be provided by others, not included herein.

THIS PROPOSAL IS ONLY FOR PHASE 2. PHASE 1 SERVICES WERE PROVIDED IN A PREVIOUS PROPOSAL.



PHASE 2 ONLY

1. PHASE 5: CONSTRUCTION ADMINISTRATION SERVICES

1.1 CEI Services

Performance of the tasks detailed in Section 0 for the Pre-Construction Inspection, Bi-Weekly Meetings, and specific CEI services. This work will be performed by Quantum.

- Includes providing on-site observations (10 hours per day, for 3 days of the week, for 42 weeks) of the quality and progress of the Contractor’s work in order to determine if the construction is proceeding in accordance with the Contract Documents Includes providing schematic electrical information reflecting required details and plan layouts and written descriptions that are necessary to define the scope elements for design & specification and electrical budget estimates.
- Includes review of applications for payment with quantities observed and recorded in Daily Inspection Reports.
- Conduct substantial and final completion inspection in the company of the Owner and Engineer, and a final punch list of items in conjunction with Owner and Engineer to be completed or corrected. Provide CEI Services as the Contractor implements punch list items.

1.2 Project Management and Discipline Coordination

Scheduling, resource allocation, monitoring, oversight, direction and control for all aspects of the team’s efforts including assembly and coordination of all documentation.

2. PROJECT DESIGN SCHEDULE

Phase 2 will include CEI coverage and oversight of the project for the remaining 42 weeks of the project.

END OF EXHIBIT A-3



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

RS&H, INC.

PROJECT PROPOSAL - TERMINAL PUBLIC ADDRESS (PA) SYSTEM CONSTRUCTION ENGINEERING INSPECTION (CEI) SERVICES -
PHASE 2

	Total
DESIGN SERVICES	
PHASE 1A - PLANNING AND PROGRAMMING - Not included in Proposal	\$ -
PHASE 1B - CONCEPTUAL DESIGN - Not Included in Proposal	\$ -
PHASE 2 - SCHEMATIC DESIGN (30% DESIGN) - Not Included in Proposal	\$ -
PHASE 3A - 60% CONSTRUCTION DOCUMENTS - Not in Proposal	\$ -
PHASE 3B - 90% CONSTRUCTION DOCUMENTS - Not Included in Proposal	\$ -
PHASE 3C - 100% CONSTRUCTION DOCUMENTS - Not Included in Proposal	\$ -
BIDDING AND AWARD SERVICES	
PHASE 4 - BIDDING AND AWARD OF CONTRACT - Not Included in Proposal	\$ -
CONSTRUCTION ADMINISTRATION SERVICES	
PHASE 5 - CONSTRUCTION ADMINISTRATION (Not-to-Exceed)	\$ 15,870.30
	\$ 15,870.30
SUBCONSULTANTS	
Quantum (Not-to-Exceed) - Electrical	\$ 180,591.00
	\$ 180,591.00
REIMBURSABLE EXPENSES	
Reimbursable Expenses (Not-to-Exceed)	\$ 950.00
SUMMARY:	
Total Proposed Fee for:	\$ 197,411.30

QUANTUM

Electrical Engineering, Inc.

July 8, 2020

RS&H

John Carrigan, PE, LEED AP+
Vice President, Aviation
3125 W Commercial Blvd, Suite 130,
Fort Lauderdale, FL 33309

Subject: Construction Engineering and Inspection (CEI) Services Fee Proposal for the Palm Beach County Department of Airports (DOA) – TASK III-20-PBI-010 – Terminal Public Address (PA) System Construction Engineering Inspection (CEI) Services Phase 2.

Dear John:

Quantum Electrical Engineering, Inc. (QUANTUM) is pleased to provide RSH an electrical engineering services fee proposal for Palm Beach International Airport Replacement of the Current Public Address System CEI Services Phase 2.

Task A: Bi-Weekly Meetings

- Includes attendance of (21) bi-weekly meetings with Owner, Engineer, Contractor(s), and Stakeholders.

Task B: Pre-Construction Inspection

- Completed under Phase 1

Task C: CEI Services

- Includes providing on-site observations (10 hours per day, for 3 days of the week, for 42 weeks) of the quality and progress of the Contractor's work in order to determine if the construction is proceeding in accordance with the Contract Documents Includes providing schematic electrical information reflecting required details and plan layouts and written descriptions that are necessary to define the scope elements for design & specification and electrical budget estimates.
- Includes review of applications for payment with quantities observed and recorded in Daily Inspection Reports.

Task D: Substantial and Final Completion

- Conduct substantial and final completion inspection in the company of the Owner and Engineer, and a final punch list of items in conjunction with Owner and Engineer to be completed or corrected. (8 hours per inspection)
- Provide CEI Services as the Contractor implements punch list items (8 hours per week, for 4 weeks)

Our proposed Not-To-Exceed Fee for Phase 2 is:
(See Attachment for Breakdown)

\$ 180,591.00

Sincerely,



Amy Champagne-Baker, PE
President

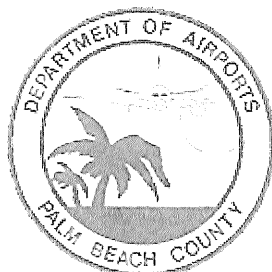
Palm Beach County
2755 Vista Parkway, Suite I-9
West Palm Beach, FL 33411
561.210.9224

www.QuantumElectricalEngineering.com

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

EXHIBIT A-4 – Task I-20-PBI-R-020: PCA and GPU Point of Use

Palm Beach County Department of Airports



Airport Facilities & Systems Planning, Design, Engineering and Construction Management Professional Services

**Task Authorization No.
I-20-PBI-R-020**

Palm Beach International Airport

**PCA and GPU Point of Use
Design & Bidding Services**



3125 West Commercial Boulevard, Suite 130
Fort Lauderdale, Florida 33309

August 17, 2020

EXHIBIT "A-4"
SCOPE OF SERVICES

Description of the services outlined below in Section 0 - General is intended to be general in nature and should not be construed to be a complete description of the services or a limitation on the Scope of Services to be provided. Refer to Sections 1 through 8 for the definition of specific scope items to be performed by RS&H.

0. GENERAL

0.1 The Project

Background – The RS&H team completed a study in October 2019 that assessed options for the replacement of the existing central 400 HZ system at the **Palm Beach International Airport PBI** (henceforth the Department of Airports “DOA”). The study recommended the replacement of the 400 Hz Central system serving Concourse B and Concourse C with new, point of use 400 HZ ground power units with new main switchgear, the study also provided a budgetary cost estimate to install new stand alone, bridge-mounted PC Air units.

The project is to implement the recommendations of the October 2019 study and replace the existing central 400 Hz system in Concourses B and C. The project will also include the installation of point of use, stand alone PC Air units, and the removal of the existing central glycol plant and piping distribution network, which will include associated ceiling work and replacement of other incidental building components affected by the glycol piping demo throughout the concourses and terminal.

Based on the October 2019 report, a rough order of magnitude (ROM) opinion of probable cost of the construction cost of this project is \$5.7M (adjusted for no scope for Substation B work) for the 400 Hz point-of use work and \$9.3M for the PC Air installation, for a ROM total of \$15M.

Scope of Work - The scope of work is the Schematic Design, Design Development, and Construction Document Phase Services for:

- The demolition of the existing central 400 Hz power systems serving Concourse B and Concourse C.
- The demolition of the existing central glycol plant and piping distribution for PC Air serving Concourse B and Concourse C. The existing room that houses the existing plant will be left as a shell space for future improvement by the airport.
- The installation of a new point of use 400 HZ system with new main electrical switchgear with two redundant main feeds.
- The installation of new point of use, direct expansion, stand-alone PC Air units at each boarding bridge.



- Civil work will be required for site access plans and showing limitations of work at gates to mitigate impacts to operations as well as filing the 7460.
- Architectural work will consist of management of overall base plans, design of modifications to electrical rooms, in addition to covering all demo and patching work of architectural components affected by the glycol system removal.
- Incidental structural work, such as wind load calculations and lintel design is included.
- Fire protection design includes installation of new pre-action systems in the two reconfigured electrical rooms.
- Addition of access controls in each newly modified doors of affected electrical rooms (6). Also includes communications connectivity for GPU and PCA at each gate on Concourses B and C for the BAS.

The following RS&H Team members will be involved in this project for the roles defined as follows. Their respective scope and fee proposals are herein.

- **RS&H:** Shall provide civil, architectural, mechanical, fire protection, and plumbing design services. RS&H will also provide project management and oversight of all other design services performed by Team members.
- **Quantum Electrical Engineering, Inc.:** Shall provide electrical engineering design services.
- **Connico:** Shall provide cost estimating services.

The following are excluded from the scope of work and are not included in this proposal:

- Construction Administration Services are not included in this proposal.
- This proposal and its submittals are based on a design-bid-build delivery method.
- Value Engineering efforts beyond normal design development are excluded from this proposal.
- Hazardous material surveys – shall be provided by the DOA.
- Renovations to existing passenger boarding bridges or existing potable water cabinets.
- Replacement of existing Electrical Substation B or Substation C.

1. **Phase 2: SCHEMATIC DESIGN (30% CONSTRUCTION DOCUMENTS)**

This phase of the design shall further refine the design recommended in the project definition from the October 2019 Study, and establish the scope, relationships, forms, size and appearance of the project through plans, sections, elevations, details and outline specifications. This task includes a site visit for disciplines in addition to the design effort itself. Specific task breakdowns are as follows:



- 1.1 Airside Civil / Landside Civil Site Schematic Design**
Complete FAA Form 7460 and construction safety / phasing plans. Develop schematic plans for site access and contractor work areas around the gates.
- 1.2 Architectural Schematic Design**
Design and preliminary documentation of the space layout, functional features, envelope, exterior and interior appearance and related plans, sections and details for the Project.
- 1.3 Mechanical HVAC Schematic Design**
Design and preliminary documentation of new mechanical systems serving the new/renovated electrical rooms, preconditioned air systems, and demolition of existing central glycol plant and distribution systems.
- 1.4 Plumbing Schematic Design**
Design and preliminary documentation of water supply system and sanitary system modifications.
- 1.5 Fire Protection Schematic Design**
Design and preliminary documentation of pre-action risers, and sprinkler system as applicable.
- 1.6 Electrical Schematic Design**
Design and preliminary documentation of power service, lighting, 400 Hz systems, and fire alarm, as applicable for the project.
- 1.7 Communication/Technology/Security Schematic Design**
Design and preliminary documentation of CCTV, data network, telephone, security, communication, and premise distribution systems only as applicable for the project.
- 1.8 Code and Permitting Research**
Initial determination and documentation of jurisdictional authority requirements for Building Code, Fire Protection and Life Safety. Interpretations of requirements will be incorporated in the design documents for jurisdictional reviews.
- 1.9 Schematic Design Document Submittal**
RS&H will submit four (4) copies of all Documents required under this schematic design phase for review comments and approval by the DOA. RS&H shall prepare Schematic Document plans, and technical specifications in accordance with applicable DOA standards.
- 1.10 Schematic Design Review Meeting**



A schematic design report and schematic documents shall be submitted to the DOA for review. RS&H will submit a comment log to document all comments from the DOA and Stakeholders. After the review period of 10 working days, RS&H will respond to all comments in the comment log and submit all responses to the DOA within 5 working days. 2 working days after submitting the comments responses, RS&H will hold a design review meeting to reconcile all review comments.

1.11 Project Management and Administration

RS&H will manage the project in a professional manner, will assign and manage qualified individuals or subconsultants to the project, and shall complete the efforts within a reasonable time frame. RS&H shall complete meeting preparation activities, prepare and distribute meeting minutes, and assign appropriate follow-up activities. Progress reports will be made monthly to the Client.

2. Phase 3A: 60% CONSTRUCTION DOCUMENTS

Following the submittal of Schematic Design deliverable, the RS&H Team will prepare 60% Construction Documents from the Schematic Design Documents which clearly define the engineering and/or architectural elements of the Project.

Performance of this Task will be based on the comments received on the Schematic Design submittal and shall further refine the design and establish the scope, relationships, forms, size and appearance of the project through plans, sections, elevations, details and specifications. The documents will include Drawings and Specifications that establish, in detail sufficient for 60% construction documents, the configuration and quality of the materials, components and systems required for the Project. Specific task breakdowns are as follows:

2.1 Architectural 60% Construction Documents

Design and documentation of space layout, functional features, envelope, exterior and interior appearance and related plans, sections and details for the Project.

2.2 Mechanical HVAC 60% Construction Documents

Design and documentation of new mechanical systems serving the new/renovated electrical rooms, preconditioned air systems, and demolition of existing central glycol plant and distribution systems.

2.3 Plumbing 60% Construction Documents

Design and documentation of water supply system and sanitary system modifications.

2.4 Fire Protection 60% Construction Documents

Design and documentation of pre-action risers and sprinkler system as applicable.

2.5 Electrical 60% Construction Documents



Design and documentation of power service, lighting, 400 Hz systems, and fire alarm systems as applicable for the project.

2.6 Communication/Technology/Security 60% Construction Documents

Design and documentation of CCTV, data network, telephone, security, communication, and premise distribution systems only as applicable for the project.

2.7 Cost Estimate Budget Development

An estimate of probable construction cost of the 60% construction documents to assess conformance to the overall project budget. The probable construction cost is an estimate representing the judgment of the estimators who have no control over the cost of labor, materials or equipment, over the Contractor's methods of determining prices, or over competitive bidding, market or negotiating conditions. Accordingly, RS&H cannot and does not warrant or represent that bids or negotiated prices will not vary from the budget, funding or from any estimate or evaluation by RS&H.

2.8 Code and Permitting Research

Final determination and documentation of jurisdictional authority requirements for Building Code, Fire Protection and Life Safety. Interpretations of requirements will be incorporated in the construction documents for jurisdictional reviews.

2.9 60% Construction Document Submittal

RS&H will submit four (4) copies of all Documents required under this phase for review comments and approval by the DOA. RS&H shall prepare 60% Construction Document plans, and technical specifications in accordance with applicable DOA standards. Plans and specifications will be prepared for one single Bid Package.

2.10 60% Construction Document Review Meeting

60% construction documents shall be submitted to the DOA for review. RS&H will submit a comment log to document all comments from the DOA and Stakeholders. After the review period of 10 working days, RS&H will respond to all comments in the comment log and submit all responses to the DOA within 5 working days. 2 working days after submitting the comments responses, RS&H will hold a design review meeting to reconcile all review comments.

2.11 Project Management and Discipline Coordination

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

3. Phase 3B: 90% CONSTRUCTION DOCUMENTS

Following submission of 60% Construction Document package, the RS&H Team will prepare 90% Construction Documents from the 60% Design Documents which clearly define the engineering and/or architectural elements of the Project.



Performance of this Task will be based on the 60% Construction Document submittal and shall further refine the design and establish the scope, relationships, forms, size and appearance of the project through plans, sections, elevations, details and specifications. The documents will include Drawings and Specifications that establish, in detail sufficient for 90% construction documents, the configuration and quality of the materials, components and systems required for the Project. Specific task breakdowns are as follows:

- 3.1 Airside Civil / Landside Civil Site 90% Construction Documents**
Design and layout of contractor access plans and contractor work limitations at gates to minimize impacts to operations. FAA 7460 Coordination Meeting/Submittals to occur at this stage.
- 3.2 Architectural 90% Construction Documents**
Design and final documentation of architectural elements of the project such as space layout, functional features, envelope, exterior and interior appearance and related plans, sections and details.
- 3.3 Mechanical HVAC 90% Construction Documents**
Design and final documentation of new mechanical systems serving the new/renovated electrical rooms, preconditioned air systems, and demolition of existing central glycol plant and distribution systems.
- 3.4 Plumbing 90% Construction Documents**
Design and final documentation of water supply and sanitary system modifications.
- 3.5 Fire Protection 90% Construction Documents**
Design and documentation of pre-action risers and sprinkler system as applicable.
- 3.6 Electrical 90% Construction Documents**
Design and final documentation of power service, lighting, 400 Hz systems and fire alarm systems as applicable to the project.
- 3.7 Communication/Technology/Security 90% Construction Documents**
Design and final documentation of CCTV, data network, telephone, security, communication, and premise distribution systems as applicable for the project.
- 3.8 Cost Estimate Budget Development**
An estimate of probable construction cost of the 90% construction documents to assess conformance to the overall project budget. The probable construction cost is an estimate representing the judgment of the estimators who have no control over the cost of labor, materials or equipment, over the Contractor’s methods of determining prices, or over competitive bidding, market or negotiating conditions. Accordingly, RS&H cannot and does not warrant or represent that bids or negotiated prices will not vary from the budget, funding or from any estimate or evaluation by RS&H.



3.9 90% Construction Document Submittal

RS&H will submit four (4) copies of all Documents required under this Phase 3B for review comments and approval by the DOA. RS&H shall prepare 90% Construction Document plans, and technical specifications in accordance with applicable DOA standards. Plans and specifications will be prepared for one single Bid Package.

3.10 90% Construction Document Review Meeting

90% construction documents shall be submitted to the DOA for review. RS&H will submit a comment log to document all comments from the DOA and Stakeholders. After the review period of 10 working days, RS&H will respond to all comments in the comment log and submit all responses to the DOA within 5 working days. 2 working days after submitting the comments responses, RS&H will hold a design review meeting to reconcile all review comments.

3.11 Project Management and Discipline Coordination

Scheduling, resource allocation, monitoring, oversight, direction and control for all aspects of the team’s efforts including assembly and coordination of all documentation.

4. Phase 3C: 100% CONSTRUCTION DOCUMENTS

Following submission of 90% Construction Documents to the DOA, RS&H will develop "Final" 100% Contract Documents. They will consist of the information contained in the 90% documents, as well as incorporate any comments provided and by DOA, Permit Agencies, or other authorized reviewers, as directed by the DOA.

If any further change(s) in the size and scope of the Project has occurred, which will substantially alter the amount of previous Construction Cost Estimates, then such changes should be addressed in a written report prepared by RS&H to the DOA.

This task shall provide the detailed requirements for construction of the Project. The documents will include Drawings and Specifications that establish, in detail sufficient for production of shop drawings and construction, the configuration and quality of the materials, components and systems required for the Project. Specific task breakdowns are as follows:

4.1 100% Construction Documents

Design and final documentation of the facility, sequencing/phasing during construction, functional features, and related plans, sections and details for the Project.

4.2 Permit Document Submittal

RS&H will provide signed and sealed plans for the DOA to use to file for a County building permit at the completion of the Task 4.1: 100% Construction Document, provide the necessary portions of the Contract Documents for approval by DOA, and



assist in obtaining any such applicable certifications of "permit approval" by such authorities prior to approval by the DOA of the 100% Complete Review set submittal and printing of the Contract Documents.

4.3 Project Management and Discipline Coordination

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

5. Phase 4: BIDDING AND AWARD OF CONTRACT

5.1 Bid Document Submittal

After receipt of DOA's review comments to the 100% Construction Documents and any comments received from the County during the permit review process, RS&H will address comments and revise the construction documents accordingly to prepare a Bid Document submittal.

5.2 Bidder Communications / Questions / Addenda

- After authorization to proceed with the Bidding Phase, RS&H will assist the DOA in advertising for and obtaining bids for the prime contract for construction, materials, equipment and services.
- RS&H will assist the DOA in conducting a pre-bid conference to share pertinent bidding and technical information and requirements with prospective bidders.
- RS&H will respond to written questions from bidders regarding questions concerning bid documents. RS&H shall issue all required addenda to revise plans, specifications and other contract documents prepared by RS&H in order to (1) provide clarifications, (2) correct discrepancies, or (3) correct errors and/or omissions.
- Attendance at (1) pre-bid meeting by the RS&H Project Manager is also included.

6. Phase 5: CONSTRUCTION ADMINISTRATION SERVICES

Not included. Shall be provided under a separate proposal.



Exhibit A-4

7. DESIGN SCHEDULE

Ph 2: Schematic Design	45 working days from NTP
Review Meeting	17 working days after submittal
Ph 3A: 60% Construction Documents	45 working day after Ph 2 review meeting
Review Meeting	17 calendar days after Submittal
Ph 3B: 90% Construction Documents	45 working day after Ph 3A review meeting
Review Meeting	17 calendar days after Submittal
Ph 3C: 100% Construction Documents	21 working days after Ph 3B review meeting
Permit Documents	21 working days after Ph 3B review Meeting
Ph 4: Bidding and Award	Tied to County Process (Assumed 45 Working Days)
Bid Documents	10 working days after receipt of Permit Review Comments

END OF EXHIBIT A-4



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

RS&H, INC.
PROJECT PROPOSAL - PBI PCA and GPU Point of Use

		<u>Total</u>
<u>DESIGN SERVICES</u>		
Phase 2: SCHEMATIC DESIGN (Lump Sum)	\$	40,112.65
Phase 3A: 60% CONSTRUCTION DOCUMENTS (Lump Sum)	\$	38,646.41
Phase 3B: 90% CONSTRUCTION DOCUMENTS (Lump Sum)	\$	45,948.54
Phase 3C: 100% CONSTRUCTION DOCUMENTS (Lump Sum)	\$	31,258.86
Phase 4: BIDDING AND AWARD (Lump Sum)	\$	21,014.92
	\$	<u>176,981.38</u>
<u>SUBCONSULTANTS</u>		
Connico	\$	22,500.00
Quantum Electrical Engineering	\$	293,984.60
	\$	<u>316,484.60</u>
<u>REIMBURSABLE EXPENSES</u>		
Reimbursable Expenses	\$	9,339.00
	\$	<u>9,339.00</u>
SUMMARY:		
Total Proposed Fee for:	\$	502,804.98



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

RS&H, INC.
PROJECT PROPOSAL - PBI PCA and GPU Point of Use

SCOPE / TASK TITLE		SR. PROJ. MANAGER	SENIOR ARCHITECT	ARCHITECT	INTERN ARCHITECT	SENIOR ENGINEER	ENGINEER	INTERN ENGINEER	ADMIN. ASSISTANT	TOTAL
Task Authorization No. I-20-PBI-R-020 - PCA and GPU Point of Use										
Phase 2: SCHEMATIC DESIGN (Lump Sum)										
1.1	Airside Civil / Landside Civil Schematic Design									0
	Civil					4		8		12
1.2	Architectural Schematic Design									0
	Architecture		16		24					40
1.3	Mechanical HVAC Schematic Design									0
	Mechanical					24	24	32		80
1.4	Plumbing Schematic Design									0
	Plumbing					4		8		12
1.5	Fire Protection Schematic Design									0
	Fire Protection					2	4			6
1.6	Electrical Schematic Design									0
	Electrical					6				6
1.7	Communication/Technology/Security									0
	Comm / IT / Sec					8	16			24
1.8	Code and Permitting Research									0
	Architecture			2						2
	Civil					1				1
	Mechanical					1				1
	Plumbing					1				1
	Fire Protection					2				2
	Electrical									0
	Comm / IT / Sec					2				2
1.9	Schematic Design Document Submittal									0
	Princ / PM	4							2	6
	Architecture			4	4					8
	Civil						2	4		6
	Structural									0
	Mechanical						2	2		4
	Plumbing						2			2
	Fire Protection						2			2
	Electrical									0
	Comm / IT / Sec						2			2
1.10	Schematic Design Review Meeting									0
	Princ / PM	2								2
	Architecture		2							2
	Civil									0
	Structural									0
	Mechanical					2				2
	Plumbing									0
	Fire Protection									0
	Electrical									0
	Comm / IT / Sec									0
1.11	Project Management and Administration									0
	Invoicing and Sub Coordination									0
	Princ / PM	8							16	24
SUBTOTAL HOURS		14	18	6	28	57	54	54	18	249
RATE		\$287.02	\$245.39	\$125.87	\$85.16	\$246.63	\$151.55	\$96.47	\$60.37	
TOTAL DIRECT LABOR \$		\$4,018.28	\$4,417.02	\$755.22	\$2,384.48	\$14,057.91	\$8,183.70	\$5,209.38	\$1,086.66	\$ 40,112.65
Total Proposed Fee for:										Phase 2: SCHEMATIC DESIGN (Lump Sum) \$ 40,112.65

SCOPE / TASK TITLE		SR. PROJ. MANAGER	SENIOR ARCHITECT	ARCHITECT	INTERN ARCHITECT	SENIOR ENGINEER	ENGINEER	INTERN ENGINEER	ADMIN. ASSISTANT	TOTAL
REIMBURSABLES										
REPRODUCTION		# DWGS	# PAGES							
		@	@							
		\$1.60	\$0.10	# SETS						
SD Submittal		40	75	4						
TOTAL REPRODUCTION										
		# PKGS	# PKGS							
POSTAGE / DELIVERY		@	@							
		\$15.00	\$3.00							
		2	2							
TOTAL POSTAGE / DELIVERY										
\$ 36.00										
TRAVEL										
		#People	#Days	Airfare @	Car @	Lodging @	Meals @	\$40	# Trips	
Site Visit		5	2	420	\$75	\$180		400	1	\$ 2,845.00
Review/Progress Meetings		1	1	0	150	180		40	1	\$ 370.00
Miscellaneous										
TOTAL TRAVEL										

SCOPE / TASK TITLE		Sr. PROJ. MANAGER	SENIOR ARCHITECT	ARCHITECT	INTERN ARCHITECT	SENIOR ENGINEER	ENGINEER	INTERN ENGINEER	ADMIN. ASSISTANT	TOTAL
Phase 3A: 60% CONSTRUCTION DOCUMENTS (Lump Sum)										
2.1	Architectural 60% Construction Documents		8		12					0
	Architecture									20
2.2	Mechanical HVAC 60% Construction Documents									0
	Mechanical					12	16	32		60
2.3	Plumbing 60% Construction Documents									0
	Plumbing					2	4	8		14
2.4	Fire Protection 60% Construction Documents									0
	Fire Protection					4	8			12
2.5	Electrical 60% Construction Documents									0
	Electrical					12				12
2.6	Communication/Technology/Security 60% Construction Documents									0
	Comm / IT / Sec					12	20			32
2.7	Cost Estimate Budget Development									0
	Princ / PM	2								2
	Architecture		2							2
	Civil						1			1
	Mechanical						1			1
	Plumbing						1			1
	Fire Protection						1			1
	Comm / IT / Sec						2			2
2.8	Code and Permitting Research									0
	Architecture			1						1
	Civil					1				1
	Mechanical						1			1
	Plumbing									0
	Fire Protection					1				1
	Comm / IT / Sec					1				1
2.9	60% Construction Document Submittal									0
	Princ / PM	4								4
	Architecture		8		8					16
	Civil					1	2			3
	Mechanical					1	2	2		5
	Plumbing						2	2		4
	Fire Protection					1	2			3
	Electrical									0
	Comm / IT / Sec					1	2			3
2.10	60% Construction Document Review Meeting									0
	Princ / PM	2								2
	Architecture		2							2
	Civil									0
	Structural									0
	Mechanical					2				2
	Plumbing									0
	Fire Protection									0
	Electrical									0
	Comm / IT / Sec					2				2
2.11	Project Management and Discipline Coordination									0
	Invoicing and Sub Coordination									0
	Princ / PM	6							12	18
SUBTOTAL HOURS		14	20	1	20	53	65	44	12	229
RATE		\$287.02	\$245.39	\$125.87	\$85.16	\$246.63	\$151.55	\$96.47	\$60.37	
TOTAL DIRECT LABOR \$		\$4,018.28	\$4,907.80	\$125.87	\$1,703.20	\$13,071.39	\$9,850.75	\$4,244.68	\$724.44	\$ 38,646.41
Total Proposed Fee for: Phase 3A: 60% CONSTRUCTION DOCUMENTS (Lump Sum)										\$ 38,646.41
REIMBURSABLES										
		# DWGS		# PAGES						
REPRODUCTION		@		@		# SETS				
		\$1.60		\$0.10						
60% Submittal		0		400		4				
TOTAL REPRODUCTION										
POSTAGE / DELIVERY		# PKGS		# PKGS						
		@		@						
		\$15.00		\$3.00						
TOTAL POSTAGE / DELIVERY		2		2						
TRAVEL										
		#People	#Days	Airfare @	Car @	Lodging @	Meals @		# Trips	
				\$420	\$75	\$160	\$40			
				0	0	0	0			
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SCOPE / TASK TITLE		SR. PROJ. MANAGER	SENIOR ARCHITECT	ARCHITECT	INTERN ARCHITECT	SENIOR ENGINEER	ENGINEER	INTERN ENGINEER	ADMIN. ASSISTANT	TOTAL
Phase 3B: 90% CONSTRUCTION DOCUMENTS (Lump Sum)										
3.1	Airside Civil / Landside Civil 90% Construction Documents					8		12		0
	Civil									20
3.2	Architectural 90% Construction Documents									0
	Architecture		8	8	16					32
3.3	Mechanical HVAC 90% Construction Documents									0
	Mechanical					12	16	32		60
3.4	Plumbing 90% Construction Documents									0
	Plumbing					2	4	4		10
3.5	Fire Protection 90% Construction Documents									0
	Fire Protection					4	8			12
3.6	Electrical 90% Construction Documents									0
	Electrical					16				16
3.7	Communication/Technology/Security 90% Construction Documents									0
	Comm / IT / Sec					12	16			28
3.8	Cost Estimate Budget Development									0
	Princ / PM	2								2
	Architecture		1							1
	Civil						1			1
	Mechanical						1			1
	Plumbing						1			1
	Fire Protection						1			1
	Electrical						0			0
	Comm / IT / Sec						1			1
3.9	90% Construction Document Submittal									0
	Princ / PM	2								2
	Architecture		8	4	12					24
	Civil					4	4	4		12
	Mechanical					2	2	4		8
	Plumbing						2	2		4
	Fire Protection					2	2			4
	Electrical									0
	Comm / IT / Sec					2	4			6
3.10	90% Construction Document Review Meeting									0
	Princ / PM	2								2
	Architecture		2							2
	Civil					2				2
	Structural									0
	Mechanical					1				1
	Plumbing					1				1
	Fire Protection									0
	Electrical									0
	Comm / IT / Sec					2				2
3.11	Project Management and Discipline Coordination									0
	Invoicing and Sub Coordination									0
	Princ / PM	8							16	24
SUBTOTAL HOURS		14	19	12	28	70	63	58	16	280
RATE		\$287.02	\$245.39	\$125.87	\$85.16	\$246.63	\$151.55	\$96.47	\$60.37	
TOTAL DIRECT LABOR \$		\$4,018.28	\$4,662.41	\$1,510.44	\$2,384.48	\$17,264.10	\$9,547.65	\$5,595.26	\$965.92	\$ 45,948.54
Total Proposed Fee for:		Phase 3B: 90% CONSTRUCTION DOCUMENTS (Lump Sum)								\$ 45,948.54
REIMBURSABLES										
		# DWGS		# PAGES						
REPRODUCTION		@		@						
		\$1.60		\$0.10		# SETS				
REPORT										
90% Submittal		50		400		4				
TOTAL REPRODUCTION								\$ 480.00		
		# PKGS		# PKGS						
POSTAGE / DELIVERY		@		@						
		\$15.00		\$3.00						
		2		2						
TOTAL POSTAGE / DELIVERY						\$ 36.00				
		#People		#Days		Airfare @	Car @	Lodging @	Meals @	
						\$420	\$75	\$180	\$40	# Trips
						0	0	0	0	
						0	0	0	0	
						0	0	0	0	
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SCOPE / TASK TITLE		SR. PROJ. MANAGER	SENIOR ARCHITECT	ARCHITECT	INTERN ARCHITECT	SENIOR ENGINEER	ENGINEER	INTERN ENGINEER	ADMIN. ASSISTANT	TOTAL
Phase 3C: 100% CONSTRUCTION DOCUMENTS (Lump Sum)										
4.1	100% Construction Documents									0
	Princ / PM	2								2
	Architecture		8		8	8				24
	Civil					4	4	8		16
	Mechanical					8	8	16		32
	Plumbing					2	2	4		8
	Fire Protection					4	8			12
	Electrical					12				12
	Comm / IT / Sec					4	8			12
4.2	Permit Documents Submittal									0
	Princ / PM	1								1
	Architecture		4		4	4				12
	Civil					2		4		6
	Mechanical					2	4	4		10
	Plumbing						2	2		4
	Fire Protection					2	4			6
	Electrical									0
	Comm / IT / Sec					2	4			6
4.3	Project Management and Discipline Coordination									0
	Invoicing and Sub Coordination									0
	Princ / PM	8							8	16
SUBTOTAL HOURS		11	12	0	12	54	44	38	8	179
RATE		\$287.02	\$245.39	\$125.87	\$85.16	\$246.63	\$151.55	\$96.47	\$60.37	
TOTAL DIRECT LABOR \$		\$3,157.22	\$2,944.68	\$0.00	\$1,021.92	\$13,318.02	\$6,668.20	\$3,665.86	\$482.96	\$ 31,258.86
Total Proposed Fee for: Phase 3C: 100% CONSTRUCTION DOCUMENTS (Lump Sum)										\$ 31,258.86
REIMBURSABLES										
		# DWGS		# PAGES						
REPRODUCTION		@		@						
		\$1.60		\$0.10		# SETS				
		0								\$ -
100% Submittal		50		400		4				\$ 480.00
Permit Submittal		50		400		4				\$ 480.00
TOTAL REPRODUCTION										\$ 960.00
		# PKGS		# PKGS						
POSTAGE / DELIVERY		@		@						
		\$15.00		\$3.00						
100% Submittal		2		2						\$ 36.00
Permit Submittal		2		2						\$ 36.00
TOTAL POSTAGE / DELIVERY										\$ 72.00
TRAVEL		#People		#Days		Airfare @	Car @	Lodging @	Meals @	
		0		0		\$420	\$75	\$180	\$40	# Trips
Review/Progress Meetings		1		1		0	150	180	40	3
Miscellaneous										\$ 200.00
TOTAL TRAVEL										\$ 1,310.00
REIMBURSABLES (Not-to-Exceed)										\$ 2,342.00
SUBCONSULTANTS										
Connico										\$ -
Quantum Electrical Engineering										\$ 36,230.28
SUBCONSULTANTS										\$ 36,230.28
SUMMARY										
Phase 3C: 100% CONSTRUCTION DOCUMENTS (Lump Sum)										\$ 31,258.86
REIMBURSABLES (Not-to-Exceed)										\$ 2,342.00
SUBCONSULTANTS										\$ 36,230.28
SUB-TOTAL - 100% Construction Documents										\$ 69,831.14

SCOPE / TASK TITLE		SR. PROJ. MANAGER	SENIOR ARCHITECT	ARCHITECT	INTERN ARCHITECT	SENIOR ENGINEER	ENGINEER	INTERN ENGINEER	ADMIN. ASSISTANT	TOTAL
Phase 4: BIDDING AND AWARD (Lump Sum)										
5.1	Bid Document Submittal									0
	Princ / PM	1								1
	Architecture		4		4					8
	Civil					2		4		6
	Mechanical					2	4	4		10
	Plumbing					2	2	4		8
	Fire Protection					2	4			6
	Electrical					4				4
	Comm / IT / Sec					2	4			6
5.2	Bidder Communications/Questions/Addenda									0
	Princ / PM	3								3
	Architecture		4		8					12
	Civil					4	4			8
	Mechanical					4	8	8		20
	Plumbing						2	4		6
	Fire Protection					2	4			6
	Electrical					2				2
	Comm / IT / Sec					2	4			6
5.3	Project Management and Discipline Coordination									0
	Invoicing and Sub Coordination									0
	Princ / PM	6							8	14
SUBTOTAL HOURS		10	8	0	12	28	36	24	8	126
RATE		\$287.02	\$245.39	\$125.87	\$85.16	\$246.63	\$151.55	\$96.47	\$60.37	
TOTAL DIRECT LABOR \$		\$2,870.20	\$1,963.12	\$0.00	\$1,021.92	\$6,905.64	\$5,455.80	\$2,315.28	\$482.96	\$ 21,014.92
Total Proposed Fee for: Phase 4: BIDDING AND AWARD (Lump Sum) \$ 21,014.92										
REIMBURSABLES										
REPRODUCTION		# DWGS		# PAGES						
		@		@						
		\$1.60		\$0.10		# SETS				
Bid Documents		50		400		4				
TOTAL REPRODUCTION										
POSTAGE / DELIVERY		# PKGS		# PKGS						
		@		@						
Bid Documents		\$15.00		\$3.00						
TOTAL POSTAGE / DELIVERY		4		4						
TRAVEL		#People		#Days		Airfare @	Car @	Lodging @	Meals @	# Trips
Review Meeting		1		1		\$420	\$75	\$180	\$40	1
Pre-Bid Meeting		1		1		0	150	180	40	1
Miscellaneous										
TOTAL TRAVEL										
REIMBURSABLES (Not-to-Exceed) \$ 1,392.00										
SUBCONSULTANTS										
Quantum Electrical Engineering										
SUBCONSULTANTS \$ 3,242.28										
SUMMARY										
Phase 4: BIDDING AND AWARD (Lump Sum) \$ 21,014.92										
REIMBURSABLES (Not-to-Exceed) \$ 1,392.00										
SUBCONSULTANTS \$ 3,242.28										
SUB-TOTAL - Bidding & Award \$ 25,649.20										
SUB-TOTALS SERVICES CONTRACT VALUE										
SUMMARY										
Phase 2: SCHEMATIC DESIGN (Lump Sum) \$ 40,112.65										
Phase 3A: 60% CONSTRUCTION DOCUMENTS (Lump Sum) \$ 38,646.41										
Phase 3B: 90% CONSTRUCTION DOCUMENTS (Lump Sum) \$ 45,948.54										
Phase 3C: 100% CONSTRUCTION DOCUMENTS (Lump Sum) \$ 31,258.86										
Phase 4: BIDDING AND AWARD (Lump Sum) \$ 21,014.92										
SUBCONSULTANTS (Lump Sum) \$ 316,484.60										
REIMBURSABLES (Not-to-Exceed) \$ 9,339.00										
GRAND TOTAL CONTRACT VALUE Task Authorization No. I-20-PBI-R-020 - PCA and GPU Point of Use \$ 502,804.98										

QUANTUM

Electrical Engineering, Inc.

August 11, 2020

RS&H, Inc.
Mr. John Carrigan, PE, LEED AP+
Vice President, Aviation
3125 W Commercial Blvd, Suite 130,
Fort Lauderdale, FL 33309

Subject: Electrical Engineering Design Services Fee Proposal for the Palm Beach County Department of Airports (DOA) – TASK I-20-PBI-R-020 – Palm Beach International Airport Preconditioned Air (PCA) and 400Hz Ground Power Unit (GPU) Point of Use includes Task 1, 2, 3, 4 and 5 as reflected in RSH Scope of Services, Dated July 2020

Dear John:

Quantum Electrical Engineering, Inc. (QUANTUM) is pleased to provide RS&H an electrical engineering design services fee proposal for the PCA and GPU Point of Use Task 1, 2, 3, 4 and 5. The following tasks are included in our scope:

Scope of Work

- Includes on-site verifications of the existing electrical distribution, lighting and fire alarm systems within the existing 400Hz Rooms, Cabin Air Plant, 400Hz System and Cabin Air System.
- Design the electrical demolition of the existing 400Hz Central Plants in Concourse B and Concourse C. Includes demolition of existing 28 boarding bridges (gates) 400Hz connect boxes, four centralized 400Hz Units, four 480/575V, 400Hz distribution switchboards and associated conduit and conductor systems.
- Design the electrical demolition of the existing Cabin Air Central Plant (Glycol Plant) in Concourse C and cabin air distribution systems in Concourse B and Concourse C. Includes demolition of two chiller units, two cooling towers, five associated pumps, one booster (teledyne) pump, 28 boarding bridge (gate) cabin air units, Switchboard "CA", panelboards "CA1"/"CA2" and associated conduit and conductor systems.
- Design new PCA and GPU Systems and associated electrical distribution systems for 28 boarding bridges (gates). Includes new main-tie-main switchboards, new lighting/conventional power systems within existing 400Hz Electrical Rooms in Concourse B and Concourse C and new conduit and conductor systems. Also includes all electrical calculations, HVAC air handler circuits, pre-action panel circuits and switchboards/panelboard layouts.
- Design fire alarm modifications for addition of new pre-action panels within existing 400Hz Electrical Rooms in Concourse B and Concourse C and new associated fire alarm conduit and conductor systems.
- Includes design of phasing and temporary wiring and temporary power systems to maintain operations of existing 400Hz and PC Air systems as much as possible during construction.

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

- Design and coordinate the modifications to existing Substation “C” with the existing equipment manufacturer for the addition of new draw-out feeder breakers to power the new PCA and GPU Point of Use switchboards for Concourse C.
- Includes preliminary short circuit calculations for sizing of electrical equipment withstand ratings for permitting and bidding purposes. Final short circuit calculation, device coordination and arc flash analysis along with arc flash labeling to be completed under CA services.

Task 1 Schematic Design (30% Construction Documents)

Task 1.6: Electrical Schematic Design

- Includes design coordination meetings with the DOA, PBC Planning & Zoning, Fire Marshal and RS&H Design Team.
- Includes providing schematic level drawings with electrical information reflecting plan layouts, block diagrams and written descriptions that are necessary to define the scope elements for design & specification and electrical budget estimates.
- Preliminary schematic level electrical calculations.

Task 1.8: Code and Permitting Research

- Includes review of existing codes and applicable standards for incorporation of requirements into design.
- Includes attending meeting with Palm Beach County Planning and Zoning to discuss approach of design.

Task 1.9: Schematic Design Document Submittal

- Coordinate with the RS&H Team on the electrical requirement of other disciplines and provide schematic plans and write up for electrical, lighting and fire alarm design.
- Includes outline electrical specifications
- Review of Schematic Design’s independent electrical cost estimate.

Task 1.10: Schematic Design Review Meeting

- Includes attending schematic design review meeting with DOA and RSH Team.
- Includes responses to review comments generated by the DOA and RSH Team.

Task 2 60% Construction Documents

Task 2.5: Electrical 60% Construction Documents

- Includes design coordination meetings with the DOA, PBC Planning & Zoning, Fire Marshal and RS&H Design Team.
- Includes providing 60% design level electrical information reflecting required one-line diagrams, riser diagrams, panel schedules, details and plan layouts for design & specification and electrical budget estimates.
- Includes 60% design level electrical, fire alarm and lighting calculations.

Task 2.8: Code and Permitting Research

- Incorporation of Authority Having Jurisdiction (AHJ) requirements. Includes attending meeting with Palm Beach County Planning and Zoning to discuss final design.

Task 2.9: 60% Construction Document Submittal

- Coordinate with the RS&H Team on the electrical requirement of other disciplines and provide 60% Construction Plans and technical specifications for electrical, lighting and fire alarm design.
- Review of 60% Construction Document's independent electrical cost estimate.

Task 2.10: 60% Construction Document Review Meeting

- Includes attending 60% design review meeting with DOA and RSH Team.
- Includes responses to review comments generated by the DOA and RSH Team.

Task 3 90% Construction Documents

Task 3.6: Electrical 90% Construction Documents

- Includes design coordination meetings with the DOA, PBC Planning & Zoning, Fire Marshal and RS&H Design Team.
- Includes providing 90% design level electrical information reflecting required one-line diagrams, riser diagrams, panel schedules, details and plan layouts for design & specification and electrical budget estimates.
- Includes 90% design level electrical, fire alarm and lighting calculations.

Task 3.9: 90% Construction Document Submittal

- Coordinate with the RS&H Team on the electrical requirement of other disciplines and provide 90% Construction Plans and technical specifications for electrical, lighting and fire alarm design.
- Review of 90% Construction Document's independent electrical cost estimate.

Task 3.10: 90% Construction Document Review Meeting

- Includes attending 90% design review meeting with DOA and RSH Team.
- Includes responses to review comments generated by the DOA and RSH Team.

Task 4 100% Construction Documents

Task 4.1: 100% Construction Documents

- Includes incorporation of all 90% related comments from the DOA, PBC Planning & Zoning, Fire Marshal and RS&H Design Team into "Final" 100% Contract Documents.

Task 4.2: Permit Document Submittal

- Includes signing and sealing drawings and specifications.

Task 5 Phase 4: Bidding and Award of Contract

Task 5.1: Bidding

- RFI and Addendum Responses

Task 5.2: Award of Contract

- Review of Bid Tabulation and Recommendation of Award

Page 4
Mr. John Carrigan, P.E.
Electrical Engineering Design Services Proposal for the PCA and GPU Point of Use

Exclusions and Assumptions

- Assumption that Substation “B” will not be replaced as part of this project but replaced under separate project prior to construction of this project.
- Assumption that Substation “C” will not be replaced as part of this project.
- Assumption based on Manufacturer provided information that existing Substation “C” can be modified for the addition of new breakers.
- QUANTUM shall provide one electronic set of plans and specifications for Task 1, 2, 3, 4 and 5 to RS&H. RS&H shall provide all distribution and printing of all documents to DOA.
- QUANTUM shall provide AutoCAD to RS&H for all electrical, lighting and fire alarm base plans and sheet files.
- RS&H shall provide base plans and sheet files in AutoCAD 2018 or newer.
- RS&H shall specify and provide to QUANTUM electrical information for 400HZ GPU and PCA units.
- Does not include Construction Administration Services.
- Does not include any type of IT communications, CCTV, PA system & access control / security systems.

Our proposed Lump Sum Fee for Task 1 is:	\$ 81,599.00
Our proposed Lump Sum Fee for Task 2 is:	\$ 92,237.24
Our proposed Lump Sum Fee for Task 3 is:	\$ 80,675.80
Our proposed Lump Sum Fee for Task 4 is:	\$ 36,230.28
Our proposed Lump Sum Fee for Task 5 is:	\$ 3,242.28
Our proposed total Lump-Sum fee is:	\$293,984.60
(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

www.QuantumElectricalEngineering.com

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PCA and GPU Point of Use
Palm Beach International Airport
July 15, 2020
CI Project No. 4312.20.12 idk
Page 1

EXHIBIT A – SCOPE OF WORK AND FEE

Project Scope

The scope of work is the Schematic Design, Design Development, and Construction Document Phase Services for:

- The demolition of the existing central 400 Hz power systems serving Concourse B and Concourse C.
- The demolition of the existing central glycol plant and piping distribution for PC air serving Concourse B and Concourse C.
- The installation of a new point of use 400 HZ system with new main electrical switchgear with two redundant main feeds.
- The installation of new point of use, direct expansion, stand-alone PC air units at each boarding bridge.

Scope of Services

Connico proposes to provide an Opinion of Probable Construction Cost services as follows:

- ↓ 60% Design Estimate
- ↓ 90% Design Estimate

Each estimating phase includes an initial scope of work review meeting, and an estimate draft review meeting prior to issuing the estimate via teleconference. A limited site visit for the purposes of providing an Opinion of Probable Cost is not included. This proposal is for planning, design phase services only; construction phase services are not included.

Hazardous Materials Abatement is not included. If consultant provides an estimate for hazardous materials, Connico will include in the estimate and cite source.

In providing estimates of probable construction cost, the Client understands that the Consultant has no control over the cost or availability of labor, equipment or materials, or over market conditions or the Contractor's method of pricing, and that the Consultant's estimates of probable construction costs are made on the basis of the Consultant's professional judgment and experience. The Consultant makes no warranty, express or implied, that the bids or the negotiated cost of the Work will not vary from the Consultant's estimate of probable construction cost.

We require one (1) set of drawings and narrative/specifications, an electronic version of the drawings (PDF) and a copy of the soil borings report, if available and applicable.

Connico will provide an electronic copy of the estimate.

Deliverables

The estimate will be prepared in a CSI format or Unifomat and can be summarized in a customized format to fit the requirements of the Client provided the format is established at the beginning of the estimating task. The estimate will identify our opinion of probable construction cost of the project, based on the documents provided by the Client. Connico is entitled to rely and will rely on the accuracy and completeness of all such documents without undertaking an independent investigation to confirm the same.



PCA and GPU Point of Use
Palm Beach International Airport
July 15, 2020
CI Project No. 4312.20.12 idk
Page 2

EXHIBIT A – SCOPE OF WORK AND FEE

Also included within the estimate shall be our Estimate Notes. The notes will contain allowances, criteria, and clarifications for the estimate, based on our assumptions and verbal information provided by the design team. The notes will also include any other comments about the project estimate that we feel are relevant.

Connico will provide an electronic copy of the estimate report.

The estimate(s) shall be prepared within twelve (12) business days from the date all design information required is received by Connico. In the event that supplemental information is furnished to Connico after a task has begun, and such information requires changes to any quantity take-off currently in progress, Connico reserves the right to request additional compensation for any such additional take-off. No additional time shall be expended on work affected by such supplemental information without the prior written consent of the Client and an agreement having been reached as to the scope and additional fee required.

Proposed Fees (Basic Scope of Services)

⇓ 60% Design Estimate	\$12,600.00
⇓ 90% Design Estimate	\$9,900.00
Total Proposed Fees (Not to Exceed) (Lump Sum)	\$22,500.00

The proposed fees are based on providing all listed phase of estimates. Should the Client elect to change the scope of services, Connico reserves the right to renegotiate our fees.

Proposed fees are based on providing one draft estimate for review and comment and one final estimate. Should additional revisions be requested, these shall be considered additional services.

Services not set forth above and not listed in Exhibit A of this Agreement are specifically excluded from the scope of the Consultant’s services. The Consultant assumes no responsibility to perform any services not specifically listed in Exhibit A.

Additional Services

Additional services are not included as part of the Basic Scope of Services and shall be paid for by the Client, in addition to payment for Basic Services, in accordance with Connico’s schedules below, or as agreed to by the Client and Connico.

Basic Services do not include, cost management, evaluating or making recommendations regarding substitution of materials, products, or equipment proposed, design alternatives or value engineering building or site systems; reconciliation estimates or services, and meetings not included within the base proposal. Connico shall be reimbursed for additional services at the rates included within the agreement.



PCA and GPU Point of Use
Palm Beach International Airport
July 15, 2020
CI Project No. 4312.20.12 idk
Page 3

EXHIBIT A – SCOPE OF WORK AND FEE

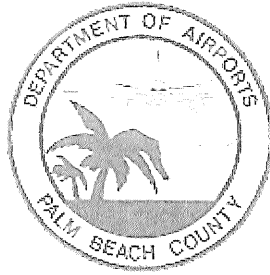
Project Submitted by:

A handwritten signature in black ink, appearing to read "Ian de Keyzer".

Ian de Keyzer, FRICS

**EXHIBIT A-5 – Task I-20-PBI-R-021: FIS & Bldg 846 Storm Resiliency Modifications
Package 3 (Construction Documents & Bidding and Award)**

Palm Beach County Department of Airports



Airport Facilities & Systems Planning, Design, Engineering and Construction Management Professional Services

**Task Authorization No.
I-20-PBI-R-021**

Palm Beach International Airport

**FIS & Bldg 846 Storm Resiliency Modifications
Package 3
(Construction Documents &
Bidding and Award)**



3125 West Commercial Boulevard, Suite 130
Fort Lauderdale, Florida 33309

August 10, 2020



EXHIBIT "A-5"
SCOPE OF SERVICES

Description of the services outlined below in Section 0 - General is intended to be general in nature and should not be construed to be a complete description of the services or a limitation on the Scope of Services to be provided. Refer to Sections 1 through 9 for the definition of specific scope items to be performed by RS&H.

0. GENERAL

0.1 The Project

This project is for the design and development of Construction Documents for the short-term recommendations contained in the Storm Resiliency Narrative Report by RS&H dated January 17, 2020. The report recommendations are to be implemented in three (3) packages and this scope is for the elements in Package 3.

The Narrative Report included recommendations for modifications/ renovations to the Administration Building and Communications Facility (Bldg 846) and the Terminal FIS to improve the performance of the facilities (building envelope, power, operational functions) during storm events which are summarized as follows:

Bldg 846

Package 3:

- Proposed revised millwork to support more microwaves in Level 1 Breakroom along west wall (stove not recommended or included as this could potentially require extensive retrofit and permitting)
- Proposed new electrical outlets to support microwaves in Level 1 Breakroom
- Propose location for new refrigerator to house food for 65 personnel for 24 hours
- Provide plans to install (1) new shower in women's and men's restrooms on 2nd floor.

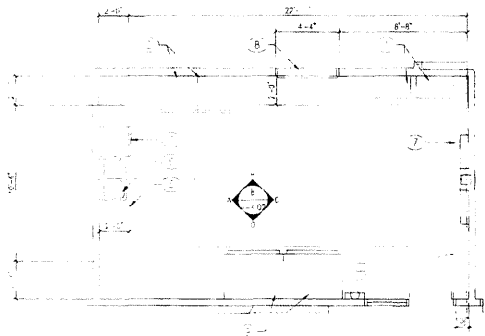


Figure 1: Level 1 Breakroom



PBC DOA Airport Facilities & Systems Services
FIS & Bldg 846 Storm Resiliency Modifications Package 3
(Construction Documents & Bidding and Award)
Exhibit A-5

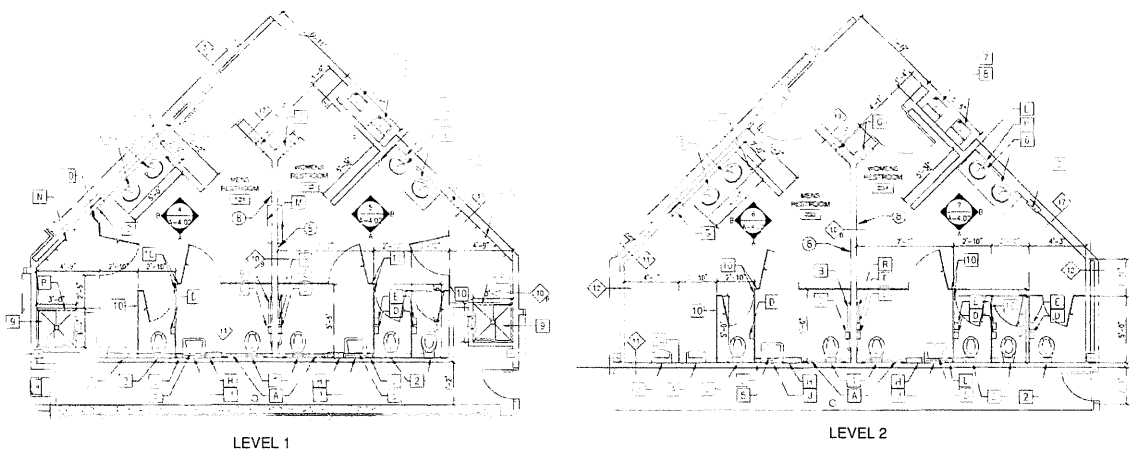


Figure 2: Level 1 & 2 Restrooms

FIS:

Package 3:

- Confirm exterior FIS ramp storefront / doors are impact rated and meet Risk Category IV wind pressures.
 - Replace storefront system (including doors) if found to be non-compliant
- Upgrade sliding partition separating Escalator I from the FIS Queue Area to a more ‘solid’ barrier.
- Investigate existing exterior wall to determine if wall has structural capacity to resist current Risk Category IV wind loads. Determine if structural modifications are required to resist Risk Category IV wind loads (additional dowels in CMU walls, revised foundation, revised top of wall connection, etc).
 - Non-destructive testing (GPR scanning) of CMU walls will be provided. GPR scanning can locate reinforcement and the depth within the wall; however, GPR will not be able to determine size. Additionally, if stucco on exterior of wall is attached by mesh, this could impact ability to determine location of rebar. If rebar is not able to be located, A/E will notify PBC DOA and alternative options on determining location will be presented.
- Provide new emergency generator for the FIS, as the existing FIS Facility has limited emergency power availability, with anticipated location airside of FIS west of Concourse B. Egress lighting and certain FIS/CBP equipment is connected to existing emergency power. The existing emergency power capacity at the FIS facility is limited by a 70Amp, 480V panelboard and a 100A, 120/208V panelboard. Generator will be sized for current FIS emergency power operations, new proposed emergency power in current FIS facility, and future FIS emergency operations (design to the current FIS / PBP design criteria for emergency power). As generator will require a minimum amount of load to operate, the short-term



plan would require some of the current Concourse A / B systems on emergency power to move to the new generator; however, systems on the new generator would not have redundancy.

- Provide additional lighting, breakroom equipment (refrigerator, microwave, etc.) along with designated office areas be connected to the emergency generator.



The following RS&H Team members will be involved in this project for the roles defined as follows. Their respective scope and fee proposals are herein.

- **Quantum Electrical Engineering, Inc. (Quantum):** Shall provide electrical and fire alarm engineering design services related to Project Package 3.
- **RS&H, Inc. (RS&H):** Shall provide life safety, architectural and structural, mechanical, mechanical, plumbing, fire protection, and communications / technology engineering needed in support of the efforts of the Project. RS&H will also provide overall project management efforts for this Project.



PBC DOA Airport Facilities & Systems Services
FIS & Bldg 846 Storm Resiliency Modifications Package 3
(Construction Documents & Bidding and Award)
Exhibit A-5

The following elements are assumptions included in this project:

- Proposal assumed CMAR construction delivery method.
- CMAR would provide cost estimate for Phase 2: Schematic Design and Phase 3B: 90% Construction Document deliverable.
- Technical Specification Division 2 thru 33 only required. Front End documents by PBC DOA.
- CMAR will use 100% Construction Documents for CMAR bidding purposes.

The following elements are excluded from the scope of this project:

- Structural analysis of Terminal or Bldg 846 lateral systems to resist current wind codes
- Destructive testing or removal of coverings or finishes to expose or inspect the physical elements of the facilities. All inspections will be visual only of exposed elements of the structure and facility systems.
- Development of Construction Safety and Phasing Plan (CSPP)
- Development of 7460 submittals.
- LEED Design and Certification
- Lightning Protection Engineering
- Phasing drawings
- Project Manual Development other than Technical Specifications Div. 2 thru 33
- Permitting Fees or Cost Estimating
- Revit 3D Modeling of Bldg 846 or FIS

THIS PROPOSAL IS ONLY FOR PACKAGE 3 FOR PHASES NOTED. PACKAGE 1 & 2 HAS BEEN PROVIDED IN A SEPARATE PROPOSAL.



Package 3

1. PHASE 1A: PLANNING AND PROGRAMMING

This Phase was completed in previous project Task III-19-DOA-R-001 / Task III-19-DOA-R-001 Storm Hardening. See Storm Resiliency Narrative Report by RS&H dated January 17, 2020.

2. PHASE 1B: CONCEPTUAL DESIGN

This Phase is not included in this proposal.

3. PHASE 2: SCHEMATIC DESIGN (30% DESIGN)

This Phase was completed in previous project Task III-19-DOA-R-001 / Task III-19-DOA-R-008 Storm Resiliency Package 3 Phase 2.

4. PHASE 3A: 60% CONSTRUCTION DOCUMENTS

This Phase is not included in this proposal.

5. PHASE 3B: 90% CONSTRUCTION DOCUMENTS

Following submission of Schematic Design document package, the RS&H Team will prepare 90% Construction Documents which clearly define the engineering and/or architectural elements of the Project.

Performance of this Task will be based on the Schematic Design document submittal and shall further refine the design and establish the scope, relationships, forms, size and appearance of the project through plans, sections, elevations, details and specifications.

The documents will include Drawings and Specifications that establish, in detail sufficient for 90% construction documents, the configuration and quality of the materials, components and systems required for the Project.

Final design and documentation for installation of generator and underground utilities and establishment of site configurations for construction access, securing of the site, and providing staging areas.

Design final documentation of architectural elements of the project such as space layout, functional features, envelope, exterior and interior appearance and related plans, sections and details. Design and final documentation of water supply, sanitary system, kitchen systems and toilet room systems.



5.1 90% Construction Documents Submittal

RS&H will submit four (4) copies of the 90% Construction Document Design Submittal (drawings and specifications) for review, comments, and approval by the PBC DOA.

RS&H anticipates the 90% Construction Documents will be presented to the CMAR to develop a GMP.

5.2 Cost Estimate Budget Development

RS&H Team (RS&H / Quantum) will respond to CMAR questions to facilitate CMAR development of an estimate of probable construction costs of the 90% Construction Documents to establish the relative value of the project components. Based on CMAR’s estimate, RS&H Team will discuss with PBC DOA potential alternates for funding or provide Project recommendations to PBC DOA to conform to the overall project budget if necessary.

5.3 90% Construction Documents Design Review Meeting

RS&H will attend one 90% Construction Document Design Review meeting with the Project Manager, Architect, Electrical (Quantum) Engineers. RS&H mechanical, plumbing, fire protection, and security / it will be attend by teleconference.

RS&H will incorporate any comments into the subsequent design submittal and will not reissue the prior deliverable for concurrence. 90% Construction Document Design Review meeting anticipated to be no later than (14) fourteen calendar days after submittal of 90% Construction Documents.

5.4 Project Management and Discipline Coordination

Scheduling, resource allocation, monitoring, oversight, direction and control for all aspects of the team’s efforts including assembly and coordination of all documentation.

6. PHASE 3C: 100% CONSTRUCTION DOCUMENTS

Following the 90% Construction Documents approval by the DOA, RS&H will develop "Final" 100% Construction Documents from the approved 90% Construction Documents. They will consist of the information contained in the 90% documents, as well as incorporate into the 100% Construction Documents submittal any comments provided by DOA or the CMAR. RS&H will not reissue the prior deliverable for concurrence.



6.1 100% Construction Documents Submittal

This task shall provide the detailed requirements for construction of the Project. The documents will include Drawings and Specifications that establish, in detail sufficient for production of shop drawings and construction, the configuration and quality of the materials, components and systems required for the Project.

RS&H will submit four (4) copies of the 100% Construction Document Design Submittal (drawings and specifications) for review, comments, and approval by the PBC DOA

RS&H anticipates the 100% Construction Documents will be presented to the CMAR for bidding.

6.2 Project Management and Discipline Coordination

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

7. PHASE 4: BIDDING AND AWARD OF CONTRACT

7.1 Permit Submittal

RS&H Team will answer Pre-Bid Questions from CMAR during the CMAR bidding process and provide revised drawings as necessary.

RS&H will provide two (2) hard copies of the drawings (signed and sealed) and specifications incorporating any comments from the CMAR bidding process to PBC DOA to provide to the CMAR use to file for a County building permit.

RS&H will assist in obtaining any such applicable certifications of "permit approval" by such authorities.

7.2 Project Management and Discipline Coordination

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

8. PHASE 5: CONSTRUCTION ADMINISTRATION SERVICES

Not Included. To be provided in subsequent proposal.



9. PROJECT DESIGN SCHEDULE

<u>Package 3</u>		
Ph 3A: 60% Construction Documents		Not Included
Ph 3B: 90% Construction Documents / GMP	~45 Working Days from Authorization	
Review Meeting to follow within Submittal by approx. 7 calendar days		
Ph 3C: 100% Construction Documents	~15 Working Days from Authorization	
Note: Final approval ties into AHJ review time		
Ph 4: Bidding and Award	Dependent upon CMAR and AHJ	
Ph 5: Construction Administration		Not Included

END OF EXHIBIT A-5



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

RS&H, INC.
PROJECT PROPOSAL - FIS & BLDG 846 STORM RESILIENCY MODIFICATIONS PACKAGE 3 (CONSTRUCTION DOCUMENTS & BIDDING
AND AWARD)

	Total
<u>DESIGN SERVICES</u>	
PHASE 1A - PLANNING AND PROGRAMMING - Not included in Proposal	\$ -
PHASE 1B - CONCEPTUAL DESIGN - Not Included in Proposal	\$ -
PHASE 2 - SCHEMATIC DESIGN (30% DESIGN) - Not Included in Proposal	\$ -
PHASE 3A - 60% CONSTRUCTION DOCUMENTS - Not in Proposal	\$ -
PHASE 3B - 90% CONSTRUCTION DOCUMENTS (Lump Sum)	\$ 76,664.99
PHASE 3C - 100% CONSTRUCTION DOCUMENTS (Lump Sum)	\$ 12,687.29
<u>BIDDING AND AWARD SERVICES</u>	
PHASE 4 - BIDDING AND AWARD OF CONTRACT (Lump Sum)	\$ 9,782.52
<u>CONSTRUCTION ADMINISTRATION SERVICES</u>	
PHASE 5 - CONSTRUCTION ADMINISTRATION - Not in Proposal	\$ -
	\$ 99,134.80
<u>SUBCONSULTANTS</u>	
Quantum (Electrical)	\$ 28,153.47
	\$ 28,153.47
<u>REIMBURSABLE EXPENSES</u>	
Reimbursable Expenses	\$ 1,546.00
SUMMARY:	
Total Proposed Fee for:	\$ 128,834.27

PHASE 3B - 90% CONSTRUCTION DOCUMENTS (Lump Sum)

5.1	90% Construction Document Submittal											
	FIS											
	Architectural		12	24	44					2	82	
	Structural					16	26	40		1	83	
	Mechanical / Plumbing					14	24	40		2	80	
	Electrical									1	4	
	Bldg 846											
	Architectural		20	40	80						140	
	Structural					12	32	40		2	86	
	Mechanical / Plumbing									2	2	
	Electrical					4					4	
5.2	Cost Estimate Budget Development	2	3	3		6	6				20	
5.3	90% Construction Document Design Review Meeting	2	4			6					12	
5.4	Project Management and Discipline Coordination	8	4			6				24	42	
SUBTOTAL HOURS		12	43	67	124	68	88	120	0	33	555	
RATE		\$287.02	\$245.39	\$125.87	\$85.16	\$246.63	\$151.55	\$96.47	\$111.75	\$60.37		
TOTAL DIRECT LABOR \$		\$3,444.24	\$10,551.77	\$8,433.29	\$10,559.84	\$16,770.84	\$13,336.40	\$11,576.40	\$0.00	\$1,992.21	\$76,664.99	
Total Proposed Fee for:											PHASE 3B - 90% CONSTRUCTION DOCUMENTS (Lump Sum)	\$76,664.99

PHASE 3C - 100% CONSTRUCTION DOCUMENTS (Lump Sum)

6.1	100% Construction Document Submittal											
	Architectural		4	12	24					3	43	
	Structural					4	8	12		1	25	
	Mechanical / Plumbing					1	4	6		2	13	
	IT / Low Voltage					3	4			1	8	
6.2	Project Management and Discipline Coordination	3	1			1				4	9	
SUBTOTAL HOURS		3	5	12	24	9	16	18	0	11	98	
RATE		\$287.02	\$245.39	\$125.87	\$85.16	\$246.63	\$151.55	\$96.47	\$111.75	\$60.37		
TOTAL DIRECT LABOR \$		\$861.06	\$1,226.95	\$1,510.44	\$2,043.84	\$2,219.67	\$2,424.80	\$1,736.46	\$0.00	\$664.07	\$12,687.29	
Total Proposed Fee for:											PHASE 3C - 100% CONSTRUCTION DOCUMENTS (Lump Sum)	\$12,687.29

PHASE 4 - BIDDING AND AWARD OF CONTRACT (Lump Sum)

7.1	Permit Submittal	2	4	6	16	4	8	12			52	
7.2	Project Management and Discipline Coordination	2	2	2		3	3			4	16	
SUBTOTAL HOURS		4	6	8	16	7	11	12	0	4	68	
RATE		\$287.02	\$245.39	\$125.87	\$85.16	\$246.63	\$151.55	\$96.47	\$111.75	\$60.37		
TOTAL DIRECT LABOR \$		\$1,148.08	\$1,472.34	\$1,006.96	\$1,362.56	\$1,726.41	\$1,667.05	\$1,157.64	\$0.00	\$241.48	\$9,782.52	
Total Proposed Fee for:											PHASE 4 - BIDDING AND AWARD OF CONTRACT (Lump Sum)	\$9,782.52

QUANTUM

Electrical Engineering, Inc.

June 5, 2020

RS&H

John Carrigan, PE, LEED AP+
Vice President, Aviation
3125 W Commercial Blvd, Suite 130,
Fort Lauderdale, FL 33309

Subject: Electrical Engineering Services Fee Proposal for the Palm Beach County Department of Airports (DOA) – TASK I-20-PBI-R-022 – Palm Beach International Airport Storm Resiliency Modifications Package 3. Includes Package 3 Phase(s) 3B and 3C, as reflected in RSH Scope of Services, Dated June 2020.

Dear John:

Quantum Electrical Engineering, Inc. (QUANTUM) is pleased to provide RSH an electrical engineering services fee proposal for the proposed Palm Beach International Airport Storm Resiliency Modifications Package 3.

The following design tasks are included in our scope for Package 3:

Phase 2 Schematic Design (30% Design)

Completed under separate earlier proposal

Phase 3B 90% Construction Documents

FIS Scope

- Includes designing new exterior standby emergency power generator with subbase fuel tank and non-walking “missile impact” rated enclosure to provide power to the complete existing FIS facility.
- Includes modification of existing BHS switchgear
- Includes manual and automatic transfer switches to provide transfer of emergency power of entire FIS and future load shedding of existing BHS electrical systems when the future FIS is constructed.
- Includes modification of existing BHS switchgear
- Include redundancy to keep existing FIS life safety equipment connected to the existing PBI Main emergency power system.
- Provide new normal power and feeders from the existing BHS switchboard for existing FIS power panels.
- Includes design of emergency power switchboard and connection of existing BHS switchboards to new emergency power system.
- Includes design of cable and conduit/busduct systems for emergency and normal power for FIS and BHS equipment.
- Provide ancillary circuits for generator equipment and etc,

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

Page 2

Mr. John Carrigan, P.E.

Electrical Engineering Services Proposal for Palm Beach International Airport Storm Resiliency

Modifications Package 3- Part 2

- Includes design of emergency power for proposed roll down grills/doors in the FIS area.

Building 846 Scope

- Includes new dedicated receptacles in Building 846 for multiple new appliance circuits (microwave, refrigerator, toaster, etc)
- Includes new/relocated receptacles in restroom facility at Building 846.
- Includes preliminary short circuit calculations for sizing of electrical equipment withstand ratings for permitting purposes. Final coordination study and arc flash analysis and labeling to be completed under CA services.

Task 5.1 90% Design Submittal

- Includes developing schematic design into a 90% Construction Document Design Submittal (drawings and specifications) for review, comments, and approval by the PBC DOA.

Task 5.2 90% Cost Estimate Budget Development

- Includes responses to CMAR questions to facilitate CMAR development of an estimate of probable construction costs of the 90% Construction Documents to establish the relative value of the project components.

Task 5.3 90% Design Review Meeting

- Includes attending 90% design review meeting with DOA and RSH Team.

Phase 3C 100% Construction Documents

Task 6.1 100% Submittal

- Includes incorporating comments from the 90% Construction into a 100% Construction/Bid set.

Phase 4 Bidding and Award of Contract

Task 7.1 Permit Submittal

- Includes answering of Pre-Bid questions from the CMAR during the CMAR bidding process and revise drawings as necessary.
- Includes signing and sealing drawings and specifications.
- RS&H shall provide base plans, sheet files, and information from each Design Team disciplines in Autocad 2018 or newer.
- QUANTUM shall provide one electronic set of plans and specifications for Phases 2, 3B, and 3C to RS&H. RS&H shall provide all printing of plans & specifications to the County for all reviews and permitting.
- Does not include Bid & Award service.
- Does not include CA services.

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

www.QuantumElectricalEngineering.com

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954.369.5810

Page 3

Mr. John Carrigan, P.E.

Electrical Engineering Services Proposal for Palm Beach International Airport Storm Resiliency
Modifications Package 3- Part 2

- Does not include any type of IT communications, PA system & access control / security systems (by others)
- Does not include electrical design for new HVAC equipment.

Our proposed Lump Sum Fee for Phase 3B is:	\$19,522.83
Our proposed Lump Sum Fee for Phase 3C is:	\$ 7,119.12
Our proposed Lump Sum Fee for Phase 4 is:	<u>\$ 1,511.52</u>
Our proposed total Lump-Sum fee is:	\$28,153.47
(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

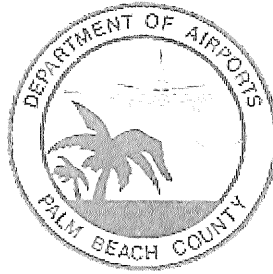
www.QuantumElectricalEngineering.com

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

PALM BEACH COUNTY DEPARTMENT OF AIRPORTS- PBIA Storm Resiliency Modifications Package 3									
QUANTUM ELECTRICAL ENGINEERING, INC.									
SCOPE FEE SUMMARY									
FEE PROPOSAL ELECTRICAL SERVICES TO RSH 6-6-2020									
	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
PHASE OF WORK	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Task
									TOTAL
Task 1:Phase 2 Schematic Design 30% Design									
Under separate task									
Task 2:Phase 3B 90% Construction Documents									
Task 5.1 90% Construction Documents Submittal		56	40	48		24		168	\$18,045.92
Task 5.2 90% Cost Estimate Review and Responses		4							\$576.92
Task 5.3 90% Design Review Meeting		4		4		1		9	\$899.99
Subtotal	0	64	40	52	0	25		181	\$19,522.83
Task 3: Phase 3C 100% Construction Documents									
Task 6.1 100%/Permit Submittal		18	22	12		14		66	\$7,119.12
Subtotal	0	18	22	12	0	14		66	\$7,119.12
Task 4: Bidding and Award of Contract									
Task 7.1 Permit Submittal		6	2	4		2		14	\$1,511.52
Subtotal	0	6	2	4	0	2		14	\$1,511.52
Grand Total Hours	0	88	64	68	0	41		261	
Grand Total Labor Cost	\$0.00	\$12,692.24	\$8,861.44	\$4,707.64	\$0.00	\$1,892.15			\$28,153.47

EXHIBIT A-6 – Task I-20-PBI-R-022: Terminal Elevator Assessment Report

Palm Beach County Department of Airports



Airport Facilities & Systems Planning, Design, Engineering and Construction Management Professional Services

**Task Authorization No.
I-20-PBI-R-022**

Palm Beach International Airport

Terminal Elevator Assessment Report



3125 West Commercial Boulevard, Suite 130
Fort Lauderdale, Florida 33309

August 17, 2020



EXHIBIT "A-6"
SCOPE OF SERVICES

Description of the services outlined below in Section 0 - General is intended to be general in nature and should not be construed to be a complete description of the services or a limitation on the Scope of Services to be provided. Refer to Sections 1 for the definition of specific scope items to be performed by RS&H.

0. GENERAL

0.1 The Project

This project is for professional architectural and engineering inspection and assessment services for an Elevator Condition Assessment (ECA) Report for the elevators in the passenger terminal and parking garage at Palm Beach International Airport (PBI). The Palm Beach County (PBC) Department of Airports (DOA) has requested RS&H, Inc. (Consultant) to assist with the assessment of twenty-five (25) elevators located in the passenger terminal and parking garage. This assessment will be performed in support of a future elevator repair/replacement project. The level of assessment varies by elevator, and primarily consists of two types of assessment, as described below:

Type 1 Assessment – Architectural Finishes (Aesthetics)

A ‘Type 1’ Assessment includes a review of the current architectural finishes; consultation with the airport administration on concerns/preferences regarding potential upgrades or changes; recommendations of potential upgrades/modifications; and estimate of probable cost associated with the upgrade/modification of architectural finishes by elevator.

Type 2 Assessment – Component and Code Analysis (Mechanical)

A ‘Type 2’ Assessment includes a review of the current maintenance contract to ascertain the type of maintenance coverage, and to determine the extent of maintenance coverage; an on-site inspection of the elevator equipment to determine its present condition, code compliancy, and estimated equipment’s useful life expectancy; and an estimate of probable costs to remedy any of the aforementioned deficiencies.



The type(s) of assessment to be provided by elevator is as follows:

Passenger Terminal (See Figure 1)					
Elevator	Location	Type	Year Installed ¹	Floors	Assessment Type
1, 2, 3, 4, 5, 6	Landside: Ticketing / Baggage West	Passenger	1986	7	1,2
7, 8, 9, 10, 11, 12	Landside: Ticketing / Baggage East	Passenger	1986	7	1, 2
13	Landside: Concourse C	Freight	1986	2	1,2
14	Airside: Concourse A	Passenger	1986 ²	2	1,2
15	Airside: FIS	Passenger	1986 ³	2	1,2
20	Landside Checkpoint C Expansion	Freight	2004	2	1,2
27	Airside: Checkpoint C Hammerhead	Freight	2009	2	1,2

1 Date of design drawings Note that Elevators #25 & #26 are located at PBI Administration Building (Bldg 846)
2 Kone Equipment Audit Report states installation was in 2005 while design drawings indicate pit was installed in 1986
3 Kone Equipment Audit Report states installation was in 1994 while design drawings indicate pit was installed in 1986

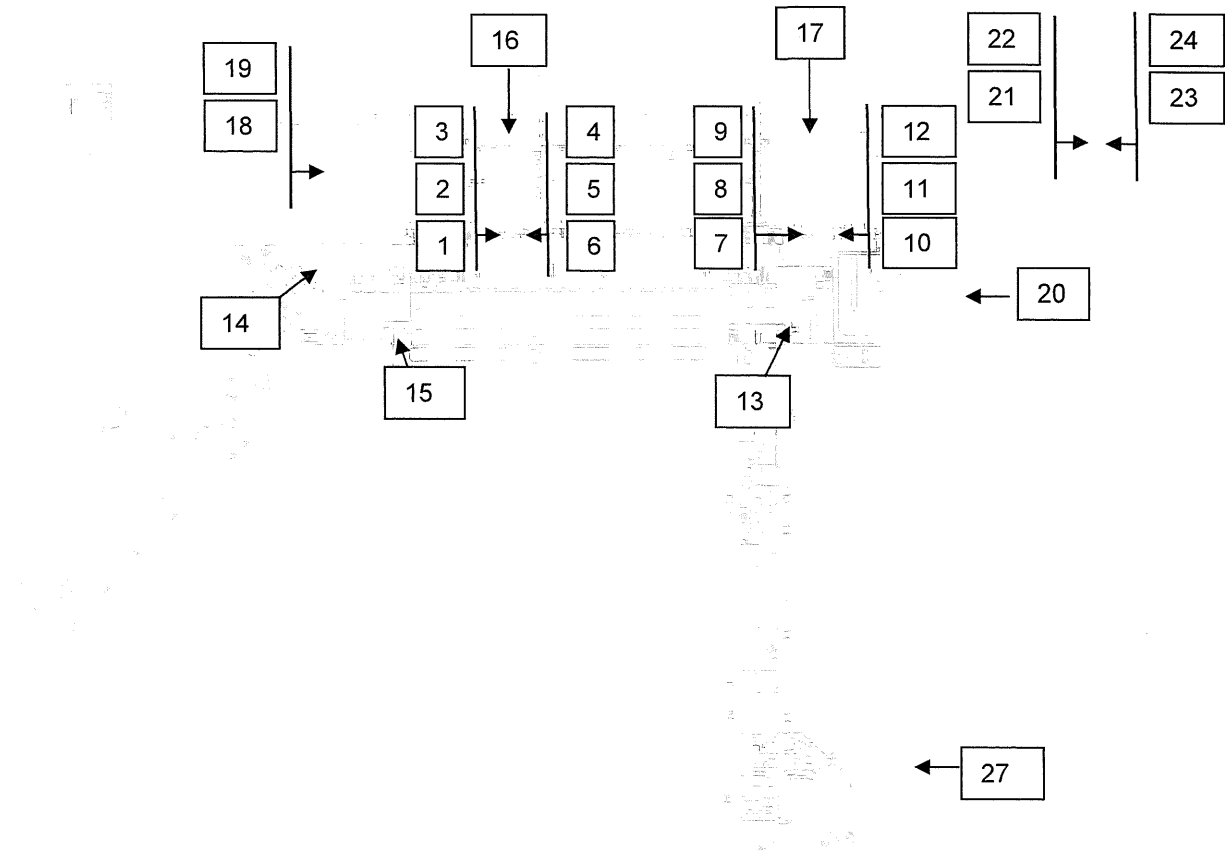




Figure 1: Terminal and Parking Garage

Parking Garage (See Figure 1)					
Elevator	Location	Type	Year Installed ¹	Floors	Assessment Type
16	Garage Pedestrian Bridge - West	Passenger	1986	2	1,2
17	Garage Pedestrian Bridge - East	Passenger	1986	2	1, 2
18,19	Landside: Parking lot West	Passenger	1986	4	1 2
21,22,23,24	Landside: Parking lot East	Passenger	2007	7	1, 2

1 Date of design drawings Note that Elevators #25 & #26 are located at PBI Administration Building (Bldg 846)

Inspections for the ECA will be performed by or under the direct supervision of professional engineers and architects, licensed in the State of Florida. All inspections will be limited to exposed and visible elements, with no destructive testing or removal of permanent coverings. The ECA inspections' purpose is to identify visible or evident defects in the subject elevators. Items noted in the ECA will be organized by both repair priority and repair/replacement costs. The deliverable for the Elevator Condition Assessment Report will be a report summarizing the elevator defects found during inspection efforts. The report will include repair cost analyses only. No life cycle analyses shall be performed as part of the project. The repair costs established can be used as a tool by PBC DOA in developing scopes of future projects. The RS&H Team will attend a meeting to brief PBC DOA on the findings of the ECA report.

In addition to the foregoing, the RS&H Team will perform its Services in accordance with the standards of skill, quality and care adhered to by recognized firms performing services of a like or similar nature under like or similar circumstances

The following RS&H Team members will be involved in this project for the roles defined as follows. Their respective scope and fee proposals are herein.

- **Lerch Bates:** Shall provide on-site inspection and assessment of the elevators (Type 2 Assessment). Additionally, Lerch Bates shall provide an estimate of probable cost to remedy any deficiencies or provide an estimate on replacement costs.
- **Quantum:** Shall provide electrical engineering support services related to the elevator assessment. Shall inspect electrical equipment panels and disconnects serving elevators (Type 2 Assessment) and provide an estimate of probable cost for repair / replacement of electrical components servicing the elevators.



- **RS&H:** Shall provide architectural design services (Type 1 Assessment) and shall provide oversight of electrical engineering support services and the on-site inspection services (Type 2 Assessment). RS&H shall provide oversight of the cost estimating performed by Team members noted above for Type 1 & 2 Assessment.

The following are excluded from the scope of work and are not included in this proposal:

- Consulting costs of the existing maintenance contractor for their participation in the development of project requirements.
- Design inspection or estimate of any low voltage (such as paging, CCTV, access control) system modifications in support of the elevator replacements.

1. PLANNING AND PROGRAMMING (PHASE 1A)

1.1 Project Initiation / Setup

This task includes coordination with the Client and Subconsultant(s); and to hold an internal kickoff meeting to review schedules, project goals and requirements for team members to ensure consistency with Client goals. This task includes coordination of sub access to internal project file server, standards coordination, and shared file coordination.

1.2 Review of Existing Documentation and Project Constraints

The RS&H Team will review the accuracy and adequacy of all drawings, budget costs, and other data and information furnished by PBC DOA with emphasis on the items below. This task will include the review time of existing documentation for the RS&H Team to become familiar with the elevators.

- RS&H Team will also examine all applicable record drawings of the terminal and parking garage in close proximity to and affected by the elevator provided by PBC DOA.
- RS&H Team will review all applicable maintenance records of Kone Escalator Company up to and including the current period to be furnished by PBC DOA.
- Examine in detail PBC DOA's estimated project construction costs (if known) and inform DOA in writing of any serious discrepancies and/or deficiencies that would require additional funds to construct and complete a future improvement Project.
- Identify any apparent deficiencies in the available information and prepare specific requirements in writing, depicting any further investigations required to develop that additional information. Review for the validity, interpretation,



application and use of all such supplemental information and data obtained by others.

1.3 Kick-Off Meeting

A kick-off meeting is anticipated to be held with PBC DOA and should include the Airport Maintenance staff. RS&H will have their Project Manager, Architect, Electrical Engineer (Quantum), and Elevator Consultant (Lerch Bates) in attendance. The on-site kickoff meeting with the Client will address the details of the assessments, gain understanding of Client concerns and preferences, and subsequently provide an overall look at the condition of the elevators.

1.4 On-Site Existing Condition Verification

A visual on-site inspection will be conducted to determine the apparent condition of the elevator equipment and supporting electrical components. The RS&H Team shall assess all the elevators as described above and document the condition via photographs and written notes during evaluation. On-site assessment is anticipated to include one (1) RS&H Architectural associate, one (1) Quantum electrical engineer, and one (1) Lerch Bates employee. No physical testing will be performed and inspection will be visual inspection only. Any additional testing beyond the assessment described herein that may be necessary will be included in the report and would be included in a subsequent phase of work, if directed by the Client. Access into elevator machine rooms, spaces, shafts, pits etc. will be required to complete inspection. Access to these spaces will be coordinated with the DOA and provided by the DOA. This effort will be combined with the kick-off meeting for optimization of travel.

1.5 Code and Permitting Research

Preliminary determination of jurisdictional authority requirements for Building Code, Fire Protection and Life Safety.

1.6 Elevator Condition Assessment (ECA) Draft Report

The RS&H Team will prepare a Draft ECA report, including results of assessment performed in Task 1.2, 1.4, and 1.5. The report will contain information regarding the existing conditions, photographs, and other pertinent information regarding the assessment. The RS&H Team shall document the observed condition of the elevator systems, will prepare a report that describes deficiencies per elevator unit, and will provide recommendations to correct the deficiencies and/or modifications to the aesthetic finishes.

This task will include an in-house quality assurance / quality control review of the ECA Report prior to submittal to the Airport's authorized representative.

Deliverable: The Consultant shall submit four (4) hard copies of the draft report to the Airport, and one electronic copy of the draft report.

1.7 Cost Estimate Budget Development

An estimate of probable construction cost to establish the relative value of project components and the conformance to the overall project budget. The probable construction cost is an estimate representing the judgment of the estimators who have no control over the cost of labor, materials or equipment, over the Contractor's methods of determining prices, or over competitive bidding, market or negotiating conditions. Accordingly, RS&H cannot and does not warrant or represent that bids or negotiated prices will not vary from the budget, funding or from any estimate or evaluation by the RS&H.

1.8 Design Review Meeting

RS&H will attend one on-site Design Review meeting with the Project Manager, Architect, and Electrical Engineer (Quantum). Elevator Consultant (Lerch Bates) will attend via teleconference.

1.9 Elevator Condition Assessment (ECA) Final Report

The RS&H Team will prepare a Final ECA report, including revisions / comments generated from the Design Review Meeting.

Deliverable: The Consultant shall submit four (4) hard copies of the final report to the Airport, and one electronic copy of the final report.

1.10 Project Management and Discipline Coordination

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

2. CONCEPTUAL DESIGN (PHASE 1B)

This Phase is not included in this proposal.

3. SCHEMATIC DESIGN (PHASE 2)

This Phase is not included in this proposal.

4. 60% CONSTRUCTION DOCUMENTS (PHASE 3A)

This Phase is not included in this proposal.



5. 90% CONSTRUCTION DOCUMENTS (PHASE 3B)

This Phase is not included in this proposal.

6. 100% CONSTRUCTION DOCUMENTS (PHASE 3C)

This Phase is not included in this proposal.

7. BIDDING AND AWARD OF CONTRACT (PHASE 4)

This Phase is not included in this proposal.

8. CONSTRUCTION ADMINISTRATION SERVICES (PHASE 5)

This Phase is not included in this proposal.

9. PROJECT DESIGN SCHEDULE

Planning and Programming (Ph 1A)

Project Initiation / Records Review	Within 30 Calendar Days from NTP*
Kickoff / On-Site Inspection	Within 30 Calendar Days of Record Review Completion
ECA Report	Within 60 Calendar Days of On-Site Inspection

*Dependent upon receipt from PBC DOA

10.EXCLUSIONS AND ASSUMPTIONS

The following are excluded from this proposal:

- Assessment of accommodating systems such as HVAC, plumbing, etc.
- Design / CA / RPR services
- Agency / Permitting coordination
- Testing of elevator components
- Nighttime inspection
- Any other services not explicitly defined



The following are assumed for this proposal:

- All escorts will be provided by PBC DOA as needed.
- All elevators are in an operational state at time of assessment.
- Access to panels and/or mechanical components provided by PBC DOA personnel.
- Available record documents will be provided by PBC DOA personnel

END OF EXHIBIT A-6



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

RS&H, INC.
PROJECT PROPOSAL - TERMINAL ELEVATOR ASSESSMENT REPORT

	<u>Total</u>
<u>DESIGN SERVICES</u>	
PHASE 1A - PLANNING AND PROGRAMMING (Lump Sum)	\$ 22,070.31
<u>BIDDING AND AWARD SERVICES</u>	
PHASE 4 - BIDDING AND AWARD OF CONTRACT - Not in Proposal	\$ -
<u>CONSTRUCTION ADMINISTRATION SERVICES</u>	
PHASE 5 - CONSTRUCTION ADMINISTRATION - Not in Proposal	\$ -
	<u>\$ 22,070.31</u>
<u>SUBCONSULTANTS</u>	
Quantum (Electrical)	\$ 15,819.05
Lerch Bates (Elevator Consultant)	\$ 33,250.00
	<u>\$ 49,069.05</u>
<u>REIMBURSABLE EXPENSES</u>	
Reimbursable Expenses	\$ 2,016.00
SUMMARY:	
Total Proposed Fee for:	\$ 73,155.36



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

RS&H, INC.

PROJECT PROPOSAL - TERMINAL ELEVATOR ASSESSMENT REPORT

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-20-PBI-R-022 - Elevator Assessment (Lump Sum)											
PHASE 1A - PLANNING AND PROGRAMMING (Lump Sum)											
1.1	Project Initiation / Setup	1	0	0	0	4	0	0	0	4	9
1.2	Review of Existing Documentation and Project Constraints	0	0	0	0	2	0	0	0	0	2
1.3	Kick-off Meeting	2	0	4	0	4	0	0	0	0	10
1.4	On-Site Existing Condition Verification	0	0	8	0	4	0	0	0	0	12
1.5	Code and Permitting Research	0	2	0	0	2	0	0	0	0	4
1.6	Elevator Condition Assessment (ECA) Draft Report	2	0	8	10	10	16	0	0	0	46
1.7	Cost Estimate Budget Development	0	0	4	0	4	0	0	0	0	8
1.8	Design Review Meeting	1	0	8	0	8	0	0	0	0	17
1.9	Elevator Condition Assessment (ECA) Final Report	1	0	1	1	1	1	0	0	0	5
1.10	Project Management and Discipline Coordination	2	0	0	0	4	0	0	0	8	14
SUBTOTAL HOURS		9	2	33	11	43	17	0	0	12	127
RATE		\$287.02	\$245.39	\$125.87	\$85.16	\$246.63	\$151.55	\$96.47	\$111.75	\$60.37	
TOTAL DIRECT LABOR \$		\$2,583.18	\$490.78	\$4,153.71	\$936.76	\$10,605.09	\$2,576.35	\$0.00	\$0.00	\$724.44	\$22,070.31
Total Proposed Fee for:										PHASE 1A - PLANNING AND PROGRAMMING (Lump Sum)	
										\$22,070.31	

SUBCONSULTANTS (Lump Sum)					
SUBCONSULTANTS					
Quantum (Electrical)					\$15,819.05
Lerch Bates (Elevator Consultant)					\$33,250.00
TOTAL SUBCONSULTANTS					\$49,069.05
REIMBURSABLE EXPENSES (Not-to-Exceed)					
REPRODUCTION		# DWGS	# PAGES		
		@	@		
		\$1.60	\$0.10	# SETS	
Draft Report		20	20	4	\$136.00
Final Report		20	20	4	\$136.00
TOTAL REPRODUCTION					\$272.00
POSTAGE / DELIVERY		# PKGS	# PKGS		
		@	@		
		\$15.00	\$3.00		
Draft Report			4		\$12.00
Final Report			4		\$12.00
TOTAL POSTAGE / DELIVERY					\$24.00
TRAVEL		Airfare @ Car @ Lodging @ Meals @			
		\$420 \$75 \$180 \$40			
		\$600 \$720 \$400			
TOTAL TRAVEL					
REIMBURSABLES (Not-to-Exceed)					\$2,016.00
SUMMARY					
PHASE 1A - PLANNING AND PROGRAMMING (Lump Sum)					\$22,070.31
SUBCONSULTANTS (Lump Sum)					\$49,069.05
REIMBURSABLE EXPENSES (Not-to-Exceed)					\$2,016.00
TOTAL BASIC SERVICES CONTRACT VALUE					
Task Authorization No. I-20-PBI-R-022 - Elevator Assessment (Lump Sum)					\$73,155.36

QUANTUM

Electrical Engineering, Inc.

August 5, 2020

RS&H, Inc.
Mr. John Carrigan, PE, LEED AP+
Vice President, Aviation
3125 W Commercial Blvd, Suite 130,
Fort Lauderdale, FL 33309

Task I-20-PBI-R-022

Subject: Electrical Engineering Services Fee Proposal for the Palm Beach County Department of Airports (DOA) – ~~TASK III-20-PBI-R-007~~ – Palm Beach International Airport Elevator Assessment includes Phase 1A tasks as reflected in RS&H Scope of Services, Dated August 2020

Dear John:

Quantum Electrical Engineering, Inc. (Quantum) is pleased to provide RS&H an electrical engineering services fee proposal for the PBI-A Elevator Assessment to include twenty-five (25) elevators located in the Passenger Terminal/Concourses and Parking Garages. The following tasks are included in our scope:

Phase 1A Planning & Programming

Task 1.1: Project Initiation / Setup

- Includes attending an internal coordination meeting with RS&H Team.

Task 1.2: Review of Existing Documentation and Project Constraints

- Examine the existing as-built documents and relevant electrical one-line and fire alarm riser diagrams and identify any apparent deficiencies in the available information.

Task 1.3: Kick-Off Meeting

- Includes attending a kick-off meeting with DOA and RS&H Team.

Task 1.4: On-Site Existing Condition Verification (4 days @ 8 hours per day)

- Includes performing on-site existing equipment installations verifications of the existing electrical and fire alarm including data collection / interviews with DOA Maintenance Department.
- Provide an assessment of the condition of the existing electrical elevator distribution systems including upstream switchboards, panelboards, disconnect switches, conduit systems and conductor systems via visual inspection only with the assistance for PBCDOA Maintenance Department.
- Determine the conditions of the existing fire alarm system that is integrated with the elevators via visual inspection.

Task 1.6: Elevator Condition Assessment (ECA) Draft Report

- Write the electrical and fire alarm portions of the Elevator Condition Assessment (ECA) Draft Report summarizing our findings and recommendations.
- Report format to be provided by RS&H.

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

Page 2

Mr. John Carrigan, P.E.

PBIA Palm Beach International Airport Elevator Assessment Report.

Task 1.7: Cost Estimate Budget Development

- Provide cost estimates based on the electrical and fire alarm recommendations outlined in the FCA Report.

Task 1.8: Design Review Meeting

- Attend one review meeting with DOA and RS&H Team to go over our findings.

Task 1.9: Elevator Condition Assessment (ECA) Final Report

- Finalize the electrical and fire alarm portions of the Elevator Condition Assessment (ECA) Report summarizing our findings and recommendations.

Exclusions and Assumptions

- RS&H shall provide all distribution and printing of Report to DOA.
- PBCDOA Maintenance will escort and open all required electrical equipment for review.
- Does not include any type electrical testing or design.
- Does not include PA, CCTV or access control systems assessment.

Our proposed lump sum fee for Report is:
(See Attachment for Breakdown)

\$ 15,819.05

Sincerely,



Amy Champagne-Baker, PE
President

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

[illegible]



**PALM BEACH INTERNATIONAL AIRPORT
WEST PALM BEACH, FL**

**MODERNIZATION
CONSULTING SERVICES PROPOSAL**

AUGUST 5, 2020- REV2

Prepared For:

Mr. Aaron Jackson
Aviation Structural Engineer

RS & H
10748 Deerwood Park Blvd. South
Jacksonville, FL 32256

T: (812) 525-7455
E-Mail: Aaron.Jackson@rsandh.com

Prepared By:

Frank Williams
Consultant

T: (954) 809-8985
E-Mail: frank.williams@lerchbates.com

LB Project Number 0100029691



I. BASIC VERTICAL TRANSPORTATION CONSULTING SERVICES

Lerch Bates Inc. (Lerch Bates) agrees to provide RS and H (Client) with the following consulting services for the 25 elevators:

- A. Survey and Report
 - 1. Conduct a detailed survey of all of the existing accessible equipment to determine its condition, remaining service life, and potential for reuse. The survey will include, but not be limited to, the following:
 - a. Machine Room: Hoist machine, power unit, controller, power conversion unit, governor.
 - b. Hoistway: Guide rails/brackets, car sling and platform, counterweight, guide shoes, safety, buffers, car door operating equipment, sheaves, hoistway door operating equipment, cables, wiring, switches, sills and supports.
 - c. Corridor: Pushbuttons, signal fixtures, hoistway entrances.
 - d. Car Enclosure: Pushbuttons, signal fixtures, emergency lighting, ventilation, normal lighting, car door protection, interior finishes.
 - e. Other: Fire/life safety provisions, architectural finishes, security features, monitoring panels.
 - 2. Provide the Client with a written report documenting the survey results. Report will include:
 - a. Existing equipment disposition.
 - (1) Recommendations on the type of equipment needed for modernization.
 - (2) A summary of the present equipment which has potential for reuse.
 - b. Modernization options.
 - c. Current prevailing Elevator Code requirements, non-complying building conditions, and handicapped accessibility requirements relative to the equipment surveyed.
 - d. Related work required by other trades.
 - e. Opinion of probable equipment costs for Division 14 of the elevator modernization recommended.
 - f. A schedule for the modernization activities.
 - 3. Meet with the Client to discuss the report recommendations, via teleconference.

II. FEES AND EXPENSES

- A. Fee for Basic Services will be \$33,250.00.
- B. The fee schedule for the work is listed below:

Phase	Fee
Survey and Report	\$ 33,250.00

EXHIBIT A-7 – 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-20-DOA-R-001	Misc. AEP and Construction Consulting Services Amendment #2	\$ 350,000.00
Sub-total (Level 3)		\$ 350,000.00

EXHIBIT B: DETAILED FEES, EXPENSESE AND PAYMENTS

EXHIBIT B-I: Summary of Fees

This Amendment #2, as described herein, consists of multiple tasks. As summarized below, these initial efforts have an overall budget of \$3,196,990.03.

LEVEL 1 TASKS:

TASK Level / No.	DESCRIPTION	LUMP SUM	REIMBURSABLE EXPENSES	TOTAL
I-20-PBI-R-017:	Switchgear NPDS Replacement	\$ 778,184.12	\$ 4,542.68	\$ 782,726.80
I-20-PBI-R-018:	PBI Concourse B Expansion (Conceptual and Schematic Design)	\$ 1,153,965.32	\$ 8,092.00	\$ 1,162,057.32
I-20-PBI-R-020:	PCA and GPU Point of Use	\$ 493,465.98	\$ 9,339.00	\$ 502,804.98
I-20-PBI-R-021:	FIS & Bldg 846 Storm Resiliency Modifications Package 3 (Construction Documents & Bidding and Award)	\$ 127,288.27	\$ 1,546.00	\$ 128,834.27
I-20-PBI-R-022:	Terminal Elevator Assessment Report	\$ 71,139.36	\$ 2,016.00	\$ 73,155.36

TASK Level / No.	DESCRIPTION	NOT-TO-EXCEED	REIMBURSABLE EXPENSES	TOTAL
I-20-PBI-R-019:	Terminal Public Address (PA) System Construction Engineering Inspection (CEI) Services – Phase 2	\$ 196,461.30	\$ 950.00	\$ 197,411.30

LEVEL 3 TASKS:

TASK LEVEL / NO.	DESCRIPTION	TOTAL
Task III-20-DOA-R-001	Misc. AEP and Construction Consulting Services Amendment #2	\$ 350,000.00

Grand Total (Amendment #2)	\$3,196,990.03
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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 #2:

LEVEL 1 TASKS:

Task I-20-PBI-R-017	<u>Switchgear NPDS Replacement</u> Duration: 205 Working Days + Bidding/Award (~277 Calendar Days + Bidding/Award) Compensation: \$782,726.80
Task I-20-PBI-R-018	<u>PBI Concourse B Expansion (Conceptual and Schematic Design)</u> Duration: 180 Working Days (~252 Calendar Days) Compensation: \$1,162,057.32
Task I-20-PBI-R-019	<u>Terminal Public Address (PA) System Construction Engineering Inspection (CEI) Services – Ph 2</u> Duration: 210 Working Days (~294 Calendar Days) Compensation: \$197,411.30
Task I-20-PBI-R-020	<u>PCA and GPU Point of Use</u> Duration: 207 Working Days (~289 Calendar Days) Compensation: \$502,804.98
Task I-20-PBI-R-021	<u>FIS & Bldg 846 Storm Resiliency Modifications Package 3 (Construction Documents & Bidding and Award)</u> Duration: 65 Working Days + Bidding/Award (~91 Calendar Days + Bidding/Award) Compensation: \$128,834.27
Task I-20-PBI-R-022	<u>Terminal Elevator Assessment Report</u> Duration: 86 Working Days (~120 Calendar Days) Compensation: \$73,155.36

LEVEL 3 TASKS:

Task III-19-DOA-R-001	Misc. AEP and Construction Consulting Services Amendment #1
Duration:	As required in accordance with specific Task Authorizations
Compensation:	\$350,000.00

TOTAL = \$3,196,990.03

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-20-PBI-R-017	<u>Switchgear NPDS Replacement</u> Duration: 205 Working Days + Bidding / Award (~277 Calendar Days + Bidding / Award)
Task I-20-PBI-R-018	<u>PBI Concourse B Expansion (Conceptual and Schematic Design)</u> Duration: 180 Working Days (~252 Calendar Days)
Task I-20-PBI-R-019	<u>Terminal Public Address (PA) System Construction Engineering Inspection (CEI) Services – Ph 2</u> Duration: 210 Working Days (~294 Calendar Days)
Task I-20-PBI-R-020	<u>PCA and GPU Point of Use</u> Duration: 207 Working Days (~289 Calendar Days)
Task I-20-PBI-R-021	<u>FIS & Bldg 846 Storm Resiliency Modifications Package 3 (Construction Documents & Bidding and Award)</u> Duration: 65 Working Days + Bidding/Award (~91 Calendar Days + Bidding/Award)
Task I-20-PBI-R-022	<u>Terminal Elevator Assessment Report</u> Duration: 86 Working Days (~120 Calendar Days)

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 2.

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

Firm	Amendment 2 Totals	% of Amendment 2
Colome	\$ -	0.00%
Tierra South Florida	\$ 29,240.00	0.91%
Brown & Phillips	\$ 18,979.53	0.59%
CECOS	\$ -	0.00%
MOBIO	\$ 176,600.00	5.52%
Lakdas-Yohalem	\$ -	0.00%
Connico	\$ 45,400.00	1.42%
Digital Building Services	\$ 183,689.00	5.75%
Master Consulting Engineers	\$ 4,960.00	0.16%
Quantum	\$ 1,178,436.56	36.86%
CRJ	\$ -	0.00%

TOTALS \$ 1,637,305.09 51.21%

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	R2019-0612 Totals	R2020-0414 Totals	Amendment 2 Totals	Total Fees	% of Total Contract
Colome	\$ 76,502.57	\$ 164,286.41	\$ -	\$ 240,788.98	3.23%
Tierra South Florida	\$ 28,715.00	\$ 26,985.00	\$ 29,240.00	\$ 84,940.00	1.14%
Brown & Phillips	\$ 20,021.35	\$ 13,972.72	\$ 18,979.53	\$ 52,973.70	0.71%
CECOS	\$ -	\$ 5,403.70	\$ -	\$ 5,403.70	0.07%
MOBIO	\$ 175,869.56	\$ -	\$ 176,600.00	\$ 352,469.56	4.72%
Lakdas-Yohalem	\$ -	\$ -	\$ -	\$ -	0.00%
Connico	\$ 100,900.00	\$ 107,100.00	\$ 45,400.00	\$ 253,400.00	3.39%
Digital Building Services	\$ -	\$ -	\$ 183,689.00	\$ 183,689.00	2.46%
Master Consulting Engineers	\$ -	\$ 79,865.96	\$ 4,960.00	\$ 84,825.96	1.14%
Quantum	\$ -	\$ 176,934.32 ¹	\$ 1,178,436.56	\$1,355,370.88	18.16%
CRJ	\$ -	\$ 117,500.00	\$ -	\$ 117,500.00	1.57%

TOTALS \$402,008.48 \$692,048.11² \$1,637,305.09 \$2,731,361.78 36.39%

- 1. Total varies from Amendment 1 Table D-2 as Amendment Table D-2 includes both Amendment 1 Level I and Level III projects (thru 8/21/20).
- 2. Total varies from Amendment 1 Table D-2, See Note #1.

EXHIBIT E – CONTRACT REVISION

The Contract for Consulting/Professional Services (R2019-0612) shall be update as follows:

A. Article 21 – Access and Audits shall be replaced with the following:

ARTICLE 21 - ACCESS AND AUDITS

The CONSULTANT shall maintain adequate records to justify all charges, expenses, and costs incurred in estimating and performing the work for at least five (5) years after completion or termination of this Contract. The COUNTY shall have access to such books, records, and documents as required in this section for the purpose of inspection or audit during normal business hours, at the CONSULTANT'S place of business.

Palm Beach County has established the Office of the Inspector General in Palm Beach County Code, Section 2-421 - 2-440, as may be amended. The Inspector General's authority includes but is not limited to the power to review past, present and proposed County contracts, transactions, accounts and records, to require the production of records, and to audit, investigate, monitor, and inspect the activities of the CONSULTANT, its officers, agents, employees, and lobbyists in order to ensure compliance with contract requirements and detect corruption and fraud. 10

Failure to cooperate with the Inspector General or interfering with or impeding any investigation shall be in violation of Palm Beach County Code, Section 2-421 - 2-440, and punished pursuant to Section 125.69, Florida Statutes, in the same manner as a second degree misdemeanor.

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

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

Name of Respondent: RS&H, Inc.

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

Contact Person: John Carrigan

E-mail Address: john.carrigan@rsandh.com

Address: 3125 West Commercial Blvd., Suite 130, Fort Lauderdale, FL 33309

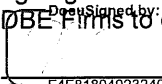
Phone No.: 954-236-7396 Fax No.: 954-474-3006

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)
Tierra South Florida, Inc.	Geotechnical Engineering Services	<input type="checkbox"/> Prime Consultant <input checked="" type="checkbox"/> Subcontractor <input type="checkbox"/> Supplier <input type="checkbox"/> Manufacturer	_____ %	_____ %	_____ %	<u>0.91</u> % (Asian / Pacific)
Brown & Phillips, Inc.	Surveying and Mapping Services	<input type="checkbox"/> Prime Consultant <input checked="" type="checkbox"/> Subcontractor <input type="checkbox"/> Supplier <input type="checkbox"/> Manufacturer	<u>0.59</u> %	_____ %	_____ %	_____ %
Mobio Architecture	Supporting Architectural Services	<input type="checkbox"/> Prime Consultant <input checked="" type="checkbox"/> Subcontractor <input type="checkbox"/> Supplier <input type="checkbox"/> Manufacturer	_____ %	<u>5.52</u> %	_____ %	_____ %
Connico Incorporated	Cost Estimating	<input type="checkbox"/> Prime Consultant <input checked="" type="checkbox"/> Subcontractor <input type="checkbox"/> Supplier <input type="checkbox"/> Manufacturer	_____ %	_____ %	<u>1.42</u> %	_____ %

Total Percentage of DBE Participation: 51.21 %

- 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: 
Signature
John Carrigan, P.E., Vice President, Aviation
Print Name/Title of Person Executing on Behalf of the Respondent

Date: 8/28/2020

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

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

Name of Respondent: RS&H, Inc.

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

Contact Person: John Carrigan

E-mail Address: john.carrigan@rsandh.com

Address: 3125 West Commercial Blvd., Suite 130, Fort Lauderdale, FL 33309

Phone No.: 954-236-7396 Fax No.: 954-474-3006

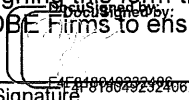
Name, Address & Phone No. of DBE Firm	Description of Type of Work	Classification (Check applicable box)	Percentage of DBE Participation			
			Black	Hispanic	Women	Other (Please Specify)
Digital Building Services	3D Point Scanning	<input type="checkbox"/> Prime Consultant <input checked="" type="checkbox"/> Subcontractor <input type="checkbox"/> Supplier <input type="checkbox"/> Manufacturer	_____ %	5.75 %	_____ %	_____ %
Master Consulting Engineers	Supporting Structural Engineering Services	<input type="checkbox"/> Prime Consultant <input checked="" type="checkbox"/> Subcontractor <input type="checkbox"/> Supplier <input type="checkbox"/> Manufacturer	_____ %	0.16 %	_____ %	_____ %
Quantum Electrical	Electrical Engineering Design Services	<input type="checkbox"/> Prime Consultant <input checked="" type="checkbox"/> Subcontractor <input type="checkbox"/> Supplier <input type="checkbox"/> Manufacturer	_____ %	_____ %	36.86 %	_____ %
		<input type="checkbox"/> Prime Consultant <input checked="" type="checkbox"/> Subcontractor <input type="checkbox"/> Supplier <input type="checkbox"/> Manufacturer	_____ %	_____ %	_____ %	_____ %

Total Percentage of DBE Participation: 51.21 %

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: 
Signature

Date: 8/28/2020

John Carrigan, P.E., 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: Brown and Phillips, Inc.

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

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

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

Surveying and Mapping Services

(Additional Sheets may be used as necessary.)

Total Percentage of Participation by DBE Firm for this Project: 0.59 %

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)

☐ DBE Certified
☐ Non-DBE

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

Brown and Phillips, Inc.

Printed Name of DBE Subcontractor

By: Anthony Brown
Signature

Date: 8/27/2020

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: Connico Incorporated

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):

Cost Estimating

(Additional Sheets may be used as necessary.)

Total Percentage of Participation by DBE Firm for this Project: 1.42 %

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)

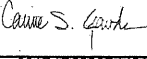
(Percentage of work to be subcontracted)

% ☐ DBE Certified
☐ 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.

Connico Incorporated

Printed Name of DBE Subcontractor

By: 
Signature

Date: 8/27/2020

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: Digital Building Services

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):

3D Point Scanning

(Additional Sheets may be used as necessary.)

Total Percentage of Participation by DBE Firm for this Project: 5.75 %

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.

Digital Building Services

Printed Name of DBE Subcontractor

By: Lance Olsen
A-34A19588F-14459...
Signature

Date: 8/27/2020

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: Master Consulting Engineers

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):

3D Point Scanning Services

(Additional Sheets may be used as necessary.)

Total Percentage of Participation by DBE Firm for this Project: 0.16 %

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)

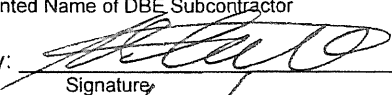
(Percentage of work to be subcontracted)

% ☐ DBE Certified
☐ 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.

Master Consulting Engineers

Printed Name of DBE Subcontractor

By: 
Signature

Date: 8/28/2020

X

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: Mobio Architecture, 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):

Supporting Architectural Services

(Additional Sheets may be used as necessary.)

Total Percentage of Participation by DBE Firm for this Project: 5.52 %

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)

%

☐ DBE Certified

☐ 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.

Mobio Architecture, Inc.

Printed Name of DBE Subcontractor

By: Abdel Martel

Signature

Date: 8/27/2020

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: 36.86 %

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)

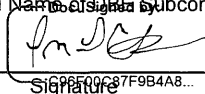
% ☐ DBE Certified
 ☐ Non-DBE

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:



Date:

8/27/2020

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):

Geotechnical Engineering Services

(Additional Sheets may be used as necessary.)

Total Percentage of Participation by DBE Firm for this Project: 0.91 %

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)

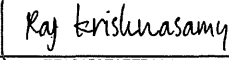
_____ %
(Percentage of work to be subcontracted)

☐ DBE Certified
☐ Non-DBE

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

Tierra South Florida, Inc.

Printed Name of DBE Subcontractor

By: 

Signature

Date: 8/27/2020

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%