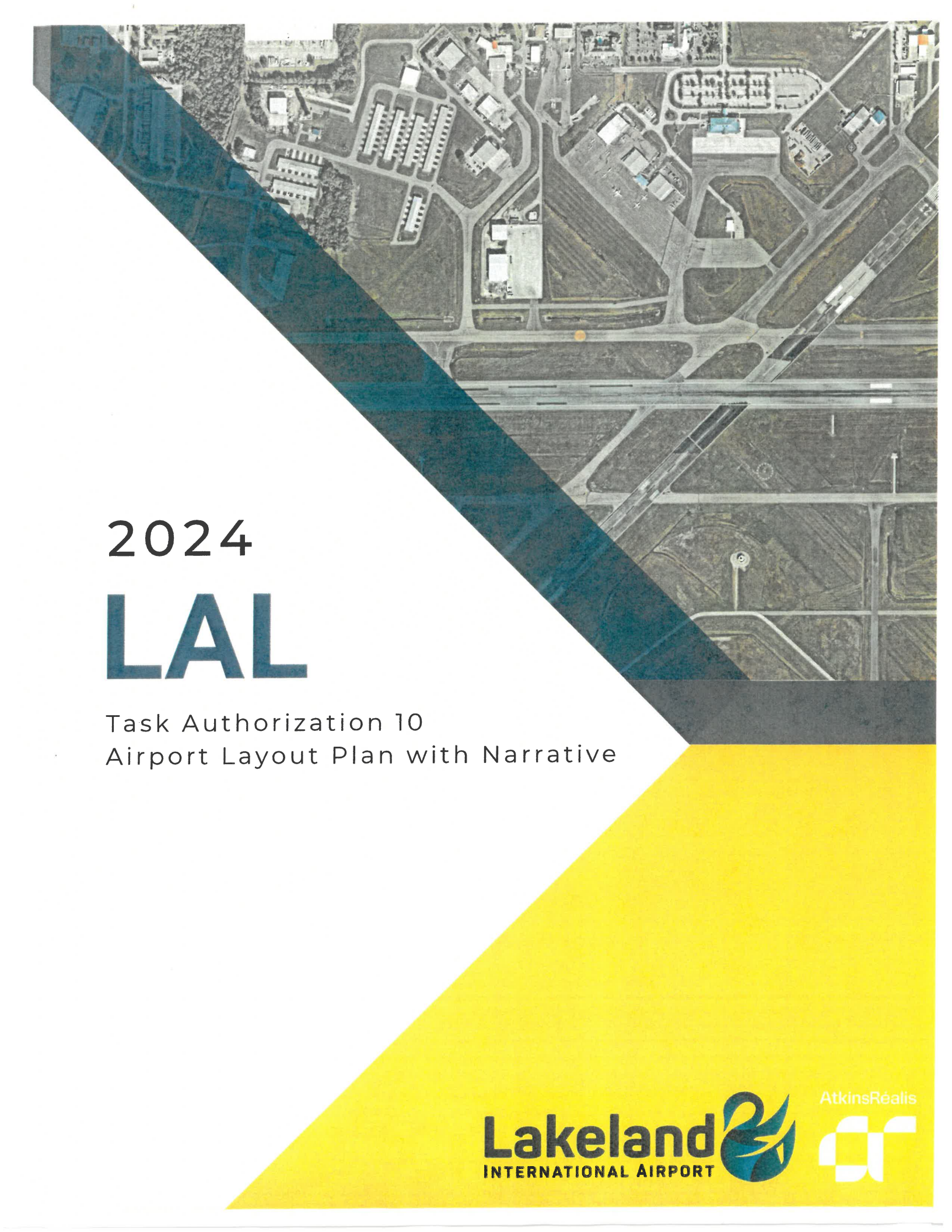




2024

LAL

Task Authorization 10
Airport Layout Plan with Narrative

Lakeland
INTERNATIONAL AIRPORT



AtkinsRéalis





Task Authorization 10

Task Authorization No.	10	Atkins Project No.	TBD
Date:	May 8, 2024	Client P.O. No.	TBD
Owner:	City of Lakeland 228 S. Massachusetts Ave. Lakeland, FL 32801-5086	Engineer:	Atkins North America, Inc. 4030 W Boy Scout Blvd, Suite 700 Tampa, FL 33607

The vendor, AtkinsRéalis USA, Inc. (Atkins), is a corporation licensed to do business in the state of Florida with offices located at the address listed above, among others. As such, this task authorization is prepared in accordance with the terms and conditions of the master agreement *Continuing Contract and Agreement of Professional Municipal Engineering Services* executed between Atkins and the City of Lakeland on November 1, 2021. As part of this task authorization, Atkins will provide the following professional services:

Scope of Services

Professional planning and engineering services for the preparation of an Airport Layout Plan Update with Narrative (the Project). The scope of services is further defined in Attachment A, Scope of Services.

Man-Hour Fee Estimate

A man-hour fee estimate is included in Attachment B, Man-Hour Fee Estimate.

The **Lump Sum Total** of this Task Authorization is: \$388,307.92

Client Concurrence:

CITY OF LAKELAND

By:

Authorized Signature

H. WILLIAM MUTZ

Printed Name

MAYOR

5/22/2024

Date

Attest:

KELLY S. KOOS, CITY CLERK
APPROVED AS TO FORM
AND CORRECTNESS:

Palmer C. Davis, City Attorney

Vendor Concurrence:

ATKINSRÉALIS USA, INC.

By:

Authorized Signature

Thomas Roda PE

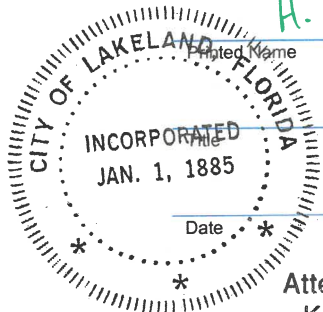
Printed Name

Sr. Division Manager

Title

May 8, 2024

Date



ATTACHMENT A
SCOPE OF SERVICES AND COMPENSATION
Airport Layout Plan with Narrative
For
Lakeland Linder International Airport (LAL)
Lakeland, Florida

PROJECT UNDERSTANDING

The City of Lakeland (OWNER) has requested professional services from Atkins North America (CONSULTANT) for the preparation of an Airport Layout Plan (ALP) update and narrative report (the Project). The site is located at 3900 Don Emerson Drive, Suite 210 in Lakeland, Polk County, Florida. The project includes an update to the Airport Layout Plan (ALP) set and an associated narrative report summarizing the findings. The narrative report will include an updated analysis on the forecast of aviation activity, facility requirements, development alternatives, and capital improvement program. The ALP set update will include the following sheets:

- › Cover Sheet
- › Existing Conditions
- › Airport Layout Plan
- › Data Sheet
- › Terminal Layout Plan – North
- › Terminal Layout Plan – South
- › Runway 10 Inner Approach Plan & Profile
- › Runway 28 Inner Approach Plan & Profile
- › Runway 5 Inner Approach Plan & Profile
- › Runway 23 Inner Approach Plan & Profile
- › Future Runway 10R Inner Approach Plan & Profile
- › Future Runway 28L Inner Approach Plan & Profile
- › Runway 8/26 Inner Approach Plan & Profile
- › Airport Airspace Surfaces Plan – 1
- › Airport Airspace Data Sheet – 2
- › Airport Airspace Data Sheet
- › Departure Surface Drawing – Runway 10/28
- › Departure Surface Drawing – Runway 5/23
- › Departure Surface Drawing – Future Runway 10R/28L
- › Departure Surface Drawing – Data Sheet
- › Airport Land Use Plan – Existing
- › Exhibit A – Airport Property Inventory Map
- › Exhibit A – Airport Property Inventory Map – Data Sheet

Additional airfield infrastructure will be evaluated as part of this project. The airport is on track to exceed 60 percent of the calculated ASV, per the 2020 Airport Master Plan and a recent re-baseline of the forecast to account for the COVID-19 pandemic, by 2023, and 80 percent of the ASV by 2031. The update to the forecast of aviation activity will provide the necessary data to determine the need, and timing thereof, for future airport development necessary to accommodate capacity constraints. A detailed Annual Service Volume (ASV) calculation will be performed to identify the forecast timeline of future capacity improvements. RunwaySimulator will be utilized to simulate the current and future capacity of the airport.

Section 1. Scope of Services

The ALP and Narrative Report will be the result of an orderly series of activities based on FAA requirements. Work will be broken down into major tasks with sub-tasks identified to fulfill the requirements of each task. For the purposes of scope definition and consultant fee development, the work has been divided into the tasks and sub-tasks indicated below. Any modification and/or revisions to these tasks will constitute a change in the project scope and may require a revision to the compensation to be paid to the consultant. These tasks will begin once the Airport provides the consultant with a written Notice to Proceed.

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Task 6. Demand Capacity and Facility Requirements	10
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Task 1. Project Administration

Task 1.1. Project Management and Quality Control

This task involves the internal management of the contract including project bookkeeping, billing, and coordination with project stakeholders. The Project Manager (PM) will be readily available to the project team to oversee necessary project related elements. The PM will keep the OWNER advised of the work progress, schedule, and anticipated review dates. The PM will be the CONSULTANTS main point of contact and will be responsible for ensuring that the Project's goals and objectives are met within the agreed upon schedule.

This task will also include the documentation of the CONSULTANTS internal quality control and assurance plan. Project deliverables will be reviewed by a qualified technical expert to create a quality project that meets industry standards and applicable agency requirements.

Deliverable(s)

- › Copies of correspondence, as applicable
- › Consultants Quality Assurance Plan (QAP) (*available upon request*)

Task 1.2. Project Coordination Meetings

This task includes coordination efforts between the CONSULTANT, OWNER, and FAA. The CONSULTANT will prepare for and attend up to eight (8) coordination meetings throughout the duration of the Project. Coordination meetings will be held virtually, or up to a maximum of four (4) coordination meetings may be held in-person, at the OWNERS request. The CONSULTANT will prepare an agenda for each meeting and distribute the agenda to all participants in advance of the meeting. The CONSULTANT will distribute meeting minutes to all participants following the meeting.

Task 2. Inventory of Existing Conditions

Task 2.1. Review of Existing Documentation

The CONSULTANT, with assistance from the OWNER, will collect existing studies, records, and information relevant to the Project. The CONSULTANT will prepare a list of data needs and present them to the OWNER. It will be the responsibility of the OWNER to coordinate with County agencies and local entities to obtain the information requested by the CONSULTANT.

The CONSULTANT will review this data for currency, accuracy, completeness, and utility to the Project and may request additional information based on the review of provided documentation. Documentation should be provided to the CONSULTANT in electronic format, wherever possible.

Task 2.2. Update Inventory of Existing Airport Facilities and Services

The CONSULTANT will conduct an airport facilities inventory update to be comprised of a mixture of on-site and desktop review of the size, condition, age, use, and configuration of existing airport facilities and equipment that have changed since the 2020 Airport Master Plan.

This task will consist of a compilation of all known and pertinent changes in airfield, pavement condition, airside/landside facilities, airspace, utility, storm water/drainage, and community information to update baseline conditions for the study. Once completed, data and required information will be incorporated into the development of the ALP Update and Narrative.

Data collection will be completed using means such as in-person, virtual, or telephonic meetings/interviews, electronic surveys, data requests, photographic evidence, plans and specifications. The CONSULTANT may request assistance from the OWNER in the distribution and/or collection of information.

This task includes one (1) on-site visit to inventory changes in the condition of facilities since the completion of the 2020 Airport Master Plan.

Task 3. Forecast of Aviation Activity

The forecast of aviation activity was completed as part of the 2020 Airport Master Plan Update. The forecast of aviation activity included in the master plan had a base year of 2018, utilizing data collected through 2017. The forecast of aviation activity was approved by the Federal Aviation Administration (FAA) on October 10, 2018. For the South Runway Complex to be eligible for Airport Improvement Program (AIP) funding, an updated forecast for LAL is required to justify the need for the reconfiguration of the runway system.

The purpose of this task is to develop aviation activity forecasts for the Airport, taking into consideration socioeconomic factors, local and national general aviation trends, and demand characteristics at the Airport. New activity forecasts will be derived based on historical demand patterns, trends experienced at the Airport, and the potential range of changes in aviation activity at the Airport that could occur over the 20-year planning horizon.

Task 3 will be completed by Ricondo, a subconsultant to AtkinsRéalis.

Task 3.1. Data Collection and Analysis of Key Activity Drivers

This subtask will include the collection and analysis of historical Airport and industry activity. Data on historical aircraft operations and based aircraft will be assembled from several sources, including Airport activity records, the Airport's Air Traffic Control Manager, FAA/DOT databases, and past studies. Past

studies may include the FAA's Terminal Area Forecast (TAF) and Aerospace Forecast; the 2020 Airport Master Plan Update; and the latest Florida Aviation System Update. (Note: Flightradar24 or similar data related to flight operations is not anticipated to be used. If necessary, additional expense related to its purchase would be passed along at cost). This data will be used to measure and analyze historical activity patterns related to:

- › Itinerant aircraft operations, including air carrier, air taxi and commuter, general aviation, and military segments.
- › Local aircraft operations, including general aviation and military segments.
- › Fleet mix
- › Passenger/cargo components of commercial activity as applicable, including airline letters of intent to serve the Airport.
- › VFR and IFR components of activity
- › Based aircraft

The assembly of historical and forecast socioeconomic data (e.g., employment, population, personal income, gross regional product) for the region and the nation will include data from the U.S. Census Bureau, regional economic development organizations, regional and national socioeconomic data sourced through Woods & Poole Economics, Inc., and other relevant sources. These data will serve to identify the drivers of historical activity and determine which of those drivers may be indicative of future activity at the Airport.

Information regarding future airline operations, schedules, and fleet mix will be collected as available. This information may be supplemented by virtual meeting discussions with the Airport's management, the FAA, fixed base operators (FBOs), airlines, and others (as appropriate), conducted to identify any additional emerging trends and future operations.

Task 3.2. Preparation of Aviation Activity Forecasts

Forecasts will be prepared using FAA-accepted methodologies that may include econometric modeling, market share modeling, and trend analysis for a 20-year period from the base year (likely to be 2022, the latest full calendar year of data available at the start of the forecasting process). Forecasts will be developed for 5-, 10-, 15-, and 20- year horizons. Activity projections will be provided for the following:

- › Enplaned Passengers
- › Cargo tonnage
- › Annual air carrier operations
- › Annual air taxi and commuter operations
- › Annual general aviation operations (local vs. itinerant)
- › Annual military operations (local vs. itinerant). However, forecasts for military operations will not be forecast beyond what is included in the TAF.
- › Annual instrument operations
- › Total annual aircraft operations
- › Annual operational fleet mix by aircraft type (piston, turboprop, jets, others)
- › Annual operational fleet mix by Aircraft Approach Category (AAC) and Airplane Design Group (ADG)
- › Based aircraft by fleet mix (piston, turboprop, jet, others)
- › Peak period operations metrics (peak month average day, design hour). However, design day flight schedules will not be developed.

Supplemental documentation comparing the FAA TAF and the LAL forecasts will also be prepared. Appendix C of the FAA's Forecasting Aviation Activity by Airport (July 2001) will be utilized for the comparison of the forecast to the FAA TAF.

Task 3.3. Identification of Critical Aircraft

The current and future critical aircraft identified in the 2020 Airport Master Plan will be reviewed to determine if they continue to be applicable. Data collected in previous tasks and guidance in FAA AC 150/5300-13B, Airport Design, and FAA AC 150/5000-17, Critical Aircraft and Regular Use Determination will be utilized to identify the most demanding aircraft with regular use in the most recent 12-month period that is available.

Task 3.4. Documentation and FAA Coordination

Task 3.4.1. Preparation of Draft Working Paper

A draft Aviation Activity Forecasts working paper summarizing the findings of each of the preceding tasks will be prepared and provided to Airport staff for their review. Exhibits will be prepared (as applicable) to clarify and summarize the various items addressed in the forecasts section. The draft working paper will be delivered to the Airport and other stakeholders (at the Airport staff's request) in PDF format. It is anticipated that the Airport staff will review the draft working paper and provide comments in return.

Task 3.4.2. Preparation of Final Working Paper

Upon receipt of comments from Airport staff on the draft working paper, a final working paper will be prepared and submitted to the FAA Orlando ADO for review and comment. FAA comments will be addressed, the document will be revised, and the final version will be furnished. The final working paper will be delivered electronically to the Airport staff and other stakeholders in PDF format. If necessary, up to two revisions will be made to address FAA comments.

Meetings

For budgeting purposes, it is anticipated that Ricondo will participate in up to four (4) teleconferences as part of this task: two (2) with FBOs operating at the Airport, one (1) with the Air Traffic Control Manager at LAL, and one (1) with LAL staff. In addition, it is anticipated that Ricondo will participate in one (1) in-person meeting with FAA to discuss the results of the forecasts. Each of the teleconferences and meetings are anticipated to last approximately two (2) hours and be attended by up to two (2) Ricondo staff.

This FAA meeting includes the preparation of an Executive Summary PowerPoint presentation outlining the methodologies and assumptions used to develop the forecasts, as well as a summary of the forecast prepared for FAA review and approval. A summary of action items will be developed following the meetings and teleconferences.

Deliverable(s)

- › Materials to support meetings and teleconferences with stakeholders and FAA.
- › Documentation of historical data analysis and aviation activity drivers to be included as an appendix to the ALP Narrative.
- › Forecast of Aviation Activity chapter of the ALP Narrative.
- › Critical Aircraft determination summary for the ALP Narrative and supporting data to be included as an appendix to the ALP Narrative.
- › Draft Forecast of Aviation Activity Report
- › Final Forecast of Aviation Activity Report

Task 4. Capacity Simulation Modeling

Airfield capacity simulation utilizes a series of events as inputs to measure the flow throughout the airfield system. The model will estimate aircraft operational delay utilizing the current airfield configuration as the base case and the planned future airfield layout as the future case. The purpose of the simulation modeling is to assess the airports current capacity and future capacity based on planned improvements, as well as to determine the need for the south parallel runway and future BCA required for FAA funding of the South Parallel Runway Complex.

Task 4.1. *runwaySimulator*

The CONSULTANT will utilize the *runwaySimulator* modeling software to simulate arriving and departing traffic at the airport. The CONSULTANT will review ACRP Report 79, Evaluating Airfield Capacity, in conjunction with the *runwaySimulator* model. The CONSULTANT will develop all simulation inputs and variables within the modeling software. The inputs and variables included will be the airport layout, arrival and departure procedures, flight attributes and filters, fleet mix, aircraft performance parameters, procedure eligibility, separation rules, and scenario execution parameters. The modeling software will estimate hourly throughput capacity based on a constant demand on the runway system. The model is not intended to measure aircraft delay. The *runwaySimulator* Validation Report indicates that in most cases, the results from *runwaySimulator* match up with actual throughputs when compared, which will help validate the ASV results. Results from the model will be used to help quantify aircraft delay in a separate analysis. Delay will be calculated using the following method:

- › Annual demand will be identified from the forecast for the base year, +5 years, and +10 years.
- › A ratio of the annual demand compared to the ASV of the airports current configuration and proposed configuration will be calculated.
- › Utilizing Table 2-2 of FAA AC 150/5060-5, the average delay per aircraft will be obtained using the upper portion of the band and the appropriate airport configuration sketch.
- › The average delay will be multiplied by the annual demand to determine the annual aircraft delay.

The CONSULTANT will conduct up to four (4) coordination meetings with the OWNER and Air Traffic Control Tower Manager, as well as any stakeholders identified by the OWNER. FAA representatives will be invited to participate in coordination meetings, as necessary. The coordination meetings will assist in determining runway usage by various operators and specific operation types. All meetings will be held virtually. Runway use determinations will be identified for the existing airfield configuration as well as estimating usage of the future airfield configuration. These usage variables will be used as requirements within the *runwaySimulator* model to accurately portray the operating environment at the airport.

Up to three (3) scenarios will be utilized in the simulation modelling due to the anticipated rapid future growth in operations at LAL.

Scenario 1: Current airfield configuration, base year operations and fleet mix

Scenario 2: Current airfield configuration, +5 years operations and fleet mix

Scenario 3: Proposed airfield configuration, +5 years operations and fleet mix

NOTE: Coordination meetings identified in Task 4.1 are in addition to those identified in Task 1.2.

NOTE: See Section 2, Scope Clarifications and Assumptions, for identification of the future year(s) to be studied (i.e. +5 years).

All coordination meeting minutes associated with the capacity model and the *runway* Simulator Validation Report will be included as an appendix to the report.

Deliverable(s)

- › Agenda(s)
- › Meeting Minute(s)
- › *runway* Simulator Validation Report and all variables used in the development of the model, including separations info (included as an appendix to the Airfield Capacity Report)
- › *runway* Simulator animations

Task 5. Annual Service Volume Update

The objective of the annual service volume (ASV) update is to estimate the annual throughput at LAL based on the current airfield configuration for the base year of 2022. The analysis will consider runway and taxiway configurations, runway usage rates, historical weather conditions, aircraft fleet mix, and touch-and-go operations percentages. The purpose of the ASV calculations will be to objectively quantify the average delays associated with increased future demand for both the existing and alternative runway configurations.

The CONSULTANT will utilize a recent ASV update that was performed and document all factors and calculations used. The 2020 Airport Master Plan Update determined the current ASV to be 222,437. Operations were forecast to be 151,700, or 68.20 percent of the ASV, by 2023, and 177,900, or 79.98 percent of the ASV, by 2028. The master plan forecast was completed prior to the COVID-19 pandemic. A basic update to the ASV and forecast was completed in 2022 which re-baselined the master plan forecast utilizing 2019, 2020, and 2021 actual operations numbers. This was completed to account for the impact on operations from the COVID-19 pandemic. The forecast growth rate was not re-calculated during this process. The results of this update determined that the airport would reach 143,977 operations in 2023, or 65 percent of the ASV, and 180,734 operations in 2031, or 81 percent of the ASV. According to OPSNET, the airport achieved 141,537 operations in 2022, or 63.6 percent of the ASV.

The 2020 Airport Master Plan Update capacity analysis will be reviewed as part of the update process. In addition, the future airfield configuration will be evaluated to determine the anticipated airfield capacity based on the planned future development and taxiway configuration. The future fleet mix, based on the updated forecast of aviation activity and the airport tenant survey done under a prior task, will be incorporated into the future airfield capacity analysis.

Task 5.1. FAA Coordination

The CONSULTANT will submit the updated ASV calculations and documentation to the FAA, and then coordinate with the FAA on any comments that they have regarding the results of the ASV. The purpose of the coordination efforts will be to address comments and confirm factors utilized in the calculation and assumptions used as inputs into the ASV model. Coordination will be completed following any adjustments made to the model to ensure, to the greatest extent possible, concurrence with the FAA on the adjusted ASV results. The CONSULTANT will prepare for and participate in up to three (3) virtual coordination meetings with the FAA. Representatives of the OWNER will be invited to attend coordination meetings, if requested.

Deliverable(s):

- › Agenda(s)
- › Meeting Minute(s)

Task 5.2. Annual Service Volume Calculation

The CONSULTANT will utilize FAA AC 150/5060-5, Airport Capacity and Delay, to calculate the airports annual service volume based on the existing airport configuration. A future capacity analysis will also be completed to calculate the airports annual service volume based on the planned future configuration, once completed. The results of the *runway* Simulator modeling will be utilized in the calculation of the ASV.

The CONSULTANT will document all variables used in the calculations and include these in an appendix to the narrative. ASV results will be submitted to the OWNER for review and comment. After receiving and addressing all comments, the CONSULTANT will revise the ASV calculation, if necessary, and submit to the FAA for review and comment. At the request of the OWNER, the CONSULTANT will prepare for and attend a review meeting with representatives of the OWNER and the FAA.

Deliverable(s)

- › Draft ASV Documentation and Calculations
- › Final ASV Documentation and Calculations

Task 6. Demand Capacity and Facility Requirements

The purpose of this element is to determine any changes to the capacity of the existing airport facilities to meet the forecasted demand and to identify what additional facilities will be needed to accommodate forecast aviation demand scenarios at each PAL. Major emphasis will be placed on determining airfield, air cargo, general aviation, landside (parking, roadway, etc.), and support facility requirements.

A total of one meeting and/or site visit is included in this task.

Task 6.1. Determine Facility Requirements

The objective of the facility requirements task is to compare existing on-airport aeronautical facilities and operations with demand projections to determine what minimum facilities will be required in the future and when they are anticipated to be needed. All recommendations will be related to the PALs that will trigger the need for action. Existing facilities, whose useful life is anticipated to expire within the planning period and whose function will be needed to accommodate future demand, will be identified for replacement and/or relocation, when necessary. The facility requirements will be updated based on the 2020 Airport Master Plan. The following subtasks discuss facilities that will be analyzed.

Task 6.2. Airside Facility Requirements

Under this task, airside facility requirements that are needed to meet the forecast demand will be determined and updated based on the 2020 Airport Master Plan. Analysis of runway length requirements will use the current version of FAA AC 150/5325-4, Runway Length Requirements for Airport Design, and other aircraft-specific performance documents. The CONSULTANT will obtain a minimum of 10-years of weather data in order to analyze the runway orientation and wind coverage based on 10.5 knot, 13 knot, 16 knot, and 20 knot crosswind components. An IFR, VFR, and combined all weather wind rose will be developed and updated.

Forecast requirements will be compared to existing airside facilities and planned future development based on the 2020 Airport Master Plan to identify any deficiencies which may exist at each PAL.

*Note: A pavement strength determination will not be included in this analysis. Pavement strengths will be identified based on existing data and pavement condition/strength reports.

Task 6.3. Terminal Area Facility Requirements

Terminal area facility requirements will be completed as part of a terminal area master plan (separate project). Results will be incorporated into this project upon completion.

Task 6.4. General Aviation Facility Requirements

The results of previous tasks and accepted planning criteria will be used to determine updates to the General Aviation (GA) facilities necessary to meet current and projected levels of demand for each PAL. Requirements will be expressed in terms of typical units and recommended configuration. The goal of this task is to provide adequate levels of service and operational effectiveness throughout the 20-year planning period. Documented plans and requirements of existing FBOs and other airport tenants will be considered and incorporated to the greatest extent possible.

Task 6.5. Landside Facility Requirements

Based on an updated analysis of existing capacity when compared to the anticipated needs at each PAL, landside facilities that meet the requirements of all aeronautical and non-aeronautical users will be established, and landside facility needs related to aeronautical and non-aeronautical functions will be determined. The following are examples of landside facility requirements that may be assessed:

- › Access road configuration
- › Multi-modal access opportunities (if applicable); and
- › Non-aeronautical property.

Task 6.6. Cargo Facility Requirements

The results of previous tasks and accepted planning criteria will be used to determine any changes in the Cargo facilities from the 2020 Airport Master Plan that are necessary to meet current and projected levels of demand for each PAL. Requirements will be expressed in terms of typical units and recommended configuration. The goal of this task is to provide adequate levels of service and operational effectiveness throughout the 20-year planning period. Documented plans and requirements of existing cargo facilities and other tenants will be considered and incorporated to the greatest extent possible.

Task 6.7. Support Facility Requirements

This task will review and update several airport support facility requirements necessary to facilitate anticipated development. The OWNER will provide to the CONSULTANT current and historic utility usage statistics, as well as any known utility deficiencies and plans for future utility development. Support facilities to be analyzed include the following:

- › Aircraft Rescue and Fire Fighting (ARFF) equipment, storage, and airside access;
- › Security;
- › Airport maintenance;
- › Airside electrical and lighting vault;
- › Fuel storage capacity, access, and containment;
- › Air Traffic Control Tower (ATCT);
- › Ground Service Equipment and storage; and,
- › Automobile parking for non-commercial passengers.

Task 6.8. Demand Capacity and Facility Requirements Documentation

The CONSULTANT will document all findings and summarize in the Facility Requirements Chapter of the narrative report. The chapter will contain all findings, graphics, and exhibits essential to outlining the future facility needs.

A draft report will be submitted to the OWNER and any stakeholders identified by the OWNER for review and comment. The CONSULTANT will make up to one revision to the Report based on collection of all comments and revisions from the OWNER and stakeholders. A Draft Final Report will be submitted to the FAA for review and comment. The CONSULTANT will make up to one revision to the Report based on collection of all comments and revisions from the FAA. A Final Report will be issued by the CONSULTANT to the OWNER and FAA.

At the OWNERS request, the CONSULTANT will prepare for and attend a review meeting for the Airfield Capacity Report with representatives of the OWNER and the FAA (See Task 1.2).

Deliverable(s)

- › Draft Facility Requirements Chapter
- › Draft Final Facility Requirements Chapter
- › Agenda (if review meeting requested)
- › Meeting Minutes (if review meeting requested)

Task 7. Development Alternatives

The primary objective of the development alternatives element will be to evaluate the best means of developing airport facilities that would meet the FAA design standards and the established strategic objectives of the OWNER and local community. The development alternatives formulated in the 2020 Airport Master Plan will be updated appropriately based on any pertinent changes found in subsequent tasks.

Up to a maximum of three (3) development alternatives which incorporate all facilities will be formulated. A single preferred development alternative will be formulated based on the selected of recommended alternatives, or aspects thereof, by the OWNER.

Task 7.1. Identify Airfield Facility Alternatives

The forecasted demand and facility requirements will be used to develop and graphically depict up to three alternatives for airfield facilities. These airfield alternatives may include such items as runways, taxiways, aprons, geometric standard improvements, additions, or closures; property or avigation easement acquisition; and lighting and instrument approach capabilities needed for future demand. Existing airfield pavements will be evaluated as to condition and potential use in various airfield alternatives. Airfield alternatives will be based on scenarios for development within existing airport boundaries, or within expanded airport boundaries, and will show necessary major runway and taxiway development during the 20-year planning period, as well as required changes to infrastructure to accommodate each airfield option evaluated. This task will be conducted simultaneously with following tasks and will result in a series of overall development options. Airfield alternatives will be evaluated based on their ability to satisfy the identified facility requirements, environmental considerations, engineering factors, cost, phasing, political viability, and ease of implementation.

Task 7.2. Identify Landside, Terminal, and General Aviation Facility Alternatives

The forecasted demand and facility requirements will be used to develop and graphically depict up to three alternatives for facilities. This task will be conducted simultaneously with other tasks in this element and result in a series of overall development options. Landside, terminal, and GA facility alternatives will be evaluated based on their ability to satisfy the identified facility requirements, environmental considerations, engineering factors, cost, phasing, political viability, and ease of implementation.

Task 7.3. Terminal Area Alternatives

Terminal area alternatives will be completed as part of a terminal area master plan (separate project). Results will be incorporated into this project upon completion.

Task 7.4. Selection of Recommended Alternatives

The consultant will confer with the Airport to select a series of recommended development alternatives that meet the requirements for each PAL and will do so in a viable manner from a cost, phasing, engineering, and environmental perspective.

Task 7.5. Develop Preferred Airport Development Concept

Refinements to the recommended alternatives will be made as deemed necessary after input is received from the OWNER, FAA, FDOT, and other stakeholders identified by the OWNER. Up to a maximum of two (2) rounds of refinements will be made based on comments received. This task will result in the revision of individual alternatives or the combination of individual alternatives into a single preferred development alternative for implementation. This task will identify the rationale for the refinement, and each refinement will be discussed using the same criteria used to evaluate the initial set of alternatives.

Task 7.6. Development Alternatives Documentation

The CONSULTANT will document all findings and summarize in the Development Alternatives Chapter of the narrative report. The chapter will contain all findings, graphics, and exhibits essential to outlining the development alternatives and selection of the preferred development alternative.

A draft report will be submitted to the OWNER and any stakeholders identified by the OWNER for review and comment. The CONSULTANT will make up to one revision to the Report based on collection of all comments and revisions from the OWNER and stakeholders. A Draft Final Report will be submitted to the FAA for review and comment. The CONSULTANT will make up to one revision to the Report based on collection of all comments and revisions from the FAA. A Final Report will be issued by the CONSULTANT to the OWNER and FAA.

Deliverable(s)

- › Draft Airport Development Alternatives (up to a maximum of 3)
- › Draft Final Airport Development Alternatives
- › Draft Preferred Development Alternative
- › Draft Final Preferred Development Alternative
- › Draft Alternatives Chapter
- › Draft Final Alternatives Chapter
- › Final Alternatives Chapter

Task 8. Capital Improvement Program

This task includes an update of the Airport's current Capital Improvement Plan (CIP). The CIP will prioritize projects in the short-, medium-, and long-term based on the development needs identified in previous elements of this study and outlined in the preferred development alternative.

Projects will be logically phased, and order of magnitude cost estimates will be derived for each phase/project. Detailed cost estimates will be developed for projects identified in the short-term only. Cost estimates which were previously developed as part of the 2020 Airport Master Plan will be reviewed and adjusted as necessary.

The Airport's current CIP will be integrated with new development needs identified, if any, and a consolidated and updated CIP will be created.

Task 8.1. Create Airport Development Phasing Schedule

The CONSULTANT will identify capital projects and programs necessary to implement the preferred airport development plan. The CONSULTANT will develop a listing of projects, project descriptions, priority, and eligibility for AIP funding. Eligibility for other funding programs, such as funding provided through the Infrastructure Investment and Jobs Act (IIJA), also known as the Bipartisan Infrastructure Law (BIL) will be evaluated and identified, if applicable. Projects will be grouped within the short- (1-5 year), medium- (6-10 year), and long-term (11-20 year) based on the anticipated year in which the overall project or program is needed to meet airport demand.

The CONSULTANT will coordinate the listing of projects with the OWNER for approval. Although the projects/programs will be depicted in a chronological format, the actual implementation should be tied to the PALs outlined in the forecast of aviation activity. The short-term development schedule will be coordinated closely with the OWNER to reflect near term priorities and funding availability.

Upon agreement on short-term development projects, the CONSULTANT will develop a project data sheet for each short-term project or program, up to a maximum of 12. The project data sheet will include the following information:

- › Project Description
- › Project Trigger
- › Project Exhibit
- › AIP Eligibility determination and reference
- › Detailed project cost estimate

Note: The detailed cost estimates will include percentage-based estimates for any necessary environmental documentation, design, and construction phase services. These percentages will be reviewed with the OWNER for concurrence.

The CONSULTANT will identify the metrics and variables which will trigger specific development needs. As part of the schedule, the CONSULTANT will provide instructions on how to manage, update, and periodically revise the development schedule to keep it current and relevant. Funding availability and required pre-development tasks will also be considered during scheduling.

Task 8.2. Cost Estimates

Following approval of the CIP phasing schedule developed in Task 8.1 by the OWNER, preliminary cost estimates will be developed for each project identified in the short-term. Rough Order of Magnitude (ROM)

cost estimates will be developed for each project identified in the medium- (6-10 year) and long-term (11-20 year).

All cost estimates will be developed in current year constant net present value (NPV) dollars. Cost data from recent construction projects in the airport vicinity, cost schedules provided by the FAA ADO, and industry queries (if necessary) will be used in the process.

Task 8.3. Capital Improvement Project (CIP) Update

The AIRPORT's CIP will be updated based on the approved listing of projects identified in Task 8.1 and the associated cost estimates identified in Task 8.2. The AIRPORTS current CIP will be obtained from the OWNER and integrated into the listing of projects. Duplicate projects, or those that are no longer required based on the selected airport development plan, will be updated or removed as appropriate. Cost estimates for existing projects not associated with the selected airport development plan will be updated based on the methodology used in Task 8.2.

Deliverable(s)

- › Draft CIP Chapter
- › Final CIP Chapter

Task 9. Airport Layout Plan (ALP) Set

Based upon decisions made during the study, an airport layout plan (ALP) set will be updated and prepared in accordance with the guidelines presented in the most current version of FAA AC 150/5070-6, Airport Master Plans and 150/5300-13, Airport Design, as well as ARP SOP 2.00, Standard Procedure for FAA Review and Approval of Airport Layout Plans (ALPs). The CONSULTANT may provide additional sheets that show enlarged map features where an area of a sheet is unreadable at the standard FAA scaling requirements.

Up to one coordination meeting is included in this task.

Task 9.1. Cover Sheet

A cover sheet will be produced to provide pertinent information about the ALP Set. A cover sheet will provide the following information at a minimum:

- › Airport identifier
- › Name of the Sponsor and appropriate stakeholders (FAA, FDOT, etc.)
- › FAA project number (as applicable)
- › Airport location and vicinity map
- › ALP set table of contents
- › Airport Sponsor Signature block

Task 9.2. Existing Conditions

The existing conditions drawing will be updated to reflect the current airport layout and existing facilities. The existing conditions drawing will meet the criteria outlined in FAA SOP 2.00 and include all required items. Existing facilities and airport features will be shown in linear format and/or aerial imagery on the sheet. The existing conditions drawing from the 2020 Airport Master Plan will be utilized as a base with updates from as-built drawings provided in AutoCAD format by the OWNER.

Task 9.3. Airport Layout Plan

The ALP will incorporate the existing conditions sheet and the preferred development alternative. The ALP will be developed to meet the criteria outlined in FAA SOP 2.00 and include all required items. At the CONSULTANTS discretion, existing condition data may be removed from the ALP sheet to improve clarity.

Task 9.4. Data Sheet

The airport data sheet(s) will present all pertinent airport, runway, taxiway, wind, modification of design standards, and declared distances data. All data will include existing and future/proposed conditions. Ultimate conditions may be included if applicable.

Task 9.5. Terminal Layout Plan – North & South

The Terminal Layout Plan sheet(s) will depict a large-scale view of areas with significant terminal, GA, and or cargo/MRO facility development. The terminal layout plan(s) will present an enlargement of portions of the ALP sheet. The CONSULTANT will determine the best option for the number of sheets and areas of inclusion to meet the OWNER and FAA requirements.

Task 9.6. Inner Approach Plan & Profile Drawing(s)

Drawings will be provided showing the plan and profile views of the updated inner portion of the approach surface to the existing/future/ultimate runway(s) and include tables detailing all relevant significant objects. Each drawing will depict the obstacle identification approach surfaces contained in 14 CFR Part 77, 'Objects Affecting Navigable Airspace'. The drawings may also depict other surfaces, as required by the local FAA office or state agency. Significant objects, within the inner extents of each runway's approach surface, will be identified alphanumerically in plan and profile view. Significant objects will be listed in an obstruction table for each approach, with data describing the obstruction type, top elevation, allowable elevation, amount of penetration, and proposed mitigation dispositions. The Inner Portion of the Approach Surface Drawings will be developed to meet the criteria outlined in FAA SOP 2.00 and include all required items.

Note: Obstruction data from the 2020 Airport Master Plan will be utilized for this analysis. This task does not include the collection of current obstruction data.

Task 9.7. Airport Airspace Surfaces Plan & Data Sheet(s)

The AIRPORT's 14 CFR Part 77 surfaces, based on ultimate runway lengths, will be updated and superimposed on USGS quadrangle maps. Fifty-foot contour intervals will be shown for each 14 CFR Part 77 surface. These sheets will depict significant objects relevant to the 14 CFR Part 77 surfaces that are not already detailed on other sheets of the ALP Set. The top elevation of each obstruction will be identified on the sheets, as well as its proposed mitigation disposition. These sheets will depict the full extents of the AIRPORT's 14 CFR Part 77 surfaces configuration, and an additional sheet(s) will be provided with the Airspace data. The Airport Airspace Drawings will be developed to meet the criteria outlined in FAA SOP 2.00 and include all required items.

Note: Obstruction data from the 2020 Airport Master Plan will be utilized for this analysis. This task does not include the collection of current obstruction data.

Task 9.8. Departure Surface Drawing(s) & Data Sheet

The Departure Surface drawings will depict the applicable departure surfaces for the existing, future, and ultimate runways, as defined in the current version of FAA AC 150/5300-13. The existing and ultimate departure surfaces will be shown in plan and profile view along with significant objects found to be relevant to the surfaces. Significant objects will be listed in an obstruction table for each departure, with data

describing the obstruction type, top elevation, allowable elevation, amount of penetration, and proposed mitigation dispositions. The sheets and associated data will be developed to meet the criteria outlined in FAA SOP 2.00 and include all required items.

Note: Obstruction data from the 2020 Airport Master Plan will be utilized for this analysis. This task does not include the collection of current obstruction data.

Task 9.9. Airport Land Use Plan – Existing

An existing and future Land Use Plan (LUP) will be developed that includes the areas within the airport boundary and adjacent properties within the DNL 65 db noise contour, at a minimum, and to the extents of the future Runway Protection Zones (RPZs) if they extend beyond the limits of the airport property. This sheet will depict land uses on the AIRPORT and in the immediate airport vicinity using standard classifications of land use. The land use information will be depicted graphically over a street layout of the AIRPORT and include the existing airport layout and selected preferred development alternative.

Note: Noise contours from the 2020 Airport Master Plan will be utilized. This Project will not include the development of new noise contours.

Task 9.10. Exhibit A – Airport Property Inventory Map & Data Sheet

An FAA ARP SOP 3.0 compliant Airport Property Map/Exhibit A will be updated to reflect parcels acquired either through fee simple purchase or easements purchased by the AIRPORT with Federal, State, and local funds. The CONSULTANT will use the standards for developing Airport Property Maps/Exhibit A's located in FAA Advisory Circular 150/5100-17, Land Acquisition and Relocation Assistance for AIP Assisted Projects.

The CONSULTANT will provide the full legal descriptions for each parcel that makes up the airport property and each easement in a separate data table.

NOTE: This task does not include a property boundary survey, title search, or other property research/mapping services. The airport property boundary survey completed in February 2019 will be utilized as a basis of this task.

Section 2. Scope Clarifications and Assumptions

The following is a list of clarifications and assumptions forming the basis of the CONSULTANTS cost proposal for providing the services detailed in the Scope of Services for this Project. Any modification and/or revision to these clarifications and/or assumptions will constitute a change in the project scope and may result in a revision to the cost proposal.

- › OWNER, OWNER Representative, or OWNER identified stakeholder, will provide detailed operational data for all current and planned operations at LAL.
- › OWNER will coordinate with airfield tenants and operators to collect or facilitate coordination meetings, as required.
- › CONSULTANT will utilize the current approved Airport Layout Plan as a basis for the existing and future airfield configuration.
- › All deliverables will be provided in electronic PDF format and/or AutoCAD (.dwg) format.
- › The CONSULTANT will provide up to a maximum of four (4) hardcopies of each final report and Airport Layout Plan set, if requested.
- › All in-person meetings will be held in OWNERS office or at the FAA Orlando ADO office, if requested.
- › This Project does not include an AGIS survey, the acquisition of new obstruction data, aerial photo, topographic data, or any other survey data.
- › This Project does not include the development of noise contours.
- › Base year will be the last full calendar year of data available.
- › Future years (i.e. +5 years, +10 years, etc.) will be based on the estimated date that the subject development is anticipated to be completed.
- › All cost estimating will be prepared using the cost estimates in Unifomat.
- › Cost estimating will include a single update of the reconciled cost estimate at each stage to incorporate team review comments.
- › Cost estimating of the following elements are not covered by this scope:
 - Hazardous material abatement
 - Movable furniture, fixtures, and equipment
 - Artwork
 - Process equipment
 - Technology/IT equipment
 - Swing space or Enabling Works
 - Owner/project costs and fees
- › Cost estimating does not include the following services:
 - Site based meetings
 - Estimate reconciliation meetings with owner or construction manager
 - Travel expenses
 - Consideration of reissued documents
 - Consideration of multiple design options, unless indicated otherwise above
 - Estimate breakouts beyond those in Services to be Provided above
 - Provision of cost estimate detail in alternative work breakdown structures
 - Separate identification of labor and material costs
 - Construction alternates analysis beyond those in Services to be Provided above
 - Cost reduction analysis beyond those in Services to be Provided above
 - Value engineering workshops

- Life cycle costing analysis
 - Risk review/analysis
 - Schedule review/analysis
 - Construction phase support services
 - Extensive reproduction costs
- › Formal species surveys are not included in this Scope of Services. Additional species surveys, supplemental assessments, development of detailed mitigation plans and drawings, attendance at consultation meetings, and specialized technical support services related to “consultation” between the FAA and USFWS are not included in this Scope of Services.
- › Information related to stormwater management / drainage will be required. ESA does not provide those services.
- › Planning level information related to surface transportation and traffic will be developed by others
- › ESA will support planning elements but will not provide planning services. This includes but is not limited to development of a project specific aviation forecast, development of site plans or graphics.

Section 3. Cost and Schedule

Planning services for this project will be performed on a **lump sum** basis for a fee of: **\$388,307.92**. Services for this task will be performed as stated herein and under the Continuing Contract for Professional Municipal Engineering Services dated November 1, 2021.

The period of performance for this project will be a period of 52 weeks from the date that Notice-to-Proceed (NTP) is given. Agency (FAA and Florida Department of Transportation) review and approval periods for the forecast of aviation activity have been estimated at 8 weeks and are inclusive of the 52-week period of performance. The period of performance is exclusive of final agency review periods for the Airport Layout Plan set. The contract will remain open, and the CONSULTANT will be available to perform any outstanding work under this scope of services for a period of 12 weeks following the end of the period of performance.

ATTACHMENT B
COMPENSATION ESTIMATE
Airport Layout Plan with Narrative
For
Lakeland Under International Airport (LAL)
Lakeland, Florida

Category		Project Management				Planning				Engineering				Totals													
Title		Project Director		Sr. Project Manager (Engineering)		Sr. Planner II		Sr. Planner I (Environmental)		Planner II		Planner I		Sr. Engineer IV		Sr. Engineer II		Engineer I		Engineer II		Total Hours		Total Labor Price			
Billing Rate		\$	255.00	\$	235.00	\$	205.00	\$	165.00	\$	165.00	\$	130.00	\$	110.00	\$	95.00	\$	220.00	\$	165.00	\$	130.00	\$	110.00		
Task 1	Project Administration	34	60	16	0	9	12	0	0	8	0	0	0	0	0	0	0	0	0	0	0	139	\$	30,855.00			
	Project Management & Quality Control	16	20	8	0	9	12	0	0	8	0	0	0	0	0	0	0	0	0	0	56	\$	11,980.00				
	Project Coordination Meetings	12	40	8	0	9	12	0	0	8	0	0	0	0	0	0	0	0	0	0	79	\$	17,855.00				
1.3	QC	4																			4	\$	1,020.00				
Task 2	Inventory of Existing Conditions	7	2	0	0	0	0	0	0	40	56	0	0	0	0	0	0	0	0	0	100	\$	10,790.00				
	Review of Existing Documentation	2								16	16	0	0	0	0	0	0	0	0	0	32	\$	3,280.00				
	Update Inventory of Existing Airport Facilities and Services	2								24	40	0	0	0	0	0	0	0	0	0	64	\$	6,440.00				
2.3	QC	2																		4	\$	980.00					
Task 3	Forecast of Aviation Activity	1	2	0	0	0	6	0	0	16	0	0	0	0	0	0	0	0	0	0	25	\$	3,475.00				
	Data Collection and Documentation of Key Aviation Activity Drivers	3																		0	0	\$	-				
	Preparation of Activity Forecasts	3																		0	0	\$	-				
3.3	Critical Aircraft Determination and Airport Reference Code	3																		0	0	\$	-				
3.4	FAA Coordination and Documentation	3																		0	0	\$	-				
3.5	QC	1	2																	8	\$	1,460.00					
Task 4	Capacity Simulation	4	48	0	48	160	0	0	0	16	80	0	0	0	0	0	0	0	0	0	17	\$	2,015.00				
	runway Simulator	4	24	24	24	160	0	0	0	0	80	0	0	0	0	0	0	0	0	0	340	\$	54,220.00				
	QC	4	24	24	24	160	0	0	0	0	80	0	0	0	0	0	0	0	0	0	288	\$	43,600.00				
Task 5	Annual Service Volume Update	4	12	0	12	32	0	0	0	0	52	0	0	0	0	0	0	0	0	0	52	\$	10,620.00				
	FAA Coordination	2	16	16	16	32	0	0	0	0	40	0	0	0	0	0	0	0	0	0	160	\$	26,200.00				
	Annual Service Volume Calculation	2	16	16	16	32	0	0	0	0	40	0	0	0	0	0	0	0	0	0	34	\$	6,910.00				
5.3	QC	2	16	16	16	32	0	0	0	0	40	0	0	0	0	0	0	0	0	0	112	\$	16,800.00				
Task 6	Demand Capacity Facility Requirements	2	7	0	12	35	2	104	8	0	0	0	0	0	0	0	0	0	0	0	14	\$	2,490.00				
	Altside Facility Requirements	2	7	0	12	35	2	104	8	0	0	0	0	0	0	0	0	0	0	0	210	\$	28,970.00				
	General Facility Requirements	1	1	0	8	24	32	8	0	0	0	0	0	0	0	0	0	0	0	0	73	\$	9,795.00				
6.3	General Aviation Facility Requirements	4	1	1	4	1	8	8	0	0	0	0	0	0	0	0	0	0	0	0	13	\$	1,705.00				
6.4	Landside Facility Requirements	4	1	1	4	1	8	8	0	0	0	0	0	0	0	0	0	0	0	0	13	\$	1,705.00				
6.5	Cargo Facility Requirements	4	1	1	4	1	8	8	0	0	0	0	0	0	0	0	0	0	0	0	13	\$	1,705.00				
6.6	Support Facility Requirements	4	1	1	4	1	8	8	0	0	0	0	0	0	0	0	0	0	0	0	13	\$	1,705.00				
6.7	Demand Capacity and Facility Requirements Documentation	4	1	1	4	1	8	8	0	0	0	0	0	0	0	0	0	0	0	0	13	\$	1,705.00				
6.8	QC	2	6	6	24	6	32	32	0	0	0	0	0	0	0	0	0	0	0	0	62	\$	8,470.00				
Task 7	Development Alternatives	2	18	0	91	0	106	154	0	0	0	0	0	0	0	0	0	0	0	0	10	\$	2,180.00				
	Identify Airfield Facility Alternatives	2	18	0	18	24	48	0	0	0	0	0	0	0	0	0	0	0	0	0	377	\$	46,895.00				
	Identify Landside, Terminal, and General Aviation Facility Alternatives	1	1	18	24	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	91	\$	10,405.00				
7.2	Selection of Recommended Alternatives	8	18	18	18	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62	\$	8,540.00				
7.3	Develop Preferred Airport Development Concept	1	9	9	24	16	32	16	0	0	0	0	0	0	0	0	0	0	0	0	42	\$	4,880.00				
7.4	Development Alternatives Documentation	1	12	12	12	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61	\$	7,255.00				
7.6	QC	2	6	6	18	6	32	32	0	0	0	0	0	0	0	0	0	0	0	0	30	\$	5,410.00				
Task 8	Capital Improvement Program	3	12	0	34	6	66	81	0	20	105	42.5	0	0	0	0	0	0	0	0	475	\$	57,960.00				
	Create Airport Development Phasing Schedule	3	12	0	16	2	30	81	0	20	105	42.5	0	0	0	0	0	0	0	0	132	\$	14,670.00				
	Cost Estimates	1	3	8	8	2	8	8	0	0	0	0	0	0	0	0	0	0	0	0	189.5	\$	25,115.00				
8.3	Capital Improvement Project (CIP) Update	3	8	8	8	2	28	0	0	0	0	0	0	0	0	0	0	0	0	0	41	\$	5,435.00				
8.4	QC	2	3	2	2	2	2	3	2	0	0	0	0	0	0	0	0	0	0	9	\$	1,805.00					
Task 9	Airport Layout Plan (ALP) Set	2	24	0	43	27	213	162	0	0	0	0	0	0	0	0	0	0	0	0	475	\$	57,960.00				
	Cover Sheet	3	3	3	3	1	6	6	0	0	0	0	0	0	0	0	0	0	0	0	10	\$	1,175.00				
	Existing Conditions	3	3	3	3	1	24	40	0	0	0	0	0	0	0	0	0	0	0	0	67	\$	6,935.00				
9.3	Airport Layout Plan	3	3	3	3	1	8	24	0	0	0	0	0	0	0	0	0	0	0	0	35	\$	3,655.00				
9.4	Data Sheet	3	3	3	3	1	12	12	0	0	0	0	0	0	0	0	0	0	0	0	27	\$	2,955.00				
9.5	Terminal Layout Plan - North & South	3	3	3	3	1	4	16	0	0	0	0	0	0	0	0	0	0	0	0	23	\$	2,455.00				
9.6	Inner Approach Plan & Profile Drawing(s)	3	3	3	3	1	48	8	0	0	0	0	0	0	0	0	0	0	0	0	59	\$	6,535.00				
9.7	Airport Airspace Surfaces Plan & Data Sheet(s)	3	3	3	3	1	24	8	0	0	0	0	0	0	0	0	0	0	0	0	35	\$	3,895.00				
9.8	Departure Surface Drawing(s) & Data Sheet	3	3	3	3	1	36	8	0	0	0	0	0	0	0	0	0	0	0	0	47	\$	5,215.00				
9.9	Airport Land Use Plan - Existing	3	3	3	3	1	24	8	0	0	0	0	0	0	0	0	0	0	0	0	35	\$	3,895.00				
9.10	Exhibit A - Airport Property Inventory Map & Data Sheet	8	8	16	16	32	32	32	0	0	0	0	0	0	0	0	0	0	0	0	88	\$	11,080.00				
9.11	QC	2	16	16	16	32	32	32	0	0	0	0	0	0	0	0	0	0	0	0	49	\$	9,245.00				
Total Hours		54	205	16	322	275	545	541	8	20	105	42.5	0	0	0	0	0	0	0	0	2197.5	\$	405,380.00				
Total Labor Price		13770	48175	3280	51110	45175	69950	55195	1760	3300	18650	4675	0	0	0	0	0	0	0	0	0	\$	-				

ATTACHMENT B
COMPENSATION ESTIMATE
 Airport Layout Plan with Narrative
 For
 Lakeland Linder International Airport (LAL)
 Lakeland, Florida

Destination		Total Cost
Travel & Expenses		
Airfare	(Average \$400 per flight)	
Lodging	(Polk County - \$219/night; 20% included for taxes and fees)	\$ 1,600.00
Per Diem	(Polk County - \$59/day)	\$ 1,752.00
Car Rental	(est. @ \$69/day)	\$ 944.00
Mileage	(\$0.67 per mile)	\$ 1,340.00
Fuel		
Tolls		\$ 150.00
Parking		
Copies and Prints		
Copies & Prints	(8.5 x 11 - \$0.05 per sheet; 8.5 x 11 (20/28 lbs) - \$0.13 per sheet; Plotting - \$1.95 per SqFt)	\$ 3,100.00
Subconsultant(s)		\$ 74,041.92
Ricondo	Forecast of Aviation Activity	
RAWA	Financial Analysis and QC Review Support	\$ 54,252.00
		\$ 19,789.92
Total Expenses		\$ 82,927.92
Total Project Cost		\$ 488,307.92