

Project No.

**SUPPLEMENTAL AGREEMENT NO. 14**

REQUESTED BY: James W. Parish, P.E. DATE: 12/16/21

CLIENT: Charlotte County Airport Authority REFERENCE AECOM JOB NO.: \_\_\_\_\_

ADDRESS: 28000 Airport Road, Suite A-1 CLIENT P.O. NO.: \_\_\_\_\_  
Punta Gorda, Florida 33982-2409

To confirm your authorization for additional services as they relate to our existing Agreement dated **August 18, 2016**, AECOM will furnish the following: **Terminal Planning Study**.

This assignment consists of conducting a terminal planning study that will define the amount of space required to accommodate existing and future passenger volumes at Punta Gorda Airport (PGD). The study will also examine a series of alternatives to provide the space required. Drawings depicting terminal expansion alternatives will be created and evaluated. Consultations with airport staff will narrow the number of alternatives down to preferred alternatives that will be refined into a preferred alternative. A site plan for the preferred alternative will be prepared. See attached scope and fee.

The estimated cost of the services is a lump sum amount of **\$89,340.00**. Client agrees to pay AECOM as compensation for its services on a monthly basis as invoices are submitted. One of the following methods of payments will be used:

- 1-( ) According to the hourly rate schedule attached times \_\_\_ plus reimbursable expenses.
- 2-( ) According to the provisions set forth for additional services in the original Agreement.
- 3-(X) A lump sum fee of **\$89,340.00**.
- 4-( ) Other method as described in Attachment \_\_\_\_\_.

The above services are anticipated to be completed in **4 months** after receipt of this signed Authorization. All other provisions of our original Agreement dated **August 18, 2016** remain in effect.

If the above meets with your approval, please sign in the appropriate space on both copies of this Authorization, retain one copy for your files, and return one copy to AECOM.

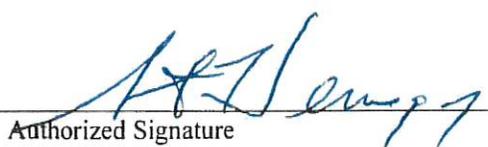
Agreed to:

Agreed to:

Charlotte County Airport Authority  
(CLIENT'S NAME)

AECOM

BY:   
Authorized Signature

BY:   
Authorized Signature

James W. Parish, P.E.  
Signer's Name (Typed or Printed)

Steven G. Henriquez, P.E.  
Signer's Name (Typed or Printed)

Date: 12/16/21

Date: 12/19/21

Title: CEO

Title: Vice President

**Scope of Services  
for a  
Terminal Planning Study**

**at**

**Punta Gorda Airport**

*Prepared for:*

**The Charlotte County Airport Authority**

*Prepared by:*

**AECOM**

**December 2021**

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**SCOPE OF SERVICES**  
**for a**  
**TERMINAL PLANNING STUDY at**  
**PUNTA GORDA AIRPORT**

**INTRODUCTION**

This scope of services describes tasks proposed for a terminal planning study at Punta Gorda Airport as requested by the Charlotte County Airport Authority. The goal of the study will be to determine the amount and types of terminal space required to meet future levels of passenger demand and to determine an optimal layout for an expansion of the existing terminal.

The study's approach will focus on a quantitative assessment of passenger demand followed by a calculation of space requirements and then the development of proposed terminal facilities. Space requirements will be based upon pre-determined Planning Activity Levels (PALs) rather than a forecast of passenger enplanements. Terminal layouts will be created using Computer Aided Drafting (CAD) and color coded to depict classifications of space by use. Layouts of facilities outside the terminal will be limited to the proposed tie-in of the terminal curb to the existing roadway network. The study will consist of the following tasks.

**Task 1 - Establish Planning Activity Levels and Peak Hour Activity (Passengers / Flights)**

Forecasts of passenger enplanements and aircraft operations will not be prepared as part of this study. AECOM will define PALs (in consultation with airport staff) to calculate space requirements by function and determine the appropriate size of the passenger terminal at each PAL. AECOM will define up to four PALs in addition to existing conditions to estimate future terminal space requirements. It is recommended that 1,000,000 annual passenger enplanements be used to represent existing conditions (i.e., calendar year 2022) and that PAL's increase at one-quarter or one-half million passenger increments.

Once the desired PALs are established, annual passengers will be converted to Peak Month, Average Day Peak Month (ADPM) and Peak Hour passenger enplanements. Historical data (i.e., prior to 2020) will be used to estimate peak month percentages, while ADPM peak hour percentages will be derived from a combination of historical and current data while recognizing that current conditions may not match historical patterns due to the pandemic's impacts on passenger demand.

AECOM will request (through airport staff) security checkpoint and baggage screening volume data from the Transportation Security Administration (TSA) for peak month, peak day, and peak hour screenings. While TSA checkpoint screening values are not entirely representative of peak hour passengers (due to re-screenings and non-passenger screenings), they should provide a good reasonableness check on the peak hour values derived through the application of peak month and peak hour percentages to the PAL values. AECOM will also review and assess flight schedule data (provided by airport staff) to confirm the values for existing and historical conditions and to obtain data regarding peak hour flights.

AECOM will seek passenger earliness distributions from Allegiant Airlines and Sun Country Airlines

(through airport staff). If no earliness distributions are available, AECOM will use the passenger earliness distribution provided in the TSA document *Planning Guidelines and Design Standard for Checked Baggage Inspection Systems*, Version 7.0 dated August 21, 2020.

The earliness distribution will be applied to derive an estimate of peak hour passengers based on their arrival time in the terminal rather than their flights' scheduled departure time. This information is critical for properly assessing passenger demand and calculating space requirements for numerous terminal facilities such as ticket counters, outbound baggage screening and make-up, security checkpoint screening and restroom requirements.

**Deliverables:** PAL table & chart with breakdowns of passengers and commercial aircraft operations for peak month, average day peak month and peak hour. Comparison of calculated peak hour values (for existing conditions) to TSA checkpoint values. Passenger earliness distribution curves.

**Meetings:** One teleconference or meeting with airport staff to review proposed PALs, peak month, and peak hour passenger percentages as well as a comparison to TSA values to passenger schedule data and passenger earliness distributions curves.

## **Task 2 – Conduct Site Observations / Tenant Interviews**

AECOM personnel will conduct one site visit for the purpose of observing current terminal operations and interviewing tenants such as rental car companies, concessionaires and ground transportation providers. Interviews with rental car companies will include contact with both local and corporate level representatives. Data sought will include the following:

### **Rental Car Companies:**

- Existing Number of Ready Spaces (AECOM will count in field unless values are known)
- Ready Space Requirements
- Existing Number of Return Lanes per operator
- Return Space Requirements
- Adequacy of Passenger Queuing / Counter Length / Office Space
- Average Processing Time Per Customer
- Current Operational Challenges

### **Concessionaire:**

- Concession Space Requirements
- Storage Space Requirements
- Current Operational Challenges

### **TSA Baggage Screening:**

- Percent of Baggage Oversized
- Percent of Bags Requiring Level 2 Screening
- Level 2 On-Screen Resolution (OSR) Rate (bags/hour, per operator)
- Percent of Resolved OSR Bar Reviews (i.e., Clear Rate)
- Level 3 Electronic Trace Detection Process Rate (bags/hour/screener)

### **TSA Passenger Screening:**

- Percent of non-passenger screenings
- Regular and PreCheck lane throughput rates

**Deliverables:** Meeting notes documenting on-site observations and interviews with terminal tenants.

**Meetings:** One on-site trip, multiple tenant meetings.

### **Task 3 – Estimate Terminal Facility Requirements**

A terminal space program which specifies the amount of terminal space required by function will be prepared using multiple resources, including industry-accepted level-of-service parameters, airport and airline input, facilities at comparable airports, knowledge of industry trends, and reference materials including, but not limited to, the following publications:

- International Air Transport Association's (IATA's) *Airport Development Reference Manual 11th Edition*;
- FAA Advisory Circular 150/5360-13, *Planning and Design Guidelines for Airport Terminal Facilities*;
- Transportation Research Board's (TRB's) ACRP, Report 25, *Airport Passenger Terminal Planning and Design*;
- TRB ACRP Report #55, *Passenger Level of Service and Spatial Planning for Airport Terminals*;
- TRB ACRP Report #54, *Resource Manual for Airport In-Terminal Concessions*.
- TRB ACRP Report #226, *Planning and Design of Airport Terminal Restrooms and*

### *Ancillary Spaces.*

AECOM will use the PALs from Task 1, the processing rate data from interviews and information from the reference materials listed above to create a spreadsheet-based Terminal Space Program. The space program will show the amount of space needed, per PAL, for each function of the terminal including:

- Gates
- Ticketing
- Outbound Baggage Screening
- Outbound Baggage Make-Up
- Passenger Security Screening
- Holdrooms
- Concessions
- Restrooms
- Inbound Baggage Make-Up
- Baggage Claim (devices and claim hall area)
- Ground Transportation

Factors will also be applied for mechanical, electrical and plumbing (MEP), internal walls, storage and circulation. Summaries of the space requirements will be prepared for comparison to existing space quantities to determine the amount of additional space required.

**Deliverables:** A terminal space program that delineates space requirements per function by PAL. The space program will be summarized in tabular and graphical form for review by airport staff.

**Meetings:** One on-site meeting with airport staff to review the terminal space program.

### **Task 4 – Prepare Terminal Alternatives & Evaluation Matrix**

Terminal alternatives that depict various ways of providing the amount of space specified by the terminal space program will be developed. AECOM will consult with airport staff regarding the desired land envelope that terminal expansion alternatives should remain within (i.e., what surrounding facilities should not be considered for relocation).

AECOM will then prepare plan-view drawings that depict terminal expansion alternatives. Drawings will be prepared using AutoCAD and will use a schematic or aerial base to show the proposed footprint of facilities relative to the existing terminal and surrounding facilities. Alternatives will depict space by functional use (i.e., ticketing, baggage screening, security screening, etc.) Facilities such as ticket counters, queuing space, baggage conveyors, passenger security screening equipment and baggage claim carousels will be shown using templates. Primary passenger and baggage flows will be shown

using color coded lines on each alternative.

The goal of each alternative will be to provide the total amount of space/facilities required for the final PAL identified in Task 1. Phasing of alternatives by PAL will not be attempted during this task.

Drawings will also depict terminal curb and arrival and departure roadways to the point where they connect back to the existing roadway network. The number of linear feet of terminal curb will be quantified.

Existing facilities that require relocation and/or demolition to construct proposed facilities will be identified on the drawings. It is anticipated that up to five terminal alternatives will be developed.

AECOM will create an evaluation matrix to identify and evaluate the relative advantages and disadvantages of each terminal alternative. The evaluation matrix will consider a combination of quantitative and subjective factors such as number of gates provided, expandability, ease of construction, ease of phasing, etc. It is anticipated that the evaluation matrix will consist of a stoplight (i.e., green, yellow, red) or numerical rating system (i.e., 1 = worst to 10 = best).

AECOM will attend a review meeting with airport staff to review the terminal alternatives along with the evaluation matrix. Changes to alternative ratings may be made as a result of feedback and input received from airport staff during the meeting. The goal of the meeting will be to arrive at no more than two preferred terminal alternatives that will be further refined and evaluated in the next task.

As part of this task, AECOM will also identify alternatives for siting a 30,000 square foot airline storage facility. A focus will be on identifying sites capable of providing airside and landside access with access capable of accommodating up to tractor trailer size trucks.

**Deliverables:** Plan-view drawings depicting terminal alternatives in PDF and hardcopy formats and a terminal alternatives evaluation matrix. Plan view drawings depicting alternatives in PDF and hardcopy format for an airline storage facility.

**Meetings:** One review meeting with airport staff will be conducted at Punta Gorda Airport to present the terminal alternatives and the evaluation matrix, as well as the storage facility alternatives.

### **Task 5 – Refinement of Preferred Alternatives & Selection of Recommended Concept**

AECOM will modify and refine the preferred terminal alternatives and storage facility alternatives based on comments received from airport staff during the Task 4 review meeting. A phasing plan for implementing the alternatives will be developed and a second version of the evaluation matrix will be developed that compares the two refined alternatives. A final review meeting will then be held with airport staff to present the refined alternatives.

It is anticipated that a recommended concept will then be selected from the preferred alternatives. Final revisions requested by airport staff will be made and a colored site plan depicting the recommended concept will be prepared.

**Deliverables:** Refined terminal and storage facility alternative drawings in PDF and hardcopy formats. Second version of the evaluation matrix. Colored site plan for the recommended concept.

**Meetings:** One final review meeting will be held with airport staff at Punta Gorda Airport.

### **Task 6 – Document Terminal Planning Study**

AECOM will prepare a draft technical report that documents the work performed in Tasks 1 through 5. This will include PAL development, the terminal space program, initial alternatives, the evaluation matrix, the refined alternatives and evaluation matrix and the preferred concept. A combination of text, tables and figures will be used. The draft report will be provided to airport staff in electronic and hardcopy format for their review and comment. Following the receipt of airport staff comments, AECOM will make any required revisions and prepare a final report.

**Deliverables:** Five draft and five final hardcopy Terminal Planning Study reports. Both reports will also be provided in PDF format.

**Meetings:** No on-site meetings. One teleconference, if necessary, to review and resolve staff comments on the draft report.

### **Task 7 – Study Presentation to Airport Authority Board (Optional)**

If desired by airport management, AECOM will prepare and deliver a presentation to the Airport Authority Board that describes the study's details, findings and conclusions. A draft presentation will be prepared in Microsoft PowerPoint and will be provided to airport management in Adobe Acrobat format prior to the board meeting for their review and comment. AECOM will address any comments and prepare a final presentation. AECOM personnel will attend the board meeting on the desired date and give the presentation.

**Deliverables:** Draft and final board presentations in PowerPoint and Acrobat formats.

**Meetings:** Attendance at one board meeting.

### **Schedule**

AECOM will complete the services described in the preceding tasks within four (4) months from receipt of a notice-to-proceed.

### **Exclusions**

This scope of services does not include any analyses of terminal parking facilities or support facilities or detailed cost estimating.

**PGD - Terminal Planning Study**

Item: **AECOM Fee Estimate**

TASK	Description	Project Principal \$297.00 Rate		Project Manager \$220.00 Rate		Senior Project Professional \$180.00 Rate		Graphics/CAD Technician \$140.00 Rate		Administrative \$85.00 Rate		Task		Percent By Task
		Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	
Task 1	Establish Planning Activity Levels and Peak Hour Activity	0	\$0	12	\$2,640	16	\$2,880	2	\$280	2	\$170	32	\$5,970	7%
Task 2	Conduct Site Observations / Tenant Interviews	0	\$0	20	\$4,400	0	\$0	0	\$0	2	\$170	22	\$4,570	5%
Task 3	Estimate Terminal Facility Requirements	4	\$1,188	24	\$5,280	32	\$5,760	4	\$560	2	\$170	66	\$12,958	15%
Task 4	Prepare Terminal Alternatives & Evaluation Matrix	8	\$2,376	32	\$7,040	40	\$7,200	80	\$11,200	4	\$340	164	\$28,156	32%
Task 5	Refinement and Phasing of Preferred Terminal Alternatives	8	\$2,376	24	\$5,280	32	\$5,760	40	\$5,600	4	\$340	108	\$19,356	22%
Task 6	Document Terminal Planning Study	2	\$594	20	\$4,400	32	\$5,760	24	\$3,360	4	\$340	82	\$14,454	16%
Task 7	Study Presentation to Airport Authority Board (Optional)	0	\$0	12	\$2,640	0	\$0	0	\$0	0	\$0	12	\$2,640	3%
<b>Subtotal</b>		22	\$6,534	144	\$31,680	152	\$27,360	150	\$21,000	18	\$1,530	486	\$88,104	100%
		Percent by Labor Category		7%	36%	31%	24%	2%	100%					

Labor	\$88,104
Expenses	\$1,236
<b>Total</b>	<b>\$89,340</b>

**Expenses**

Item	Days	@	Rate	=	Cost
Hotel	1	@	\$150.00	=	\$150
Rental Car / Mileage	6	@	\$100.00	=	\$600
Per Diem	7	@	\$48.00	=	\$336
Miscellaneous, Drawing Plots and shipping	1	@	\$150	=	\$150
Subtotal					\$1,236

**Trip / Days Tally**

TASK	Description	Number of Trips	Days
Task 1	Establish Planning Activity Levels and Peak Hour Activity	1	1
Task 2	Conduct Site Observations / Tenant Interviews	1	2
Task 3	Estimate Terminal Facility Requirements	1	1
Task 4	Prepare Terminal Alternatives & Evaluation Matrix	1	1
Task 5	Refinement and Phasing of Preferred Terminal Alternatives	1	1
Task 6	Document Terminal Planning Study	0	0
Task 6	Study Presentation to Airport Authority Board (Optional)	1	1
<b>Subtotal</b>		6	7