



AGENDA

Greenville-Spartanburg Airport Commission Regular Meeting
Greenville-Spartanburg International Airport Conference Center
Monday, November 23, 2020
9:00 a.m.

***NOTE TO ALL PUBLIC ATTENDEES:**

The public may speak on any item on the agenda. There are request cards located outside the public seating area. These cards must be completed and presented to the Recording Secretary prior to the item being heard. Your comments will be addressed prior to the Airport Commission's discussion and you will have 5 minutes to address the Airport Commission. Thank you for your attention.

I. CALL TO ORDER:

II. CONSENT AGENDA:

- A. Approval of the Greenville-Spartanburg Airport Commission September 28, 2020 Regular Meeting Minutes ([document](#))
- B. Acceptance of the Greenville-Spartanburg Audit Committee November 12, 2020 Audit Committee Minutes ([document](#))

III. PRESENTATIONS: None

IV. OLD BUSINESS: None

V. NEW BUSINESS:

- A. Approval of a Revision to the Rules & Regulations ([document](#))
- B. Approval of a Budget Amendment to the General Aviation Expansion Area Site Prep Project ([document](#))
- C. Approval of Lease Agreement for Milliken Aviation Hangar Facility ([document](#))
- D. Approval of General Aviation Hangar Site 1 Infrastructure Project ([document](#))
- E. Approval of Milliken Aviation Hangar Project Budget ([document](#))

VI. PRESIDENT/CEO REPORT:

- A. Aviation Industry Update
- B. Federal and State Legislative Update
- C. Coronavirus (COVID-19) Update

VII. INFORMATION SECTION:

(Staff presentations will not be made on these items. Staff will be available to address any questions the Commission may have.)

- A. September 2020 – Traffic Report ([document](#))
- B. September 2020 – Financial Report ([document](#))
- C. October 2020 – Development/Project Status Report ([document](#))
- D. October 2020 – Communications Status Report ([document](#))
- E. October 2020 – Commercial Business and Marketing Report ([document](#))
- F. October 2020 – OSHA Reportable Injury Report ([document](#))
- G. Industry Presentation(s)/Article(s) of Interest ([document](#))
- H. Potential Items for the Next Regular Scheduled Commission Meeting:

- Final Terminal Area Planning Study

VIII. COMMISSION MEMBER REPORTS:

IX. EXECUTIVE SESSION:

The Airport Commission may hold an Executive Session for the purpose of receiving legal advice on various matters.

X. ADJOURNMENT

This agenda of the Greenville-Spartanburg Airport Commission is provided as a matter of convenience to the public. It is not the official agenda. Although every effort is made to provide complete and accurate information to this agenda, The Airport Commission does not warrant or guarantee its accuracy or completeness for any purpose. The agenda is subject to change before or at the Airport Commission meeting.

GREENVILLE-SPARTANBURG AIRPORT COMMISSION

MINUTES

September 28, 2020

The Greenville-Spartanburg Airport Commission met on September 28 at 9:00 a.m. in the Greenville-Spartanburg District Conference Center located at 500 Aviation Parkway Greer, South Carolina 29651. The public and media were given proper notice of this meeting, under applicable law. This was a regular, non-emergency meeting.

MEMBERS PRESENT: Minor Shaw, Hank Ramella, Leland Burch, Doug Smith, Jay Beeson

MEMBERS NOT PRESENT: Valerie Miller

STAFF AND LEGAL COUNSEL PRESENT: David Edwards, President/CEO; Kevin Howell, Senior Vice President/COO; Basil Dosunmu, Senior Vice President-Administration and Finance/CFO; Scott Carr, Vice President Commercial Business and Communications (Environs Area Administrator); Ashley Bruton, Director of Human Resources; Bobby Welborn, Chief of Police; Tom Tyra, Director of Communications and Air Service Development; Carlos Ruiz, Director of Commercial Business; Betty O. Temple, WBD; Casey Cooperman, Executive Assistant/Recording Secretary

GUESTS PRESENT: John Mafera, McFarland Johnson; Zach Nelson, McFarland Johnson; Steve Van Beek, Steer Group; Mark Waller, AVCON, Inc.; James Moose, AVCON, Inc.

CALL TO ORDER: Chair Minor Shaw called the meeting to order at 9:10 a.m.

CONSENT AGENDA: A motion was made, seconded, and unanimous vote received to approve the Consent Agenda as follows:

- A. The Greenville-Spartanburg Airport Commission June 22, 2020 Special Meeting Minutes.
- B. The Greenville-Spartanburg Airport Commissions August 21, 2020 Regular Meeting Minutes.
- C. Approval of the Greenville-Spartanburg Airport Commission Meeting Dates and Times for the Calendar Year 2021.

PRESENTATIONS:

A. Diversity and Inclusion

Ms. Ashley Bruton, Director of Human Resources, presented an update on the Greenville-Spartanburg International Airport District's (District) commitment to building and fostering an inclusive and diverse work environment.

The District is a Federal Contractor and therefore is required to take proactive “affirmative actions” steps to recruit and advance qualified minorities, women, individuals with disabilities, and protected veterans.

Ms. Bruton followed with examples of how the District proactively takes inclusionary steps in recruiting via various state and local websites, and job fairs. Examples include SCWorks, Edge4Vets and community organizations including Veteran/Minority/Women Centered.

Ms. Bruton provided benchmarking information on year over year changes in minority, veteran and disabled employment at the District.

Following in the presentation was Ms. Bruton’s update on the USDOT DBE/ACDBE program. The Department of Transportation (DOT) has had in effect for more than 20 years, a policy of helping small business owned and controlled by socially and economically disadvantaged individuals, including minorities and women, in participating in contracting opportunities created by the DOT financial assistance programs. The District’s DBE/ACDBE Programs were last updated September 9, 2019. Every three years the District updates its goals with an outside consultant.

Draft Terminal Area Planning Study

John Mafera, Regional Director of Aviation for McFarland Johnson, presented the Terminal Area Planning Study.

Mr. Mafera provided information on the Scope of Work, including an update on the Existing Conditions and Passenger Forecast, Terminal Core and Baggage Evaluation, Aircraft Gate and RON Parking Modeling, Concourse ‘A’ Expansion Concepts, Concourse ‘B’ Expansion Concepts, their Implementation Strategy including Program Phasing and Order of Magnitude Costs, along with a Program Model/Visualization.

Mr. Mafera and Mr. Edwards addressed concerns from the Commission regarding the Terminal Curb front.

When discussing the expansion of Concourse ‘A’ or Concourse ‘B’, the Commission discussed international passenger flights.

The Commission discussed the expansion process and timing, and that next steps for this project are to finalize the overall program including the feedback from the Commission, implement phasing and order magnitude costs, development of 3D modeling/renderings, and develop draft report text for Staff to review.

OLD BUSINESS: None

NEW BUSINESS:

A. Approval of 5 Year GSP Strategic Business Plan

Mr. Steve Van Beek, Director of Steer Group, prepared and presented the 5 Year District Strategic Plan, 2021 – 2025 for Airport Commission for consideration. Mr. Van Beek provided a presentation for the Commission with a focus on recovery from the effects of COVID-19 during and after 2020, providing analyses of the patterns of air service; responding to shifts in demands and airline costs. He noted that the District's Flight Plan to Recovery is launched during a time of unprecedented industry tumult, generating significant uncertainty about the timing of aviation and the District's recovery.

Mr. Van Beek states that there was a strong recovery in July and August, however the recovery path is expected to slow down in the winter months. The flight plan to recovery and resiliency will rely on an emphasis on performance, with a bottom-line focus on financial responsibility and service.

The 5 Year Business Plan is drafted to allow the District to be successful under a variety of circumstances. Mr. Edwards notes that no one knows how the recovery is going to go, that the District will have to be flexible, dealing with it on a day-to-day or annual basis instead of having a solid, unmovable target. The District's goal is to hit historical numbers, but there will be ups and downs.

Strategic goals were presented and set forth for the areas of Safety, Service, Regional Leadership and Opportunity, Cerulean Aviation and Finance.

There was a motion to approve the 5 Year GSP Strategic Business Plan. The motion was seconded, and unanimous vote was received.

B. Approval of Final Rankings for Web Design Services

Mr. Scott Carr, Vice President Commercial Business & Communications, introduced the request to approve the final rankings for companies who can build an open-source website for the District.

Since 2010, the District has been working with Your Creative People (YCP), based in Greenville, SC to provide website services to support www.gspairport.com. The current GSP International Airport website is built on a proprietary Content Management System (CMS) that is not easily managed with in-house resources. This has limited the District's ability to provide timely and effective communications to the traveling public and business partners. In addition, the GSP360 Beyond the Runway website was written in an Expression Engine CMS, which is open source. However, the version that was built in 2012 is no longer supported by the website hosting companies. Also, the former Wingspan website was created in WordPress, which is

also an open source CMS. However, it was built in such a manner that it offers limited in-house editing capabilities.

To address these challenges, on June 26, 2020, District Staff issued a Request for Proposals (RFP) seeking competitive proposals from qualified companies to construct a new open-source website that is more mobile friendly, able to provide real-time flight and parking data, is portable, and can be maintained with in-house resources.

Thirty-two proposals were received by the deadline on July 31, 2020.

The Evaluation Committee reviewed the proposals and evaluated them in accordance with the criteria, as outlined in the RFP. Four firms were shortlisted for the second phase of the selection process, to include Aviatrix, Integritive, Launch Something and Planeteria Media.

The Evaluation Committee's recommended final ranking for web design services was, in order: #1) Aviatrix #2) Planeteria Media, #3) Integritive and #4) Launch Something.

Mr. Carr responded to questions from the Commission regarding the longevity of a new platform across all websites as well as questions regarding the timeline of the project.

There was a motion to 1) approve the final rankings for Web Design Services as presented; (2) authorize Staff to negotiate and finalize agreements with the highest ranked company (if an acceptable agreement cannot be reached with the highest ranked company, negotiations will be formally terminated and will then proceed with the next ranked company); and (3) authorize the President/CEO to execute all necessary documents. The motion was seconded and unanimously approved.

C. Approval of Final Rankings for Food & Beverage Concession Management and Operating Services

Mr. Scott Carr, Vice President Commercial Business & Communications, presented the approval of final rankings for food and beverage concession management and operating services.

Greenville-Spartanburg Airport District Staff prepared a Request for Proposals (RFP) for food and beverage concession management and operating services to provide an operating services agreement in lieu of a traditional concession agreement in order for the District to have tighter control and oversight of the food and beverage concession program to ensure operational excellence.

Proposals were received from four management companies, to include a La Carte Menu Services, Delaware North Companies, JDDA Concession Management, Paradies Lagardere, Tailwind Concession and TGI The Grove.

The Evaluation Committee reviewed the proposals and evaluated them in accordance with the criteria, as outlined in the RFP. Four firms were shortlisted for the second phase of the selection process which included presentations and interviews with the Selection Committee.

The shortlisted companies were Delaware North, JDDA Concession Management, Metz Culinary Management and TGI The Grove.

The Evaluation Committee's recommended final ranking for food and beverage concession management and operating services was, in order: #1) Metz Culinary Management, #2) Delaware North, #3) TGI The Grove and #4) JDDA Concession Management.

The Commission inquired about the difference between this proforma and the previous management company's proforma, whether the projected management fee is standard in the industry, and what changes can be made should the management company not be able to reach their bottom line revenue projections, to which Mr. Carr and Mr. Edwards provided answers. Discussion ensued.

There was a motion to (1) approve the final rankings for Food and Beverage Concession Management and Operating Services as presented; (2) authorize Staff to negotiate and finalize agreements with the highest-ranked company (if an acceptable agreement cannot be reached with the highest-ranked company, negotiations will be formally terminated and will then proceed with the next ranked company); (3) authorize Staff to enter into an initial five year agreement with a five year option period; (4) authorize the President/CEO of the District to execute all necessary documents. The motion was seconded and unanimously approved.

D. Approval of Final Rankings for Automated Retail Concession Program

Mr. Scott Carr, Vice President Commercial Business & Communications, presented the approval of final rankings for Automated Retail Concession Program.

As new companies have entered the automated retail vending industry in the past couple of years, Staff felt that it was an opportune time to seek new proposals from companies. In accordance with Administrative Policy, Staff elected to utilize a competitive selection process.

Staff prepared a Request for Proposals (RFP) for automated retail concession.

Proposals were received from three companies to include Fly CBD, LLC, NewZoom, LLC dba Zoom Systems, and Prepango, LLC.

Unfortunately, the proposal submitted by Fly CBD did not include financial projections for each proposed location as required by the RFP. In addition, the company did not meet minimum experience requirement. The FLY CBD proposal was deemed unresponsive.

Based on the results of the Evaluation Committee, Staff made a recommendation of final rankings to the Airport Commission (Commission).

The Evaluation Committee's recommended final ranking for air cargo consulting services was, in order: #1) Prepango, LLC and #2) NewZoom, LLC dba Zoom Systems.

There was a motion to (1) approve the final rankings for Automated Retail Concession Program as presented above; (2) authorize Staff to negotiate and finalize an agreement with the highest ranked firm (if an acceptable agreement cannot be reached with the highest ranked firm, negotiations will be formally terminated and will then proceed with the next ranked firm) and (3) authorize the President/CEO to execute all necessary documents. The motion was seconded and unanimously approved.

E. Approval of Final Rankings for Online Parking Pre-Booking Services

Mr. Kevin Howell, Senior Vice President/COO, presented the approval of final rankings for online parking pre-booking services.

Greenville-Spartanburg Airport District Staff (Staff) prepared a Request for Proposals (RFP) for parking pre-booking services to provide an information technology (IT) solution for online parking pre-booking in conjunction with the new Parking Access and Revenue Control System (PARCS) Project.

Proposals were received from five companies, to include ADVAM, AeroParker, Chantry, LAZ Airport Parking, and MAG USA.

The Evaluation Committee reviewed the proposals and evaluated them in accordance with the evaluation criteria as outlined in the RFP. Four companies were short-listed for the second phase of the selection process which included presentations and interviews with the Evaluation Committee.

The short-listed companies were ADVAM, AeroParker, Chantry, and MAG USA. The Evaluation Committee's recommended final ranking for air cargo consulting services was, in order: #1) Chantry, #2) AeroParker, #3) ADVAM and #4) MAG USA.

Mr. Howell took a moment to share that Chauntry had the best value for GSP as far as transaction fees and implementation costs. He also stressed the importance of this product in a post-COVID world. The Commission inquired as to whether this will result in added revenue and wanted to know what the timeline is for implementation and phasing in additional parking spaces to the service, to which Mr. Howell replied. The Commission also shared concerns about the communication of the services to prospective customers about how it works, to which Mr. Edwards replied and conversation ensued.

There was a motion to (1) approve the final rankings for Online Parking Pre-Booking Services as presented above; (2) authorize Staff to negotiate and finalize an agreement with the highest ranked firm (if an acceptable agreement cannot be reached with the highest ranked firm, negotiations will be formally terminated and will then proceed with the next ranked firm) and (3) authorize the President/CEO to execute all necessary documents. The motion was seconded and unanimously approved.

President/CEO Report:

Aviation Industry Update:

Mr. Edwards provided an aviation industry update, noting that the District will see how the industry is affected by whether the federal government provides an extension of the CARES Act, helping airlines to continue paying their employees. The hope is that things will start to settle down as we enter 2021, with the possibility of a vaccine and pickup in business travel. Chairperson Minor Shaw makes note that GSP is not unique; that flight service is changing across the nation, not just at GSP.

Federal and State Legislative Update:

Mr. Edwards helped to form, and participates in, the South Carolina Airports Taskforce (SCAT). This taskforce will meet regularly to discuss current airport issues, and potential state funding and legislation opportunities.

As a federal legislative update, again the question still stands as to whether there will be an extension of the CARES Act, and if so, will it provide relief to concessionaires and will it provide any additional airport relief in the package.

Coronavirus (COVID-19) Update:

The District has had few positive employee/tenant COVID-19 cases, but they've kept them in check by following strict protocol.

In the budgeted forecast for passenger traffic, GSP began at -80% of passenger traffic in July year over year and was projected to end at -50% in December. The airport is ahead of those forecasts. One area not recovering as quickly is parking.

Parking numbers did experience an increase, but has plateaued, and they haven't kept pace with customer travel numbers. There has been more leisure travel than business so it is understood that there would be more people traveling in one car when flying for leisure rather than business. Chairperson Minor Shaw inquired as to whether the change in parking is considered in our budget. Mr. Edwards replied, and conversation ensued.

Government Finance Officers Associations (GFOA) FY2019 Certificate of Achievement for Excellence in Financial Reporting Award:

Mr. Dosunmu and the District Accounting team recently received this award for the 2019 GSP Comprehensive Annual Financial Report (CAFR).


COMMISSIONER'S REPORT:

The Commission inquired about conference dates. The Boyd Aviation Summit will take place October 11-13, 2020 in Cincinnati, OH. The ACI-NA CEO Forum is scheduled for February 17-29, 2021 in Orlando, FL.

ADJOURNMENT:

There being no further business, a motion was made, seconded and unanimous vote received to adjourn meeting. The meeting was adjourned at approximately 12:31 p.m. The next meeting is scheduled for November 23, 2020 at 9:00 a.m.

SIGNATURE OF PREPARER:



Casey Cooperman

GREENVILLE-SPARTANBURG AIRPORT (GSP) COMMISSION

AUDIT COMMITTEE MINUTES

November 12, 2020

The Greenville-Spartanburg Airport Commission's Audit Committee met at 2:00 p.m. in the Greenville-Spartanburg Airport District Administration Conference Center located at 2000 GSP Drive, Greer, SC 29651.

COMMITTEE MEMBERS PRESENT: Leland Burch (Chair), Minor Shaw, Jay Beeson

STAFF PRESENT: David Edwards, President/CEO; Basil Dosunmu, Senior Vice President Administration and Finance/CFO; Casey Cooperman, Executive Assistant/Recording Secretary.

EXTERNAL AUDIT REPRESENTATION: Andy Rinzel, Partner, BKD; Emily Tursi, Senior Manager, BKD

The meeting package was distributed to the Audit Committee on November 10, 2020 and included the following documents for review: Audit Committee Agenda, BKD Communication Letter with GSP Audit Committee, GSP Audit Committee Presentation, and FY2020 Comprehensive Annual Financial Report (CAFR).

Mr. Burch called the meeting to order at 2:05 pm and opened the floor for introductions.

Mr. Edwards welcomed the Audit Committee, and Emily Tursi and Andy Rinzel of BKD. He then turned the meeting over to Mr. Dosunmu. Mr. Dosunmu gave a brief welcome before handing the meeting over to Mr. Rinzel and Mrs. Tursi to discuss BKD's role in the audit process. Mr. Rinzel started by sharing both GSP Management and BKD's responsibilities for the audit, noting specifically that BKD is to conduct their audit in accordance with auditing standards generally accepted in the United States, government auditing standards and uniform guidance. Mr. Rinzel stated that when performing the audit, BKD uses scopes and sampling techniques. They do not test every transaction.

BKD is prepared to issue an unmodified or clean opinion on the financial statements consistent with last year. BKD does not provide an opinion on the transmittal letter, Management's Discussion and Analysis (MD&A), required supplementary information (RSI) and statistical section, but they do review each to ensure a match of the opinion.

BKD went over other required auditor communications included GSP management's judgments and accounting estimates for the following; #1) estimated useful lives used to depreciate capital assets, #2) allowance for uncollectable receivables, #3) net pension liability actuarial assumptions and #4) other postemployment benefit obligation actuarial assumptions. Chair Leland Burch asked from where GSP management gets the assumptions, to which Mr. Dosunmu answered.

Additionally, BKD discussed that it is required they provide any financial statement disclosures that are significant or revised. These include Note 9 – term note payable, Note 14 – pension plan and Note 15 – postemployment benefits other than pensions (OPEB).

Mr. Rinzel stated that there were two proposed audit adjustments found but not recorded, which were Landing Fees Revenue and Capital Asset Adjustment. No matters were reportable regarding the auditor's judgments about the quality of accounting principles.

BKD conversed with the Audit Committee regarding two significant issues they discussed with management, which were the approved application to collect and expend passenger facility charge (PFC) funds and uniform guidance implications related to CARES funds received by the Airport.

Mr. Rinzel explained that BKD is required to report any internal control inefficiencies and noncompliance. GSP did not have any reports of either and there were no reported material weaknesses or significant deficiencies regarding the financial reporting. Mr. Rinzel noted that the audit went very smoothly, especially considering it was all completed virtually.

Mr. Rinzel discussed internal control finding. The deficiency was related to segregation of duties in the cash inflows cycle and the cash outflows cycle. Mrs. Shaw asked if the segregation of duties would mean a need for additional financial staff to which Mr. Dosunmu and Mr. Rinzel replied. Mr. Dosunmu noted that an additional position was approved earlier in 2020 but is currently on hold because of COVID-19. Additionally, new systems have been put in place that helps segregate duties and helps to eliminate human error.

Mr. Rinzel handed the meeting over to Mrs. Tursi who discussed other matters, suggestions and best practices. The first matter related to the COVID-19 Resource Center located on the BKD website. This resource provides webinars and virtual events for assistance. As mentioned earlier, the next matter includes the audit of the Passenger Facility Charge (PFC) program revenues in compliance with the PFC Audit Guide. BKD noted that there is a new feature in the accounting system that allows Management to track how and where we expend funds from grants. The Audit Committee inquired about the process by which the CARES Act Funding is distributed, to which Mr. Dosunmu answered. The following matters were in regards to GSP's capital asset tracking in Excel and future accounting pronouncements as follows: #1) GASB 95, Postponement of Effective Dates, #2) GASB 84, Fiduciary Activities (FY21 applicable), #3) GASB 88, Certain Disclosures related to Debt (FY21 applicable), #4) GASB 87, Leases (FY22 applicable), #5) GASB 90, Majority Equity Interests (FY21 applicable), GASB Technical Bulletin No. 2020-1.

Mr. Rinzel and Mrs. Tursi then went through GSP's 2020 Financial Highlights, including days of cash and investments on hand, total debt per enplaned passengers, and total cost per enplaned passenger. Mrs. Tursi then opened the floor for questions.

Mrs. Shaw asked Mr. Edwards what he thinks about the amount of cash GSP has on hand to which Mr. Edwards replied that our target is to have 600 days of cash on hand. Discussion ensued.

Additionally, the Audit Committee inquired about the restrictions and/or flexibility we have on expenditures from Passenger Facility Charges (PFC) and Customer Facility Charges (CFC) to which Mr. Edwards and Mr. Dosunmu replied in detail explaining the differences.

The Audit Committee asked if there was anything in the audit process which became more difficult when completing it virtually, to which Mrs. Tursi and Mr. Dosunmu replied that there was no additional difficulty.

Chair Leland Burch questioned the auditors about whether they had taken a close look at any of the construction projects, to which Mr. Rinzel replied that they had.

Mr. Beeson inquired as to how complex our audit is in comparison to other airports, to which Mr. Rinzel answered that each airport is unique, however GSP has many positive traits which make it less complex than some.

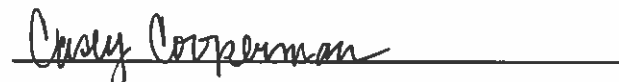
The Audit Committee also asked why GSP is not considered a low-risk auditee to which Mr. Rinzel answered regarding two items discussed earlier in the meeting. The Committee also asked if there were any litigation matters of which the Committee should be aware, to which Mr. Edwards answered. Discussion ensued.

At approximately 3:28 p.m., Mr. Burch and the Audit Committee met with Mr. Tursi and Mr. Rinzel alone.

The Audit Committee then met with Mr. Edwards and Mr. Dosunmu in separate, private sessions.

The Audit Committee meeting adjourned at approximately 4:25 p.m.

SIGNATURE OF PREPARER:

A handwritten signature in cursive script, reading "Casey Cooperman", is written over a solid horizontal line.

Casey Cooperman



MEMORANDUM

TO: Members of the Airport Commission

FROM: Scott C. Carr, A.A.E., Vice President – Commercial Business & Communications

DATE: November 23, 2020

ITEM DESCRIPTION - New Business Item A

Approval of Revision to the Greenville-Spartanburg Airport District Rules and Regulations

BACKGROUND

South Carolina Code of Laws, Title 55 – Aeronautics, Chapter 11, Article 3 created the Greenville-Spartanburg Airport District (District) and empowers the District to create and enforce certain rules and regulations.

The purpose of the District Rules and Regulations document is to establish guidelines for the safe and efficient operation of the Greenville-Spartanburg International Airport (GSP) and associated property owned by the District.

The Greenville-Spartanburg Airport Commission (Commission) is authorized to employ police officers commissioned by the Governor to enforce all laws and the rules and regulations, and these officers shall be authorized to issue summonses for violations in the manner authorized for state highway patrolmen.

ISSUES

Peer-to-Peer Vehicle Sharing is a mobility platform for people that do not need to own or want a car, but need one from time to time. It is important to note that Peer-to-Peer Vehicle Sharing is distinct from ridesharing in that members are renting a vehicle and driving themselves rather than being picked up and driven by Transportation Network Companies (TNCs) through entities such as Uber and Lyft. Peer-to-Peer Vehicle Sharing platforms are becoming more popular in the airport environment as it provides a flexible

option to the traveling public rather than renting a car from a traditional rental car company or using taxi and TNCs services.

Staff has reviewed the existing Rules and Regulations and made recommended revisions to accommodate Peer-to-Peer Vehicle Sharing companies at the Airport, such as Car2Go, Zipcar, and Turo. The Commission's adoption of the revised Rules and Regulations is necessary for Staff to be able to properly enforce the new regulations. In addition, it will permit the District to enact an appropriate fee schedule related to this ground transportation option for the traveling public. These regulations and associated fee schedule will create a fair and equitable operating environment for all ground transportation companies providing services to the traveling public at the Airport.

Also, when the complete rewrite version of the Rules and Regulations were adopted by the Airport Commission on June 24, 2019, the previously approved TNC portion of the regulations were inadvertently omitted. Therefore, the TNC language has been reinserted into the Rules and Regulations. Please see the attached revised Rules and Regulations sections for review.

ALTERNATIVES

No alternatives are recommended at this time.

FISCAL IMPACT

Approval of the recommended revisions to the District Rules and Regulations will permit the Airport District to charge applicable fees. However, at this time, it is unknown what amount of revenue will be generated if and when Peer-to-Peer Vehicle Sharing agreements are executed with the applicable companies to operate at the Airport.

RECOMMENDED ACTION

It is respectfully requested that the Greenville-Spartanburg Airport Commission resolve to adopt the revised Greenville-Spartanburg Airport District Rules and Regulations as amended.

Attachment

Rules and Regulations

Section 3 – Commercial Activity

3.10 Use or Occupancy of Airport Operations Area (AOA)

No person shall use or occupy an Airport operations area unless the activity is in conjunction with: servicing of tenants, concessionaires, airlines, activities associated with airlines, governmental agencies, or a purpose connected with the maintenance and operation of the Airport.

3.11 Authority to Deny Use

The President/CEO or their designee may deny the use of the Airport to any aircraft, pilot or personnel violating District or FAA regulations, whether the violation occurred at this Airport or another.

3.12 Use of Airport as Base

The basing and operation of personnel and company owned aircraft at the Airport will be by written agreement with the District or Fixed Base Operator. If such aircraft are used for hire or other commercial purposes all applicable permits and fees must be paid to the District.

3.13 Certificated Part 121 Air Carrier

- a. Any certificated part 121 air carrier wishing to enplane or deplane passengers or cargo must notify the President/CEO, or their designee no less than 24 hours prior to arrival. Information required includes:

- (1) Company operating the flight
- (2) Type and registration number of aircraft
- (3) Estimated time of arrival and departure to and from GSP
- (4) Destination from GSP
- (5) Number of passengers and their organization
- (6) Insurance certificate

Unless a contract or lease with the District is in place, the current schedule of fees shall apply.

3.14 Ground Transportation – Non-Transportation Network Company (TNC)

- a. No individual or entity, other than authorized concessionaires, may operate any taxicab, shuttle, courtesy vehicle, bus, personal vehicle, or rental car for the purpose of carrying passengers for hire from the Airport unless such operation is with the approval of the President/CEO, or their designee and under such terms and conditions as prescribed by the District.

Rules and Regulations

Section 3 – Commercial Activity

- b. All individuals, partnerships, LLC or corporations operating for hire and courtesy vehicle services must have a fully executed Non-Tenant Business Permit or be under contract with the District.
 - i. Operators of for hire and courtesy vehicles without a fully executed Non-Tenant Business Permit or contract from the District may unload passengers who made prior arrangements. Operators of these vehicles may not solicit business or load passengers even if prior arrangements were made.
 - ii. Operators with a fully executed Non-Tenant Business Permit may not cruise or solicit business from Airport property but may load passengers, if prior arrangements were made.
- c. All for hire vehicles must hold a Class C – Certificate of Public Conveyance and Necessity issued by the South Carolina Public Service Commission.
- d. All permittees shall abide by all federal and state laws as well as all Airport Rules and Regulations.
- e. Operators must be clearly identifiable to the public as employees of the non-tenant operator.
- f. Vehicles will park or stand in designated areas to wait for arriving passengers. Non-tenant vehicles may pull to the front curb to actively load/unload only.

3.15 Ground Transportation – Transportation Network Company (TNC)

- a. TNC Operators must have a fully executed TNC Operating Permit and shall pay applicable fees to operate at the Airport, as amended from time to time by the Airport District in accordance with South Carolina Code Section 58-23-1710.
- b. TNC Operators shall only accept rides booked through the TNC's mobile application and shall not solicit or accept street hails.
- c. TNC Operators shall not cruise Airport roadways in search of passengers.
- d. TNC Operators will park their vehicles to wait for arriving passengers and actively load/unload passengers in designated areas only.
- e. All TNC Operators shall abide by all federal and state laws as well as all Airport Rules and Regulations.

Rules and Regulations

Section 3 – Commercial Activity

3.16 Ground Transportation – Peer-to-Peer Vehicle Sharing

- a. Peer-to-Peer Vehicle Sharing Operators must have a fully executed Peer-to-Peer Vehicle Sharing Operating Permit and shall pay applicable fees to operate at the Airport, as amended from time to time by the Airport District.
- b. Vehicle owners participating in Peer-to-Peer Vehicle Sharing shall only accept customers that have booked through the Peer-to-Peer Vehicle Sharing platform and shall not solicit for customers at the Airport.
- c. Vehicle owners participating in a Peer-to-Peer Vehicle Sharing shall park their vehicles in the Airport's public parking lots and shall pay the applicable parking lot fees as posted. No transaction or vehicle exchanges shall occur on the Airport's Fixed Based Operator (FBO) or terminal building front curb nor any other areas of the Airport other than the public parking lots.
- d. All Peer-to-Peer Vehicle Sharing Operators shall abide by all federal and state laws as well as all Airport Rules and Regulations.

3.17 Penalties

Violations of Section 3.14, 3.15, and 3.16 may result in a citation triable in Magistrate Court and/or paying permit and pickup fees.

3.18 Stormwater and Oil Pollution Prevention

Any airport tenants, including air passenger or cargo companies, Fixed Based Operators (FBOs), and other parties who routinely perform industrial activities, to include servicing aircraft lavatories, on Airport property must comply with the Airport District Stormwater Pollution Prevention Plan (SWPPP).

Any user and/or operator at the airport of facilities that could possibly discharge oil in harmful quantities must comply with the Airport District Spill Prevention Control and Countermeasure Plan (SPCC). All spills must be reported to the Airport Operations Center and cleaned-up by the agency responsible for creating the spill.

3.19 Fire Prevention and Inspection

The most recent codes adopted by the South Carolina Buildings Code Council are hereby adopted by the District for the purpose of:



MEMORANDUM

TO: Members of the Airport Commission

FROM: Kevin E. Howell, Senior Vice President/COO

DATE: November 23, 2020

ITEM DESCRIPTION - New Business Item B

Approval of a Budget Amendment for the General Aviation Expansion Area Site Prep Project

BACKGROUND

The General Aviation (GA) Expansion Area Site Prep Project designed by WK Dickson and currently under construction with Graham County Land Company (GCLC) includes preliminary site preparation for a portion of the future GA expansion area. The original construction phase budget for the project of \$3,300,000 was approved as part of the FY2021 capital budget.

ISSUES

The original expansion site was planned to accommodate a taxilane capable of serving up to Group II aircraft (< 79' wingspan). As planning and design for the future GA area as well as the future expansion of the Center Cargo Ramp area has been further developed, it has been determined that the airport can increase the future GA taxilane dimensions to accommodate aircraft up to a 100' wingspan. Along with the wider taxilane, the GA hangar development sites along the north end of the expansion area will be able to accommodate up to 125' deep hangars and 100' of apron, adjacent roadway, utilities and landscape areas.

Staff feels it is important to maximize the airport's future flexibility and provide a future GA development area that can accommodate the largest aircraft and hangar sites possible. The original project work area should be increased to the north to accommodate these changes. A budget increase of \$990,000 is requested to cover the additional engineering and construction costs for the expanded project area.



ALTERNATIVES

While not recommended at this time, the District could separately bid the additional site work at the conclusion of the current contract. This would require more time to complete the overall project and Staff feels a separate bid process would cost more than utilizing the current unit costs already under contract.

FISCAL IMPACT

The current approved project budget of \$3,300,000 is partially funded with AIP entitlement funds under FY2020 AIP-57. A budget increase of \$990,000 is requested to cover the increase construction phase costs with the increased project area. Staff will work with the FAA to apply for increasing the grant amount, but the District should be prepared to fund the increase should additional grants funds not be possible.

The 2102 GSP Drive Hangar Renovation Project, with a remaining project budget of \$3,553,082, was also included in the FY2021 capital budget. This project was put on hold due to COVID-19. The original project included a comprehensive renovation plan and significant changes to the office area floorplan. After meeting with current tenants and evaluating the current facility, Staff is proposing to reduce the project scope and minimize floorplan changes. The proposed new scope would include general repairs and refreshing the building finishes, including paint, new carpet, lighting, ceiling tile and grid in the offices and common areas; replacement of all restroom fixtures; and replacement of the building security and CCTV system. Staff is proposing a revised project budget of \$1,553,082 for the lighter renovation project. This would free up \$2,000,000 from the original hangar renovation project for other capital projects including the GA Expansion Area Site Prep Project. Under this scenario no new budget money would be required for to expand the GA site prep project work area.

RECOMMENDED ACTION

It is respectfully requested that the Airport Commission resolve to (1) reallocate \$990,000 from the 2102 GSP Drive Hangar Renovation Project to the General Aviation Expansion Area Site Prep Project; (2) approve a revised total project budget amount of \$4,290,000 for the General Aviation Expansion Area Site Prep Project; and (2) authorize the President/CEO to execute all necessary documents.



MEMORANDUM

TO: Members of the Airport Commission

FROM: Scott C. Carr, A.A.E.
Vice President – Commercial Business & Communications

DATE: November 23, 2020

ITEM DESCRIPTION – New Business Item C

Approval of Lease Agreement for Milliken Aviation Hangar Facility

BACKGROUND

Milliken Aviation currently leases a hangar from the Airport District (District) located at 2108 GSP Drive and has been in that facility since relocating from the Greenville Downtown Airport in February 2018. Please see Exhibit A for reference. However, they are in the process of transitioning to two new aircraft with a wider wingspan and tail height. Therefore, they need a facility that can accommodate the larger planes.

ISSUES

The District is currently in the process of negotiating two separate options with Milliken. The first is a lease agreement for a turnkey project to construct a new hangar and office facility for Milliken's corporate aviation department. The second option being negotiated is a ground lease with all of the necessary infrastructure improvements completed by the District (e.g. apron within thirty feet of the future hangar site, retaining wall, roadway, utilities, etc.). This would leave a pad ready site for Milliken to construct the hangar, office, parking lot, and the apron tie-in.

In either scenario, the hangar will be comprised of approximately 25,000 square feet of space with an adjoining office facility that's approximately 5,000 square feet. Therefore, once constructed, the total facility will be about 30,000 square feet in size. Please see Exhibit B for reference.

The following are the terms for Option #1 – Turnkey Hangar & Office Facility Constructed by the District:

1. **Base & Option Terms** – Not to exceed twenty (20) years.
2. **Lease Premises** – +/- 100,288 square feet
3. **Lease Rate** – \$450,000 or \$15.00 per square foot based on a 30,000 square foot building in Year #1. This rate is a blended rate for the hangar and office facilities and includes ground rent and all other site improvements. Rents shall escalate annually by 3%.
4. **Contract Security** – 50% of the annual lease rate.
5. **District Improvements** – Hangar, office, apron, retaining wall, roadway, parking lot, and utilities.
6. **Lessee Improvements** – None.
7. **Maintenance** – Lessee shall be responsible for all maintenance of the Premises.
8. **Utilities** – Lessee shall be responsible for the cost of all utilities and usage charges on the Premises.
9. **Insurance** – Lessee shall be required to provide hazard insurance, liability insurance, workers' compensation insurance, and employer's liability insurance.
10. **Taxes and Assessments** – Lessee shall be responsible.
11. **Subleasing** – Lessee must obtain written approval of the District to sublet the lease.
12. **Assignment** – Lessee must obtain written approval of the District to assign the lease.

The following are the terms for Option #2 – Pad Ready Site with All Infrastructure Completed by the District. Hangar, Office, and Parking Lot Constructed by Milliken:

1. **Base & Option Terms** – Not to exceed twenty (20) years.
2. **Lease Premises** – +/- 100,288 square feet
3. **Lease Rate** – \$215,619.20 or \$2.15 per square foot for the lease premises in Year #1. This rate includes ground rent and all site improvements listed below as "District Improvements". Rents shall escalate annually by 3%.
4. **Contract Security** – 50% of the annual lease rate.
5. **District Improvements** – Apron constructed within 30 feet of future hangar site, retaining wall, roadway, and utilities.
6. **Lessee Improvements** – Hangar, office, parking lot, and apron tie-in.
7. **Maintenance** – Lessee shall be responsible for all maintenance of the Premises.

8. **Utilities** – Lessee shall be responsible for the cost of all utilities and usage charges on the Premises.
9. **Insurance** – Lessee shall be required to provide hazard insurance, liability insurance, workers' compensation insurance, and employer's liability insurance.
10. **Taxes and Assessments** – Lessee shall be responsible.
11. **Subleasing** – Lessee must obtain written approval of the District to sublet the lease.
12. **Assignment** – Lessee must obtain written approval of the District to assign the lease.

ALTERNATIVES

The Airport District could forego this opportunity to construct a new hangar facility for Milliken or to provide all of the necessary infrastructure for a pad ready site to enable them to construct the building improvements and parking lot themselves.

FISCAL IMPACT

The Airport District is in the process of negotiating a lease agreement with the following annual lease rates in Year #1 of the agreement for the two options outlined above:

- Option #1: \$450,000 in Year #1
- Option #2: \$215,619.20 in Year #1

Each subsequent year throughout the term of either agreement option, the annual lease rate escalates by three percent (3%).

RECOMMENDED ACTION

It is respectfully requested that the Airport Commission resolve to (1) approve the lease agreement terms for both Option #1 and Option #2 as outlined above and (2) authorize the President/CEO to execute a lease agreement with Milliken based on one of the two outlined options.

EXHIBIT A

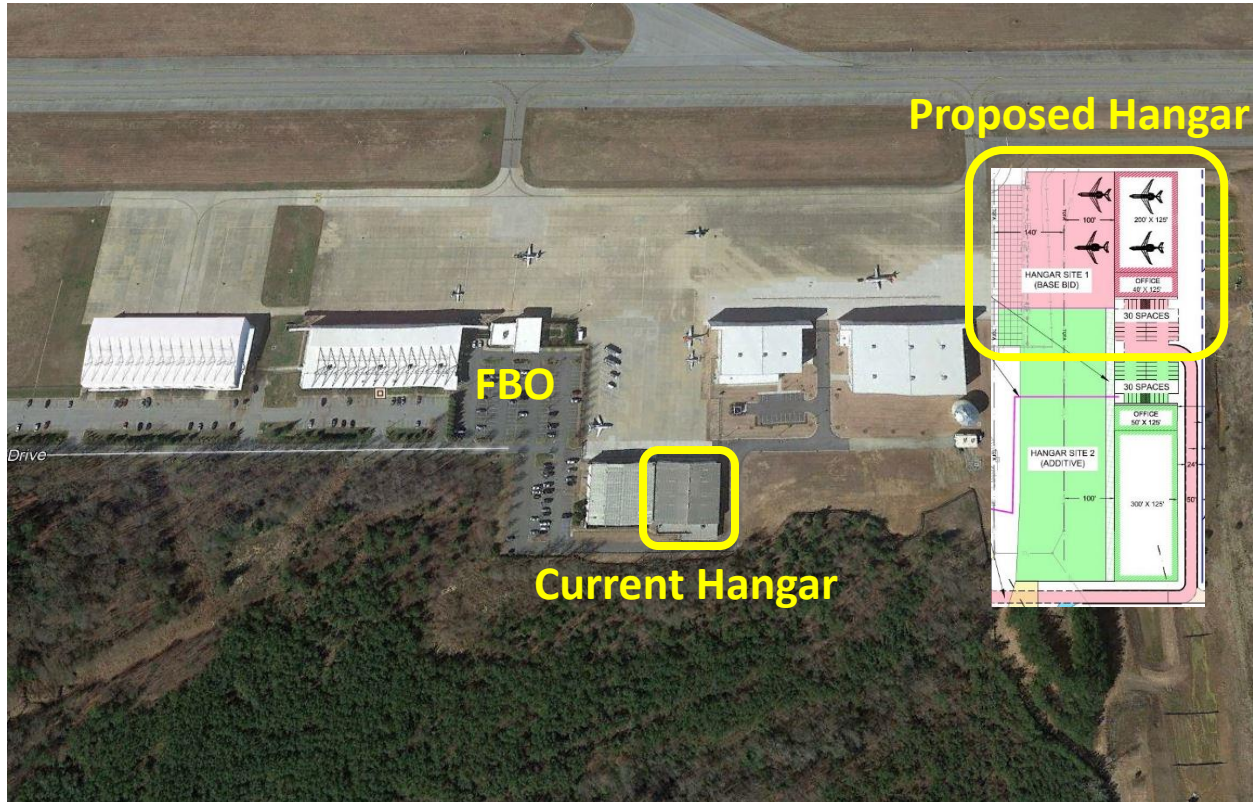
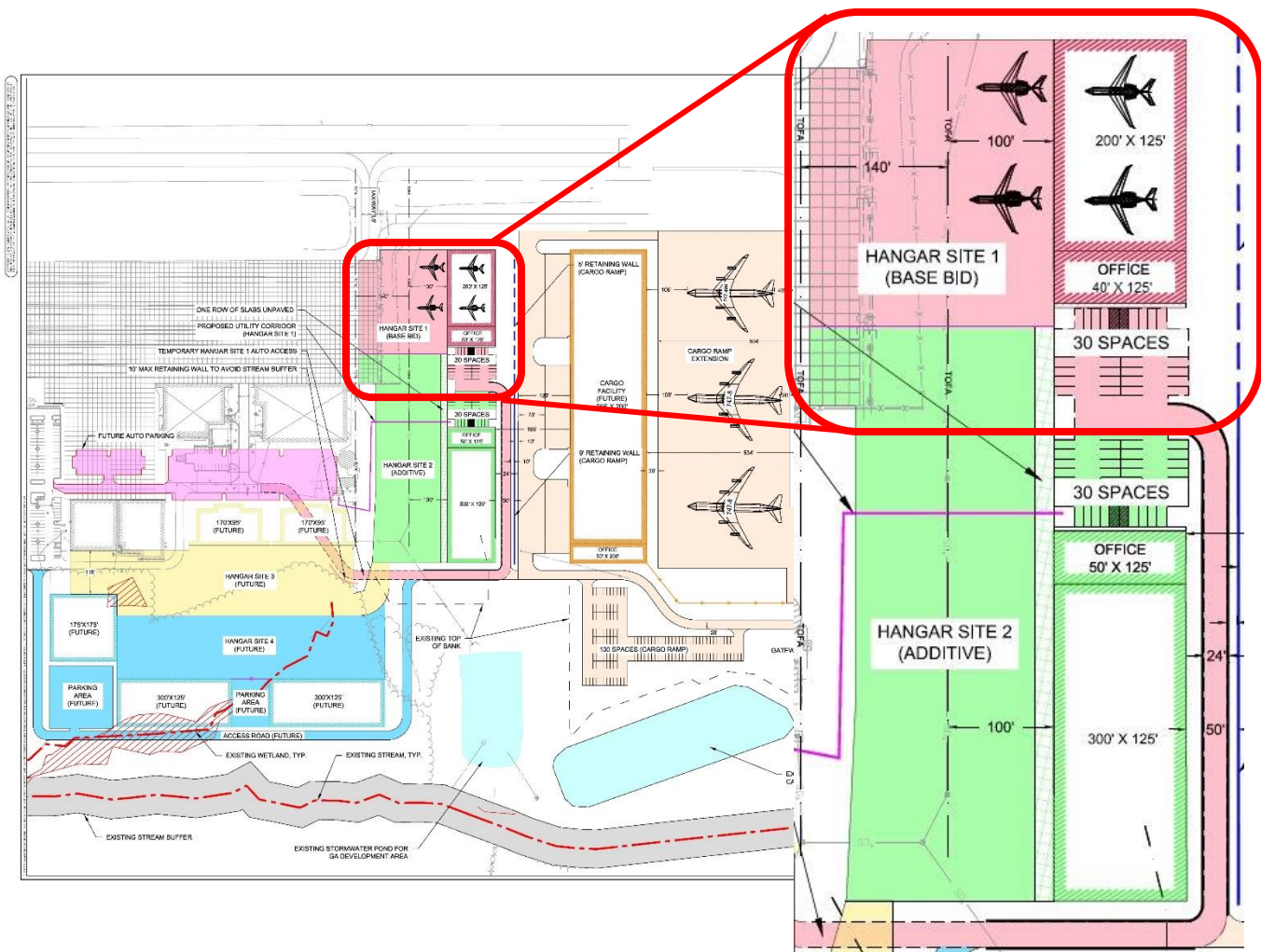


EXHIBIT B



Proposed Milliken Hangar



MEMORANDUM

TO: Members of the Airport Commission

FROM: Kevin E. Howell, Senior Vice President/COO

DATE: November 23, 2020

ITEM DESCRIPTION - New Business Item D

Approval of General Aviation Hangar Site 1 Infrastructure Project

BACKGROUND

Staff is currently negotiating a hangar project with Milliken Aviation for Site 1 at the General Aviation (GA) Expansion Area. Certain infrastructure items are necessary for development of the site, including taxilane, apron, access road, utilities and other related site work. These infrastructure items will be required regardless of the tenant.

ISSUES

Site preparation work including grading and underground storm drainage is underway at the site under a separate contract. Staff proposes to proceed with engineering immediately, followed by procurement, then begin construction as soon as the current contractor completes their work in this area. This will expedite the overall project and ready the site as soon as possible for the construction of the hangar. If the hangar project does not proceed, the District will have a marketable "pad ready" site to work with other potential hangar tenants.

ALTERNATIVES

The Commission may elect to not approve proceeding with the project at this time.

FISCAL IMPACT

Estimated project costs for the infrastructure package and related site work is \$2,900,000. Approval of this project requires authorization of a project budget.



As discussed in New Business Item B, the project budget for the renovation of the hangar at 2102 GSP Drive is being reduced by \$2,000,000, with \$990,000 of that reduction being reallocated to the GA Expansion Area Site Prep Project. Staff proposes allocating the remaining \$1,010,000 to the GA Hangar Site 1 Infrastructure Project. This would leave a balance of \$1,890,000 in new funding to fully fund the project.

RECOMMENDED ACTION

It is respectfully requested that the Airport Commission resolve to (1) authorize the General Aviation Hangar Site 1 Infrastructure Project with a total project budget of \$2,900,000; (2) reallocate \$1,010,000 from the 2102 GSP Drive Hangar Renovation Project to the General Aviation Hangar Site 1 Infrastructure Project; (3) approve new funding in the amount of \$1,890,000 from current fund balance reserves and/or financing from the District's revolving credit line; and (4) authorize the President/CEO to execute all necessary documents.



MEMORANDUM

TO: Members of the Airport Commission

FROM: Kevin E. Howell, Senior Vice President/COO

DATE: November 23, 2020

ITEM DESCRIPTION - New Business Item E

Approval of Milliken Aviation Hangar Project Budget

BACKGROUND

Milliken Aviation currently leases a hangar with office space from the District at 2108 GSP Drive. Milliken is in the process of replacing their existing aircraft with 2 new aircraft that will require the construction of a new hangar facility. The first new aircraft is expected in the first quarter of 2022 and the second aircraft in the first quarter of 2023. District staff has been working with Milliken staff to establish a project scope and budget for the new hangar facility. The current proposed project includes the construction of a 25,000 sq ft hangar with 5,000 sq ft of attached office, parking lot and related site work. The estimated Milliken Aviation Hangar Project budget is \$5,800,000. The project is expected to take 15-16 months.

As the Commercial Business Department works to finalize a lease agreement with Milliken, it is critical to start the design and procurement process as soon as possible in order to have the new facility complete by April 2022. To expedite the project, Staff proposes to engage one of the current design teams already under a Master Services Agreement with the District for architectural design services. For construction of the hangar, Staff proposes to solicit a Construction Manager at Risk (CMR) to work alongside the design team while the design is completed and ultimately prepare a guaranteed maximum price (GMP) for construction.

ISSUES

Timing is critical if the District desires to complete the hangar facility for the tenant's first new aircraft arriving in Q1 2022. Staff proposes to start design and procurement work as soon as a lease agreement is negotiated with Milliken.



ALTERNATIVES

The Commission may elect to not approve proceeding with the project at this time.

FISCAL IMPACT

Estimated project costs for the hangar, office, parking lot and related site work are \$5,800,000. Approval of this project requires authorization of a project budget. These project costs are not eligible for grant funding. Staff proposes utilizing the District's revolving credit line to fund the project.

RECOMMENDED ACTION

It is respectfully requested that the Airport Commission resolve to (1) authorize the Milliken Aviation Hangar Project pending a lease agreement with Milliken & Company; (2) approve a project budget of \$5,800,000; (2) approve funding the project from the District's revolving credit line; and (3) authorize the President/CEO to execute all necessary documents.



MEMORANDUM

TO: Members of the Airport Commission

FROM: David Edwards, President/CEO

DATE: November 23, 2020

ITEM DESCRIPTION – Information Section Item A

September 2020 - Traffic Report

SUMMARY

While passenger traffic continues to feel the impact of COVID-19, we are experiencing increased activity. September 2020 passenger traffic still remains on the weaker side with a **64.0%** decrease over the same month in 2019. However, the passenger traffic numbers are slightly ahead of our recovery forecasts. Cargo numbers for September 2020 were up **87.1%** for the same period. Passenger load factors were down **28.8%** for the month at an average of **56.8%**.

A comparison of the North America National Passenger Traffic Growth Averages for **2020** to GSP's Passenger Traffic Growth is depicted below:

Month	2020		
	GSP	National Average	Difference
Jan	6.60%	4.80%	1.80%
Feb	8.50%	6.40%	2.10%
Mar	-42.00%	-50.40%	8.40%
April	-95.80%	-95.00%	-0.80%
May	-88.40%	-88.80%	0.40%
June	-78.40%	-78.10%	-0.30%
July	-70.60%	-69.90%	-0.70%
August	-65.90%	-66.70%	0.80%
September	-64.00%	Data not available to date	
October			
November			
December			
Average	-54.44%	-54.71%	0.27%

Attached are copies of the detailed traffic report for September 2020.

Providing a look forward into the service levels for **December 2020** is a schedule comparison for the month vs the same month last year, including flights and seats by airline and non-stop markets served. GSP flights are down at 48.7%, and seats are down at 53.1%. This forward-looking schedule may not fully reflect the schedule that will be operated in December 2020, as airlines may not have implemented all of their potential schedule changes.

Schedule Weekly Summary Report for nonstop Passenger (Air - All) flights from GSP to for travel December 2020 vs. December 2019											
All flights, seats, and ASMs given are per week.											
Travel Period				Dec 2020		Dec 2019		Diff		Percent Diff	
Mkt AI	Orig	Dest	Miles	Ops/Week	Seats	Ops/Week	Seats	Ops/Week	Seats	Ops/Week	Seats
AA	GSP	CLT	76	42	3,049	59	4,275	(17)	(1,226)	(28.8%)	(28.7%)
AA	GSP	DCA	396	0	0	19	1,040	(19)	(1,040)	(100.0%)	(100.0%)
AA	GSP	DFW	862	13	988	16	2,308	(3)	(1,320)	(18.8%)	(57.2%)
AA	GSP	MIA	638	0	0	14	700	(14)	(700)	(100.0%)	(100.0%)
AA	GSP	ORD	577	6	300	11	550	(5)	(250)	(45.5%)	(45.5%)
AA	GSP	PHL	514	9	585	20	1,105	(11)	(520)	(55.0%)	(47.1%)
DL	GSP	ATL	153	48	4,124	52	7,939	(4)	(3,815)	(7.7%)	(48.1%)
DL	GSP	DTW	508	11	836	20	1,716	(9)	(880)	(45.0%)	(51.3%)
DL	GSP	LGA	610	0	0	18	1,368	(18)	(1,368)	(100.0%)	(100.0%)
F9	GSP	DEN	1,278	0	0	2	366	(2)	(366)	(100.0%)	(100.0%)
F9	GSP	MCO	449	0	0	3	558	(3)	(558)	(100.0%)	(100.0%)
G4	GSP	FLL	620	2	354	2	354	0	0	0.0%	0.0%
G4	GSP	PIE	482	2	372	2	354	0	18	0.0%	5.1%
G4	GSP	SFB	426	2	342	2	354	0	(12)	0.0%	(3.4%)
UA	GSP	DEN	1,278	0	0	7	490	(7)	(490)	(100.0%)	(100.0%)
UA	GSP	EWR	594	0	0	26	1,300	(26)	(1,300)	(100.0%)	(100.0%)
UA	GSP	IAD	383	12	840	21	1,250	(9)	(410)	(42.9%)	(32.8%)
UA	GSP	IAH	838	7	490	13	928	(6)	(438)	(46.2%)	(47.2%)
UA	GSP	ORD	577	14	780	21	1,300	(7)	(520)	(33.3%)	(40.0%)
WN	GSP	ATL	153	7	1,001	20	2,892	(13)	(1,891)	(65.0%)	(65.4%)
WN	GSP	BWI	425	7	1,001	7	1,001	0	0	0.0%	0.0%
TOTAL				182	15,062	355	32,148	(173)	(17,086)	(48.7%)	(53.1%)

Attachment

Monthly Traffic Report

Greenville-Spartanburg International Airport

September 2020



Category	Sep 2020	Sep 2019	Percentage Change	*CYTD-2020	*CYTD-2019	Percentage Change	*MOV12-2020	*MOV12-2019	Percentage Change
Passenger Traffic									
Enplaned	40,388	111,547	-63.8%	406,734	963,807	-57.8%	755,971	1,290,165	-41.4%
Deplaned	<u>39,613</u>	<u>110,689</u>	-64.2%	<u>403,416</u>	<u>954,818</u>	-57.7%	<u>747,790</u>	<u>1,275,509</u>	-41.4%
Total	80,001	222,236	-64.0%	810,150	1,918,625	-57.8%	1,503,761	2,565,674	-41.4%
Cargo Traffic (Pounds)									
Express and Mail									
Enplaned	1,025,745	789,785	29.9%	7,854,540	8,827,999	-11.0%	10,581,498	11,619,900	-8.9%
Deplaned	<u>1,083,320</u>	<u>997,737</u>	8.6%	<u>7,199,560</u>	<u>8,692,391</u>	-17.2%	<u>10,351,723</u>	<u>11,536,239</u>	-10.3%
Subtotal	2,109,065	1,787,522	18.0%	15,054,100	17,520,390	-14.1%	20,933,221	23,156,139	-9.6%
Freight									
Enplaned	4,009,558	2,044,109	96.2%	29,449,531	24,948,605	18.0%	38,507,393	35,082,370	9.8%
Deplaned	<u>6,682,325</u>	<u>3,008,511</u>	122.1%	<u>46,462,412</u>	<u>42,377,821</u>	9.6%	<u>61,295,648</u>	<u>57,486,775</u>	6.6%
Subtotal	10,691,883	5,052,620	111.6%	75,911,943	67,326,426	12.8%	99,803,041	92,569,145	7.8%
Total	12,800,948	6,840,142	87.1%	90,966,043	84,846,816	7.2%	120,736,332	115,725,284	4.3%

*CYTD = Calendar Year to Date and *Mov12 = Moving Twelve Months.

Monthly Traffic Report

Greenville-Spartanburg International Airport

September 2020



Category	Sep 2020	Sep 2019	Percentage Change	*CYTD-2020	*CYTD-2019	Percentage Change	*MOV12-2020	*MOV12-2019	Percentage Change
Aircraft Operations									
Airlines	1,543	2,501	-38.3%	14,984	21,061	-28.9%	22,597	28,060	-19.5%
Commuter /Air Taxi	<u>470</u>	<u>990</u>	-52.5%	4,986	9,385	-46.9%	8,110	12,307	-34.1%
Subtotal	<u>2,013</u>	<u>3,491</u>	-42.3%	<u>19,970</u>	<u>30,446</u>	-34.4%	<u>30,707</u>	<u>40,367</u>	-23.9%
General Aviation	808	904	-10.6%	6,614	7,769	-14.9%	9,008	10,235	-12.0%
Military	<u>174</u>	<u>185</u>	-5.9%	<u>1,466</u>	<u>1,993</u>	-26.4%	<u>2,008</u>	<u>2,646</u>	-24.1%
Subtotal	<u>982</u>	<u>1,089</u>	-9.8%	<u>8,080</u>	<u>9,762</u>	-17.2%	<u>11,016</u>	<u>12,881</u>	-14.5%
Total	2,995	4,580	-34.6%	28,050	40,208	-30.2%	41,723	53,248	-21.6%
Fuel Gallons									
100LL	1,651	2,212	-25.4%	14,343	21,352	-32.8%	20,844	27,770	-24.9%
Jet A (GA)	98,543	120,998	-18.6%	768,449	1,036,769	-25.9%	1,111,298	1,352,552	-17.8%
Subtotal	<u>100,194</u>	<u>123,210</u>	-18.7%	<u>782,792</u>	<u>1,058,121</u>	-26.0%	<u>1,132,142</u>	<u>1,380,322</u>	-18.0%
Jet A (A/L)	<u>995,160</u>	<u>1,451,730</u>	-31.5%	<u>9,007,389</u>	<u>13,639,821</u>	-34.0%	<u>13,637,003</u>	<u>18,545,457</u>	-26.5%
Total	1,095,354	1,574,940	-30.5%	9,790,181	14,697,942	-33.4%	14,769,145	19,925,779	-25.9%

*CYTD = Calendar Year to Date and *Mov12 = Moving Twelve Months.

Scheduled Airline Enplanements, Seats, and Load Factors

Greenville-Spartanburg International Airport



September 2020

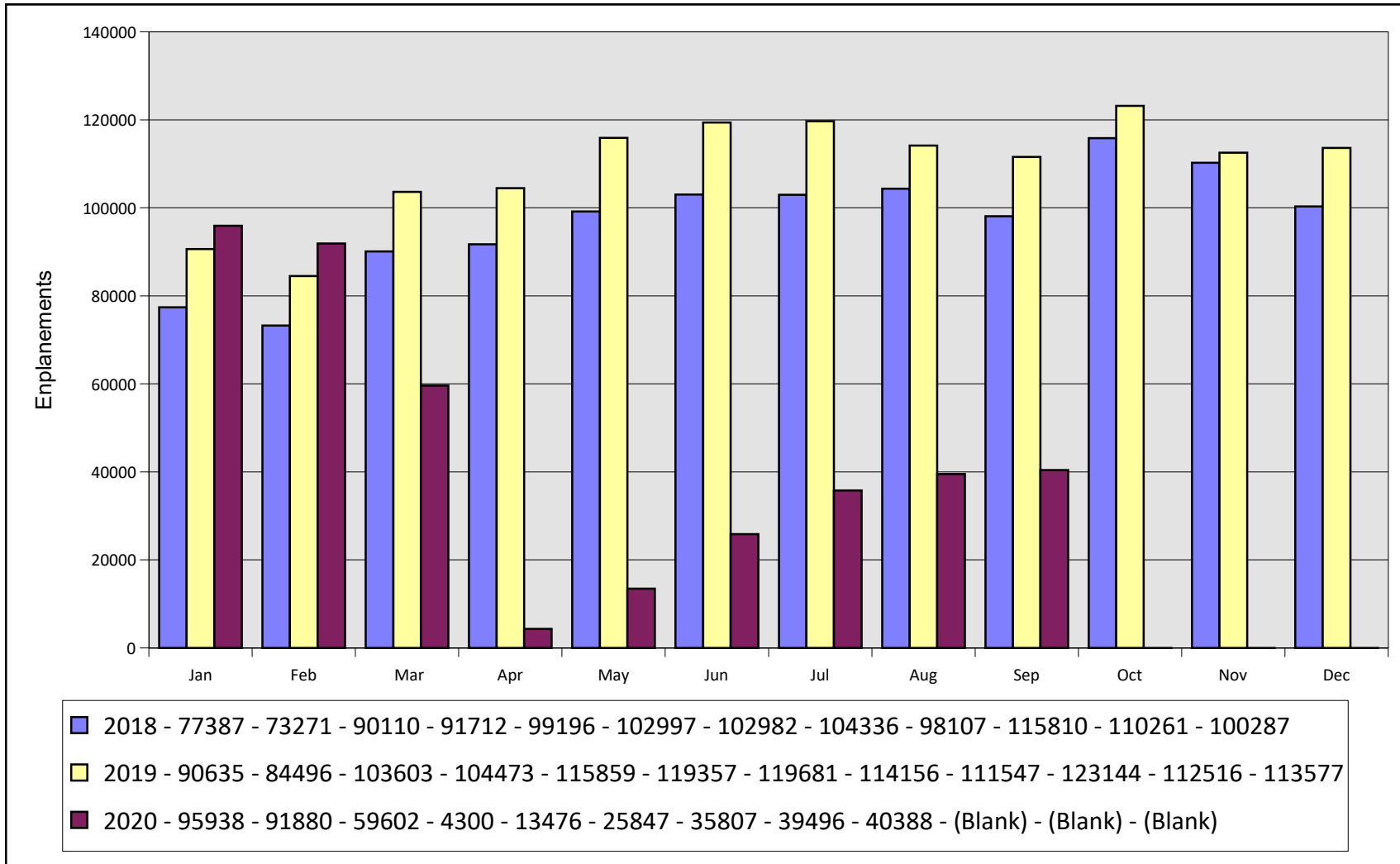
	Sep 2020	Sep 2019	Percentage Change	*CYTD-2020	*CYTD-2019	Percentage Change
Allegiant Air						
Enplanements	1,798	3,405	-47.2%	18,489	38,386	-51.8%
Seats	3,216	4,476	-28.2%	32,790	50,157	-34.6%
Load Factor	55.9%	76.1%	-26.5%	56.4%	76.5%	-26.3%
American Airlines						
Enplanements	18,298	37,536	-51.3%	158,432	322,404	-50.9%
Seats	24,779	48,549	-49.0%	254,630	422,533	-39.7%
Load Factor	73.8%	77.3%	-4.5%	62.2%	76.3%	-18.5%
Delta Air Lines						
Enplanements	11,353	39,122	-71.0%	123,552	337,868	-63.4%
Seats	24,954	46,685	-46.5%	226,835	406,006	-44.1%
Load Factor	45.5%	83.8%	-45.7%	54.5%	83.2%	-34.5%
Southwest Airlines						
Enplanements	3,448	8,855	-61.1%	39,469	78,656	-49.8%
Seats	9,918	12,473	-20.5%	115,237	112,419	2.5%
Load Factor	34.8%	71.0%	-51.0%	34.3%	70.0%	-51.0%

Friday, October 16, 2020

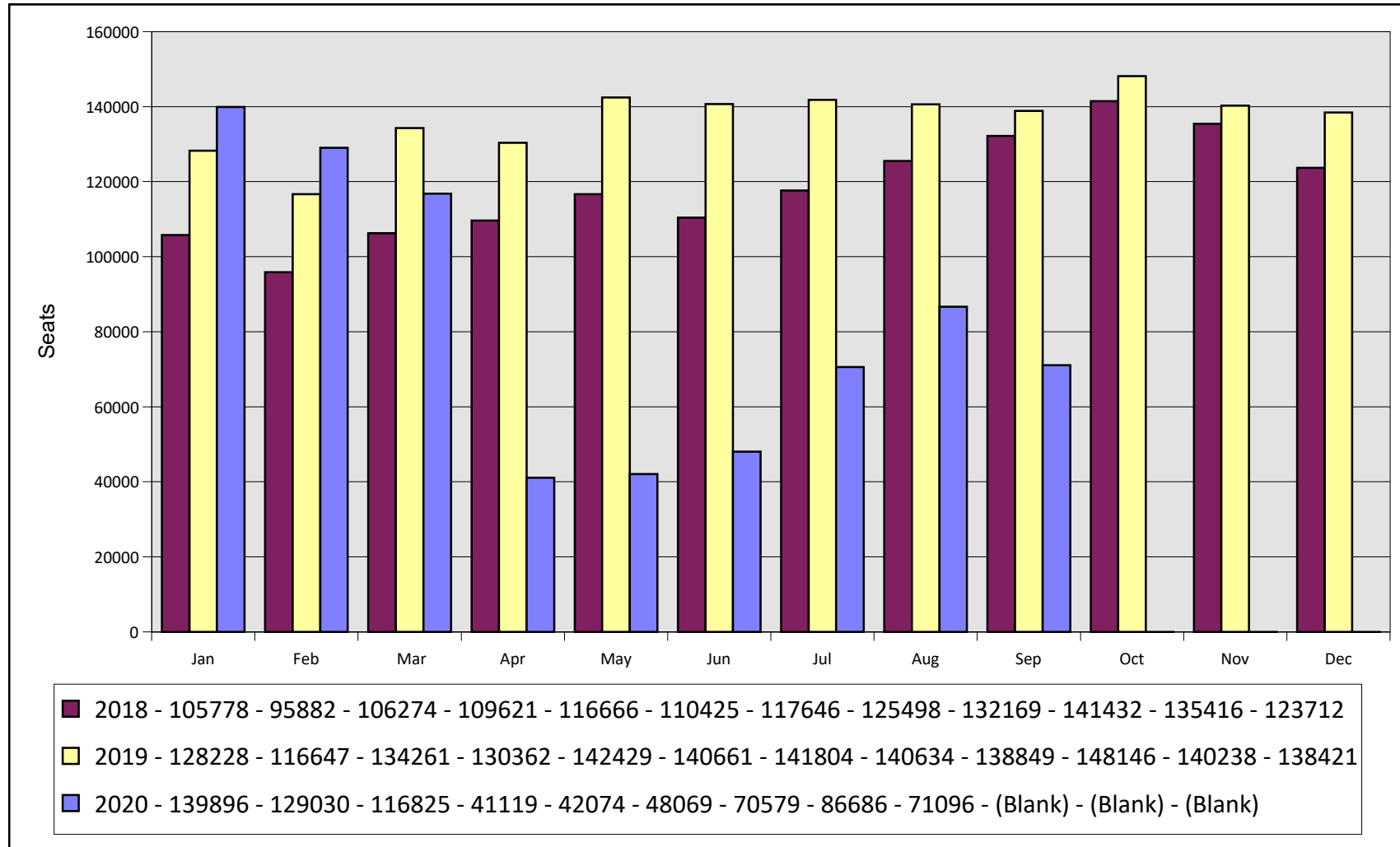
*CTYD = Calendar Year to Date and *Mov12 = Moving Twelve Months.

	Sep 2020	Sep 2019	Percentage Change	*CYTD-2020	*CYTD-2019	Percentage Change
United Airlines						
Enplanements	5,345	17,409	-69.3%	57,506	146,890	-60.9%
Seats	8,030	21,198	-62.1%	99,993	177,502	-43.7%
Load Factor	66.6%	82.1%	-18.9%	57.5%	82.8%	-30.5%
Totals						
Enplanements	40,242	106,327	-62.2%	397,448	924,204	-57.0%
Seats	70,897	133,381	-46.8%	729,485	1,168,617	-37.6%
Load Factor	56.8%	79.7%	-28.8%	54.5%	79.1%	-31.1%

Monthly Enplanements By Year Greenville-Spartanburg International Airport

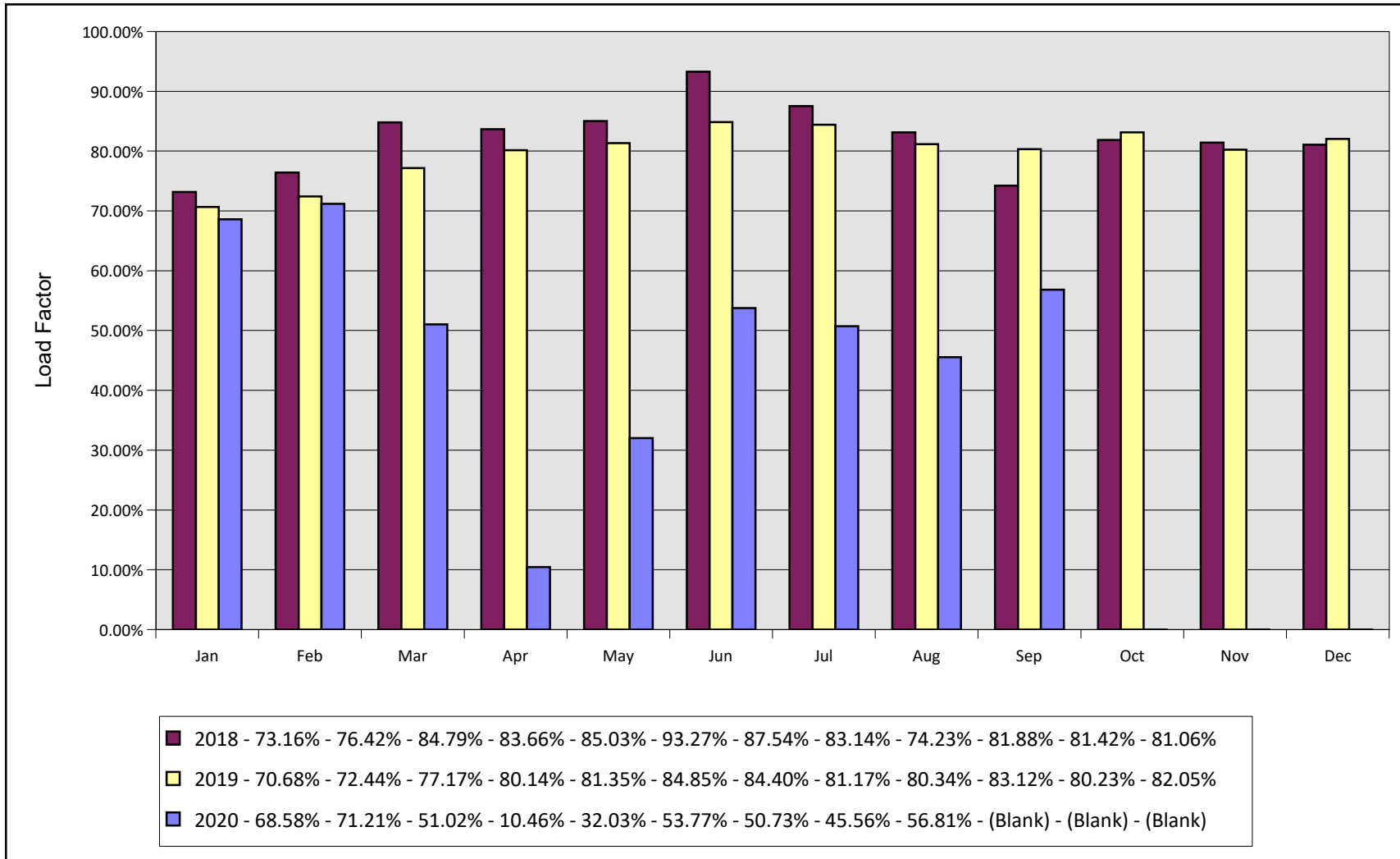


Monthly Seats By Year Greenville-Spartanburg International Airport

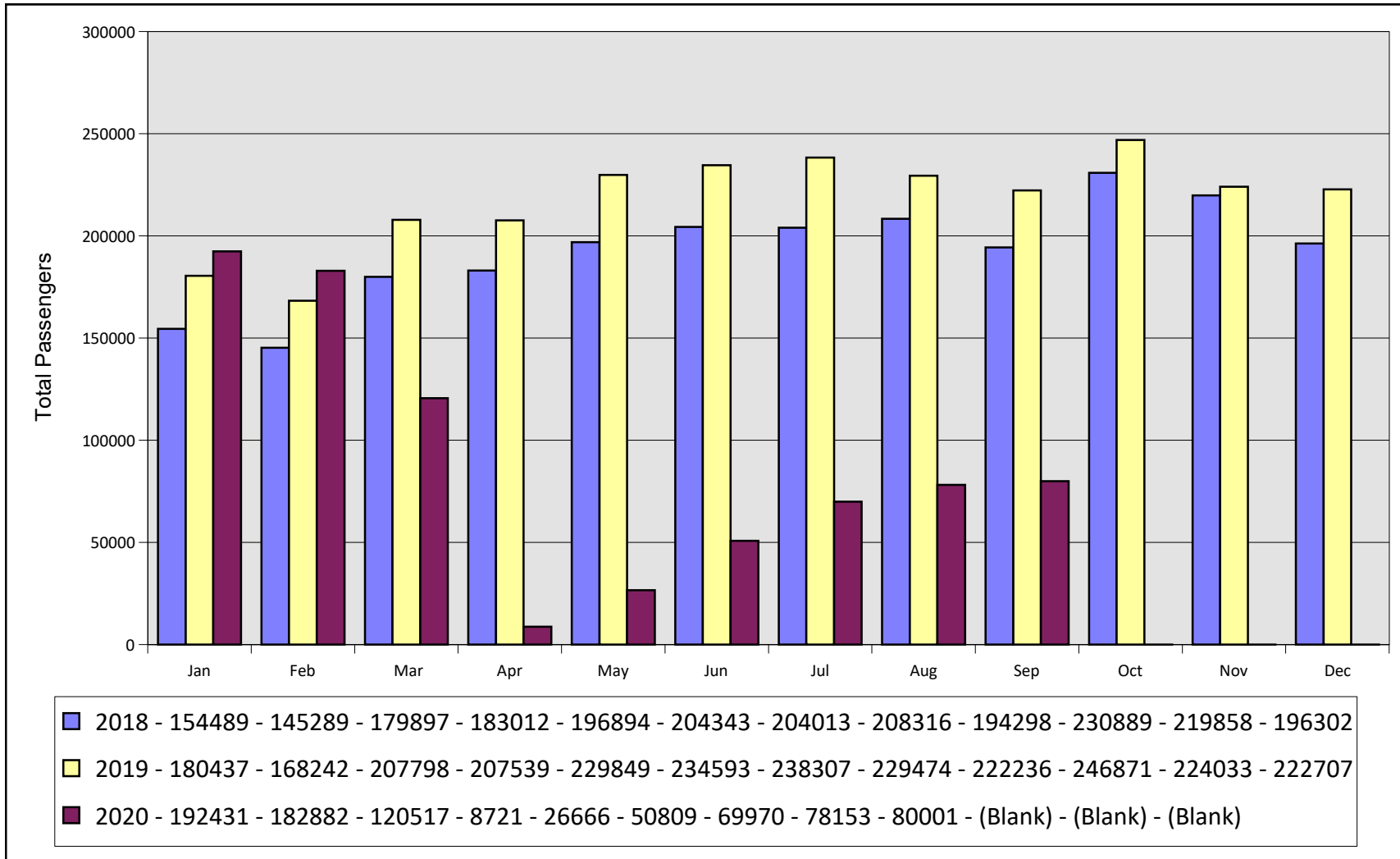


Monthly Load Factors By Year

Greenville-Spartanburg International Airport

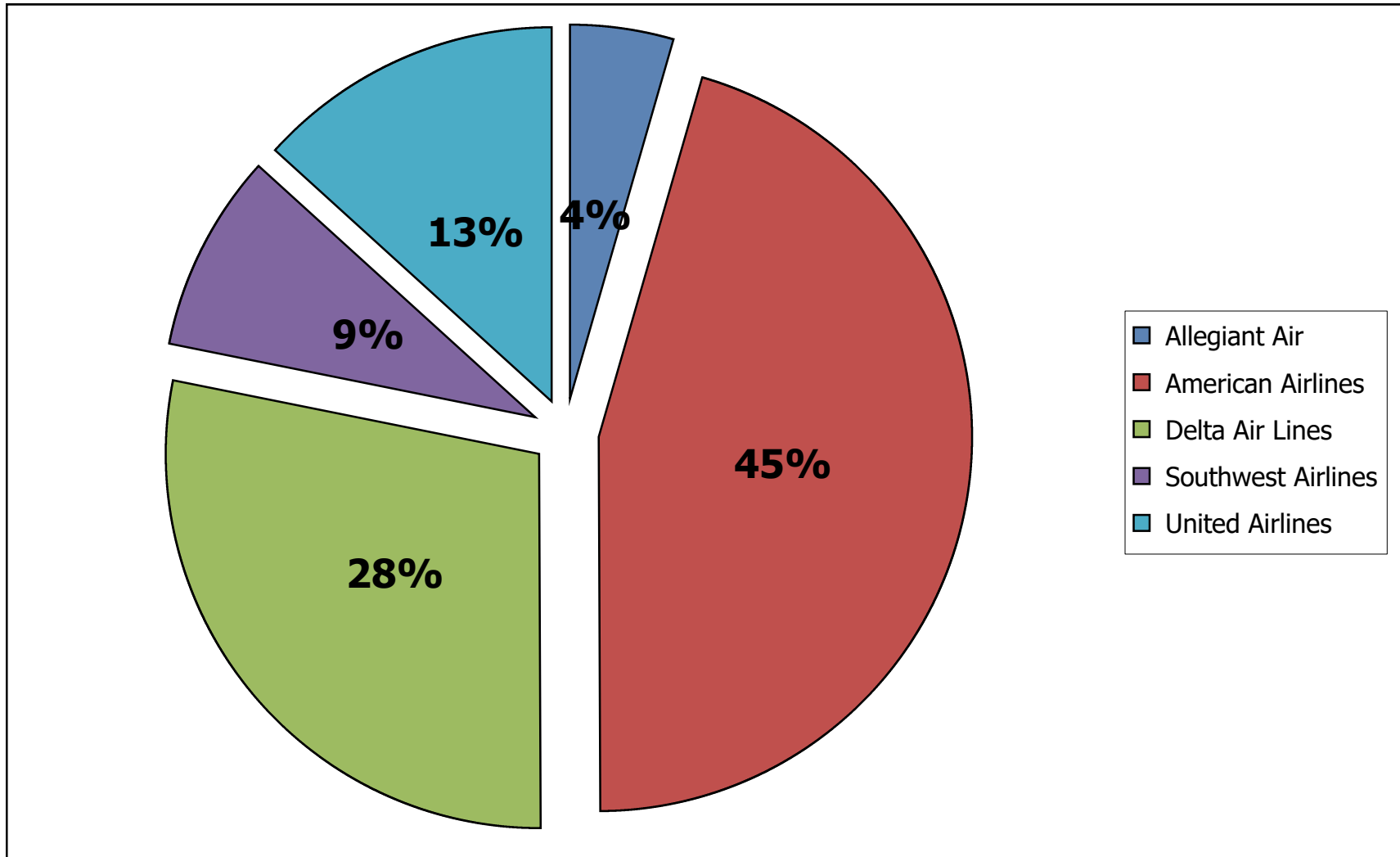


Total Monthly Passengers By Year Greenville-Spartanburg International Airport



Scheduled Airline Market Shares (Enplanements) Greenville-Spartanburg International Airport

Report Period From September 2020 Through September 2020



Airline Flight Completions Greenville-Spartanburg International Airport

September 2020



Airline	Scheduled Flights	Field	Cancellations Due To			Total Cancellations	Percentage of Completed Flights
			Mechanical	Weather	Other		
Air Atlanta Icelandic	20	0	0	0	0	0	100.0%
Allegiant Air	18	0	0	0	0	0	100.0%
American Airlines	334	0	0	0	1	1	99.7%
Ameristar Jet Charter	4	0	0	0	0	0	100.0%
Cargo Logic Air	3	0	0	0	0	0	100.0%
Delta Air Lines	206	0	0	0	0	0	100.5%
Delta Air Lines Charter	1	0	0	0	0	0	100.0%

Friday, October 16, 2020

Airline	Scheduled Flights	Field	Cancellations Due To			Total Cancellations	Percentage of Completed Flights
			Mechanical	Weather	Other		
Federal Express	38	0	0	0	0	0	100.0%
Interjet	2	0	0	0	0	0	100.0%
McNeely Charter Service	1	0	0	0	0	0	100.0%
Royal Air Freight	2	0	0	0	0	0	100.0%
Southwest Airlines	66	0	0	0	0	0	100.0%
Swift Air, LLC	1	0	0	0	0	0	100.0%
United Airlines	145	0	0	0	0	0	100.0%
UPS	36	0	0	0	0	0	100.0%
USA Jet	1	0	0	0	0	0	100.0%

Friday, October 16, 2020

Airline	Scheduled Flights	Field	Cancellations Due To			Total Cancellations	Percentage of Completed Flights
			Mechanical	Weather	Other		
Total	878	0	0	0	1	1	99.9%

Friday, October 16, 2020



MEMORANDUM

TO: Members of the Airport Commission

FROM: Basil O. Dosunmu, Senior VP of Administration & Finance/CFO

DATE: November 23, 2020

ITEM DESCRIPTION – Information Section Item B

September 2020 – Monthly Financial Report

SUMMARY

Attached is a copy of the detailed financial report for September 2020.

Operating Income was up by **3.59%** when compared to the budget for Year-to-Date September 2020. Operating Expenses were up by **4.29%** when compared to the budgeted amount for the period. Net operating income was up by **0.92%** when compared to the budget through September 2020. For the period ending September 2020, which represents three (3) months of the fiscal year, a total of about **\$1.38 million** has been returned to the bottom line in operating income.

Please recognize that this is a preliminary report, unaudited, and only represents *three months* of activity resulting in variances from budget which can be quite volatile.

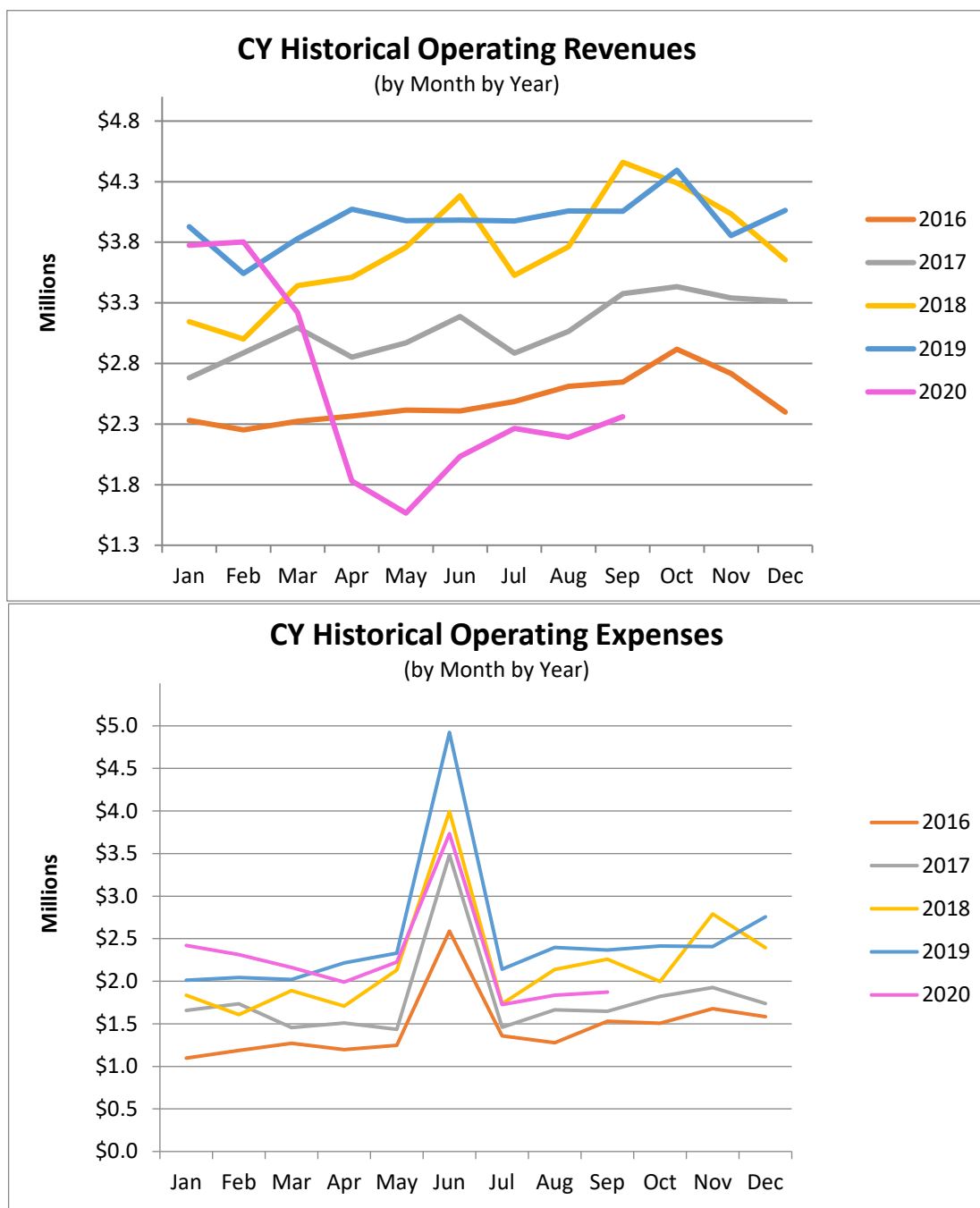
Furthermore, in September, Staff revised the monthly allocation of the annual approved budget to better align with current industry trends and historical practices, where appropriate. This is a departure from the historical practice of even distribution of the operating revenues and expenses throughout the year. The passenger centric operating revenues were adjusted to reflect the monthly passenger traffic projection, while the non-passenger centric operating revenues were adjusted to coincide with historical practices. And the operating expenses are allocated based on historical spending trends.

September 30, 2020 FINANCIAL STATEMENT PACKAGE

GREENVILLE SPARTANBURG AIRPORT DISTRICT
STATEMENT OF NET POSITION

	Current Month Current FY <u>9/30/2020</u>	Current Month Prior FY <u>9/30/2019</u>	
Assets			
Cash Accounts	36,237,416.81	10,399,112.51	
Investments-Airport	20,739,538.34	20,379,624.42	
Bond Trustee Assets	568,373.86	116,215.40	
Accounts Receivable	4,795,903.62	5,442,886.45	
Less: Reserve for Doubtful Accts	(149,500.00)		
Net Accounts Receivable	<u>4,646,403.62</u>	<u>5,442,886.45</u>	
Inventory	370,463.58	549,514.45	
Prepaid Insurance	615,840.30	524,405.47	
Notes Receivable-RAC District Funds	749,029.79	1,022,264.93	
Property, Plant & Equipment (PP&E)	465,442,435.39	438,121,798.57	
Less: Accumulated Depreciation	(175,249,402.63)	(162,515,136.42)	
Net PP&E	<u>290,193,032.76</u>	<u>275,606,662.15</u>	
TOTAL ASSETS	<u>354,120,099.06</u>	<u>314,040,685.78</u>	
PLUS: Deferred Outflows of Resources			
Deferred Pension	6,339,480.05	5,883,488.04	
TOTAL DEFERRED OUTFLOWS OF RESOURCES	<u>6,339,480.05</u>	<u>5,883,488.04</u>	
LESS: Liabilities			
Accounts Payable	7,422,180.07	5,587,797.37	(aa)
TD Bank LOC	-	-	
Revenue Bonds Payable	906,845.90	879,742.36	
TD Bank LT Debt	34,877,611.97	15,034,180.00	
SCRS Pension Liability	21,162,824.00	18,339,814.00	
Benefit Liability	1,915,797.65	1,532,539.05	
TOTAL LIABILITIES	<u>66,285,259.59</u>	<u>41,374,072.78</u>	
LESS: Deferred Inflows of Resources			
Deferred Revenues	933,921.79	1,152,724.93	
TOTAL DEFERRED INFLOWS OF RESOURCES	<u>933,921.79</u>	<u>1,152,724.93</u>	
NET POSITION			
Invested in Capital Assets, net of Related Debt	253,701,391.00	258,685,217.22	
Restricted:			
A/P - Capital Projects - Restricted	526,527.96	101,473.04	
Contract Facility Charge	2,391,374.58	2,261,214.96	
Total Restricted:	<u>2,917,902.54</u>	<u>2,362,688.00</u>	
Unrestricted	36,621,104.19	16,199,970.89	
TOTAL NET POSITION	<u>293,240,397.73</u>	<u>277,247,876.11</u>	

GREENVILLE SPARTANBURG AIRPORT DISTRICT
REVENUES AND EXPENSES TREND GRAPHS



GREENVILLE SPARTANBURG AIRPORT DISTRICT
PROFIT and LOSS STATEMENT

<----- FISCAL YEAR TO DATE ----->				
	September 30, 2020	September 30, 2020		
	Actual	Budget	Actual - Budget	% Change
INCOME				
Landing Area:				
Landing Fees	458,149.83	255,660.44	202,489.39	79.20% (a)
Aircraft Parking Fees	82,699.69	42,440.76	40,258.93	94.86% (b)
Subtotal Landing Area	540,849.52	298,101.20	242,748.32	81.43%
Space & Ground Rentals	2,480,105.26	2,433,646.50	46,458.76	1.91%
Auto Parking	1,039,227.64	1,132,750.46	(93,522.82)	-8.26% (c)
Commercial Ground Transportation	45,188.84	36,354.10	8,834.74	24.30%
Concessions:				
Advertising	71,742.50	44,831.81	26,910.69	60.03%
Food & Beverage	34,209.90	65,894.93	(31,685.03)	-48.08%
Rental Car	485,142.03	379,237.36	105,904.67	27.93% (d)
Retail	95,500.88	64,277.60	31,223.28	48.58%
Other	5,858.02	3,645.18	2,212.84	60.71%
Subtotal Concessions	692,453.33	557,886.88	134,566.45	24.12%
Expense Reimbursements	399,231.81	477,774.21	(78,542.40)	-16.44% (e)
Other Income	36,909.67	30,021.44	6,888.23	22.94%
Other-Aviation Services	723,517.53	542,194.62	181,322.91	33.44% (f)
Gross Profit on Fuel Sales	859,337.90	1,071,700.33	(212,362.43)	-19.82% (g)
Total Operating Income	6,816,821.50	6,580,429.74	236,391.76	3.59%
EXPENSES				
Salary & Benefits	3,465,114.05	3,185,351.31	279,762.74	8.78% (h)
Professional Services	139,415.90	140,993.12	(1,577.22)	-1.12%
Promotional Activities	19,381.66	163,052.95	(143,671.29)	-88.11% (i)
Administrative	144,811.22	270,126.47	(125,315.25)	-46.39% (j)
Insurance	197,663.04	197,788.04	(125.00)	-0.06%
Contractual Services	872,789.20	527,662.64	345,126.56	65.41% (k)
Rentals & Leases	71,401.50	55,105.42	16,296.08	29.57%
Repairs & Maintenance	142,085.98	23,623.83	118,462.15	501.45% (l)
Supplies & Equipment	179,889.35	148,218.54	31,670.81	21.37%
Utilities	200,383.27	497,277.88	(296,894.61)	-59.70% (m)
Total Operating Expenses	5,432,935.17	5,209,200.20	223,734.97	4.29%
NET OPERATING INCOME	1,383,886.33	1,371,229.54	12,656.79	0.92%

September 30, 2020

STATEMENT OF NET POSITION - CURRENT YTD ACTUAL FOOTNOTES - SUMMARY

(aa)	Accounts Payable	7,422,180.07	Consists of the following:
			2,650,000 Retainage accrual, to carry until the end of each contract
			2,770,000 Trade A/P, varies monthly
			1,268,000 Year End Payroll, Vacation & Sick Benefits accrual, to carry until end of fiscal year
			485,000 Security Deposits
			300,000 RAC true-ups, to pay out after receipt of RAC audits
			(51,000) Other
		<u>7,422,000</u>	

PROFIT & LOSS STATEMENT -YTD ACTUAL VS YTD BUDGET FOOTNOTES - SUMMARY

(a)	Landing Fees	OVER BUDGET	\$202,489.39	- Passenger traffic are trending slightly higher than anticipated hence - American Airlines 37K over budget - Delta Airlines 53K over budget - Allegiant Airlines 11K over budget - Southwest Airlines 28K over budget - FedEx 11K over budget - UPS 16K over budget - Senator 31K over budget, budgeted 4 flights but averaging 6 flights per week																																
(b)	Aircraft Parking Fees	OVER BUDGET	\$40,258.93	- Cargo parking 24K over budget - Commercial Aviation parking 10K over budget																																
(c)	Auto Parking	UNDER BUDGET	\$93,522.82	- Since most passenger travel is leisure parking revenue is 112K under budget - Employee Parking 18K over budget																																
(d)	Rental Car	OVER BUDGET	\$105,904.67	- Passenger traffic are trending slightly higher than anticipated hence																																
				<table><tr><td></td><td>Actual YTD</td><td>Budget YTD</td><td>Diff</td></tr><tr><td>AVIS</td><td>61,639</td><td>70,680</td><td>(9,041)</td></tr><tr><td>Budget</td><td>64,023</td><td>43,193</td><td>20,830</td></tr><tr><td>E/A</td><td>114,766</td><td>72,643</td><td>42,123</td></tr><tr><td>Hertz</td><td>103,037</td><td>74,607</td><td>28,431</td></tr><tr><td>National</td><td>141,676</td><td>117,800</td><td>23,876</td></tr><tr><td>GA</td><td></td><td>314</td><td>(314)</td></tr><tr><td>TOTAL</td><td>485,142</td><td>379,237</td><td>105,905</td></tr></table>		Actual YTD	Budget YTD	Diff	AVIS	61,639	70,680	(9,041)	Budget	64,023	43,193	20,830	E/A	114,766	72,643	42,123	Hertz	103,037	74,607	28,431	National	141,676	117,800	23,876	GA		314	(314)	TOTAL	485,142	379,237	105,905
	Actual YTD	Budget YTD	Diff																																	
AVIS	61,639	70,680	(9,041)																																	
Budget	64,023	43,193	20,830																																	
E/A	114,766	72,643	42,123																																	
Hertz	103,037	74,607	28,431																																	
National	141,676	117,800	23,876																																	
GA		314	(314)																																	
TOTAL	485,142	379,237	105,905																																	
(e)	Expense Reimbursements	UNDER BUDGET	\$78,542.40	- Expense Reimbursements 78K under budget																																

September 30, 2020

(f)	Other-Aviation Services	OVER BUDGET	\$181,322.91	<ul style="list-style-type: none"> - Warehouse fess 178K over budget - Reimbursement Service Program 25K under budget - A/C Ground Handling-Pax 12K under budget - Ground A/C Handling Cargo 43K over budget
(g)	Gross Profit on Fuel Sales	UNDER BUDGET	\$212,362.43	<ul style="list-style-type: none"> - Jet A Into-Plane 149K under budget - DOD Into-Plane Fees 12K over budget - Retail Jet A Sales 238K under budget - Retail AvGas Sales 9K under budget - Throughput Fees 31K under budget - COGS Jet A-GA 205K over budget
(h)	Salary & Benefits	OVER BUDGET	\$279,762.74	Salaries and Benefits is over budget due to the following <ul style="list-style-type: none"> - Monthly pension liability accrual 136K
(i)	Promotional Activities	UNDER BUDGET	\$143,671.29	Promotional Activities is under budget due to the following <ul style="list-style-type: none"> - Advertising expense 79K under budget - General marketing expenses 48K under budget
(j)	Administrative	UNDER BUDGET	\$125,315.25	Administrative is under budget due to the following <ul style="list-style-type: none"> - Corporate Function 23K under budget - Credit Card Processing 15K under budget - Uniforms 17K under budget - Travel/Tuition 53K under budget - Dues & Subscriptions 12K under budget
(k)	Contractual Services	OVER BUDGET	\$345,126.56	Contractual Services is over budget due to certain annual renewals and to the following <ul style="list-style-type: none"> - Parking Management agreement expenses 41K under budget - Centralized Receiving & Distribution Facility 75K under budget - Janitorial Services 43K over budget - Computer-annual contracts 360K over budget - Elevator & Escalator 70K over budget - Generator 19K over budget - Telephone Equip 13K under budget - Reimbursement Service Program 15K under budget

September 30, 2020

(l)	Repairs & Maintenance	OVER BUDGET	\$118,462.15	Repair & Maintenance is over budget due partly to approx. 41K in emergency needs and to the following <ul style="list-style-type: none">- Boarding Bridges 21K over budget- Equipment 22K over budget- Vehicles 16K over budget- Fuel Truck 17K over budget- Project Unanticipated 15K over budget
(m)	Utilities	UNDER BUDGET	\$296,894.61	Utilities is under budget due to a 45 day lag in billings <ul style="list-style-type: none">- Gas 59K under budget- Electric 182K under budget- Water & Sewer 52K under budget

Note: Please recognize that this is a preliminary report, unaudited, and only represents three months of activity, resulting in variances which can be quite volatile.

GREENVILLE SPARTANBURG AIRPORT DISTRICT
Other Operating and Maintenance Reserve Funds

		FY \$ Amount Authorized	Estimated Cost	Date	\$ Amount Used YTD	
Emergency Repair/ Replacement/ Operations Fund		\$ 500,000				
	TW L3 Pavement Failure		\$ 10,000			
	Stormwater Pipe at Pond # 6		\$ 10,000			
			\$ 2,028	8/13/2020	\$ 2,028	Herc Rentals
	Fire Truck		\$ 10,433	8/13/2020	\$ 10,433	Engine & Accessory
	Security System		\$ 9,520	7/30/2020	\$ 9,520	Convergint Technologies
	Canopy System		\$ 13,798	9/30/2020	\$ 13,798	Hubner Manufacturing Corp
	Asphalt Patching on taxiway		\$ 2,000	9/9/2020	\$ 2,000	TMS Asphalt Specialties, LLC
	Ford Escape		\$ 3,559	9/10/2020	\$ 3,559	Nichols Sandblasting & Painting
			<u>\$ 57,779</u>		<u>\$ 41,337</u>	
	Uncommitted Balance	\$ 442,221				
Business Development Obligations/ Incentives		\$ 500,000				
			<u>\$ -</u>		<u>\$ -</u>	
	Uncommitted Balance	\$ 500,000				
Contingency Fund		\$ 1,000,000				
			<u>\$ -</u>		<u>\$ -</u>	
	Uncommitted Balance	\$ 1,000,000				

Greenville-Spartanburg Airport District
September 30, 2020

	Initial Purchase	Maturity Date	Interest Rate	Cost Basis or BOY FMV	Par	EOM FMV
US Treasury						
Note	10/7/2019	10/31/2020	1.750%	1,602,848.00	1,600,000.00	1,602,144.00
Bill	6/4/2020	11/19/2020	0.000%	899,466.46	900,000.00	899,892.00
Bill	5/28/2020	11/30/2020	0.000%	1,249,192.46	1,250,000.00	1,249,812.50
Note	10/7/2019	11/30/2020	1.625%	1,600,944.00	1,600,000.00	1,603,968.00
Note	1/28/2019	12/31/2020	2.375%	1,346,287.50	1,350,000.00	1,357,519.50
Bill	8/4/2020	2/25/2021	0.000%	1,999,110.66	2,000,000.00	1,999,180.00
Note	12/23/2019	3/31/2021	2.250%	1,512,210.00	1,500,000.00	1,515,990.00
Bond	8/4/2020	4/5/2021	2.540%	1,016,319.60	1,000,000.00	1,012,190.00
Note	1/7/2020	6/30/2021	1.625%	1,401,880.37	1,400,000.00	1,415,638.00
Note	2/19/2020	7/31/2021	1.750%	1,506,405.00	1,500,000.00	1,520,220.00
Note	8/4/2020	1/13/2022	2.375%	336,555.44	326,000.00	335,411.62
Note	5/28/2020	1/28/2022	1.550%	1,278,014.35	1,250,000.00	1,273,062.50
Note	6/4/2020	3/30/2022	1.950%	928,251.73	900,000.00	924,246.00
Note	8/3/2020	4/8/2022	3.750%	1,084,287.35	1,080,000.00	1,083,380.40

Subtotal-UST

17,761,772.92 17,656,000.00 \$ 17,792,654.52

Money Market Fund Balance (matured UST)

\$ 2,946,883.82

Total Investment Balance

\$ 20,739,538.34

* These notes were initially purchased in 9/2018 with a par of \$1M. In 1/2019, additional notes were purchased from the same issuances.

Weighted blended
yield =
1.5824%

US Treasury Investment Types		T-Bill	T-Note	T-Bond	Fed Ag
Negotiable Debt Obligation		Yes	Yes	Yes	Yes
Backed by Gov Full Faith/Credit		Yes	Yes	Yes	No
Maturity		< 1 yr	1-7 yrs	7+ yrs	1-5 yrs
Coupon-Bearing		No	Yes	Yes	Yes
Interest is paid		at Maturity	Semi-Ann	Semi-Ann	Semi-Ann
State & Local Tax Exemption		Yes	Yes	Yes	Only FHLB (*)

(*) Note: Since GSP is a political subdivision of SC, we are tax-exempt from all taxes, including state and local.

9/ 30/ 2020

Procurement / Capital Acquisitions

<u>Project/ Item Description</u>	<u>Date</u>	<u>Monthly \$ Amount</u>
Capital Improvements:		
Rodgers Builders / Surface Parking Planning/Progr	9/30/2020	1,559,071
WK Dickson / ARFF Station	9/30/2020	39,455
Mavin Construction / ARFF Station	9/30/2020	680,621
NafeCo Inc / ARFF Station	9/23/2020	71,402
Graham County Land Co / GA Hangar Site Prep Design Phase	9/14/2020	116,125
WK Dickson / GA Hangar Site Prep Design Phase	9/30/2020	31,983
S&Me, Inc. / Airfield Improvement Program Ph 1 - Design	9/23/2020	10,185
Kimley Horn & Associates / Airfield Improvement Program Ph 1 - Desig	9/23/2020	62,333

Equipment and Small Capital Outlays:

Renewals and Replacements:

Bio-Nomic Services Inc. / Sewer Line Repairs	9/30/2020	15,750
Schindler Elevator Corp / Great Hall Modernization & Elevator	9/22/2020	27,476
Hi-Lite Airfield Services LLC / Airfield Pavement Flaking Markings	9/30/2020	24,048
Hi-Lite Airfield Services LLC / Airfield Pavement Flaking Markings	9/30/2020	20,548

Professional Service Projects:

Total Procurements/ Capital Additions for the month	\$ 2,658,997
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MEMORANDUM

TO: Members of the Airport Commission

FROM: Kevin Howell, Senior Vice President/COO

DATE: November 23, 2020

ITEM DESCRIPTION – Information Section Item C

October 2020 – Development/Project Status Report

SUMMARY

Parking Garage C & CONRAC Facility:

Status – On Hold

Project Budget – \$2,300,000 (Design Phase); \$75,000,000 (Construction Phase)

Estimated Completion Date – TBD

This project includes the design and construction of a new combined public parking and rental car ready/return garage. The design team is led by LS3P and is currently working on wrapping up the final construction documents. The advance package for the roadways and utilities enabling work is under contract with Rodgers Builders, Inc. along with the Surface Parking Expansion Program. Metromont Corporation is under contract for precast design/build services. Metromont's contract will ultimately be assigned to the construction manager selected for the garage. The RFQ/RFP process was started prior to the COVID pandemic and three firms were shortlisted for the Construction Manager as Constructor contract. Due to the COVID-19 impacts on the airport and the travel industry, the RFQ/RFP process has been stopped and the project is on hold until traffic and revenue return to an acceptable level.

Parking Garage C & CONRAC Facility Enabling Project – Roadways & Utilities:

Status – Construction Phase

Project Budget – \$2,700,000

Estimated Completion Date – January 2021

The Commission approved a \$2,700,000 budget for enabling work on the Parking Garage C & CONRAC Facility Project. The Enabling Project includes roadway and utilities work necessary to start the Parking Garage C Project. Rodgers Builders, Inc. is under contract for the enabling work and the work is being completed simultaneously with the Surface Parking Program. Roadway and general site grading work continues along GSP Drive.

2102 GSP Drive Hangar Renovation Project:

Status – On Hold

Project Budget – \$3,675,000

Estimated Completion Date – TBD

This project includes the renovation of the hangar located at 2102 GSP Drive adjacent to the FBO Terminal. The hangar was in a serious state of disrepair after the transition from Stevens Aviation to GSP/Cerulean Aviation. The interior hangar ceiling was repainted, and the fire alarm system and roof were already replaced. Additional renovation items include demo and renovation of the tenant office suites, restroom upgrades, upgrade/replacement of the electrical system and HVAC equipment, new tool room/shop space for corporate flight departments, circulation space, stairs and egress accommodations, exterior paint, doors and hardware replacement, and integration to the GSP campus access control and CCTV systems. Project design is led by DP3, the architecture teaming member under the WKD on-call agreement. Design is complete. This project is on hold due to COVID financial impacts.

Surface Parking Lot Expansion Program:

Status – Construction Phase

Project Budget – \$16,700,000

Estimated Completion Date – January 2021

The Parking Garage C and CONRAC Facility Project will impact the existing Daily Surface Parking Lot and the Employee Parking Lot. Based on the planning and programming presented to the Commission in January 2019, the Surface Parking Expansion Program was approved with a budget of \$16,700,000.

This program includes a new 1,500 stall parking lot for public economy parking with an associated access road and a roundabout on Aviation Parkway. The program also includes a new approximately 600 stall Employee Parking Lot and TNC Staging Area on GSP Drive. Kimley-Horn is leading the design and engineering work. Rodgers Builders,



Inc. is under contract as the Design-Assist contractor for the program. Work is underway at the new Employee Parking Lot and the new Economy Lot sites simultaneously. Current work items include paving, landscaping, and stone cladding at the new Economy B entrance/exit.

Aircraft Rescue and Firefighting (ARFF) Station:

Status – Close Out Phase

Project Budget – \$11,750,000

Estimated Completion Date – November 2020

This project includes construction of a new ARFF station to be located adjacent to the PSA Hangar at 2100 GSP Drive. Design and engineering were delivered under the WK Dickson on-call contract. Architectural design was led by Leo-Daly and supported by DP3 and other sub consultants. Mavin Construction is the general contractor for the project. This project is substantially complete. The Fire Department has moved into the new facility. The contractor is working on project close out.

FBO Expansion Project:

Status – On Hold

Project Budget – TBD

Estimated Completion Date – TBD

The FY20 planning and programming task for this project led by McFarland Johnson is complete. The design phase has been put on hold due to COVID-19 impacts.

Facilities Department Building Expansion Project:

Status – On Hold

Project Budget – TBD

Estimated Completion Date – TBD

The FY20 planning and programming task for this project led by McFarland Johnson is complete. The design phase has been put on hold due to COVID-19 impacts.

Aviation Parkway Rehabilitation:

Status – Construction Phase

Project Budget - \$1,500,000

Estimated Completion Date – December 2020

The pavement rehabilitation for Aviation Parkway is a budgeted FY20 capital project. This project was included in the Rodgers Builders, Inc. design assist scope and GMP pricing package due to similarities in scope with the parking lot and other roadway work. Combining these packages allows the District to secure the most economical pricing with larger quantities of asphalt, etc. The Aviation Parkway rehab is scheduled to be completed in December. Paving work is underway.

Terminal Area Planning Study:

Status - Planning Phase

Project Budget - \$400,000

Estimated Completion Date – December 2020

This project is led by McFarland Johnson and includes the planning and programming phase for the next phase of terminal expansion. The scope of work includes facility programming, phasing, budget and conceptual layout planning.

Fuel Farm Expansion Project:

Status – On Hold

Project Budget - TBD

Estimated Completion Date – TBD

The FY20 capital budget included the design phase for the next phase of the fuel farm expansion. Staff is working with Kimley-Horn to prepare an RFP for Design-Build services. The project is on hold due to COVID-19 impacts.

Runway Safety Area Grade Corrections Project:

Status – Construction Phase

Project Budget - \$300,000

Estimated Completion Date – December 2020

This project includes grade corrections inside the runway safety area (RSA) of RW 4/22 near TW G and at either end. WK Dickson led the engineering work for this project. Graham County Land Development is the contractor. Construction is expected to be completed by winter 2020. Grading work is almost complete.



General Aviation Expansion Project:

Status – Construction Phase

Project Budget - \$400,000 (Design Phase); \$3,250,000 (Construction Phase)

Estimated Completion Date – TBD

This project includes site prep to expand the general aviation (GA) area north of the newest bulk aircraft hangar. WK Dickson led the engineering work for this project. Graham County Land Development is the contractor. The original scope of work is being modified to accommodate a larger taxiway for the future GA expansion area.



MEMORANDUM

TO: Members of the Airport Commission

FROM: Tom Tyra, Director, Communications & Air Service Development

DATE: November 2, 2020

ITEM DESCRIPTION – Information Section Item D

October 2020 – Communications Status Report

SUMMARY

News Stories ~ Broadcast, Print and Online 10/01/20 through 10/31/20:

General Airport Updates

10 at the Top Editorial: [GSP Response to COVID-19](#)
SC Biz Magazine: [Recovery faster for general aviation than commercial airports](#)
Stuck At The Airport: [How It Started Meme](#)
Moody's Investor Service: [Announcement of Periodic Review](#)
Back to Boring Travel Blog: [GSP-ATL-MCO](#)
FSElite: [Verticalism Releases Greenville-Spartanburg Airport Rebooted for XPL](#)

Parking and Roadway Construction

GSA Business Report: [GSP Opens Additional Parking Options](#)
Fox Carolina: [Economy Lot B Reopens](#)
Fox Carolina: [GSP opens additional parking in preparation for holiday travel](#)
Greer Today: [GSP reopens economy parking lot B for \\$7 a day](#)

Pilot Furloughs

WYFF: [Pilot Furloughs](#)

GSP to HOU

WSPA: [New Flight to HOU](#)
AAE Aviation News Today: [Southwest announced plans to offer new nonstop service](#)
Upstate Business Journal: [Southwest Airlines adds nonstop service to Houston](#)



Online Store

Airport Business Magazine: [GSP Offers New Online Store](#)

K9 Training

Greenville Journal: [TSA discovered 6 guns at GSP checkpoints last month](#)

Upstate SC News

Spartanburg Herald: [Former GSP Spokesperson to be Part of Spotlight on Cancer](#)

Street Insider: [SSC Adding Fuel Farm at Greenville Downtown Airport](#)

Supply Chain Drive: [How BMW turned Spartanburg into a supply chain hub](#)

Upstate Business Journal: [VisitGreenvilleSC CEO to retire at end of year](#)

New Shopping Kiosks

WYFF: [GSP Expands Automated Retail Program](#)

Airport Improvement Magazine: [GSP Expands Shopping Choices with New Kiosks](#)

Aviation Pro: [GSP Expands Shopping Choices with New Vending Kiosks](#)

WYFF: [GSP has added six new kiosks](#)

Kiosk Marketplace: [Prepango to offer travel items in vending machines at GSP](#)

Airport Business Magazine newsletter: [GSP Expands Shopping Choices](#)

Reach of GSP Media Appearing on National Social Networks

Twitter: 283,120

Facebook: 153,010

Airport Digital and Social Media 10/ 01/ 20-10/ 31/ 20:

Website

Sessions – 44,410

New Users – 31,411

Page/Session – 1.66

Average Session Duration – 1:23

Page Views – 73,901

Facebook

Total followers – 12,560

New followers – 91

Page Reach – 455,200

Post Reach (Paid) — 400,692

Post Reach (Organic) — 15,410

Post Engagements – 37,153

Instagram

Total Reach – 57,472

Total Impressions – 111,804

Followers – 2,169

New followers – 22

Twitter

Impressions – 14,500

Visits – 258

Followers – 6,493

New followers – 11

Mentions – 50

Top Performing Social Media Posts

Top Tweet earned 2,160 impressions

How it started: How it's
going: pic.twitter.com/20sdrmhzak



3 25

Impressions	2,177
Total engagements	282
Media engagements	187
Detail expands	57
Likes	25
Profile clicks	10
Retweets	3



Greenville-Spartanburg International Airport: Reaching New Heights - Celebrating GSP's past...

Today marks the 59th anniversary of the opening of Greenville-Spartanburg International Airport. When the airport opened in 1962, Roger Milliken described GSP as "the gateway to this area. Through this gateway will pass the people who will make the future of the..."

2:47 · Uploaded on 10/15/2020 · Owned · Appears Once · View Permalink · Copy Video ID

Total Video Performance	
Minutes Viewed	1,193
1-Minute Video Views	326
10-Second Video Views	910
3-Second Video Views	1,915
Average Video Watch Time	0:17
Audience Retention	
Audience and Engagement	



MEMORANDUM

TO: Members of the Airport Commission

FROM: Scott C. Carr, A.A.E., Vice President – Commercial Business & Communications

DATE: November 23, 2020

ITEM DESCRIPTION – Information Section Item E

October 2020 – Commercial Business and Marketing Report

SUMMARY

Southwest Airport – Nonstop HOU Marketing Campaign:

Status – Media buys completed and currently running ads to promote the new route.

Project Budget – \$100,000

Completion Date – February 28, 2021

In October 2020, Southwest Airlines announced new nonstop service to HOU. This service provides travelers with better connections to cities throughout Texas, the western U.S., as well as the Caribbean and Mexico. This marketing campaign will help educate the traveling public that the new nonstop flight is available on Southwest.

New ARFF Station – Ribbon Cutting:

Status – All preplanning for the event has been completed.

Project Budget – \$500

Completion Date – November 23, 2020

To celebrate the opening of the new Aircraft Rescue and Firefighting (ARFF) station, the Airport District will hold a ribbon cutting event after the Airport Commission meeting on November 23, 2020.



Website Project:

Status – The Communications Department team has completed an outline of the new website pages and they are currently being reviewed internally prior to development.

Project Budget – \$75,000

Estimated Completion Date – April 30, 2021

The Airport District is creating a new website to provide a better browsing experience for visitors. The new website will also incorporate increased functionality, ensure compliance with all ADA and security requirements, as well as incorporate the GSP360 website within it.

Podcast Series:

Status – Presently working on podcast content and schedule.

Project Budget – \$1,000

Estimated Completion Date – January 31, 2021

The Communications Department is launching an ongoing podcast series. The topics will vary but will include travel related information such as new nonstop destinations from GSP, discussions about economic development and the Airport District's land development program, highlighting the role of different Airport District departments, etc. In addition, external guests may be invited to participate too to discuss tourism throughout the region as well as other topics related to GSP and its travelers.

GSP360 – Land Development Program Video:

Status – Draft video completed inhouse by Communications Department staff and is presently being reviewed.

Project Budget – \$250

Estimated Completion Date – December 16, 2020

The Airport District is developing a video to highlight the GSP360 land development program. The video will be used for business development purposes with prospective tenants.



Bon Secours Wellness Arena Rebranding:

Status – Project on hold due to budget constraints related to COVID-19.

Project Budget – \$15,000

Estimated Completion Date – TBD

The Airport District has an advertising/marketing agreement with the Bon Secours Wellness Arena. As a part of that agreement, we have the branding rights to the ticket office. The current branding is over four years old and in need of a refresh.

Children's Play Area Alcove Project:

Status – Project on hold due to budget constraints related to COVID-19.

Project Budget – All installation costs will be covered by Plus-Plus USA

Estimated Completion Date – TBD

During the terminal building renovation project, two alcoves were developed in the Grand Hall. Based on past direction from the Airport Commission, one will be for a children's play area and another will be for an airport history alcove. The children's play area alcove will be located on the Concourse A side of the Grand Hall.

History Alcove Project:

Status – Project on hold due to budget constraints related to COVID-19.

Project Budget – \$150,000

Estimated Completion Date – TBD

During the terminal building renovation project, two alcoves were developed in the Grand Hall. Based on past direction from the Airport Commission, one will be for a children's play area and another will be for an airport history alcove. The history alcove will be located on the Concourse B side of the Grand Hall.

Automated Retail Vending Kiosks:

Status – Zoom Systems kiosks were removed and Prepango is in the process of installing their kiosks in the terminal building and rental car facilities.

Project Budget – All costs are being covered by Prepango.

Completion Date – November 30, 2020

In August 2020, the Airport District issued an automated retail vending RFP. The Airport Commission approved the ranking of the two proposers. Staff finalized an agreement with Prepango, who was the top ranked proposer. They will operate eight kiosk locations located on Concourse A, Concourse B, and in the rental car facilities. The kiosks will provide travel related accessories, cosmetics, and PPE related items for sale.

Jabbrbox Conference/Workspace Booths:

Status – Agreement fully executed by both parties.

Project Budget – All costs are being covered by Jabbrbox.

Completion Date – February 28, 2021

In October 2020, the Airport District came to an agreement with Jabbrbox to install four of their conference/workspace booths between Concourse A and Concourse B. These booths are technology equipped workspaces to provide business travelers with a place to conduct video conference calls, have a quiet environment to work, etc. They are presently located in airports at Boston, Minneapolis, Las Vegas, Los Angeles, San Francisco, Seattle, and Washington DC. Internationally, they have airport locations in London, Hong Kong, Seoul, and Sydney. GSP will be there smallest airport location to date.

Food Beverage & Retail Concessions:

Status – Metz is planning to open Chick-fil-A in November 2020.

Project Budget – Currently working with Metz to finalize their annual operating budget.

Completion Date – November 30, 2021

In August 2020, the Airport District issued a food and beverage management and operating services RFP. The Airport Commission approved the rankings of the top four proposers. Staff is diligently working with the top ranked proposer, Metz Culinary Management, who will operate Chick-fil-A, The Kitchen by Wolfgang Puck, a soon to be announced fast casual concept to replace DC3 Hot Dogs, Thomas Creek Grill, and R.J. Rockers Flight Room.

SB Acquisitions – Tract A Development Site:

Status – The Airport District provided plan review comments on May 27, 2020. Awaiting revised plans for review, comment, and final approval.

Project Budget – All development costs are being covered by SB Acquisitions.

Completion Date – TBD

On November 25, 2019, the Airport District approved an initial 20-year lease with two five-year option periods for approximately 43 acres of land on Tract A. The lease agreement was fully executed by both parties on January 25, 2020. The site will be for light manufacturing and assembly for after market vehicles modifications as well as vehicle parking.

AT&T Network Infrastructure Expansion Project – GSP International Logistics Park

Status – Awaiting AT&T drawings for review based on site visit on November 5, 2020.

Project Budget – All costs are being covered by AT&T.

Estimated Completion Date – TBD

AT&T placed network infrastructure along GSP International Logistics Parkway in the GSP International Logistics Park. They are now requesting to expand that infrastructure along Global Commerce Drive to meet new customer orders for service.



Charter Network Infrastructure Expansion Project – GSP International Logistics Park

Status – Awaiting Charter as-built drawings from the last project. Those must be received, reviewed, and approved prior to commencing the next phase of the project.

Project Budget – All costs are being covered by Charter.

Estimated Completion Date – TBD

In late 2019, Charter installed their network infrastructure along GSP International Logistics Parkway and Global Commerce Drive in the GSP International Logistics Park. Based on a customer request for service, this network infrastructure needs to be expanded to another leasehold site located along Global Commerce Drive.

FedEx – AT&T Network Fiber Extension Project:

Status – AT&T's contractor expects to start the project the first week after Thanksgiving.

Project Budget – All costs are being covered by AT&T.

Estimated Completion Date – December 31, 2020

FedEx was requesting to install a backup cellular system for their local data network to provide redundancy if their wired data connection was interrupted. This project was canceled and replaced by a fiber installation project that extended fiber from SR 101 down Gateway Drive to the FedEx leasehold.

T-Mobile Signal Strength & Data Transfer Speed Enhancement Project:

Status – T-Mobile is reevaluating this project based on their announced merger with Sprint. Sprint already has a cell phone tower on Parking Garage A.

Project Budget – All costs are being covered by T-Mobile.

Estimated Completion Date – TBD

T-Mobile has received customer service complaints regarding their signal strength for their wireless customers while at the airport. They are presently evaluating the current signal strength. Subsequently they will evaluate options to determine the best corrective action to boost that signal strength and data transfer speeds around the airport campus.

Google Street & Terminal Mapping Project:

Status – Google has uploaded all of the imaging captured to their website.

Project Budget – All costs are being covered by Google.

Completion Date – October 31, 2020

Google has an interior mapping program for public facilities as well as a street view mapping program. To assist users of the airport by providing a 360-degree view of public areas of the airport, Google has selected GSP for inclusion into both programs. Once complete, you will be able to see views of the inside of the terminal building and the streets leading up to it when you utilize Google Maps.

Delta Air Lines – Gate Information Display System (GIDS) Project:

Status – Delta is presently doing a test of their software integration with the Amadeus software at MIA. If successful, this will be rolled out next at GSP.

Project Budget – All costs are being covered by Delta Air Lines.

Estimated Completion Date – TBD

In order to enhance the overall passenger experience, the Airport District has been encouraging Delta Air Lines to provide their proprietary GIDS to our mutual customers at GSP. This will provide detailed flight information, standby and cleared list passenger information, etc. in the same format that the Delta passengers are accustomed to seeing at other airports and will replace the current default GIDS that only provides basic flight information.

Southwest Airlines – Gate Information Display System (GIDS) Project:

Status – Project on hold by Southwest due to budget constraints related to COVID-19.

Project Budget – All costs are being covered by Southwest Airlines.

Estimated Completion Date – TBD

In order to enhance the overall passenger experience, the Airport District has been encouraging Southwest Airlines to provide their proprietary GIDS to our mutual customers at GSP. This will provide detailed flight information, standby and cleared list passenger information, etc. in the same format that the Southwest passengers are accustomed to seeing at other airports and will replace the current default GIDS that only provides basic flight information.



MEMORANDUM

TO: Members of the Airport Commission

FROM: Ashley Bruton, Director of Human Resources

DATE: November 23, 2020

ITEM DESCRIPTION – Information Section Item F

October 2020 – OSHA Recordable Injury Report

SUMMARY

Monthly Activity as October 31, 2020

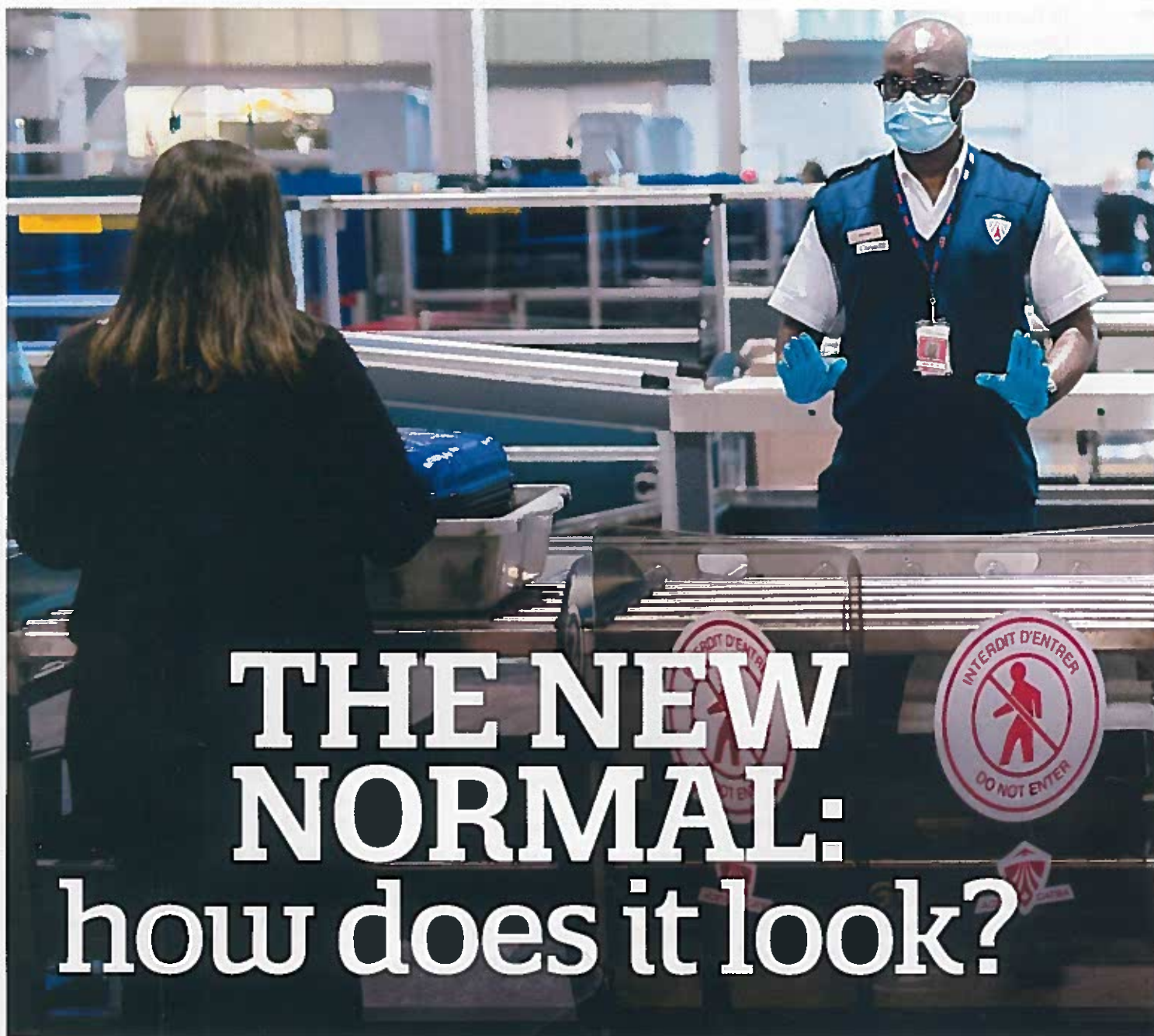
- 0 OSHA Recordable Injuries

2020 Calendar Year-to-Date

- 10 OSHA Recordable Injuries

2 Year Historical Annual OSHA Recordable Submissions:

Calendar Year	Annual Average # Employees	Total Hours Worked by all Employees	# OSHA Recordable Work-Related Injuries	# OSHA Recordable Work-Related Illnesses	# Days away from Work
2019	206	399,715	9	0	102
2018	195	379,203	12	0	112



THE NEW NORMAL: how does it look?

The industry may be taking small steps forward post-COVID-19, but the airport landscape looks very different than it did six months ago. **Carroll McCormick** sees how two North American airports are keeping staff and passengers safe

Ensuring the health and safety of airport staff and passengers, and making people feel confident enough to come to airports, are critical tasks in the strange new world emerging from the COVID-19 pandemic. San Antonio International Airport (SAT) in the United States and Montreal Trudeau International Airport (YUL) in Canada, for example, have adopted a range of procedures intended to do just this.

While there is not a co-ordinated national programme for ensuring

consistent procedures across Canadian airports, according to Aéroports de Montréal, which runs the Trudeau and Mirabel airports, Transport Canada has been issuing guidelines and quite specific requirements that they must follow. These include temperature screening and the mandatory use of non-medical masks or face coverings over the mouth and nose while travelling.

On April 17, Transport Canada announced that all passengers would have to cover their mouths and noses “at Canadian airport screening checkpoints, where the

screeners cannot always keep two metres of separation between themselves and the traveller, when they cannot physically distance from others or as directed by the airline employees, and when directed to do so by a public health order or public health official.” Face masks also became mandatory on all flights.

“Aéroports de Montréal has been working closely with the Public Health Agency of Canada and the Direction de la santé publique du Québec [Quebec Public Health Department] to make sure that the measures implemented were complying ➔

with both the federal and provincial recommendations,” said Anne-Sophie Hamel-Longtin, director of Corporate Affairs and Media Relations.

She added: “All Canadian airports have been in close contact through various forums to make sure that programmes were consistent. At YUL, we also closely monitored what was being implemented in airports around the world, looking

at best practices in the industry and recommendations from various groups, such as the guidelines from International Civil Aviation Organization and Airports Council International.”

Meanwhile, in the United States, the national requirements for airports to comply with procedures known to reduce the spread of SARS CoV-2, which is the virus responsible for COVID-19, could

best be characterised as being softer than those implemented in Canada.

For example, Runway To Recovery: The United States Framework for Airlines and Airports to Mitigate the Public Health Risks of Coronavirus, July 2020, issued by the US Departments of Transportation, Homeland Security, and Health and Human Services, while full of useful guidance, uses language



Reminders to San Antonio passengers of health and safety measures SAT

such as: "Discourage symptomatic or ill passengers... from coming to the airport."

However, airports and agencies can choose to impose firmer requirements. This May 7, the Transportation Security Administration imposed unambiguous rules, including saying that "its employees must wear facial protection while at screening checkpoints."

Staff at SAT have been wearing face masks since April, according to Jesus Saenz, director of Airports, SAT: "There has been a lot of self-compliance by staff and passengers. We have been encouraging everyone to wear masks all the way back to April. We also started making our own masks in April."

Furthermore, Mr Saenz said: "On July 2, our governor issued a mandate to wear masks in all public facilities." The airport is a member of a city initiative called 'Greater. Safer. Together', in which business owners pledge to implement the use of face coverings, practise social distancing, conduct temperature checks, provide hand sanitisers and encourage

contactless payment when possible. "We are fortunate that all the stakeholders have joined this programme," Mr Saenz noted. "Specific efforts [in the airport include] six-foot social distancing, floor decals, [stressing] the importance of hand washing and installing over 230 hand sanitisers."

This includes hand sanitisers for staff and agents who handle documents: "To ensure that if you have to handle documents there is a hand sanitiser readily available so you can clean your hands immediately after."

Until June, San Antonio had a Stay Home, Work Safe Order that strongly advised citizens to stay at home as much as possible and, when out, to wear face coverings, practise social distancing and follow other guidance for slowing the spread of COVID-19.

"[It] encouraged people who didn't feel well to stay home," Mr Saenz said. "We have worked with community leaders – for example, the Health Department. We participate in American Association of Airport Executives calls. We are partnering with each of our stakeholders

to be sure we are sending the right message, to gain consumer confidence. It is extremely important that we build confidence, reduce passenger anxiety and ensure their safety, so that they will feel comfortable coming back."

Both Montreal Trudeau and San Antonio have implemented a slew of health and safety procedures from parking garage to gate. Trudeau has 11 doors on the departures level and nine on the arrivals level, but only two on the departures level and one on the arrivals level are currently being used. At each of these doors, the ➔

We are partnering with each of our stakeholders to be sure we are sending the right message

Jesus Saenz director, SAT

ADVERTORIAL | MATERNA ■

MATERNA IPS

Touchless travel experience

Materna IPS GmbH is the leading company when it comes to automated passenger handling for airports and airlines with more than 800 installations worldwide. Tokyo International Airport (Haneda) recently decided to enhance their passengers travel experience by implementing more than 100 self bag drop units.

The Materna IPS self-service solutions allow passengers to drop off their luggage within seconds into the baggage handling system. Technologies such as biometrics, payment and RFID can be easily integrated. With Touchless.Connect kiosks can be operated via smartphone - making air travel safe again for passengers.



Do you want to make the passenger journey more safe?

Kiosk control with Touchless.Connect

The No.1 in self bag drop www.materna-ips.com

airport has set up health checkpoints, where passengers must wash their hands, answer questions to determine if they have symptoms consistent with COVID-19 and wear a face mask.

Staff are checking passengers' temperatures, too. A reading of 38°C or more is too high, according to the Transport Canada recommendation.

"If a passenger has a fever upon their arrival at the terminal, our employees at the health checkpoints will contact their air carrier. The decision of letting a passenger board an aircraft is taken by the airline, not the airport. If the airline decides not to let the passenger take their flight, they will make arrangements with them," said Ms Hamel-Longtin.

Furthermore, only staff and passengers – with exceptions for people accompanying minors or anyone providing special assistance – are allowed in the terminal.

San Antonio has not locked any of its doors, nor set up health checkpoints. "As passengers arrive, they are afforded the opportunity to ingress the terminals at various points to allow social distancing," Mr Saenz noted. "Passengers are allowed in as long as they are wearing masks. We are not screening any of the passengers at this time, but we are encouraging those who feel unwell to contact their airline. We have employee screening at other checkpoints." The airport also has a guaranteed short- and long-term parking programme, at which "Touchless entry – the use of credit cards to open the gates – had been implemented prior to the [pandemic]. [So] only you handle your credit card."

Before leaving for the Trudeau airport, passengers can book parking spaces and even reserve passage through the security checkpoints. "When they do so, they are given a specific time to go through a dedicated checkpoint corridor, thus avoiding lines," said Ms Hamel-Longtin.

Both YUL and SAT have self-check-in kiosks, and the latter has installed additional common-use versions. Both airports also have baggage self-tagging and bag drop programmes.

San Antonio has also been working to reduce contact at the security checkpoints. In a pilot programme in early July, for



All high-traffic areas are disinfected ten times a day at San Antonio SAT

example, the airport installed three new CT machines at security checkpoints that perform 3D, 360° view-checking of carry-on bags. "We are moving toward

not having to take electronic equipment from bags to reduce the number of touches you have," Mr Saenz said.

Toronto Pearson airport does not currently allow cash to be used at any of its concessions, but it is still acceptable at San Antonio, although signage encourages cashless contact.

Other health and safety measures at YUL include automated vending machines installed at each health checkpoint, where passengers and employees can buy disposable face masks for CA\$2,

along with regular disinfecting of baggage carts, cleaning and disinfecting public areas ten times a day where passengers are travelling, and reduced seating at concessions to ensure social distancing.

At SAT, Mr Saenz said: "Our volunteer ambassadors have masks that they distribute. We are a mask-friendly and a mask-wearing and welcoming environment. We [also] moved around concession seating and removed a lot of seating in baggage claims."

The airport has affixed nearly 800 decals on gate area seats that read 'Stay Safe Leave Space' to encourage social distancing. Mr Saenz noted: "There are floor decals placed strategically around the complex. There are decals in some of the boarding areas, too."

"To encourage social distancing, decals have been placed around baggage claim devices, TSA queuing and the

The decision to let a passenger board an aircraft is taken by the airline, not the airport

Anne-Sophie Hamel-Longtin
Montreal Trudeau Intl



All passengers entering the Trudeau terminal must have their temperature taken and answer question about their health YUL

Federal Inspection Services Facility for international arriving passengers.”

The airport is communicating these measures to passengers in several ways. “We have a number of overhead announcements... [as well as] signs over baggage claim areas reminding passengers of social distancing. We are using existing flight information display systems and incorporating messaging. We translate all of our signage into both English and Spanish,” Mr Saenz said.

At Montreal, Ms Hamel-Longtin detailed: “ADM makes sure to promote the mandatory 14-day isolation rule to its passengers through poster campaigns and messaging on its public announcement system at the arrivals area of the terminal. Enhanced

screening measures at airports include stronger and more visible messages [and] health screening questions at kiosks.” And, like SAT and other airports, YUL has detailed COVID-19 information on its website splash page.

Procedures and health checks have also been put in place to offer advice and guidelines to arriving passengers. Ms Hamel-Longtin explained: “All arriving international passengers at YUL are subject to screening measures by a border officer and, if need be, will be directed to a quarantine officer for additional health screening...”

Roving Canada Border Services Agency officers [are also] screening arriving passengers and passengers in the customs hall to ensure public health messages are delivered and reinforced.”

From our standpoint it is about really digging deeply to find patience, kindness and consideration

Jesus Saenz director, SAT

Montreal says it sees collaboration as key to making its health and safety measures a success: “We have worked closely with airlines and government agencies at all steps of our process. We have weekly airport operation committee meetings, and we share the information with all airport partners. We have designed signage and make sure it [is] used in all terminal areas.”

Mr Saenz concluded: “When we launched our COVID-19 task force [and] started this initiative, we had this effort to make sure everyone was on the same page. We created this task force [so that] everyone has responsibility for this experience, and I think that is what is making the difference right now. You need information in real time and to be consistent. Four months in and we are still dealing with this difficult pandemic. From our standpoint it is [about] really digging deeply to find patience, kindness and consideration, dealing with everyone so they have information.” **AI**

Leasing Pitfalls in and Around Airports

WHETHER YOU are leasing several acres to start up as a Fixed-Based Operator (FBO), a Maintenance Repair and Overhaul shop (MRO), or a single aircraft hangar for commercial use, you should be mindful that leasing property on an airport is different than leasing other commercial property.

Therefore, potential airport tenants should be mindful of some of the most common pitfalls that are often overlooked when entering into a lease. Those looking to acquire an interest in an airport-based business should also be weary of the potential pitfalls. If a tenant is aware of potential pitfalls when entering into a lease, they are better able to avoid or correct them early on. By avoiding or correcting problems, potential tenants minimize risk of a breach, default and/or protracted litigation. In this article, I will discuss some of the potential pitfalls tenants may face when entering into an airport lease.

ALL TENANTS MUST COMPLY WITH ALL AIRPORT MINIMUM STANDARDS

In addition to complying with their respective leases, tenants on airports are required to comply with the Minimum

Standards. The Federal Aviation Association (FAA) encourages federally obligated airports to establish Minimum Standards for commercial service providers and rules and regulations for all other airport activities. Minimum Standards for an airport are usually set forth in a document referred to as either the Airport Minimum Standards or the Rules and Regulations for that particular airport. Generally, airport leases include provisions incorporating the Minimum Standards by reference or indicate that the lease is subordinate to the Minimum Standards. If a lease contains a provision that exempts a tenant from compliance with the Minimum Standards, the tenant should proceed cautiously. The FAA encourages Minimum Standards in order to level the playing field and prevent discrimination. If a tenant is given an exemption from the Minimum Standards, it can create a situation where another may argue that the landlord/Airport Sponsor is engaged in discrimination or has provided one tenant with an impermissible Exclusive Right. Such arguments can lead to a complaint to the FAA and jeopardize the public funding of the airport. As the tenant who has and relies upon the exemption, you can easily find yourself in the middle of a costly dispute.

Before executing a lease with an exemption allowing the tenant

to deviate from certain Minimum Standards, the tenant should ask the landlord/Airport Sponsor whether other tenants have similar exemptions and/or whether the airport is working to update the Minimum Standards to eliminate the need for exemptions. If the only option is to execute the lease including the exemption, the tenant should be mindful of same, gather all relevant facts and carefully evaluate the risks before proceeding. It is wise to consult with trusted counsel in this scenario.

AVOID LEASE TERMS IN EXCESS OF 50 YEARS

Federally obligated airports are required to hold "good title" and must avoid actions that would deprive the airport of the rights and powers to control development and comply with the federal obligations. "Leases that exceed 50 years may be considered a disposal of the property in that the term of the lease will likely exceed the useful life of the structures erected on the property." (FAA Order 5190.6B at 12.3(b)(3)). According to the FAA, "tenant ground leases of 30-35 years are sufficient to retire a tenant's initial financing and provide a reasonable return for the tenant's development of major facilities." (FAA Order 5190.6B at 12.3.(b)(3)). Thus, if you are entering into a lease that exceeds 35 years you should be mindful of the risk that the FAA may object to the length of the lease and there is further risk that the FAA may require the airport to shorten the term. If the airport wants to shorten the term, it will require a renegotiation of your lease and the tenant should attempt to leverage your position for more favorable terms.

ABOUT THE AUTHOR



ALISON SQUICCIARRO

Alison L. Squicciarro is an attorney with the Law Offices of Paul A. Lange, LLC with offices in New York and Connecticut. Alison's nationwide practice focuses on aviation related commercial litigation with an emphasis on FAA and DOT Regulatory Issues, Airports, Insurance Coverage and Employment matters.

AVOID EXCLUSIVE RIGHTS

Any airport that has previously received federal funds is precluded from granting a “special privilege or a monopoly to anyone providing aeronautical services to the airport or engaging in aeronautical use” for as long as the airport continues to operate (FAA Order 5190.6B at 8.1). The FAA defines an Exclusive Right as:

“A power, privilege or other right excluding or debarring another from enjoying or exercising a like power, privilege or right. An exclusive right may be conferred either by express agreement, by imposition of reasonable standards or requirements or by other means. Such a right conferred on one or more parties, but excluding others from enjoying or exercising a similar right or rights would be an exclusive right.”

(FAA Order 5190.6B at 8.2). “The intent of this restriction is to promote aeronautical activity and protect fair competition at federally obligated airports.” (FAA Order 5190.6B at 8.1). According to FAA policy:

“The existence of an exclusive right to conduct any aeronautical activity at an airport limits the usefulness of the airport and deprives the public of the benefits that flow from a competitive enterprise. The purpose of the exclusive rights provision as applied to civil aeronautics is to prevent monopolies and combinations in restraint of trade and to promote competition at federally obligated airports.”

Examples of Exclusive Rights that may violate the airport’s federal obligations include the following:

- Lease terms that include language stating that the tenant shall be the sole operator of its type
- Options to lease additional areas of the airport or rights of first refusal
- Exemptions to Minimum Standards

If your lease has an Exclusive Right, it may expose you to an attack by a competitor or prospective competitor. A competitor may attack your lease by any combination of the following:

- Bringing the matter to the airport’s attention and seek to have the Exclusive Right removed from your lease
- Filing an informal Part 13 complaint or a formal Part 16 complaint with the FAA seeking to have the airport remove the Exclusive Rights; and/or

- A declaratory judgment action seeking to have the provision declared unenforceable as a matter of law

DOES THE TENANT HAVE A REMEDY IF THE AIRPORT CLOSES OR OPERATIONS ARE LIMITED?

An airport can be closed and/or operations limited for any number of reasons including:

- Construction and/or improvements to the airport
- An airport sponsor’s decision to close the airport after its federal obligations cease
- Construction adjacent to the airport assuming that the Airport Sponsor does not have the ability to control development in the surrounding areas; and
- Flights cease or decrease substantially, as we saw following the Sept. 11 attacks and the current Coronavirus Pandemic

In order to prepare and protect themselves, airport tenants and prospective tenants should consider how their business would be impacted in each of the above cited scenarios and further consider whether there is anything in their lease that protects them or provides a remedy. If they are not already included in the lease, consider adding the following lease terms:

- A covenant by the landlord/Airport Sponsor obligating them to maintain and continue to operate the airport for the length of the lease
- A provision providing for a rent abatement if the airport is closed due to construction or improvements on the airport or the surrounding areas for a lengthy period of time; and
- A force majeure clause that specifically includes references to terror attacks, pandemics and labor shortages

DOES THE TENANT UNDERSTAND AND ARE THEY PREPARED TO COMPLY WITH THE INSURANCE AND INDEMNIFICATION OBLIGATIONS?

Most leases include insurance obligations and indemnification obligations. The insurance obligations often require the tenant to maintain

certain specified coverages at required limits and likely require the tenant to name the landlord as an additional insured. Indemnification provisions often require a tenant to defend, indemnify and hold the landlord/Airport Sponsor harmless for claims from third parties.

Read these provisions carefully and make sure you understand them and discuss with your insurance broker. Before entering into a lease, it is recommended that the tenant share the lease with your insurance broker and advise them that you are required to maintain the specified insurance coverages. Specifically ask your insurance broker the following:

- Are the insurance requirements commercially reasonable and obtainable by you
- What is the cost for obtaining same
- Will your insurance cover you in case the indemnification provision is triggered
- Are there claims for which the insurer would not insure you?

If your insurance broker advises that the insurance obligations are not commercially reasonable or you simply cannot afford the premiums, raise that concern with the landlord/Airport Sponsor. If it is truly commercially unreasonable and/or you cannot reasonably afford the premium, the landlord/airport sponsor may be willing to adjust same. If you are in that position, it is likely that they have already adjusted for other tenants and if they don’t offer you the same accommodation they may actually be inadvertently giving the other tenant(s) an Exclusive Right.

Whether you are a first time lessee just starting out or a seasoned aviation business seeking to expand, being mindful of the common pitfalls will allow you to complete additional due diligence, ask tough questions, request specific terms and minimize the risk before you find yourself involved in the middle of a protracted dispute with your landlord, neighboring tenants or competitors. ▀

FACILITIES MAINTENANCE

AUTHOR Joe Petrie, Jennifer Wilberschied, Josh Smith

AVIATIONPROS SPECIAL REPORT: HOW THE INDUSTRY IS WORKING TO Combat COVID-19

Airport management, aircraft maintenance personnel and ground service providers are increasing disinfection protocols to increase safety and restore the public's confidence.

THE COVID-19 pandemic created a host of new challenges for the aviation industry. As airlines struggle to get back on their feet and airports examine their operations, a massive sea change is taking place.

One of the biggest permanent changes we'll see is a fundamental shift in cleaning services inside the terminal.

Jeffrey Holaly, key account director for ISS, said cleaning programs traditionally focused on aesthetics, but not the science of disinfection. The pandemic created a need for change that's likely to persist.

"A lot of airports and airlines wanted the perception that everything was clean, but they didn't want to necessarily see people cleaning," he said. "Now we've seen a shift to airports and airlines wanting those cleaning folks to be visible at all times and for people to actually see them doing the cleaning work."

Thomas O'Rourke, director of aviation, North America for ISS, said airport terminal cleaning programs are likely going to evolve into cleaning/disinfecting programs after the pandemic is over. They will implement technology and techniques to not just clean the facilities but kill viruses.

O'Rourke said making cleaning and disinfecting efforts visible will be key in gaining back the public trust in travel. They want to know they're being protected in the terminal and on the plane.

"Optics is absolutely crucial at this moment," he said.

Cleaners at Hollywood Burbank Airport (BUR) are using electrostatic sprayers to provide a deep clean to the terminal. Allen Dishman, senior director of operations for Diverse Facility Solutions (DFS), which handles cleaning at BUR, said the sprayer allows efficient disinfecting of areas within the terminal by spraying a positively charged 3M C. diff material onto surfaces.

"We wanted to bring this equipment on board because now it gives us the ability to spray all touchpoint surfaces that are public facing," he said. "We want the passenger experience to be a hygienic one."

A specially trained cleaner is deployed with the sprayer on a nightly basis. They work from the point of entry of the terminal, spray ticketing areas, TSA checkpoints, tubs, stanchions and other surfaces where passengers may touch.

Traditional disinfecting methods still take place during the day.

"It's for passenger ease," Dishman said. "If we're spraying and we're wiping, we're leaving a surface that's dry. I can't necessarily go through and spray kiosks during the day and now they're wet."



ACCUFLEET INTERNATIONAL

The sprayers can also help in the event of an immediate COVID-19 infection at the airport. If an employee or a passenger is diagnosed with the virus, the unit can be deployed for immediate disinfection.

"Because the micron is small enough, I'm also able to spray keyboards, gate agent stands and electronics," Dishman said. "Before it's a little more of a challenge to disinfect electronics and get the proper dwell time."

Holaly said airlines are increasing cleaning and disinfecting efforts after every flight. Their employees are also getting more involved in the process and make it part of their culture.

ISS started a program with Delta Air Lines in January at Detroit Metropolitan

Wayne County Airport (DTW) to disinfect areas of the airport. Detroit is one of the airline's hubs to Asia, so ISS would clean and disinfect any areas following flights from Asia to the U.S. Customs and Border Protection.

"It wasn't really accepted at first to see people walking around in the Tyvek suits, but now it's quite the opposite," O'Rourke said.

The new requirements will change the way staff cleans. O'Rourke said there's extensive training that goes along with utilizing new techniques and technology, so front-line cleaners will need more skills to meet new standards.

"The big challenge is education," he said. "We have to make sure staff is educated on proper procedures and PPE safety around the whole evolution of cleaning/disinfection."

"The challenge is the mindset, the paradigm shift that it's not just spraying window cleaner on a window and wiping it down. There's a difference between being clean and being disinfected."

Holaly said electrostatic spraying of disinfectant will likely become the new standard inside all areas of the airport. He also expects airports and airlines to ask for more frequency of disinfection in their contracts.

Expect major change in airport technology as well. O'Rourke said he sees airports implementing more touchless technology and air handling systems bringing in more outside air instead of recycling from inside the terminal. He also expects more UV lighting placed inside air handling ducts to kill bacteria.

"They will have to use a heck of a lot more outside air and a lot less return air," he said. "It will cost a lot more money to condition the air correctly."

Holaly said airports need to tell their story about what they're doing to protect the public. Anything to reduce the number of touchpoints or cleaning will convey the safety being taken to protect the public.

"A lot of it is going to be increasing the frequency of cleaning and communicating that to the public," he said.

Cincinnati Goes Automated

Cincinnati/Northern Kentucky International Airport (CVG) implemented

The Neo is self-learning, so whenever a piece of furniture is moved at Cincinnati/Northern Kentucky International Airport, it will adjust its routes accordingly.

CINCINNATI/NORTHERN KENTUCKY INTERNATIONAL AIRPORT (CVG)

autonomous robots in April to aid in terminal cleaning. The Avidbots Neo robot was deployed to autonomously clean floors throughout the terminal on a continuous basis to ensure a high-quality, healthy experience for travelers.

Neo is an autonomous floor scrubbing robot. It uses artificial intelligence, cameras and 3D sensors to adapt to its environment and automatically update its route to avoid obstacles. Neo avoids people, suitcases, furniture, displays and other items.

Neo can operate six hours on a single charge. The airport started a pilot program with the robot in November. It cleaned about 200,000 square feet of flooring per week during the pilot.

Faizan Sheikh, CEO and co-founder of Avidbots, said the robot has 3D cameras and lidar to perceive its environment. The company first walks the robot through the facility, then creates cleaning plans for the facility. The operator can choose one of the plans each deployment and the robot will run the course in the least amount of time possible.

One of the robots can clean 80,000 to 120,000 square feet on one charge, depending on the layout of the obstacles present in the facility.

"We can show you down to 5 centimeters what got cleaned and what got missed and why it got missed down to a very granular level," he said. "What were the cleaning settings, what was the floor type and you can audit all of that. If you want to make changes it will do that too."

The robot is used at Paris Charles de Gaulle Airport (CDG), Singapore Changi Airport (SIN), Tokyo Narita International Airport (NRT), Tokyo Haneda Airport (HND), Kansai International Airport (KIX), Montréal-Pierre Elliott Trudeau International Airport (YUL), Ben Gurion Airport (TLC) and Sydney Airport (SYD).

Cobb said he first saw the Neo while on a leadership exchange trip to Changi



in July. It was on the heels of a failed attempt at another cleaning robot and knowing Changi's reputation for quality, it made the unit worth exploring.

"The impression I saw not only from keeping it clean, but also the customer engagement," he said. "I saw kids walking close to it and I also saw adults trying to play with it by jumping in front of it."

CVG got interested in autonomous cleaning units as driverless vehicles grow in different areas. They wanted a unit that would perform while also meeting employee needs. The Neo was appealing to CVG because it's self-learning and can adjust its route based on changes inside the layout of the terminal.

Running the units in the middle of the day also includes the optics inside the facility, by showing passengers they're on top of cleaning issues during a time of an international health crisis.

"The cool thing about this is it can work all day long and it's constantly learning the environment," Cobb said. "Very few of them learn on the fly."

Cobb said CVG has one unit in operation now, but leaders would like to have three, so they would be operating inside all major facilities if money is available in the future. Travelers are engaging with the current unit and shows the public Cincinnati is serious about being a forward-looking airport.

"In the current situation with COVID-19, the world is waking up to the idea that you just have to clean more and more frequently and you can't do that with people," Sheikh said. "But the robot you can. It doesn't get tired."

The robots allow Cincinnati to reallocate floor team staff to other areas

Staff can track the Neo via a mobile application.

CINCINNATI/NORTHERN KENTUCKY INTERNATIONAL AIRPORT (CVG)

of critical importance while tackling the COVID-19 health crisis. The airport originally reexamined the housekeeper role at a time when all airports are seeing a labor shortage for what was a low skill job and changing it into a higher skill position. Now it allows them to examine if they can have robots clean and disinfect areas that pose a health risk for humans.

"It's a simple clean, drop, ingest and dispose of. It keeps the system very simple while at the same time we can have a much higher degree of comfort level that we're disinfecting to the appropriate amount without jeopardizing the health of workers or the consumer," he said.

Cobb suggested airports should push a pilot test when picking such a unit. It would allow for a low entry point and will give the vendor a chance to prove the machine will do what is promised.

Keeping Hangars Spic-n-Span

The first step to ensure a safe and healthy environment for your maintenance crews is to keep your hangar or other maintenance facility as clean as possible. Cleaning is simply the process of removing soils from a surface, opposed to disinfecting, which will destroy and kill microbes such as bacteria and viruses. Regular floor cleaning with an automatic scrubber is a key component to an overall cleaning program.

"While disinfecting highly-touched areas, such as door knobs, cabinet handles, shared tools, faucets and similar is critical, other surfaces, such as floors, may just need to be cleaned well," explained Bryan Smith, senior

marketing manager, Americas, Tennant Company. "It is critical to remember you can clean without disinfecting, but you can't disinfect without cleaning first."

Generally, it is not recommended to disinfect floors outside of critical areas such as food preparation areas or where bodily fluids may contact the floor. So, a simple sweep and scrub will do the trick when taking care of a maintenance site.

Two industrial cleaning machines that can aid in the cleanliness of floors are sweepers and scrubbers, which help to really scrub deep and keep floors clean. Sweepers remove dry, loose soils and debris, while scrubbers use water and detergent to clean and dry the floor.

"Sweepers work with a combination of spinning brushes that lift the soil and debris along with a vacuum that pulls the debris into a hopper," mentioned Smith. "Scrubbers use water with optional floor cleaning chemicals to remove dirt, liquids, grease and other soils. A scrubber sprays a solution on the floor, scrubs with a brush, and then automatically recovers the solution with a trailing vacuum and squeegee leaving the floor nearly dry."

Both scrubbers and sweepers come in sizes ranging from small walk-behind machines to large riding machines and can be battery or engine powered, depending on the application needs.

Last year, Tennant launched the T7AMR, the company's first autonomous floor scrubber. "This technology can provide tremendous productivity to your cleaning teams as they are asked to spend more time on disinfecting highly-touched surfaces or other additional tasks," said Smith.

The frequency of use depends greatly on the types of soil, the amount and type of traffic and the expectations of the facility manager. Tennant recommends facilities to always sweep before scrubbing to ensure that larger debris is removed before scrubbing. Tennant provides equipment that combines these functions into one process.

"We have received many questions about how our products can help prevent the transfer of COVID-19," explained Smith. "While there is a protocol Tennant has published for disinfecting floors with our equipment, the floor is not always going to be the priority for disinfection. The best way Tennant

equipment can help is by enabling cleaning teams to keep the floors clean as efficiently as possible so they have the time to do extra detail work disinfecting the highly-touched surfaces that are more critical to preventing disease transfer."

Clean Aircraft and Ground Handling Facilities

Before the airline industry can recover to pre-pandemic levels, passengers will need to begin booking commercial flights again.

So as travel restrictions around the world are lifted, it will become more important for the flying public to see the industry taking cleaning and disinfecting aircraft seriously. Much of that responsibility falls on the ground service providers carrying out these cleaning duties.

"They can see that we are putting a lot of emphasis on cleaning and we're taking the whole coronavirus very seriously," said Brian Giacona, VP of operations at AccuFleet International.

In addition to remain overnight (RON) deep cleans, AccuFleet is applying ultra-low volume (ULV) disinfectant, commonly known as a fogging application, and made plans to acquire electro-static spraying equipment.

"We have started a fogging process for a domestic carrier," Giacona said. "The chemical, based on the manufacturer's information, says that it kills all viruses for a 10-day period. It was used during Ebola and in other areas where we've had viruses and outbreaks in the past."

Both the fogging method and electro-static spray are effective disinfecting measures, Giacona explained. The key difference is the fogging method is more labor-intensive as personnel must ensure the mist is applied to all areas of the aircraft.

The electro-static spray, meanwhile, is electrically charged and adheres itself to all the aircraft's surfaces.

"So you can virtually just walk down the airplane and spray this stuff in the middle, and it will attach to the walls, the seats, under the seats – any surface that has an area for it to attach to," Giacona noted, adding this equipment is in high-demand.

The disinfection process can be daily or spread out over a period of days,

TENNANT COMPANIES





The positively charged materials provide efficient disinfection that normal wipe down processes can do.

JERSON RAMIREZ, DFS SITE DIRECTOR FOR BURBANK AIRPORT

AccuFleet to accomplish this, a group of 6-8 people clean an aircraft continuously for 5-6 hours.

WinMar Engineering Technologies is utilizing technology developed by Far-UV Sterilray to disinfect the air.

"We know the SARS-2 Coronavirus, similar to SARS-1, spreads in the air when people are just exhaling," said Ed Neister, chief scientist at Far-UV and inventor of Excimer Wave Technology. "The virus, before any symptoms show, are going to be exhaled in little, tiny, 1-micron aerosol droplets that the human body normally makes.

"We consider air disinfection very important."

Marty Craig, managing director with WinMar Engineering Technologies, also works for ADSI – an FAA Part 145 repair station. Years ago, ADSI applied the Sterilray program to aircraft in order to keep cabin air systems clean.

"That subsequently led to many other long-term interactions and planning," Craig said. "We started WinMar Engineering to do some of the engineering for the ground services segment – not only cabin air inflight operations, but also ground handling and ground-related items."

Sterilray manufacturers lamps that project a specific type of ultra-violet light that targets the proteins and peptide bonds of bacteria and viruses.

"Coronavirus turns out to be very, very susceptible to the Far-UV Light," Neister said. "It targets the capsid in the virus, and that's why it kills the virus so well."

With limited modification, the system can be used elsewhere.

"On the ground side of it, it's particularly focused on operational centers, air cargo container areas, gateways, jetways, any enclosed area that supports the commercial operations of aircraft – including FBOs and things like that as well," Craig said.

The lamp can be made as small as a magic marker or as much larger fixtures.

"We have a wand that we can move over the surface that we want to disinfect – at 1 foot per second to 2 feet per second and get 100-percent disinfection," Neister said. "We also have, what we call Luminaires, which are lamps in a fixture that sits in the top of a hung ceiling."

Lamps mounted to hoists and rail systems also allow flexibility for cleaning these areas.

According to Neister, the Far-UV light is not harmful to human skin and is also safe when working with animal cargo. ▀

depending on how long the chemical lasts on the surfaces.

"We're also recommending more thorough deep, or heavy, cleans," Giacona said. "A heavy clean is a very labor-intensive clean on an aircraft. It's not just walking on, wiping down a tray table and vacuuming the floors.

"We're currently doing heavy cleans on a nightly basis for a domestic carrier, where we're doing them every single night in all of their locations that they have AccuFleet in," he continued. "That clean basically entails scrubbing the airplane down from top-to-bottom. We're using disinfection chemicals. We're cleaning every crack and crevice, to the point where we even remove the seat tracks off the floor and clean underneath them."

A deep clean on a 737 takes approximately 40 man-hours to accomplish, Giacona said. So, for

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Airport 5G

Moves from Concept to Reality

Airports of all sizes launch next generation wireless technologies to not only satisfy passenger connectivity demands.

ABOUT THE AUTHOR



DANIELLE D. AIELLO

Danielle D. Aiello is vice president, account management at Boingo Wireless (NASDAQ: WIFI), a leader in wireless connectivity for more than 100 major airports around the world. Aiello works with Boingo's airport partners to ensure 5G wireless solutions positively impact operations and the passenger experience. Connect with Boingo at boingo.com and Aiello on LinkedIn at [linkedin.com/in/danielledaiello](https://www.linkedin.com/in/danielledaiello).

When looking at 5G, this latest global health challenge has revealed what many in the tech industry have long known — 5G is changing the landscape of business and accelerating digital transformation strategies. For airports, 5G has moved from concept to reality as airports of all sizes launch next generation wireless technologies to not only satisfy passenger

CONNECTIVITY

HAS never been so important. Amid the coronavirus pandemic, people are relying on wireless networks for their work, education and entertainment like never before. Behind the scenes, the telecom community is doing its part to provide continuity during this unprecedented time, while pressing forward to realize a fully connected 5G future.

connectivity demands, but to support recovery efforts and facilitate a more touchless travel experience.

5G has arrived and airports ready for takeoff with new wireless innovations can pull ahead. Here's an update on 5G and how it's evolving to solve challenges brought on by COVID-19.

To ensure the health and safety of passengers and staff, expanded use cases have surfaced to provide a more touchless travel experience, helping airports meet health guidelines and rebuild consumer confidence.

BOINGO WIRELESS



Dissecting 5G

5G is complex and understanding its DNA will help airports shape the right 5G strategy.

For starters, 5G is not a one size fits all approach. Each U.S. cellular carrier—AT&T, T-Mobile, Verizon—is deploying their own 5G strategy that leverages varying technologies. We're seeing 5G deployments across multiple swaths of spectrum—licensed, unlicensed and shared; as well as high, mid and low bands.

Millimeter Wave (mmWave) is a cornerstone to licensed 5G networks. The high frequency signals travel in narrow wavelengths to deliver increased capacity and ultrafast speeds for passenger applications like HD video streaming and gaming. Boingo recently partnered with Verizon to deploy its mmWave network, called 5G Ultra Wideband, at major airports across the U.S. The network consists of small cells that create a hyperdense wireless environment by bringing more nodes closer to the end user. This 5G solution performs well in converged models, where mmWave can be deployed alongside LTE cellular distributed antenna systems (DAS), Wi-Fi 6 and CBRS networks. This helps more passengers stay connected, whether their device supports 3G, 4G, 5G, Wi-Fi or CBRS.

Speaking of CBRS—Citizens

Broadband Radio Service—airports are strong candidates for this 5G network offering as the shared band offers favorable, cost effective mid-band spectrum for fast and secure connectivity. Boingo launched the first known CBRS network at a major airport, Dallas Love Field Airport (DAL), and operates it as a private LTE (PLTE) solution to expand wireless coverage and capacity.

While PLTE can be great for passenger communications, airports are prioritizing CBRS for operational use cases. For example, with private networks over CBRS, airports can improve safety and security with 4K video surveillance. Advanced video cameras use CBRS to stream near real-time situational data analysis for AI-powered security monitoring services. Biometrics devices can also rely on the spectrum for secure entry, concessions and boarding.

I want to spend more time on 5G use cases like security and biometrics, but first want to cover another important player to airport 5G strategies—Wi-Fi 6 and Wi-Fi 6E.

Wi-Fi 6 is the latest Wi-Fi standard that was developed to advance Wi-Fi capabilities to effectively handle growing traffic demands. Airports are adopting Wi-Fi 6 to support key 5G requirements across capacity, throughput, latency, connection density and speed. Wi-Fi 6

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networks improve passenger applications like mobile boarding passes, wayfinding, streaming and downloading large files, and are backwards compatible with Wi-Fi 5 and other older generation Wi-Fi devices.

In the U.S., the Federal Communications Commission (FCC) recently announced it will open the 6 GHz frequency band for Wi-Fi use. Wi-Fi 6E is the industry name for Wi-Fi devices that operate in 6 GHz. Wi-Fi 6E offers the features and capabilities of Wi-Fi 6—including higher performance,

lower latency, and faster data rates—extended into its own, high-speed lane, the 6 GHz band.

Early trials of Wi-Fi 6E achieved speeds of two gigabits per second (Gbps) and consistent two-millisecond low latency connections—a major step up from current airport Wi-Fi technology.

Wi-Fi 6E is an exciting advancement for airport connectivity

in the 5G era and will be a key solution for cost effective, multi-gigabit broadband, Passpoint Secure and Wi-Fi offload deployments. Passpoint, a hotspot technology that enables travelers to seamlessly and securely roam between Wi-Fi and cellular, is compatible with Wi-Fi 6 and Wi-Fi 6E and will continue to be a go-to option for delivering

a converged, ubiquitous connected experience to passengers.

As wireless expands its role through innovative technologies, convergence and interoperability come sharply into focus. Neutral host has emerged as an optimal business model for powering 5G use cases and managing all flavors of radio spectrum. It consolidates diverse networking solutions—from mmWave

Each U.S. cellular carrier—AT&T, T-Mobile, Verizon—is deploying their own 5G strategy that leverages varying technologies.

BOINGO WIRELESS

to CBRS to LTE to Passpoint to Wi-Fi 6—under one managed platform to seamlessly connect passengers and things within an airport. The approach works by sharing equipment and resources among multiple wireless operators, making it easier and more economical to provide interoperable 5G services. It also implements a layered cybersecurity architecture to protect data and safeguard assets.

5G in Action

Passenger flow predictions, runway monitoring, smart metering and baggage tracking have been at the forefront of airport 5G use cases. To ensure the health and safety of passengers and staff, expanded use cases have surfaced to provide a more touchless travel experience, helping airports meet health guidelines and rebuild consumer confidence. These include:

- **Social distancing measurement**—digital cameras and sensors that monitor the average distance between passengers and staff
- **Security checkpoints**—self-service facial recognition and biometrics devices for contactless entry
- **Mobile concessions**—in-app ordering and delivery, as well as dispersed point-of-sale kiosks with self-service payment for food, beverage and retail
- **Cleaning and maintenance**—ionization, ultraviolet light technology and robotic cleaning scrubbers to rigorously disinfect
- **Health check screening**—temperature



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checks via infrared scanners, sensors and autonomous thermometers for airport and airline employees, and as mandated for passengers

- **Passenger communications**—proximity-based digital signage, virtual queuing or volunteer notifications, Wi-Fi connection portal messaging and PSAs to remind passengers and staff of health and safety protocols
- **Staff and first responder communication**—push-to-talk devices for secure 2-way message transmission

Los Angeles International Airport (LAX), Chicago O'Hare (ORD), Phoenix Sky Harbor (PHX), LaGuardia Airport (LGA) are among the major airports that have taken quick action to roll out new use cases through cutting-edge technology.

Touchless faucets, hands-free drinking fountains, touchless elevators and personal protective equipment (PPE) vending machines with touch-free payment have been implemented

at LAX. Contactless entry is available at CLEAR pre-check kiosks, where 5G-ready networks power the frictionless experience for passengers.

At ORD, secure wireless networks support the airport's proprietary biometrics system to process touchless passenger boarding; and at LGA's new Terminal B Arrivals and Departures Hall, contactless food ordering and delivery is offered via LGA's At Your Gate app—which can be accessed using the airport's ultrafast network. In Dallas, DAL is using its 5G-ready network for connected thermometers that take temperatures for staff before they return to work.

From "wear a mask" announcements to social distancing requests, PHX, JFK and other airports are relying on next generation Wi-Fi connection portals to send messages that remind passengers and staff of health and safety protocols.

The Road Ahead

Similar to sustained changes to the

travel industry after 9/11, the technology solutions and safety measures airports implement now are likely to become the industry standard for the future. Challenges remain, but 5G is the common denominator for solving touchless experience demands and addressing the unrelenting increase in mobile data traffic.

With current lowered passenger traffic, 5G projects can move faster as construction teams have more flexibility to work and move within the terminal. Taking necessary 5G steps now helps airports adapt and rebuild not just for today, but for the next generation of aviation, where digital transformation streamlines airport operations and enhances the passenger journey.

Airports have—and will continue—to rise to the challenge through innovation and a resilient spirit. This latest challenge will serve to push the transportation industry forward into a whole new era of travel. Now, more than ever, we're in this together. ▀



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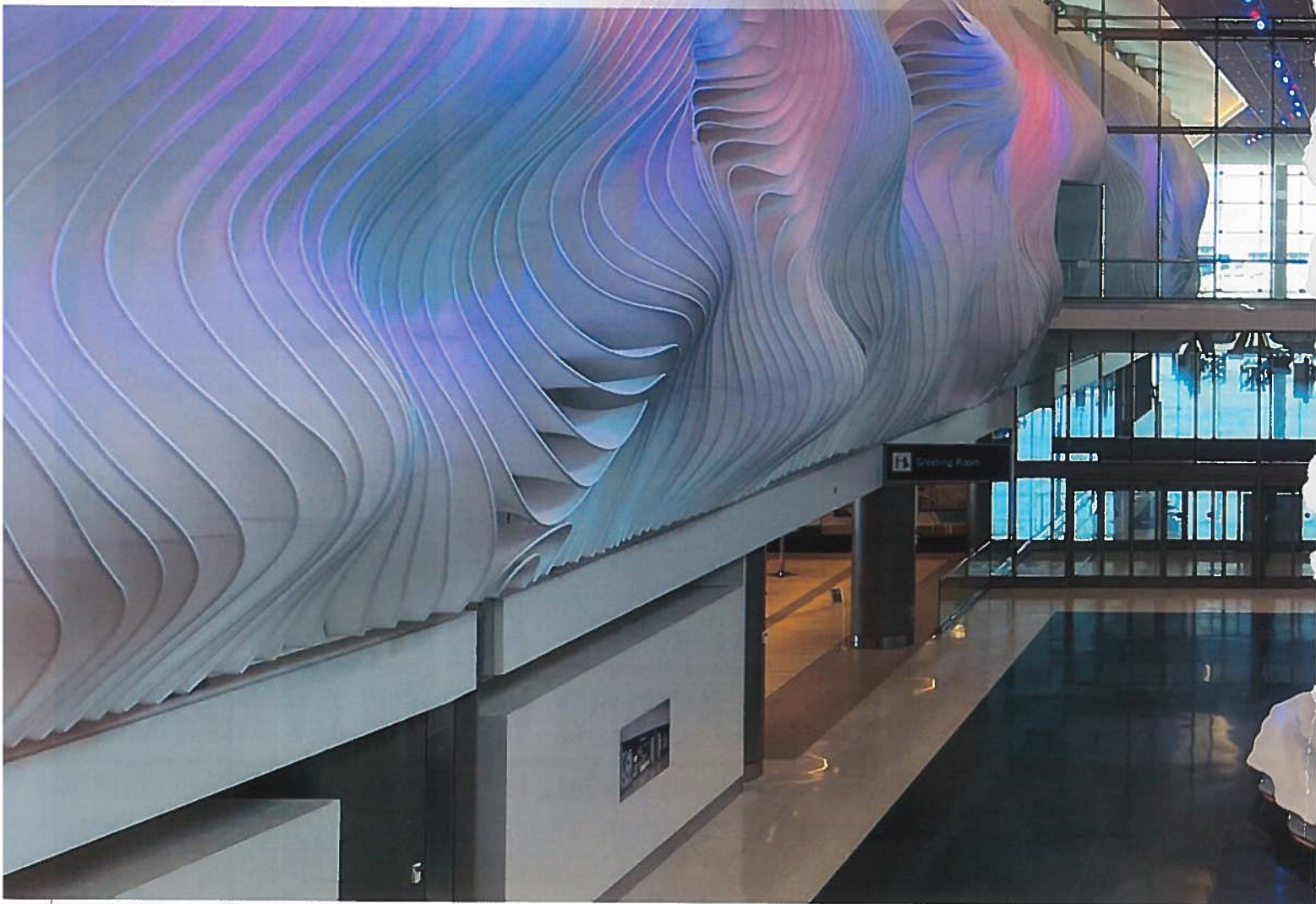
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Salt Lake City Int'l Constructs 21st Century Terminal

BY JODI RICHARDS



In mid-September, Salt Lake City International (SLC) unveiled the first phase of its \$4.1 billion redevelopment project, a comprehensive series of much-needed operational and aesthetic upgrades throughout the entire airport. Last year, SLC served 26 million passengers in facilities designed 50 years ago to handle just 10 million passengers.

Airports Director Bill Wyatt explains that the redevelopment program is creating a "new SLC" that meets the needs of 21st century passengers with an efficient and functional facility. It was also very important for the new facilities to reflect the feel and culture of Salt Lake City and Utah.



BILL WYATT

"Because we're a hub, many people who use the airport don't actually set foot outside," says Wyatt. "We want passengers to

know where they are, and the airport to look like the surrounding environment."

The long-term project is replacing three aging terminals with a single central terminal that contains four concourses.

Key elements of Phase 1 include:

- a new 908,754-square-foot terminal with separate check-in areas on two levels;
- two new linear concourses, one solely occupied by Delta Air Lines and another shared by six other carriers;
- a 3,600-stall garage with visitor parking and rental car facilities;
- a new elevated roadway for departures traffic; and
- a new central utility plant.

Phase 2, which is currently in the works, includes the completion of the new concourses A and B and construction of a pedestrian



FACTS&FIGURES

Project: Comprehensive Redevelopment Program

Location: Salt Lake City Int'l Airport

Cost: \$4.1 billion

Funding: Airport reserves; airport revenue bonds; passenger & customer facility charges; Airport Improvement Program funds (baggage handling system)

New Terminal: 908,754 sq. ft.

Timeline: Phase 1 opened Sept. 15, 2020; Phase 2 is slated to open in 2024 or 2025

Architect: HOK

Civil Engineers: HNTB

Electrical Engineers: HOK; Envision Engineering

Mechanical Engineers: HOK; Colvin Engineering

Structural Engineers: HOK; Reaveley Engineers + Associates; Dunn Associates

Interior Design: HOK

Consulting Artist: Gordon Huether

Concourse B Construction: Austin Commercial-Okland Construction Joint Venture

Construction of Central Terminal, Concourse A, Car Rental Facilities, Central Utility Plant, Parking Garage & Economy Lot, Elevated Roadway, Connector Tunnel: Holder-Big D—A Construction Joint Venture

Airfield Paving: Holder-Big D—A Construction Joint Venture

Integrated Systems Project Team: KR Barker Associates

Special Systems Planning, Design, Implementation & Oversight: JW Group Inc., working as part of the Integrated Systems Project Team

Seismic Engineering: RUTHERFORD + CHEKENE

LED Displays: Daktronics

Baggage Handling System Design: Vanderlande

Baggage System Bar Code/RFID Arrays: SICK

Boarding Pass/Bag Tag Printers & Cardstock: VidTroniX

Airport Operational Database & Resource Management Systems: Amadeus

Flight Info Display & Queue Management Systems: Amadeus

Common-Use Passenger Processing System & Self-Service Kiosks: Amadeus

Seating: Zoetig

Automated Aircraft Docking System: ADB SAFEGATE

Digital Paging & Conference Room Audiovisual Systems: Ford AV

Automated Parking Guidance System: Park Assist

Concessions: HMSHost; Hudson Group; Paradis Lagardère

Operations Readiness & Airport Transfer: Chrysalis Global

Asset Management Consultant: Electronic Data Inc.

PHOTO: SALT LAKE CITY INT'L AIRPORT

tunnel to connect the two. Although the COVID-19 pandemic continues to hammer airlines and airports alike, SLC is making the best of the situation by accelerating Phase 2 with the support of its carriers. Airport officials estimate that decreased passenger traffic will allow the project team to reduce the overall redevelopment schedule by two years and save as much as \$300 million. Phase 2 is now slated to be complete in 2024 or 2025.

Regarding Phase 1, Wyatt points to the new 28,000-square-foot Delta Sky Club (the largest in the airline's entire worldwide system) as an example of the outstanding cooperation that exists between SLC and its carriers. The new members-only lounge was originally planned

to be 18,000 square feet, but Delta decided to increase its size and add an outdoor deck when construction was already underway. "We could never have done this without the deep bond that we have built with Delta," Wyatt says. "You can't do projects like this without that kind of partnership."

SLC officials are proud of the airport's affordable rates and charges for airlines, something they plan to maintain despite substantial investments in the redevelopment program. Prior to construction, the airport had socked away \$1.5 billion in cash. Wyatt emphasizes that despite borrowing for construction, SLC will still be one of the lowest-cost airports in the U.S.

Long-Term Effort

Planning for the current redevelopment goes back to the airport's 1996 master plan. At that time, SLC's configuration was not compatible with its role as a hub facility because its finger concourses did not allow for bank movement of aircraft.

But huge increases in passenger volume required the airport to move forward with expansion plans, Wyatt explains. Specifically, SLC was growing at an average of 5% annually, despite forecasted growth of 1.5% each year. A large redevelopment project wasn't the easiest sell for SLC officials after the 2008 Great Recession, but they knew something had to change.

"We were just bursting at the seams," says Wyatt.

In 2014, the airlines committed to supporting the redevelopment program, and plans moved forward.

While some components of SLC's 1996 master plan changed throughout the years, the importance of a linear concourse configuration has remained a guiding force. "For the last 25 years or so, we've been making choices about the roadway and any additions to the airport that would not impact the construction," Wyatt relates. "It's been a thoughtful, long-term process."

The two new linear concourses will allow simultaneous movement of aircraft without interruption—an especially critical aspect for Delta Air Lines, which typically flies up to nine banks

each day at SLC. Under normal market condition, the airport has 100 nonstop destinations, and roughly 70% of Delta's volume at SLC is connecting traffic.

After the demolition of terminals 1 and 2 is complete, the remainder of the dual taxi lanes will be constructed, further improving airfield operations.

Function & Affordability

In 2008, the airport hired HOK to take inventory and assess the architecture, structural and engineering condition of its facilities.

The redevelopment team used the information to help determine what portions of the master plan it could implement without busting the budget.

"The client was very concerned about spending too much money and overbuilding," relates Matt Needham, an HOK principal.

Ultimately, the architecture firm developed a design for new facilities that achieved the main goals of the Salt Lake City Department of Airports. The "new SLC" had to be functional, affordable and timeless.

Wyatt highlights the airport's two check-in locations as a unique design element. Check-in counters and kiosks in the new Gateway Center, which attaches to the parking garage on



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the second level, will be particularly convenient for passengers returning rental cars or parking their own vehicles. Passengers being dropped off at the airport will likely use the more conventional ticket lobby on the third level.

Officials have always considered SLC's location, just five miles from downtown Salt Lake City, a valuable convenience for local and visiting passengers alike. Wyatt notes that having a bi-level roadway with multiple lanes on both levels will further increase the airport's convenience, safety and capacity.

"When you talk to local people, they love that you can park in the garage and be at your gate within 15 minutes, which is amazing," he relates.

The challenge for HOK's architects and designers was to maintain that treasured convenience in the new terminal. "That's what the Gateway will do," explains Wyatt.

"That kind of layout is highly functional and highly responsive to what the folks of Utah really wanted," agrees Needham. "They wanted the ease of transport without multiple level changes."

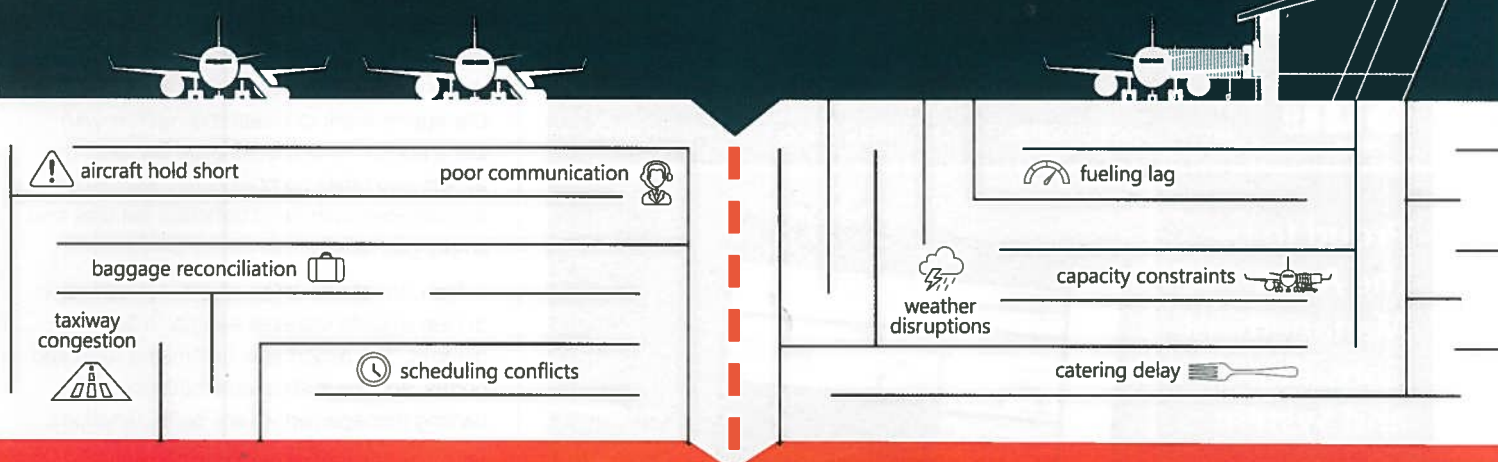
With the new terminal configuration, space planners predict that fully half of SLC passengers will not need to change levels at all.



The new Gateway facility includes rental car counters and airline check-in stations.

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The new 3,600-stall garage includes space for visitor parking and rental cars.

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The new Gateway Center, which includes rental car counters as well as check-in facilities, is designed specifically for SLC's operational flow of non-overlapping peaks. The airport experiences its main departures peak in the morning, and the main arrivals peak occurs in the afternoon. Instead of having a common circulation path in the middle, with queuing for ticketing to the north and queuing for rental cars to the south, HOK placed a line of columns in the middle. During the morning peak, circulation for ticketing is south of the columns, and in the afternoon, circulation for the rental cars is north of the columns. "By having a shifting circulation path, we actually reduced the size of that building by roughly 20% and the construction cost by millions of dollars," Needham explains.

The airport's new 3,600-stall garage houses rental car facilities, including a ready return area, on the first floor. The second level is for passenger/visitor parking and connects directly to the Gateway. Elevators and escalators are positioned to allow passengers who do not need to check a bag to enter the Gateway and head right to the security checkpoint. "It's all organized for ease of passenger movement—as minimal walking distance as you can have," says Needham.

In the garage, an automated guidance system from Park Assist uses camera-based sensors to direct drivers to vacant spaces with color-coded LED lights.

The lights turn from red to green when spaces become available, which helps decrease search times and traffic. When travelers return to the garage, they can use the Find Your Car app or kiosk to locate their vehicle with just a portion of its license plate number. The airport also offers complimentary assistance to customers with dead batteries, flat tires and empty gas tanks.

Park Assist also offers a software extension to help airports increase security in parking garages. The airport sets automated rules and norms, and the system automatically alerts parking management of any policy violations. Currently, SLC does not subscribe to this extra service.

Passenger Processing & Services

While the previous terminals had three separate checkpoints, the new SLC has one consolidated checkpoint with 16 screening lanes. Each lane includes four divesting stations and automatic bin returns. "It's a vastly improved experience for passengers," Wyatt reports. "It's going to operate so much more smoothly than the previous facility, which, of course, was never designed to sustain the volume of people or the type of screening that currently has to occur."

The space allotted for the new checkpoint allows for several different queuing configurations—a valuable advantage while social distancing is so important.

Needham notes that the efficiency of concessions was also a high priority. “We really wanted to have a coordinated, holistic design,” he says. Practical matters included ensuring that each concessionaire has the necessary infrastructure and operations do not interfere with passenger flow.

Nearly all of the new concessions spaces have back-of-house access to elevators and service docks for supplies, storage and refuse disposal. “You don’t want to walk down a concourse and see the janitorial staff pushing refuse next to you,” he says. Additionally, designers coordinated restaurant layouts to keep sublevel storage areas as close as possible, and beverage rooms were positioned so lines for soda canisters run directly up to the kitchen or bar.

When both phases of the redevelopment program are complete, SLC will have more than 75,000 square feet of concessions space with local and national concepts from HMSHost, Hudson Group and Paradies Lagardère. The previous terminals had slightly less than 50,000 square feet combined. The Central Terminal and Concourse A-West alone have 21 food/beverage options and 24 retail stores.

Because so many SLC passengers travel with skis and bikes, the airport added provisions that allow them to check oversized bags and boxes at any point in the system instead of designating just a few stations. The new baggage handling system from Vanderlande features 4-foot-wide belts to accommodate the larger items. (For more about the baggage system, see Page 18.)

New communications infrastructure, including cabling systems and local area networks, supports a wide variety of operational functions and passenger amenities, including the common-use passenger processing system, common-use self-service kiosks, electronic visual displays, the resource management system, parking guidance system, passenger and operational Wi-Fi networks, in-building distribution systems for cellphones and employee radios, visual surveillance and integrations with access control, and electronic passenger wayfinding signage.

A new digital paging system from Ford AV has improved the quality of audio announcements in Concourse A.

Design Goals

Airport officials were not interested in building a ubiquitous structure with a generic interior. They wanted something that was unique to Salt Lake City and the Utah region. “We took that as inspiration for the facility’s organization—not just the design, but how passengers actually move around—and laid out the functions of the terminal,” Needham remarks.

The main organizing element of the terminal is a slot canyon design that facilitates intuitive wayfinding. When passengers enter the canyon, they are lead toward the TSA checkpoint. Once they clear security, they pass directly through a retail



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area and into the plaza, which features a 50-foot-high ceiling illuminated by indirect light.

"We took advantage of the site to have an incredibly deep terminal, and that allowed us to use the slot canyon concept," says Needham. Natural light and artwork in the canyon create a "strong desire to walk along that path," he explains.

Wyatt describes the design as dramatic and inspiring. And it's certainly different from SLC's previous terminals. Windows on both sides of the concourses provide travelers with views of the Wasatch Range and Oquirrh Mountains that surround Salt Lake Valley. "The views are spectacular," he says.

The terminal's exterior façade includes textures and copper tones that evoke the local landscape. Several pieces of industrial-scale art bring recognizable elements of the area's landscape indoors. Wyatt notes that artwork by Gordon Huether add a sense of place and helps guide passengers through the airport. "Art is very much a part of the architecture," he remarks.

Needham predicts that the integration of art and architecture will prove to be timeless. "When we integrate art and architecture, the public really benefits," he remarks.

A seven-story, 5-ton piece titled *The Falls* welcomes passengers into the new terminal with dichroic glasswork that changes color with changing light conditions. Moving through the security checkpoint and into the plaza, *The Canyons* is a series of curved tubes and microfiber panels that bend and sway to evoke the feeling of Utah's signature geological formations. Portions of the large piece are illuminated with digital lighting that can be programmed based on the time of day and season. Passengers who pass through the Central Tunnel on their way to the Concourse B will see an installation called *The River* that features similar tubes and fabric in blue.

The Greeting Room includes a high-resolution photograph of the world map that was originally displayed on the floor of one of SLC's previous terminals. Airport officials incorporated the map into the new facility because it was a sentimental favorite for arriving and departing passengers, especially missionaries. "There must be hundreds of thousands of photographs of people standing on a section of the map where they served on a mission at one time or another," Wyatt explains. Although the airport was unable to save the map itself, a 10- by-10-foot photograph of it adorns the new waiting/greeting area just outside the sole exit lane used by domestic passengers.

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Art was even integrated into the architecture of the facility's restrooms. The stonework design specified outside the restroom banks evokes Utah's famous red rocks. Each restroom node also includes a Whimsy Wall, a vinyl application of vibrant, colorful art. "They're quite lovely," Wyatt says. "It really helps to soften the often industrial nature of bathrooms."

Each bank of women's restrooms includes a lactation room and twice as many stalls as the men's banks. And all restrooms include a baby changing station and stalls large enough to accommodate luggage. Fixtures such as faucets, soap dispensers and paper towel dispensers are touchless—a feature that has taken on new importance in the era of COVID-19. To ensure the facilities were easy to maintain, the airport gathered feedback from janitorial staff about the first set of restrooms that was constructed before building more.

Sustainable SLC

Wyatt notes that sustainability weighed heavily in the layout and design of the new terminal. The linear concourses and dual taxi lanes will allow for multiple pushbacks and movements. Overall, the new layout is considered to be 30% more efficient than the previous pier configuration because it reduces the time aircraft

spend taxiing and idling while waiting for a gate. This is expected to reduce greenhouse gas emissions by 4,800 metric tons per year.

SLC also prohibited diesel- and gas-powered ground service equipment, a measure expected to reduce greenhouse gas emissions by another 8,000 metric tons annually. "Anything that is under the wing will have to be electric—with the exception of pushback tugs, because there really aren't electric equivalents," Wyatt specifies.

Landside, the new parking garage includes 56 charging stations for electric vehicles.

Harvesting of natural daylight occurs throughout the new facilities, including the parking garage, which has two major light wells. Project planners oriented the terminal east/west and included a south-side clerestory to help pull more sunlight into the facility. The building automation system saves energy by using sensors that take advantage of natural daylight while providing consistent light levels despite the time of day or weather.

The airport is using renewable natural gas to heat and chill water throughout the terminal, and it also purchased 2.1 megawatts of off-site green power from Rocky Mountain Power.


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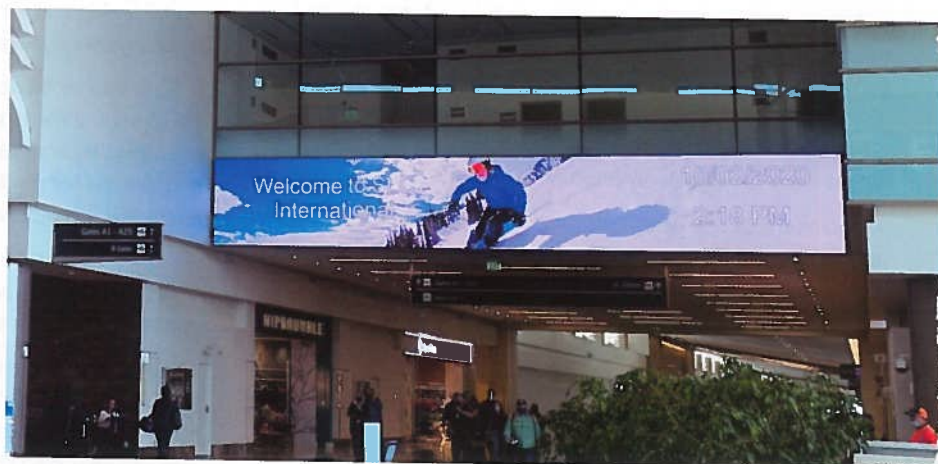




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Updated communications infrastructure supports new LED displays.

At many airports, the baggage handling system draws a tremendous amount of electrical power. The new system at SLC includes stop/start motors that shut down miles of conveyor belts when there are no bags present.

Other sustainability goals for the redevelopment program include: procuring at least 20% of the building materials locally; specifying materials with recycled content; ensuring that 95% of the wood used is FSC certified; and diverting more than 95% of construction waste from landfills. All of these efforts support the airport's goal of earning Gold certification for Leadership in Energy and Environmental Design from the U.S. Green Building Council.


Construction Obstacles

Because SLC is located on the site of an ancient lakebed, the airport had to stabilize the ground beneath the new terminal to meet seismic requirements. Crews installed more than 7,000 stone columns to prevent settling, and structural supports rest on more than 5,000 driven piles. The columns are coordinated along the lines of the structural columns to further support the structure.

Needham notes that the design packages allowed contractors to build just-in-time and take advantage of moderate summer weather for foundation work and site preparation. Project partners worked together to make sure the construction phasing worked for airlines and airport operations, he adds.

The project team divided the giant initiative into two major phases to minimize the impact to operations. "Gate count became a critical component of the phasing every single step of the way," Needham relates. "We could not go below a certain number of aircraft gates."

Because the new terminal is located far enough south and west of the previous terminals, SLC did not have to issue security badges to all 2,000 crewmembers working at the 196-acre construction site. Moreover, the linear layout of the new terminal will facilitate future expansion when/if it is needed. "We have given ourselves a lot of physical space and created the ability to expand without disrupting operations," Wyatt comments.

On the infrastructure side, mechanical, digital and fiber elements are also ready for subsequent expansion. A building information modeling system details hundreds of miles of cabling and every piece of conduit and pipe to facilitate planning and construction of future projects. 

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