



CONTRACT# _____

CITY OF OCALA

CONTINUING PROFESSIONAL SERVICES

CONTRACT WORK ORDER

WORK ORDER NUMBER # _____

EFFECTIVE DATE: _____

Contracting Officer
Approval/Initials**Project Title:**

To:

Attn:

FUNDING SOURCE: _____

EXPENDITURE
ACCOUNT NUMBER:

In accordance with your executed City Council Agreement, you are hereby authorized to commence the work outlined in the attached scope of work. The approved work order amount as a maximum limiting amount shall not to exceed \$. Completion time for the work shall be as stipulated by the airport director. An expiration of the Master Agreement, through no fault of either party, shall not relieve the Consultant of their obligation for completing the tasks identified herein to the satisfaction of the city.

Requested By:

Matt Grow
Department Director

Date: _____

Approved By: _____

City Council President

Date: _____

EXHIBIT A
WORK AUTHORIZATION NO. 7

CONTINUING GENERAL AVIATION ENGINEERING SERVICES
OCALA INTERNATIONAL AIRPORT CONTRACT NO. AIR/220118

This Work Authorization No. 7 establishes the Scope of Services and Compensation for specific work to be performed by McFarland Johnson, Inc. ("Consultant") under the CITY OF OCALA Contract No. AIR/220118.

The Scope of Services to be provided by Consultant consists of the following:

PROJECT BACKGROUND

Airport Master Plan Update - It is the desire of the City of Ocala , and the Ocala International Airport (OCF), to evaluate the airport through preparation of an airport master plan update to assure that the airport and its environs are safe and efficient as well as to evaluate the growing needs of the airport users and the aviation needs of surrounding communities. Initial tasks of the project will be to acquire detailed airport mapping compliant with Advisory Circular 150/5300-18B and data for development of a flexible, scenario-based, Airport Master Plan Update (MPU) and Airport Layout Plan (ALP). Baseline data will be collected and presented for use in subsequent planning analyses. The project will contain the aviation activity forecast, environmental overview, facility requirements, alternatives analysis, financial and implementation plans and airport layout plan drawing set elements of the airport master plan, per guidance in FAA Advisory Circulars 150/5070-6B *Airport Master Plans*, 150/5300-13B, *Airport Design*, and other applicable state and local guidelines, including the Florida Department of Transportation's (FDOT's) Guidebook for Airport Master Planning.

Located in Ocala, Florida, the Ocala International Airport serves as an essential air transportation resource for the north central Florida region. As a Nationally ranked General Aviation airport, OCF supports robust general and corporate aviation activities, emergency transportation, diversions, and other recreational aviation, as well as the long-range potential of having commercial services and cargo options., OCF is vital asset to its community and the national airspace system.

Due to ever changing conditions in the community and local economy along with constantly changing aviation demands and industry trends; the City of Ocala has a need for a flexible master plan that can readily be revised and provides information for unanticipated scenarios, in addition to serving as a management decision making tool. Thus, this Master Plan Update will include scenario-based planning analyses that provide quick feedback regarding "what if" scenarios and contain various actions that are directly connected to facility requirements and development alternatives. As such, OCF staff will be able to analyze new opportunities and planning challenges as they occur rather than undergoing time consuming additional planning efforts that consider scenarios at the airport in a reactionary manner.

To respond effectively to changes without either over building or under building will require a flexible planning product that can identify needed facilities as local conditions and/or airport users change. The goals of the project will include:

- Meeting the aviation needs of citizens and businesses in the airport's service area.
- Maintaining safe and efficient airside facilities compliant with airport design standards and FAA (Federal Aviation Administration) and FDOT (Florida Department of Transportation) guidance.

- Identifying opportunities for continued economic sustainability at the airport as required by grant assurances.
- Engaging the public and airport users through participation in the planning process
- Maintaining planning flexibility for future changes in the aviation industry including both new opportunities and plausible future negative externalities

The specific objectives to be accomplished under the project include:

- Developing a flexible, scenario-based approach that allows adjustments to facility requirements and alternatives.
- Developing a plan to meet the growing demands on the Airport.
- Evaluating and recommending alternatives to address aviation and aviation-related development.
- FAA approval of the resulting Airport Layout Plan drawing set.

Stormwater Master Plan - In conjunction with the Airport Master Plan Update, a Stormwater Master Plan will also be undertaken. The previous Stormwater Master Plan (SWMP) was completed in 2013. During the period since the 2013 SWMP, improvements have been made to the Ocala International Airport (OCF), new water management district permit requirements have been enacted and proposed improvements have been envisioned. OCF has identified several developments that are anticipated to occur within the next 20 years. These changes are depicted on the airport layout plan and include the following:

- New parallel Taxiway “C”
- New west side apron, MRO and hangar facilities
- New west side terminal building and aircraft apron
- Runway 8-26 widening and extension.
- North Hangar Development
- Non-aviation developments adjacent to State Road 40 and SW 67th Avenue

This SWMP will provide a plan for stormwater management over this timeframe and will identify potential stormwater management facility improvements required to serve the developments. The plan will focus on maximizing use of the existing regional ponds, which is typically the most efficient solution in terms of cost and land usage, for the upcoming developments. In addition, any existing stormwater concerns of the Airport or tenants will be addressed in the plan.

Ultimately, the SWMP will be the basis of a new Conceptual Environmental Resource Permit (CERP) from the South Florida Water Management District (SFWMD). This CERP will provide clear stormwater management guidelines for future developers and help to streamline the permitting process of individual developments. The plan will be divided into landside and airside developments due to the differing stormwater requirements. Additionally, a stormwater routing model will be prepared that can aid both OCF and developers in understanding the flow paths, intensities, and volumes of stormwater at OCF. The existing stormwater model is maintained by the City of Ocala and utilizes Interconnected Channel and Pond Routing Model (ICPR) Version 3. The new model will be developed by the consultant and based on ICPR Version 4. The SWMP will also identify the environmental concerns and limits to development at the Airport.

AIRPORT MASTER PLAN UPDATE SCOPE OF SERVICES

TASK 1 – STUDY DESIGN & PROJECT ADMINISTRATION

PURPOSE

To prepare a comprehensive study design that is acceptable to the Airport and is also fully eligible for FAA funding of the MPU and ALP.

METHODOLOGY

McFarland-Johnson Inc. (CONSULTANT) will coordinate with City of Ocala and FAA to prepare a scope of work for the AMPU, ALP and SWMP. Careful consideration will be given to the development of a work scope that is consistent with FAA and FDOT requirements and is also responsive to the Airport's specific needs concerning potential airport and economic development opportunities and flexible planning scenarios.

Determine Type and Detail of Study

One (1) study design meeting will be held between OCF, and CONSULTANT at the Airport or via teleconference to discuss the type of update and level of study detail the Sponsor wishes to pursue in this update. The CONSULTANT will use the information from this meeting to prepare a draft scope of work.

Prepare Draft Scope of Work

The CONSULTANT will prepare a draft scope of work for review and comment by OCF.

Conduct Scoping Meeting

One (1) scoping meeting will be held with representatives of OCF, FAA, CONSULTANT, Independent Estimator, and the CONSULTANT to discuss the scope of this project. This meeting will be held at Ocala Airport, with the availability of a teleconference.

Prepare Final Scope of Work

The CONSULTANT will prepare the final scope of work (SOW).

Prepare Fee Schedule

Based on the final SOW, the CONSULTANT will prepare the fee schedule. The schedule will be presented to OCF for review, and then to the FAA.

Contracting

The CONSULTANT will:

- Prepare and submit a Task Order to OCF for execution;
- Negotiate and prepare subconsultant contracts; and
- Process all contracts internally.

Prepare Progress Reports

The CONSULTANT will prepare a monthly progress report for OCF based on current FAA requirements. These reports will be prepared starting with the month subsequent the Notice to Proceed until project closeout; 18 are anticipated.

Invoice Client

The CONSULTANT will invoice OCF monthly, 18 are anticipated.

TASK 2 – AIRPORT MAPPING & SURVEY**PURPOSE**

To update airport aerial imagery and develop comprehensive GIS mapping in accordance with current AGIS requirements for master plan mapping. The GIS mapping data will be the basis for development of the Master Plan Update and the mapping application. This task will be performed through a subcontract with an experienced photogrammetric mapping firm. The full subconsultant scope for airport mapping & survey is attached at the end of this scope.

METHODOLOGY**Airport Imagery and Mapping**

CONSULTANT will provide new aerial photography and mapping meeting the requirements of AC 150/5300-16A, *General Guidance and Specifications for Aeronautical Surveys: Establishment of Geodetic Control and Submission to the National Geodetic Survey*; AC 150/5300-17B, *General Guidance and Specifications for Aeronautical Surveys: Airport Imagery Acquisition and Submission to the National Geodetic Survey*; and AC 150/5300-18B *General Guidance and Specifications for Aeronautical Surveys: Airport Survey Data Collection and Geographic Information System Standards*. All deliverables will adhere to the requirements of an “Airport Layout Plan” as identified in Table 2-1 of AC 150/5300-18B. A survey for Runways with Vertical Guidance (VG) will be completed for Runway 8-26 and Runway 18-36. Planimetric data will be collected for Airport property, plus the surrounding area of influence, including a minimum of 1,500 feet surrounding the existing airport property line. Mapping of features located on airport property will be compliant with AGIS requirements as to layering, topology, and attribution. A Statement of Work will be developed and submitted to the FAA for review prior to upload on the FAA’s Airports GIS website. Obstruction data within the 14 CFR Part 77 primary, approach (limited to the 10,000 feet from the runway end), and transitional surfaces will also be collected for use with the development of OCF Airspace and Inner Approach Drawings within the ALP.

The CONSULTANT will assist Airport staff in creating user accounts and initiating the project through the FAA’s AGIS website and will prepare the required Statement of Work and Quality Control Plans for submissions to the AGIS for approval by the FAA and National Geodetic Survey (NGS).

It is assumed that OCF has existing Primary and Secondary Airport Control Stations. The CONSULTANT and surveyor will attempt to recover and validate these stations to serve as the basis of control. The surveyor will establish photogrammetric control stations to aid in the aerotriangulation of aerial photography. In addition to imagery control, crews must establish a minimum of five OPUS-derived Check Points to satisfy AGIS requirements.

The surveyor will survey the runway end points and centerline profile to form the basis of the obstruction identification surfaces. The runway profile and offsets will be collected at a minimum of 10-foot spacing. The surveyor will survey all navigational-aids and will provide documentation to support the attribution of airfield features for submission to AGIS (i.e., airfield sign messages, heights of fencing).

The surveyor will compile base mapping that meets standards for 1’ = 200’ mapping for all planimetric deliverables. Contour intervals will not exceed two feet intervals. The surveyor will develop a composite orthophotograph for the airport mapping limits with a pixel size no greater than 1.0 feet.

Airport Feature Attribution and Mapping

The CONSULTANT will conduct field survey to populate feature attribute fields. Field survey will include both visual inspections and GPS survey of selected subsurface features to verify existing record plans from airport projects. CONSULTANT will also obtain tax parcel and land use data for on-airport and selected off-airport property for incorporation in the mapping. Consultant will coordinate with City of Ocala Growth Management for development of mapping and feature attributes.

TASK 3 – INVENTORY

PURPOSE

To document existing airfield facilities and gather information on current and potential airport users. The airport and surrounding service area, current and potential airport users, airport facilities, aeronautical activity, land use patterns and plans, NAVAIDs, airspace and obstructions, socioeconomic data, and environmental concerns that influence airport operations will be documented.

METHODOLOGY

A review of existing documents relating to the airport and surrounding area will be conducted including existing airport master plan, airport layout plan and airspace plan, aeronautical surveys, terminal improvement plans, applicable regional aviation system plans, state aviation system plans, airport marketing and business plans, community plans and recent newspaper or other media articles. Discussions will be held with airport management, concessionaires, local planning agencies, airport tenants, and other interested parties concerning airport activity and its relationship to the airport service area, air service and airport needs.

Site visits and field investigations will be made to confirm the physical condition of airfield facilities and to review the need for additional study of the site.

Historical airport activity data will be obtained from FAA Terminal Area Forecasts (TAF), airport traffic control tower counts, Virtower data, 5010 reports, airport records, and valid documentation in the form of accurate counts, reasonably documented estimates, letters from aircraft owners as to their intent to use the airport, or any combination thereof that demonstrates demand. A meeting will be held with airport management to review the accuracy of based aircraft and fleet mix data. Extensive use will be made of applicable existing data and studies where available, including the recently updated Noise Exposure Models (NEMs).

Airport Facilities Inventory

The Airport will provide a redline update of the Airport's existing Inventory chapter. The CONSULTANT will make all corrections to the chapter and submit it to the Airport for approval. The Airport will provide current data on airport facilities, including airside facilities, landside facilities, and property available for future aviation and non-aviation uses. The Airport will provide, but not be limited to:

- The general size, condition, and usage of runways, taxiways, aprons, and other airside facilities. Inventory will include airport instrumentation, approach aids, instrument approach procedures, airfield marking and lighting, runway safety areas and protection zones, and currently approved Modifications of Standards (MOS). (The CONSULTANT will populate attribute fields in the GIS mapping and the preparation of MOS review documents for undocumented non-standard conditions identified, as appropriate. Current weather conditions and their impact on instrument approach procedures will also be documented by the CONSULTANT.)
- The size, location, use and condition of Airport, FAA, and tenant owned buildings within the airport property (landside). This will include airport facilities such as the airport terminal, airfield maintenance facilities, airport rescue and firefighting (ARFF) facilities, and non-airport facilities such as FBO (Fixed Base Operations) buildings, and/or commercial properties. (The CONSULTANT will produce a list of tenants, tenant/leased areas map, and a comprehensive

building inventory based on the data provided by the Airport. This data will be provided in tabular format and will also be incorporated into the project's GIS mapping.)

- Data required to comply with FAA Standard Operating Procedures for the Airport's Exhibit A will be updated to conform to ARP SOP No. 3.00 dated October 1, 2013. Parcel and relevant data, including:
 - Item 5 (ARP SOP No. 3.00): Grantor, Type of interest acquired, type of conveyance instrument, liber/book and page of recording shall be provided by the City of Ocala/Ocala International Airport.
 - Item 6 (ARP SOP No. 3.00): FAA grant number, including year acquired under a grant; Surplus property transfer; type of easement; date and type of release change approved; date of property disposal; public land references; any known encumbrances shall be provided by the City of Ocala/Ocala International Airport.
 - Item 7 (ARP SOP No. 3.00): Purpose of acquisition (current/future development, concurrent use, noise revenue production, etc.)
 - The boundary survey will be based on the 2014 airport layout plan and subsequent parcel survey provided by the City of Ocala/International Airport.
 - In the event the existing data or the City/Airport is unable to provide the required information, additional fee may be requested.

Air Traffic Activity

Under this task the CONSULTANT will document past and present airport activity, including:

- Annual operations by aircraft type
- Based aircraft by type
- Military operations
- Runway utilization percentages, exit locations and aprons
- Traffic pattern for each runway, standard or non-standard
- Typical departure and arrival corridors
- Instrument procedures

Financial Information

Airport revenue and expense data will be collected and analyzed by the CONSULTANT to project future revenues and expenses. Data from previous subtasks will be integrated into a model to indicate fiscal impact of changes in independent variables noted above. For this task, data collection will consist primarily of updating existing data, and adding data relating to capital improvement costs, including but not limited to:

- Historical and planned expenditures through the Airport Improvement Program
- Leases or agreements affecting airport revenues
- Cost center confirmation for the terminal and the airfield

This analysis will form the basis of the Financial and Implementation Plan described in Task 7.

Highest And Best Use Analysis

A highest and best use analysis regarding potential sale of non-aeronautical property will be conducted. The primary objective is to achieve the maximum economic and financial yield from any land included in a sales strategy. This, in turn, will require a highest and best use perspective which will be derived through

a methodology that centers on conducting a sector-based market analysis. The approach to this type of work is to achieve a holistic understanding of the land, including the client's goals, the physical nature of the properties involved, their context and orientation to the Airport itself as well as to the City of Ocala, commercial and other business centers, retail and entertainment, residential neighborhoods, healthcare, transportation access and connections, major employers, and other components of the overall market environment.

Both the top-down and bottom-up approaches will be employed to market analysis, assimilating demographic, economic and other data sets from the first, and evaluating location, physical characteristics, transportation access, relationships to proximal business and residential activity, local and sub-regional market, and economic forces, in the second. For a project of this type, there will be a greater emphasis and weight on the bottom-up approach, resulting in a more pragmatic understanding of the market environment, geared toward informing the client and the private sector of supportable opportunities, and the land value they engender. The full scope for this analysis is attached at the end of the scope.

TASK 4 – FORECASTS OF AVIATION DEMAND**PURPOSE**

To establish forecasts of aeronautical activity (charter flight operations, general aviation operations, air cargo activities, and based aircraft) at the airport for the short term (0-5 years), intermediate (6-10 years) and long-range (11-20 years) planning periods; and to establish forecasts of runway/taxiway utilization and aircraft parking demands.

METHODOLOGY

The most recent FAA TAF will be utilized for future operations and based aircraft. The CONSULTANT will develop general aviation operations forecast from the TAF. In addition, the CONSULTANT will develop peaking characteristics, fleet mix, and instrument operations forecasts. From the Taxiway C Justification Report, it will be assumed that the B757/B767 will be the future critical aircraft. In addition, the cargo landed weights provided in the Taxiway C Justification Report will serve as the cargo forecast for the Master Plan Update. forecasts of aviation demand will begin with a collection of forecasting data. Data collection will include information necessary to develop the forecasting methodology and perform statistical analyses dictated by these methodologies. In addition, this data collection effort will involve gathering relevant previous forecasting efforts. Items to be collected include but are not limited to the following:

- Previous forecast efforts such as the current Master Plan and State Aviation System Plan
- Obtain FAA TAF and review national aerospace forecasts. The forecasts will be compared to the 2022 FAA TAF

The results of the Aviation Demand Forecasts will be documented in Interim Report #1 and presented to the Project Advisory Group for review and comment.

Aviation Forecasts

Aviation activity forecasts will be developed by the CONSULTANT, in part, based on relationships found to exist between socioeconomic data for the airport service area and airport activity. Information available from marketing and “leakage” studies will be used to further define local economic factors within the service area, if available. The following forecast elements will be included in the study:

- Aircraft operations
 - Charter flight operations
 - General aviation operations
 - Local/itinerant split
 - Annual, peak month, peak hour
 - Fleet mix
- Annual military operations
- Annual instrument approaches
- Based aircraft

Forecasts will be developed on an unconstrained basis for short, intermediate, and long term planning timeframes. Generally, however, a strong focus on activity trigger points will be relied on to inform future development decisions. These timeframes correspond to the following years:

Short Range: _____ 2024 – 2028
Intermediate Range: _____ 2029 – 2033
Long Range: _____ 2034 – 2045

The forecasts will be documented in both narrative and tabular format and the reasonableness and practicality of the forecasts will be reviewed. Upon the Airport's review, a preferred forecast will be selected and concurrence from FAA will be requested. The preferred forecast will focus primarily trigger-point forecasting, and while tied to forecast years for the purpose of forecasting along a defined time period, the trigger points will be utilized to drive facility requirement analysis and the overall long term phasing of the resultant development programming.

Forecast Scenarios

The forecasting process considers a variety of industry trends and variables. To maximize the use and utility of the master plan up to two (2) alternative scenarios, will be considered by the CONSULTANT based on realistic possibilities for the airport over the 20-year planning period. Potential scenarios include Advance Air Mobility (AAM) integration and AAM/aircraft manufacturing center.

Inventory/Forecasts Summary Report and GIS Existing Airport Layout

At the conclusion of Task 4, an Inventory Summary Report and GIS Existing Airport Layout will be delivered by the CONSULTANT as a dynamic web accessible map. The Inventory Summary Report will consist of a written report summarizing the findings of Tasks 1 through 4 in tabular and text format. The GIS Existing Airport Layout will be a digital deliverable and will be supplemented by a paper drawing formatted consistent with FAA AGIS standards. If FAA guidance is not yet available, the drawing will be formatted like current industry standards for such drawings.

TASK 5 – CAPACITY ANALYSIS & FACILITY REQUIREMENTS

PURPOSE

To examine capacity over the planning period and determine the type and amount of airport facilities (runways, taxiways, aprons, tie-downs, storage hangars, vehicle parking, navigational and approach/landing aids, airport lighting, instrument approaches, etc.) needed to accommodate forecast aviation demand over the next 20 years and meet current design standards. Consultant will review and incorporate, as applicable, an apron utilization study prepared by Infrastructure Consulting and Engineering (ICE).

METHODOLOGY

Airside capacity analyses, such as Annual Service Volume (ASV), as well as Visual Flight Rules (VFR) and Instrument Flight Rules (IFR) hourly capacities will be evaluated using FAA AC 150/5060-5, *Airport Capacity and Delay* and other industry guidelines. The capacities and requirements of runways, taxiways, aircraft parking areas, vehicle parking facilities, and passenger terminal facilities will be assessed based on the demand forecasts and flexible planning scenarios identified in Task 4. Airport facility requirements for the next 20 years will be determined through a comparison of aviation demand and scenario-based opportunities with existing airport features and facilities.

Through discussion with airport management and project stakeholders, key elements of the Facility Requirements will be incorporated into a dynamic analysis model. Several pre-defined scenarios will be developed along with a variety of variables that can be adjusted by the user. The dynamic model will be able to quickly analyze facility requirements based on the user-selected variables/scenarios.

FAA standards documented in AC 150/5300-13 *Airport Design*, and other FAA and state regulations will also be used to determine requirements. Requirements will be presented describing those changes necessary to accommodate demand and/or improve airport features to meet current design standards.

Airfield Capacity Analysis

The FAA methodology outlined in AC 150/5060-5, *Airport Capacity and Delay*, will be used by the CONSULTANT to establish the Airport's Annual Service Volume (ASV), as well as VFR and IFR hourly capacities. Information such as the existing runway and taxiway configurations, historical weather data, aircraft mix, Airport instrumentation and airspace conditions will be used to derive hourly departure and arrival capacities, ASV, instrument capacities and annual delays. This information will be validated through a detailed review of Virtower operational data, as available since its implementation at OCF in August of 2021. The aviation demand forecasts will provide the basis for comparing forecasted levels of aviation demand versus the future capacity of the airfield.

Airside Facility Requirements

Based on the anticipated aircraft fleet mix and level of operational activity, this section will determine the need for airfield improvements. Particular attention will be given to maximizing the use of the current runway system and recommendations for any additional or improved approach procedures. Any layout dimensions or other requirements for the proposed Airport Reference Code (ARC) that do not meet current standards will be identified and addressed. Airside elements examined by the CONSULTANT will include, but not necessarily be limited to, the following:

- Runway improvements, runway length, runway safety areas, object-free areas, object-free zones, protection zones, and approach areas
- Taxiways, taxiway safety areas, taxiway object-free areas, and taxiway object free areas
- Aircraft parking aprons,
- Load bearing capacity of pavements
- Airport marking and lighting
- Instrument approaches and NAVAIDs (Navigation Aids)
- Decommission and removal of an FAA owned VORTAC

A focus of this effort will be placed on evaluating the airfield geometry in accordance with new guidelines in AC 150/5300-13B, *Airport Design*. A review of potential hot-spots and problematic airfield geometry will be conducted and used to inform the airside alternatives.

Roadway Access Facility Requirements

The CONSULTANT will utilize existing and available data, as well as components of the inventory and Task 6.0 demand forecasts, to evaluate chokepoints in the on-airport parking/roadway system and identify future needs. Key components of this task include:

- Interviews with airport management and staff regarding roadway access needs
- Coordinate with FDOT regarding traffic data, access intersection improvements, and future plans for improvements to be made by FDOT

Landside Facility Requirements

Based on the results of Tasks 3 and 4, requirements for landside airport facilities will be identified by the CONSULTANT. Interviews will be conducted with airport management and operational personnel as part of the process to determine current procedures and potential areas of concern. Opportunities to improve airport revenue generation and sustainability will be sought and investigated for these functions as well:

- FBO areas
- FBO terminals
- Aprons, tie-downs, taxi-lanes
- Airport administrative/operations offices
- Aviation fuel storage and distribution
- Airfield maintenance facilities and storage
- ARFF facilities
- Land/easement acquisition
- Non-aviation use areas
- Aviation fuel storage areas

TASK 6 – ALTERNATIVES ANALYSIS

PURPOSE

In this task, feasible Development Alternatives having the potential to satisfy the various Airport Facility Requirements identified in Task 5 based on forecasts in Task 4, will be presented using the flexible planning scenarios identified and established in the aviation demand forecasts. The alternatives will be evaluated based on the criteria described below and preferred alternative(s) identified. The preferred alternative(s) will be incorporated into an overall development plan for the Airport, which will be the basis for the final ALP. Passenger terminal facilities will not be included in the analysis.

METHODOLOGY

In continuing the scenario-based planning efforts, the development alternatives for Ocala International Airport will build upon the Facility Requirements developed in Task 5, which were derived from the forecast scenarios developed in Task 4. While a preferred alternative will be selected for the purpose of ALP development, the alternatives developed in this task will present several possibilities for Ocala International to consider in a variety of operating and/or activity scenarios. The alternatives will consider both airside and landside features.

Evaluation criteria for the alternatives will be guided by FAA design standards, cost effectiveness, environmental considerations, and the degree to which the alternative in question meets the identified facility requirement. A set of standards will be established for each type of plan developed (i.e. airside, landside). To facilitate future NEPA review of projects prior to construction, the “No-Build Alternative” will also be evaluated.

Identify Airside Alternatives

The formulation of airside alternative sketch plans and diagrams is the primary purpose of this element. From the aviation demand forecasts, the extent of improvements needed to accommodate future demand and the needs of the design aircraft or family of aircraft will be known. Additionally, the extent of capacity enhancement required to accommodate future operations at the Airport will also be known.

Alternatives will be presented by the CONSULTANT to obtain the maximum operational flexibility at the Airport within the current property constraints. These alternatives will provide alternative airfield concepts to accommodate future demand and meet capacity requirements. The airside alternative sketch plans and diagrams will permit technical and operational evaluation and will assist in formulating reasonable and logical development phasing plans. This task will identify as many as three (3) airside alternatives, including the “No-Build” alternative. These alternatives will incorporate both runway and taxiway improvements, as well as NAVAID and approach improvements. It is anticipated that up to three (3) runway extension alternatives will be developed as a subset to the airside alternatives.

Identify Landside Alternatives

Alternatives prepared to meet the landside development needs over the planning period will be evaluated by the CONSULTANT in this task. Landside alternative sketch plans and diagrams will be prepared to identify the general location and size of potential development sites. Due to the broad nature of the potential Landside Alternatives, construction cost estimates will not be developed at the Alternatives stage but will be developed at the Recommended Plan stage if the Alternative will be planned and programmed by the Airport within the Airport Capital Improvement Plan (ACIP) timeframe. Conceptual level cost estimates for recommendations made will be developed. Outputs from the aviation demand

forecasts and discussions with airport management and users will help determine the size, location, and timeline for the development of landside facilities.

The facility layouts depicted in Figure 5 in the Taxiway C Justification Study will be carried forward to the development of the ALP. However, they will be validated based on new forecasts and facility requirements, and any recommendation that may come out of the Storm Water Master Plan. Alternatives will only be evaluated for other open sites at the Airport. This task will have several key components as identified below:

- Maintenance and General Aviation Facilities: Locations for these facilities will be reviewed with particular emphasis on effective use of available land areas, efficient operational layout and circulation, land use compatibility and opportunities for additional FBO or aviation business related leaseholds. The issue of highest and best use will be considered in the context of the ability to maximize airport revenue generating capabilities. Options for the relocation of existing facilities in conjunction with the development of new facilities shall be considered in instances where higher revenue generation is a possibility. As many as three (3) alternatives may be developed.
- Aviation Support Facilities: Alternatives may be recommended for airfield maintenance facilities, fuel storage and handling, and other infrastructure. As many as three (3) Alternatives may be developed including the “No-Build”.

Identify Airport Land Use

The purpose of this task will be to identify the aeronautical and non-aeronautical land uses/development types that are anticipated to provide maximum compatibility and economic benefit to OCF and improve the function and efficiency of the Airport, based on the data obtained and analyses completed in previous tasks. The identified mix of land uses should optimize compatibility and revenue for the Airport, providing for the further integration of the Airport into the region both physically and economically, while at the same time maintaining the flexibility required to facilitate future aeronautical and non-aeronautical development opportunities.

A review of highest and best use for three (3) proposed development areas at OCF will be completed to identify the mix and priority of land uses to be included in the final land use plan. A maximum of two (2) alternative land uses/development types will be proposed for each of the three development areas. The alternatives will include immediate possibilities related to industries already established in the area surrounding the Airport and/or those determined to be emerging markets in the region. Economic data and demographics in the subject neighborhood, also known as the sub-market, will be reviewed. In the case of OCF, the sub-market is those properties located in north central Florida, generally surrounding the Airport. Additionally, the highest and best use and land use analyses will review and consider the City's existing and future land use designations to ensure overall compatibility and/or identify areas where changes may be recommended.

A workshop will be held with OCF to review the land use alternatives for each of the five development areas and a preferred alternative will be selected for each area. The preferred alternatives will be incorporated into a final land use plan for the entire airport property. The final land use plan will identify potential aeronautical and non-aeronautical land uses/development types that may be established, as well as depict the interrelationships between uses and inherent levels of flexibility necessary to accommodate development opportunities and/or changes in the type or level of demand. Approximate

acreage for each land use type will be identified in the final land use plan. Aviation-related uses will be highlighted so that these areas may be reserved for future development necessary to support the aeronautical operations of the Airport. The development area layout will also consider proposed access/service road layout to maximize use.

Land Use Alternatives

This element begins with the set of identified alternatives, evaluates the advantages and disadvantages of each based upon a set of criteria and then results in a consolidated recommended development strategy for the Airport, which will be the basis for the ALP. The following criteria will be used by the CONSULTANT for review and evaluation of each alternative:

Aeronautical Land Alternatives:

- Facility Requirements: Does the Alternative meet the existing and future needs of the Airport and is the alternative feasible for implementation?
- Environmental Impact: What are the environmental impacts associated with implementation of the alternative? The conditions and constraints to be evaluated will be in accordance with the resource categories and criteria set forth in FAA Orders 5050.4B and 1050.1F. These resource categories include:
 - Air Quality
 - Biological Resources, including fish, wildlife, and plants
 - Climate
 - Coastal Resources
 - Department of Transportation Act, Section 4(f)
 - Farmlands
 - Hazardous materials, solid waste, and pollution prevention
 - Historical, Architectural, Archeological, and Cultural Resources
 - Natural Resources and Energy Supply
 - Socioeconomics, environmental justice, and children's health and safety;
 - Visual effects (including light emissions)
 - Water Resources
 - Wetlands
 - Floodplains
 - Surface Waters
 - Groundwater
 - Wild and Scenic Rivers
 - FAA Standards: Does the alternative meet the design standards of FAA Advisory Circular 150/5300-13B, *Airport Design* and Federal Aviation Regulation (FAR) Part 77 Surfaces to the maximum extent feasible?
 - Development Costs: Does the alternative have reasonable development costs in comparison to other alternatives that achieve the same goal? At the alternatives stage, planning-level cost estimates will be developed for general comparison amongst airside alternatives.
 - Development Flexibility: To what extent does this alternative leave flexibility for change and additional future surrounding development? Does this alternative allow flexibility from an operational standpoint?

Non-aeronautical Alternatives:

- **Land Use Compatibility:** Is the alternative compatible with on-airport and off-airport patterns of land use? This criterion will evaluate such things as access to the airside movement areas and the local road network and the degree to which the alternative is compatible with activities occurring in surrounding on and off-airport land.
- **Environmental Impact:** What are the environmental impacts associated with implementation of the alternative? The conditions and constraints to be evaluated will be in accordance with the resource categories and criteria set forth in FAA Orders 5050.4B and 1050.1F. Federal and state regulatory considerations will also be summarized. These resource categories include:
 - Air Quality
 - Biological Resources, including fish, wildlife, and plants
 - Climate
 - Coastal Resources
 - Department of Transportation Act, Section 4(f)
 - Farmlands
 - Hazardous materials, solid waste, and pollution prevention
 - Historical, Architectural, Archeological, and Cultural Resources
 - Land Use
 - Natural Resources and Energy Supply
 - Socioeconomics, environmental justice, and children’s health and safety;
 - Visual effects (including light emissions)
 - Water Resources
 - Wetlands
 - Floodplains
 - Surface Waters
 - Groundwater
 - Wild and Scenic Rivers
- **Potential for Expansion:** Is the alternative flexible and dynamic in the sense that it can accommodate future changes in demand and unanticipated expansion? This criterion recognizes the fact that location decisions made today will influence future airport development for many years to come. Planning shall consider future development needs beyond the facility requirements of the current planning period.
- **Operational Efficiency:** Will this alternative contribute to the development of a smoothly functioning airport with efficient movement of aircraft? This criterion will consider whether the alternative makes the best and most efficient use of airport facilities and infrastructure.
- **Revenue Generation Capability:** Does the alternative take a strategic business and capital-based approach that allows or creates opportunities for airport management to increase revenue generation and/or diversify revenue sources thereby improving the overall competitiveness and cost effectiveness of the Airport?

Forecast Scenario Planning Alternatives:

The facility requirements based on the forecast scenarios identified in Task 6.0 will be used to promote an adaptable development plan given actual demand in the future. One planning-level concept will be created for each forecast/facility requirements pair that results in an alternative differing from that of the alternatives based on the approved forecast. These alternatives will highlight various potential scenarios and opportunities for the Airport. These scenario-based alternatives will be summarized and presented

as part of the alternatives analysis process and will serve as a planning resource following the completion of the Airport Master Plan Update to evaluate and accommodate future unanticipated changes at the Airport. By capitalizing on the data and analysis already conducted as part of the master planning process the need for subsequent planning efforts are greatly reduced.

It is recognized that unforeseen changes during the planning process may require the addition of other criteria or changes in the selected criteria. Additionally, a review of the City’s comprehensive plan, specifically Objectives 9-10 of the Transportation Element, will be completed to identify if the any portion of the recommended alternatives will require revisions to the City’s comprehensive plan.

Selection of the Preferred Alternative

In this task, the CONSULTANT along with input from Airport management and stakeholders will select the preferred development alternative to be included in the overall recommended plan and ALP Drawing Set for the Airport. The recommended plan will be described by identifying the facilities for each functional area of the Airport, within each time frame. The recommended facilities will be described in relation to their quantity, general location, and timing of required development. The optimum configuration will be developed to accommodate the demand for air transportation in the area, considering community compatibility, environmental considerations, cost, funding, and financial feasibility. The type and location of each airport improvement will be set forth in terms of the planning activity levels identified in the aviation demand forecasts, as well as the following three time periods:

Short Range:	2024 – 2028
Intermediate Range:	2029 – 2033
Long Range:	2034 – 2045

The preferred development alternative will be the basis for phasing, cost estimating, and the financial feasibility analyses completed in the following tasks.

Alternatives Summary Report

At the conclusion of Task 6, an Inventory Summary Report will be delivered by the CONSULTANT as a dynamic web accessible map. The Inventory Summary Report will consist of a written report summarizing the findings of Tasks 4 through 6 in tabular and text format.

TASK 7 – FINANCIAL & IMPLEMENTATION PLAN**PURPOSE**

To develop necessary components for implementation of the preferred development plan including project phasing and order of magnitude estimates of construction costs. Utilizing this data, develop an updated ACIP and draft ALP Drawing Set for review and comment prior to finalizing the MPU and ALP in Task 8.0.

METHODOLOGY**Project Phasing**

Refinement and final development of project phasing for the preferred development alternative, as presented in Task 6, will be completed by the CONSULTANT. Phasing will be based on the schedule of improvements necessary to meet the anticipated demand, accommodate existing or potential development opportunities, and/or maintain the greatest amount of development flexibility within the site. The phasing plan will be developed to assign each project to a planning period (short-, intermediate-, or long-range). Each project in the short-range period will be individually described in sufficient detail to describe the nature and purpose of the project, identify potential conflicts with other projects, and identify projects that must occur to enable completion. For the medium- and long-term time periods, the project staging will consist of a list of required projects, but without the level of implementation detail provided in the short term.

Order of Magnitude Estimates

Cost estimates of facility requirements, based on current dollars, will be prepared for the first five-year period (0-5 years); a more generalized cost breakdown will be prepared for Year 6 through Year 10 period; and a facility breakdown with costs will be prepared for Year 11 through Year 20 period. These facility requirements could include such items as the terminal, runways, taxiways, aprons, hangars, access roads, perimeter roads, safety areas, lighting and signing, fencing, buildings and hangars, auto parking, airport maintenance, fuel facilities, among others as appropriate. Conceptual planning-level facility costs will be prepared using unit prices prorated by the size of the facility tempered with engineering judgment considerations. Cost estimates, while thoughtfully prepared, are intended to be used for planning purposes only and are not to be construed as formal opinions of probable construction cost.

Airport Capital Improvement Plan (ACIP)

The ACIP will be updated by the CONSULTANT based on the preferred alternative and recommended plan, phasing plan and order of magnitude cost estimates as developed and presented in Task 6 and Task 7, respectively. A listing of Airport development projects necessary to implement the phased development plan will be prepared. The phases will be organized into short-range (0-5 years), intermediate-range (6-10 years), and long-range (11-20 years) projects. For each project, order of magnitude cost estimates and funding sources will be identified. All realistically available sources will be considered, including federal, state, local and private funding sources based upon information from the Airport. The resulting ACIP will

be compatible with FAA's 5-year Airport Capital Improvement Plan requirements. The ACIP will be prepared and supported by tabular data and narrative descriptions in the report.

Sources of Funding

A review and evaluation of possible funding sources available for airport development will be completed by the CONSULTANT. This review will include, but not necessarily be limited to, the following funding sources:

- FAA grant funds
- State DOT grant funds
- Airport revenues
- Private or third-party funding
- Financing or bonding

An evaluation will be made of the eligibility of airport development for each of these funding sources and potential implications on airport operations.

TASK 8 – FINAL AIRPORT MASTER PLAN UPDATE & ALP DRAWING SET**PURPOSE**

To finalize the Airport Master Plan Update based upon the review and comments of airport management, City of Ocala , and funding agencies.

METHODOLOGY

Based upon the results of Task 6.0 (Alternatives) and input from airport management and the FAA, a draft ALP Drawing Set and associated narrative will be prepared by the CONSULTANT. The Draft Narrative Plan and ALP Drawing Set will be prepared in accordance with FAA requirements and will use the ARP Standard Procedure for FAA Review and Approval of Airport Layout Plans SOP 2.0 Checklist. This task will include the preparation of the following ALP Drawings:

Existing Airport Layout

The CONSULTANT will prepare a Drawing depicting the current airport layout in accordance with the ARP Standard Procedure for FAA Review and Approval of Airport Layout Plans SOP 2.0 Checklist

Airport Layout Plan

The CONSULTANT will prepare an Airport Layout Plan in accordance with industry and FAA guidelines. The drawings will depict those features as indicated on the attached ARP Standard Procedure for FAA Review and Approval of Airport Layout Plans SOP 2.0 Checklist.

Terminal Area Plan

The CONSULTANT will prepare a Terminal Area Plan indicating existing and recommended future uses and development for the passenger terminal, general aviation areas, tenant areas, and ground access and vehicle and aircraft parking. To the extent practical and advisable the recommended security improvements will also be illustrated. The drawing will include those features as indicated on the attached ARP Standard Procedure for FAA Review and Approval of Airport Layout Plans SOP 2.0 Checklist.

Airport Airspace Plan

The CONSULTANT will prepare an Airport Airspace Plan for existing and ultimate FAA Part 77 imaginary surfaces, including approach slopes and any height or slope protection established by local zoning ordinance. The drawing will include those features as indicated on the attached ARP Standard Procedure for FAA Review and Approval of Airport Layout Plans SOP 2.0 Checklist.

Inner Portion of the Approach Surface Drawing

The CONSULTANT will prepare an Inner Approach Surface and Runway Protection Zone Control including plan and profile sections of the ultimate runway protection zones and inner approach surface areas showing the controlling obstructions therein, associated top elevations and proposed disposition. The drawing(s) will include those features as indicated on the attached ARP Standard Procedure for FAA Review and Approval of Airport Layout Plans SOP 2.0 Checklist, such as the Runway End Siting Surface and FAR Part 77 Surfaces.

Runway Departure Surfaces Drawing

The CONSULTANT will prepare Runway Departure Surface Drawings including 40:1 Surface Drawings and One-Engine Inoperative (OEI) obstacle identification surfaces for applicable instrument approach runway ends. These drawings will be prepared using obstruction and obstacle data derived from the mapping

conducted in accordance with FAA Advisory Circular 150/5300-18B. The CONSULTANT will give special emphasis to the identification of any obstructions that penetrate the 40:1 departure surface by more than 35 feet, as well as any obstacles close to centerline on the OEI drawing that have the potential to be weight limiting factors for airline departures. The Master Plan Update will provide recommendations for obstruction removal based on the findings from these drawings.

Airport Land Use Plan

The Airport Land Use Plan will be prepared by the CONSULTANT and will indicate specific airport uses and show off-airport compatible and non-compatible land uses. The drawing will depict noise contours developed as part of a separate task order. The drawing will include those features indicated on the ARP Standard Procedure for FAA Review and Approval of Airport Layout Plans SOP 2.0 Checklist.

Airport Property Map

The CONSULTANT will prepare an Airport Property Map to identify land owned and/or to be acquired by the Airport for improvements. Off-Airport property required for landside/airside development will be identified for acquisition and areas not needed for aviation use may be shown available for future release. No new or revised boundary survey will occur as part of this task.

Exhibit A

The CONSULTANT will prepare an Exhibit A conforming to the requirements of ARP SOP No. 3.00 Dates October 1, 2013. The Exhibit A will be an update of the approved version with the addition of data previously not included. The CONSULTANT will incorporate information provided by the City of Ocala/Airport per Task 3 – Inventory.

Final Master Plan Report

The Final Report will consolidate supporting documentation and findings developed throughout the course of the study process. The Final Report will be prepared by the CONSULTANT in standard 8½" x 11" format with 11" x 17" fold-out exhibits, as necessary. The Final Report will incorporate appropriate graphics and be bound as requested by airport management. The Final Report will be submitted to Airport management and FAA. The ALP Drawing Set will be prepared on compatible electronic media for use in preparing reports, exhibits and presentation materials. An electronic copy of the Final Report in Microsoft Word format and an electronic copy of the ALP Drawing Set in AutoCAD format (or fully-compatible format) will be provided to the Airport and FAA. Full size reproducible drawings of the Final ALP Drawing Set will be submitted to FAA for approval and signature.

TASK 9 – DELIVERABLES**PURPOSE**

To define the project deliverables.

METHODOLOGY

The Master Plan Update and ALP Drawing Set will be finalized based upon comments on Interim Reports, input received from the Stakeholder Committee and public meetings and in coordination with airport management. The resulting Final Report and ALP Drawing Set will be submitted to the Airport and the FAA for approval and signature. The following deliverables will be made available at specific milestones throughout the project:

Interim and Draft Reports

A total of 10 copies of each of the Interim Reports and the Draft MPU Report will be prepared by the CONSULTANT, along with 10 electronic copies in PDF format on USB Drive or web-based file sharing. These reports are anticipated to be delivered based on the following project milestones:

- Draft Forecasts – Upon completion of Task 4.0 for FAA review and approval
- Interim Report #1 – Upon completion of Task 4.0
- Interim Report #2 – Upon completion of Task 6.0
- Draft MPU Report – Upon completion of Task 9.0

Final Report

A total of 10 copies of each of the Final MPU Report will be prepared by the CONSULTANT and provided along with a PDF file formatted for web-based viewing on a USB Drive.

Draft and Final Airport Layout Plan Drawings

- Three (3) copies of the Draft ALP Drawing Set will be prepared by the CONSULTANT for distribution as airport management directs. It is anticipated that drawings will be prepared on 22" x 34" sheets (ANSI D), as approved by the Airport and FAA. Additionally, up to five (5) oversized sheets can be requested by the Airport.
- Digital PDF copy of the Final ALP and Data sheets for FAA digital signature. Copies of the two drawings sheets in PDF will be delivered, as well as AutoCAD and reference files for each of the sheets.
- Five (5) copies of the Final ALP Drawing Set for City of Ocala signature will be prepared by the CONSULTANT. Copies of all drawing sheets in PDF will be delivered, as well as AutoCAD drawing and reference files for each of the sheets.
- One digital PDF copy of the signed final ALP will be distributed to both the City of Ocala and FAA by the CONSULTANT.

TASK 10 – PUBLIC PARTICIPATION AND MEETINGS

PURPOSE

This task will establish communications framework for the technical advisory group, airport tenants, public, airport staff and the consultant team throughout the master plan process. To allow for technical review of interim, draft, and final documents, solicit comments and input on study progress and to engage the public through participation in the planning process.

METHODOLOGY

The public participation and coordination process will consist of three elements: 1) advisory committee meetings, 2) public information meetings, and 3) FAA coordination. Although identified as a discrete task, these elements will occur at key times throughout the project.

Stakeholder outreach and input is an important part of enhancing the master planning process. FAA's Advisory Circular (AC) 150/5070-6B, *Airport Master Plans*, and FAA AC 150/5050-4, *Citizen Participation in Airport Planning*, as well as FDOT's Guidebook to Airport Master Planning, provide guidance for effective techniques to engage the public and other airport stakeholders in the planning process. Development of a public involvement program will begin at the earliest stages of the master planning process to identify stakeholders and key issues, and will include the following features:

- Project Advisory Committee Meetings
- Public Information Meetings
- Coordination Meetings

Technical Advisory Group Meetings

The use of focused committees has been an effective tool to engage the public and stakeholders during the master plan process and to solicit feedback during key points in the study. A stakeholder committee made up of different Airport users, tenants, and community members, can provide the necessary feedback for on-Airport issues under consideration.

Meetings with key stakeholders, which are envisioned to include members of airport management, tenants, and users along with Airport staff, will be held throughout the project and will be attended by 1-2 staff members of the CONSULTANT and selected subconsultants. These meetings will be used to share ideas, discuss schedule, present interim reports, and develop solutions to any challenges that present themselves during the project. It is anticipated that the following such meetings will occur throughout the course of the project:

- Technical Advisory Group Meeting #1 (Kick-off and Inventory)
- Technical Advisory Group Meeting #2 (Forecasts and Facility Requirements)
- Development Alternatives Working Session with Technical Advisory Group
- Draft MPU, ACIP and ALP Drawings

Additional meetings required will be conducted via conference call.

Public Information Meetings

Two (2) Public Information Meetings shall be held during the planning process to provide information in a workshop format and to solicit comments from the general public. The workshop will be held in an informal

open-house format late in the afternoon/early evening for a typical period of 2-3 hours at facilities in the vicinity of the Airport. Representatives of City of Ocala and CONSULTANT will staff (Up to four people per meeting which may include subconsultants) the workshop sessions during the entire period to talk individually with citizens about the project. The CONSULTANT shall prepare workshop handout materials and furnish board-mounted graphics (maps, charts, etc.) to be on display so that citizens can become familiar with the project and issues relative to the MPU. Citizen comment forms will be prepared and distributed at the workshop. The CONSULTANT will prepare the wording for the advertisements for the meetings and coordinate the timely publication of advertising for community notifications at least two weeks prior to the meeting. The Airport shall be responsible for publication of the meeting notices in the local papers, providing space for the Public Information Meeting/Workshops. The public workshops will occur on the same days as the Technical Advisory Group Meetings. The two public meetings will be the only forum for citizens and nearby landowners as it related to the master plan process, any additional landowner/neighborhood coordination and consultation will result in a modified scope.

The content of the public meetings will be generally summarized as:

- Public Meeting #1: Master Plan Process/Need, Inventory/Forecasts/Facility Requirements
- Public Meeting #2: Alternatives/Recommended Plan/Implementation

Coordination Meetings

During the project there will be one (1) coordination meeting with representatives from the FAA Orlando ADO. The goal of this meeting will be to achieve concurrence on recommended development with FAA regional planning, environmental and engineering staff.

I. Assumptions

The following is a list of assumptions which forms the basis of the cost for providing these services. It must be noted that any change to these assumptions constitutes a change in the project scope, possibly requiring an additional fee.

- The Airport will be responsible for providing all available documentation, reports, and statistics regarding the Airport for the preceding 10-year period. This is to include the following:
 - Redline update to existing Inventory chapter
 - Survey information of current facilities, elevations of adjacent buildings, trees, etc.
 - Assistance received from the FAA, FDOT, others.
 - Aviation activities including operations, fuel flowage, based aircraft, etc.
 - Existing and proposed land uses surrounding the Airport
 - Environmental assessment and impact statements
 - Property, boundary, easement, right-of-way, topographic and utility surveys
 - Zoning, deed and other land use restrictions
 - Financial data
- The Airport will be responsible for copying and distributing all material to the public and agencies other than FAA, FDOT, and Technical Advisory Group prior to meetings, including working papers, notices, and mailings.
- The Airport will be responsible for placing public meeting announcements in local newspapers and other publications.
- Airport will provide for and/or arrange access to and make all provisions for the CONSULTANT to enter public and private property for performance of the Scope of Services.

- Airport staff and Technical Advisory Group will examine all studies, reports, sketches, drawings, specifications, proposals, and other documents presented by the CONSULTANT and render in writing decisions or comments pertaining thereto within a reasonable time so as not to delay completion of the Scope of Services.
- The Airport will provide electronic files for the existing Airport Layout Plan (ALP) and Exhibit A property map for the Airport, including existing property map drawing, new parcel boundary survey, and necessary title and ownership transfer information as necessary.
- Data collection required for Exhibit “A” conformance will be compiled by the Airport/City of Ocala.

AIRPORT STORM WATER MASTER PLAN SCOPE OF SERVICES

TASK 1 – EXISTING DATA

a. SWPPP Reports

Review and summarize the structural and nonstructural controls in the airport's current National Pollutant Discharge Elimination System (NPDES) Storm Water Pollution Prevention Plans (SWPPPs).

b. As-Built Drawings

Review furnished as-built airport plans for drainage design details.

c. Visual and Photographic Reconnaissance

Conduct visual and photographic reconnaissance of the airport and adjacent areas for factors related to drainage and land use. Identify any anomalous areas and conditions observed.

d. Geotechnical Data

Review furnished design geotechnical information for previous projects that may be available in project files or Engineer's Reports on file at the airport. Review any summarized construction test data from project closeout documents that may be available on file at the airport. Evaluate relevance of data.

e. Airport and Tenant Water Management District (WMD) Permits

Collect existing WMD permits for airport and its tenants that are readily available in airport or WMD files.

f. Rainfall Information

Collect at least 10 prior years of 1-hour or finer time increment rainfall records for the Airport from the closest weather station. Obtain monthly evaporation or evapotranspiration data from the nearest available station from IFAS or other source for a design year that will be selected from the rainfall data analysis.

g. Airport Master Plan Coordination

Coordinate with the in progress Airport Master Plan. Discuss planned future projects and probable changes that will be included in the Master Plan. Establish outlines of development areas with similar characteristics such as commercial/business parcels, industrial use, airside access business, runways, taxiways, aprons, and similar.

h. Aerial Topographic Surveys

Review furnished aerial topographic survey(s) of the airport.

i. Discharge Stages

Collect available information on normal and flood stages of receiving waters, including any time-stage data. Sources can include flood studies, previous permits, gage data, or recollections of airport staff or adjacent landowners, among others.

j. Water Quality Data

Collect and review publicly available water quality monitoring data that may be available and published for the airport and surrounding area.

k. Summarize Existing Data

Summarize or reduce the existing data for relevant and usable information for the project.

Deliverables

- Summaries of the existing data. This will also be included, in part or in whole, within the Master Drainage Plan Narrative Report. The summaries may be narrative, tabular, numeric, drawings, databases, GIS (ESRI ArcGIS) or similar depending on the specific data. Some data, such as multi-year rainfall records, will not be summarized in this task but will be used directly or with further analysis in subsequent modeling and simulation efforts.

TASK 2 - OTHER SURFACE WATER (OSW) IDENTIFICATION

This task is intended to provide support to the Conceptual Environmental Resource Permit only. Each construction project that follows the Conceptual ERP is expected to conduct a detailed OSW determination as required to secure a Construction ERP.

a. Aerial and Field Delineations

Delineate probable Other Surface Waters (OSW) on the furnished aerial photograph. Conduct a site visit to occur concurrently with Task II.b to review readily accessible OSW limits on the contiguous airport property.

b. Coordination with WMD and/or FDEP

After preliminary OSW limit delineations using only aerial photography is complete, arrange a joint site visit to confirm general limits with WMD and/or FDEP environmental science staff. This site visit shall take place on the same day as Task II.a site visit. Revise the general limits, if necessary.

Deliverables

- Identification of probable OSWs (if any) on GIS

TASK 3 - EXISTING CONDITION MODEL

a. Basins

Delineate drainage basins based on topography and drainage patterns. Refine and re-define basins as necessary based on land use and/or groundwater information.

b. Treatment Efficiencies

- a. Published Information (minimum required)
- b. Review data from the Statewide Airport Stormwater Study, updated Applicant's Handbook Volume 1 (from the new Clean Waterways Act), and WMD/FDEP/USEPA accepted literature and data to establish water management treatment efficiencies for various Best Management Practices.

c. Continuous Simulation Rainfall Synthesis

Using the rainfall records collected in Task I, select an average annual rainfall that approximates the typical condition. Using accepted techniques, normalize the selected rainfall to yield a total annual rainfall that approximates the long period average annual rainfall. Using accepted techniques reduce the rainfall to 5-minute or 15-minute increments and place in spreadsheet format that can be read into EPA SWMM or other selected continuous simulation water management computer program.

d. WMD Meetings

Meet with WMD to negotiate regulatory concurrence with defined basins, EMC for each land use, treatment efficiencies to be used for modeling various Best Management Practices, the continuous simulation rainfall distribution, evapotranspiration data, and similar. Confirm the event rainfall distribution and flood impact criteria to be used in modeling. This will be a virtual meeting.

e. Computer Simulations and Models

- a. Establish the EPA SWMM and/or other software and version that will be used for all simulations and modeling – Existing and Future.
- b. Continuous Simulations for Water Quality Management
Evaluate average annual existing conditions' runoff quality, quantity and management using computer program EPA SWMM or other applicable and accepted software using the one-year continuous simulation rainfall record prepared in this task.
- c. Event Models for Quantity and Flood Management
Evaluate existing conditions runoff quantity and flood management for the design storm event rainfall distribution specified by the WMD using computer program EPA SWMM or other applicable and accepted software.

f. Calibration

Using information collected in Tasks I through IV, calibrate the water management computer model for general correspondence with observed or measured existing conditions.

Deliverables

- Existing Condition EPA SWMM and/or other software models (continuous simulation and event).

TASK 4 - ALTERNATIVE WATER MANAGEMENT STRATEGIES

a. Concept sketches for alternates

Develop sketches for up to five (5) alternates for the airport water management system. The alternates will be developed as “regional” water management systems providing water quality and quantity management functions for the entire airport property. Water management (maintenance and design details) will be controlled by the airport to ensure wildlife hazards are kept at a minimum and confined at specified locations. Failure to do this as a regional pond and allowing each tenant to manage the stormwater is likely to result in smaller ponds with lower quality performance and creates potentially multiple wildlife hazards. Regional or centralized water management will provide a revenue stream on a continual basis to the airport. The legal function may be equated to a water

management utility that can produce revenue from leased parcels or parcels released and sold to other developers on a continual basis.

b. Airport Meeting

- Together with the Prime/Master Planning Consultant, meet with airport management and legal counsel to determine the form and nature of the centralized/regional water management system. As part of this task, the consulting team will provide:
 - (1) Methods of establishing rates and charges for water management
 - (2) Example(s) of similar arrangements at other airports
- In conjunction with the Prime/Master Planning Consultant, review the alternate concepts for the airport water management system with airport management, maintenance and operations personnel. Discuss qualitatively the basic issues associated with each option. Solicit comments and make any revisions appropriate to the comments. Following discussions with WMD, FAA, and FDOT described in the following two sub-tasks, the comments from those agencies will be discussed with Sponsor and the alternates to be evaluated will be finalized.

c. WMD Meeting

Following the initial review of alternates for airport water management, the options will be discussed with the WMD. Comments will be solicited concerning permissibility, regulatory issues, and general concept suggestions for the alternates. This will be a virtual meeting.

d. FAA/ FDOT Meeting

Following the initial review of alternates for airport water management, the options will be discussed with FAA and FDOT. Comments will be solicited on acceptability and possible funding eligibility from FAA and FDOT. This will be a virtual meeting.

Deliverables

- Concept sketches in PDF format.
- Meeting agenda for each meeting.
- Meeting minutes from each meeting.
- Rates and charges summary comments or narrative for water management services.
- Confirmation of preferred water management strategy
- Graphic showing the Preferred Water Management Strategy outline for use in Task IX Future Conditions Model.

TASK 5 - FUTURE CONDITION MODELS

a. Basins

Re-define drainage basins based on the Airport Master Plan and expected improvements for the preferred alternate. Basins may be re-defined based on expected grading consistent with FAA standards, projected changes in land use, or similar.

b. Event Mean Concentrations

Establish any EMC data for future land use for Total Phosphorus (TP) and Total Nitrogen (TN).

c. Treatment Efficiencies

- a. Published Information (minimum required)

Review data from the Statewide Airport Stormwater Study, Applicant's Handbook Volume 1, and WMD/FDEP/USEPA accepted literature and data to establish or update water management treatment efficiencies for various Best Management Practices.

d. EPA SWMM Models

a. Continuous Simulations for Water Quality Management

Evaluate average annual proposed conditions' runoff quality, quantity and management using computer program EPA SWMM or other applicable and accepted software as one-year continuous simulations. One model for the preferred Water Management Alternative will be prepared.

b. Event Models for Quantity and Flood Management

Evaluate proposed conditions runoff quantity and flood management for the design storm events specified by the SWFWMD using computer program EPA SWMM or other applicable and accepted software. One model for the preferred Water Management Alternative will be prepared.

Deliverables

- Future condition EPA SWMM and/or other software models (continuous simulation and event) for preferred alternate.

TASK 6 - APPROVALS AND PERMITTING

a. WMD ERP

Prepare an application for a Conceptual ERP for Sponsor to submit electronically to the WMD. Respond to two sets of requests for additional information from WMD.

b. FAA ALP Coordination for Water Management Facilities

Provide a CAD/GIS of the water management treatment and facilities to the Master Planning Consultant for inclusion in their ALP set.

Deliverables

- Copy of electronically submitted permit applications in electronic format.
- Copy of electronically submitted responses to RAI for the permit applications.
- Drawings depicting proposed water management system in AutoCAD or Civil 3D or Arc GIS format. Format depends on airport furnished base ALP drawings format.

TASK 7 - MASTER DRAINAGE PLAN

a. Narrative Report

Prepare the Master Drainage Plan narrative report describing the approach, analyses, results, conclusions and recommendations for the project. Calculations will be included on diskette as an appendix to the report narrative.

b. Using guidance from the Florida Statewide Stormwater Study, prepare ledgers for allowable development by land use for each Airport quadrant. These will be applicable when the water management facilities of the conceptual ERP are in place and operational for that quadrant.

- c. Update the narrative information for the airport’s legal counsel to reflect water management charges per parcel based on specific land uses proposed for that parcel.
- d. Design Criteria
Summarize the design criteria for the structural controls of the Master Drainage Plan. These will be the basis for the detailed design that will be done during the construction of the upgraded Master Drainage system.
- e. Capital Improvement Program
This will be completed by the Prime/Master Planning Consultant.
- f. Prepare a phasing plan for construction coordinated with the development schedule from the concurrent Master Plan. The phasing plan is for planning and permitting guidance. Actual phasing will likely be demand driven and will differ from the proposed phasing plan as a consequence.

Deliverables

- Master Drainage Plan Narrative Report, allowable development ledger(s) including the design criteria recommendations and phasing plan.

Exclusions

- Permitting fees
- FAA Section 163
- SWFWMD ERP or FDEP 404 wetland permitting
- Listed species impacts or mitigation permitting
- Environmental Assessment (EA)
- Categorical Exclusion (CATEX)
- Design services
- Surveys
- Environmental studies
- Expert testimony
- Modeling of off-airport drainage systems
- Geotechnical explorations
- Wildlife surveys
- Maintenance Plan

PROJECT SCHEDULE

This scope of work is anticipated to be completed within 12 months after the Notice to Proceed is issued.

The provisions of this Work Authorization No. 4 are subject to all terms and conditions of the above-referenced Contract.

--- END OF SCOPE OF SERVICES ---

EXHIBIT B
Airport Master Plan and Stormwater Master Plan

City of Ocala/Ocala International Airport

4-20-2024

FEE SUMMARY



McFarland Johnson

1. DIRECT TECHNICAL LABOR

\$397,886.78

2. DIRECT EXPENSES

\$26,405.00

3. SUBCONSULTANT COSTS

NV5

\$116,598

EG Solutions (SWMP)

\$327,671

Strategy 5

\$12,600

4. TOTAL FEE ESTIMATE

\$881,160.78

5. TOTAL LUMP SUM FEE FOR ALL SERVICES

\$881,161

4-20-2024

ESTIMATED BY:[illegible]

**Ocala International Airport
Airport Master Plan and Stormwater Master Plan**

**Task Order No. 07
Project Status Report: Inception through May 07, 2024
MJ Project No. 19033.09
Invoice No.: x**

Progress Report:

-
-
-

Action Items:

Schedule Status:

- Project Duration: 18 months (365 Calendar Days)
- Contract/Notice To Proceed Date: 5-7-2024
- Contract Time Used: 1 days through 5/07/2024 (0.27%)

Fee Earned To Date

TASK	DESCRIPTION	CONTRACT AMOUNT	% COMPLETE	SPENT TO DATE	LESS PREVIOUSLY INVOICED	AMOUNT DUE
1	Study Design and Project Administration	\$ 6,435.56	0.00%	\$ -	\$ -	\$ -
2	Airport Mapping and Survey	\$ 11,542.87	0.00%	\$ -	\$ -	\$ -
3	Inventory	\$ 41,734.12	0.00%	\$ -	\$ -	\$ -
4	Forecasts and Aviation Demand (MJ 19033.08)		0.00%	\$ -	\$ -	\$ -
5	Capacity and Facility Requirements	\$ 37,703.83	0.00%	\$ -	\$ -	\$ -
6	Alternatives Analysis	\$ 75,880.27	0.00%	\$ -	\$ -	\$ -
7	Financial and Implementation Plan	\$ 41,119.33	0.00%	\$ -	\$ -	\$ -
8	Final Airport Master Plan and ALP Drawing Set	\$ 43,558.25	0.00%	\$ -	\$ -	\$ -
9	Deliverables	\$ 60,564.91	0.00%	\$ -	\$ -	\$ -
10	Public Participation and Meeting	\$ 54,680.13	0.00%	\$ -	\$ -	\$ -
11	Stormwater Master Plan Coordination	\$ 24,667.50	0.00%	\$ -	\$ -	\$ -
12	MJ Expenses	\$ 26,405.00	0.00%	\$ -	\$ -	\$ -
13	NV5 (Subcontractor)	\$ 116,598.00	0.00%	\$ -	\$ -	\$ -
13a	Task 1 - Acquisition	\$ 14,234.00	0.00%	\$ -		
13b	Task 2 - Field Survey & Attribution	\$ 45,500.00	0.00%	\$ -		
13c	Task 3 Photogrammetric Mapping/Observation	\$ 50,864.00	0.00%	\$ -		
13d	Task 4 - Topo (1 foot contours)	\$ 6,000.00	0.00%	\$ -		
14	EG Solutions (Subcontractor) (Task 14a-14g)	\$ 327,671.00	0.00%	\$ -	\$ -	\$ -
14a	Task 1 - Existing Data	\$ 36,715.00	0.00%	\$ -		
14b	Task 2 - Wetland Identification	\$ 6,845.00	0.00%	\$ -		
14c	Task 3 - Existing Conditions Model	\$ 56,516.00	0.00%	\$ -		
14d	Task 4 - Alternative Water Management Strategies	\$ 48,533.00	0.00%	\$ -		
14e	Task 5 - Future Conditions Models	\$ 43,372.00	0.00%	\$ -		
14f	Task 6 - Approvals and Permitting	\$ 47,648.00	0.00%	\$ -		
14g	Task 7 - Master Drainage Plan	\$ 88,042.00	0.00%	\$ -		
15	Strategy 5 (Subcontractor)	\$ 12,600.00	0.00%	\$ -	\$ -	\$ -
	TOTAL PERCENT COMPLETE	\$ 881,161	0.00%	\$ -	\$ -	\$ -

OCALA INTERNATIONAL AIRPORT

MASTER DRAINAGE PLAN

SCOPE OF SERVICES

Scope of Services

I. Existing Data

- a. SWPPP Reports
Review and summarize the structural and nonstructural controls in the airport's current National Pollutant Discharge Elimination System (NPDES) Storm Water Pollution Prevention Plans (SWPPPs).
- b. As-Built Drawings
Review furnished as-built airport plans for drainage design details.
- c. Visual and Photographic Reconnaissance
Conduct visual and photographic reconnaissance of the airport and adjacent areas for factors related to drainage and land use. Identify any anomalous areas and conditions observed.
- d. Geotechnical Data
Review furnished design geotechnical information for previous projects that may be available in project files or Engineer's Reports on file at the airport. Review any summarized construction test data from project closeout documents that may be available on file at the airport. Evaluate relevance of data.
- e. Airport and Tenant Water Management District (WMD) Permits
Collect existing WMD permits for airport and its tenants that are readily available in airport or WMD files.
- f. Rainfall Information
Collect at least 10 prior years of 1-hour or finer time increment rainfall records for the Airport from the closest weather station. Obtain monthly evaporation or evapotranspiration data from the nearest available station from IFAS or other source for a design year that will be selected from the rainfall data analysis.
- g. Airport Master Plan Coordination
Coordinate with the in progress Airport Master Plan. Discuss planned future projects and probable changes that will be included in the Master Plan. Establish outlines of development areas with similar characteristics such as commercial/business parcels, industrial use, airside access business, runways, taxiways, aprons, and similar.
- h. Aerial Topographic Surveys
Review furnished aerial topographic survey(s) of the airport.
- i. Discharge Stages
Collect available information on normal and flood stages of receiving waters, including any

time-stage data. Sources can include flood studies, previous permits, gage data, or recollections of airport staff or adjacent landowners, among others.

- j. **Water Quality Data**
Collect and review publicly available water quality monitoring data that may be available and published for the airport and surrounding area.
- k. **Summarize Existing Data**
Summarize or reduce the existing data for relevant and usable information for the project.

Deliverables

- Summaries of the existing data. This will also be included, in part or in whole, within the Master Drainage Plan Narrative Report. The summaries may be narrative, tabular, numeric, drawings, databases, GIS (ESRI ArcGIS) or similar depending on the specific data. Some data, such as multi-year rainfall records, will not be summarized in this task but will be used directly or with further analysis in subsequent modeling and simulation efforts.

II. Other Surface Water (OSW) Identification

This task is intended to provide support to the Conceptual Environmental Resource Permit only. Each construction project that follows the Conceptual ERP is expected to conduct a detailed OSW determination as required to secure a Construction ERP.

- a. **Aerial and Field Delineations**
Delineate probable Other Surface Waters (OSW) on the furnished aerial photograph. Conduct a site visit to occur concurrently with Task II.b to review readily accessible OSW limits on the contiguous airport property.
- b. **Coordination with WMD and/or FDEP**
After preliminary OSW limit delineations using only aerial photography is complete, arrange a joint site visit to confirm general limits with WMD and/or FDEP environmental science staff. This site visit shall take place on the same day as Task II.a site visit. Revise the general limits, if necessary.

Deliverables

- Identification of probable OSWs (if any) on GIS

III. Existing Condition Model

- a. **Basins**
Delineate drainage basins based on topography and drainage patterns. Refine and re-define basins as necessary based on land use and/or groundwater information.
- b. **Treatment Efficiencies**
 - i. **Published Information (minimum required)**
Review data from the Statewide Airport Stormwater Study, updated Applicant's

Handbook Volume 1 (from the new Clean Waterways Act), and WMD/FDEP/USEPA accepted literature and data to establish water management treatment efficiencies for various Best Management Practices.

c. Continuous Simulation Rainfall Synthesis

Using the rainfall records collected in Task I, select an average annual rainfall that approximates the typical condition. Using accepted techniques, normalize the selected rainfall to yield a total annual rainfall that approximates the long period average annual rainfall. Using accepted techniques reduce the rainfall to 5-minute or 15-minute increments and place in spreadsheet format that can be read into EPA SWMM or other selected continuous simulation water management computer program.

d. WMD Meetings

Meet with WMD to negotiate regulatory concurrence with defined basins, EMC for each land use, treatment efficiencies to be used for modeling various Best Management Practices, the continuous simulation rainfall distribution, evapotranspiration data, and similar. Confirm the event rainfall distribution and flood impact criteria to be used in modeling. This will be a virtual meeting.

e. Computer Simulations and Models

i. Establish the EPA SWMM and/or other software and version that will be used for all simulations and modeling – Existing and Future.

ii. Continuous Simulations for Water Quality Management

Evaluate average annual existing conditions' runoff quality, quantity and management using computer program EPA SWMM or other applicable and accepted software using the one-year continuous simulation rainfall record prepared in this task.

iii. Event Models for Quantity and Flood Management

Evaluate existing conditions runoff quantity and flood management for the design storm event rainfall distribution specified by the WMD using computer program EPA SWMM or other applicable and accepted software.

f. Calibration

Using information collected in Tasks I through IV, calibrate the water management computer model for general correspondence with observed or measured existing conditions.

Deliverables

- Existing Condition EPA SWMM and/or other software models (continuous simulation and event).

IV. Alternative Water Management Strategies

a. Concept sketches for alternates

Develop sketches for up to five (5) alternates for the airport water management system. The alternates will be developed as “regional” water management systems providing water quality and quantity management functions for the entire airport property. Water

management (maintenance and design details) will be controlled by the airport to ensure wildlife hazards are kept at a minimum and confined at specified locations. Failure to do this as a regional pond and allowing each tenant to manage the stormwater is likely to result in smaller ponds with lower quality performance and creates potentially multiple wildlife hazards. Regional or centralized water management will provide a revenue stream on a continual basis to the airport. The legal function may be equated to a water management utility that can produce revenue from leased parcels or parcels released and sold to other developers on a continual basis.

b. Airport Meetings

- i) Together with the Prime/Master Planning Consultant, meet with airport management and legal counsel to determine the form and nature of the centralized/regional water management system. As part of this task, the consulting team will provide:
 - (1) Methods of establishing rates and charges for water management
 - (2) Example(s) of similar arrangements at other airports
- ii) In conjunction with the Prime/Master Planning Consultant, review the alternate concepts for the airport water management system with airport management, maintenance and operations personnel. Discuss qualitatively the basic issues associated with each option. Solicit comments and make any revisions appropriate to the comments. Following discussions with WMD, FAA, and FDOT described in the following two sub-tasks, the comments from those agencies will be discussed with Sponsor and the alternates to be evaluated will be finalized.

c. WMD Meeting

Following the initial review of alternates for airport water management, the options will be discussed with the WMD. Comments will be solicited concerning permissibility, regulatory issues, and general concept suggestions for the alternates. This will be a virtual meeting.

d. FAA/ FDOT Meeting

Following the initial review of alternates for airport water management, the options will be discussed with FAA and FDOT. Comments will be solicited on acceptability and possible funding eligibility from FAA and FDOT. This will be a virtual meeting.

Deliverables

- Concept sketches in PDF format.
- Meeting agenda for each meeting.
- Meeting minutes from each meeting.
- Rates and charges summary comments or narrative for water management services
- Confirmation of preferred water management strategy

- Graphic showing the Preferred Water Management Strategy outline for use in Task IX Future Conditions Model.

V. Future Condition Models

a. Basins

Re-define drainage basins based on the Airport Master Plan and expected improvements for the preferred alternate. Basins may be re-defined based on expected grading consistent with FAA standards, projected changes in land use, or similar.

b. Event Mean Concentrations

Establish any EMC data for future land use for Total Phosphorus (TP) and Total Nitrogen (TN).

c. Treatment Efficiencies

i. Published Information (minimum required)

Review data from the Statewide Airport Stormwater Study, Applicant's Handbook Volume 1, and WMD/FDEP/USEPA accepted literature and data to establish or update water management treatment efficiencies for various Best Management Practices.

d. EPA SWMM Models

i. Continuous Simulations for Water Quality Management

Evaluate average annual proposed conditions' runoff quality, quantity and management using computer program EPA SWMM or other applicable and accepted software as one-year continuous simulations. One model for the preferred Water Management Alternative will be prepared.

ii. Event Models for Quantity and Flood Management

Evaluate proposed conditions runoff quantity and flood management for the design storm events specified by the SWFWMD using computer program *EPA SWMM* or other applicable and accepted software. One model for the preferred Water Management Alternative will be prepared.

Deliverables

- Future condition EPA SWMM and/or other software models (continuous simulation and event) for preferred alternate.

VI. Approvals and Permitting

a. WMD ERP

Prepare an application for a Conceptual ERP for Sponsor to submit electronically to the WMD. Respond to two sets of requests for additional information from WMD.

b. FAA ALP Coordination for Water Management Facilities

Provide a CAD/GIS of the water management treatment and facilities to the Master Planning Consultant for inclusion in their ALP set.

Deliverables

- Copy of electronically submitted permit applications in electronic format.
- Copy of electronically submitted responses to RAI for the permit applications.
- Drawings depicting proposed water management system in AutoCAD or Civil 3D or Arc GIS format. Format depends on airport furnished base ALP drawings format.

VII. Master Drainage Plan

a. Narrative Report

Prepare the Master Drainage Plan narrative report describing the approach, analyses, results, conclusions and recommendations for the project. Calculations will be included on diskette as an appendix to the report narrative.

b. Using guidance from the Florida Statewide Stormwater Study, prepare ledgers for allowable development by land use for each Airport quadrant. These will be applicable when the water management facilities of the conceptual ERP are in place and operational for that quadrant.

c. Update the narrative information for the airport's legal counsel to reflect water management charges per parcel based on the specific land uses proposed for that parcel.

d. Design Criteria

Summarize the design criteria for the structural controls of the Master Drainage Plan. These will be the basis for the detailed design that will be done during the construction of the upgraded Master Drainage system.

e. Capital Improvement Program

This will be completed by the Prime/Master Planning Consultant.

f. Prepare a phasing plan for construction coordinated with the development schedule from the concurrent Master Plan. The phasing plan is for planning and permitting guidance. Actual phasing will likely be demand driven and will differ from the proposed phasing plan as a consequence.

Deliverables

- Master Drainage Plan Narrative Report, allowable development ledger(s) including the design criteria recommendations and phasing plan.

Exclusions

- Permitting fees
- FAA Section 163
- SWFWMD ERP or FDEP 404 wetland permitting
- Listed species impacts or mitigation permitting
- Environmental Assessment (EA)
- Categorical Exclusion (CATEX)
- Design services
- Surveys
- Environmental studies

- Expert testimony
- Modeling of off-airport drainage systems
- Geotechnical explorations
- Wildlife surveys
- Maintenance Plan

EG Solutions, Inc.

[illegible]

EG Solutions, Inc

Job Classification	Average Contract Rate	Multiplier	Fully Burdened Hourly Rate
Chief Water Resources Engineer	\$ 83.28	353.030%	\$ 294.00
Project Manager	\$ 79.03	353.030%	\$ 279.00
Senior Engineer	\$ 52.12	353.030%	\$ 184.00
Project Engineer	\$ 43.91	353.030%	\$ 155.00
Chief Designer	\$ 70.82	353.030%	\$ 250.00
Administrative	\$ 31.16	353.030%	\$ 110.00

May 1, 2024

Mr. Bob Overby, P.E.
 Aviation Design Manager
 McFarland Johnson
 1522 Penman Road, Suite 14
 Jacksonville Beach, FL 32250

Project: 042971 | Aeronautical Obstruction Survey – Ocala International Airport-Jim Taylor Field (OCF)

Dear Mr. Overby,

This summary of work describes the scope of work and services required for an Airport Layout Plan update and aeronautical obstruction survey at the Ocala International Airport-Jim Taylor Field (OCF) located in Ocala, FL. The project will be done in compliance with ADIP policies and will include an airport airspace analysis for vertically guided operations for EXISTING Runways 18/36 and 8/26. The Advisory Circulars identified below detail the data collection requirements and accuracies for the project and the verification process by the Federal Aviation Administration (FAA) and the National Geodetic Survey (NGS).

- AC 150/5070-6B, Change 2 “Airport Master Plans”
- AC 150/5300-13B, “Airport Design”
- AC 150/5300-16B “General Guidance and Specifications for Aeronautical Surveys: Establishment of Geodetic Control and Submission to the National Geodetic Survey”
- AC 150/5300-17C, Change 1 “Standards for Using Remote Sensing Technologies in Airport Surveys”
- AC 150/5300-18B, Change 1 “General Guidance and Specifications for Submission of Aeronautical Surveys to NGS: Field Data Collection and Geographic Information System (GIS) Standards”

Summary of Work

The purpose of this project is to accomplish an FAA Airport Airspace Analysis Survey for all surfaces defined in FAA Advisory Circular 150/5300 - 18B: Section 2.7.1.1 Runways with Vertical Guidance. In addition, and per FAA Policy Guidance issued 9/22/22, we will be evaluating, updating, and/or incorporating the Obstacle Authoritative Source (OAS) obstacle data as part of this project. NV5 Geospatial will be responsible for any updates to the OAS data using the FAA’s Runway Airspace Management tool.

For this project, we will acquire new vertical stereo digital imagery at a physical image scale of 1”=3,846’ of the obstruction surface areas and 1”=1,923’ of the mapping limits. The aerial imagery will cover all of the Airspace Analysis surfaces using a Digital Mapping Camera III (DMC-III), or comparable, during leaf-on conditions.

From the 1”=3,846’ imagery, we will produce the following:

- Limited landmark feature planimetric mapping
- Color digital orthophotos with a 1.0’ pixel resolution
- Identification and mapping of obstruction obstacles for all of the VG surfaces

From the 1”=1,923’ imagery, we will produce the following:

- 100 scale mapping of the mapping limits (1,598 acres)
- Color digital orthophotos with a 0.5’ pixel resolution
- Identification and mapping of obstruction obstacles for the VGRPS, VGPCS, VGPS surfaces

NV5 Geospatial will use existing USGS Lidar collected in 2018 to create 1’ contours.

The online SOW will be prepared during project initiation with input from the airport, McFarland Johnson, and NV5 Geospatial. NV5 Geospatial will be responsible for preparation and submittal of the Survey and Quality Control Plan, Imagery Acquisition Plan, Imagery Acquisition Report, Final Project Report and all associated data files as required for submission to the FAA ADIP online database.

Quality Standards

The project has been designed to conform to the National Map Accuracy Standards for 1"=100' scale planimetric feature collection and six and twelve inch orthophoto production. In addition, we ensure that the photogrammetric mapping will meet all FAA and NGS standards. We will exercise reasonable care and will conform to the standards of practice ordinarily used by the photogrammetric profession.

Project Area

The project area encompasses all of Ocala International Airport-Jim Taylor Field (OCF) inclusive of the obstruction surfaces as defined in AC 150/5300-18B.

Control Surveying

The aerial photography will be completed with ABGPS control which will be used for the base control for the geo-referencing of the aerial imagery. NV5 Geospatial will process the ABGPS data using COR stations and reference it to the project control datums:

Horizontal: North American Datum of 1983/2011 (NAD 83(2011)), in the FL State Plane Coordinate System, West Zone in US survey feet.

Vertical: North American Vertical Datum of 1988 (NAVD 88)

NV5 Geospatial will complete all of the remaining on-site ground control surveys, including:

- Geodetic control validation of the existing airport PACS and SACS stations or establish temporary airport control according to the guidelines established in AC 150/5300-16B
- Establishing all necessary photo-identifiable ground control and FAA mandated check-points required to validate the ABGPS and IMU control.
- Collection of all the airport runway end positions
- Collection of vertical profiles for all runways
- Collection of the position, elevation, and where required the appropriate navigational aid perpendicular point of all electronic and visual navigational aids (NAVAIDS) located on the airport and associated with any current instrument approach servicing the airport
- All other tasks, not specifically listed above, as outlined in FAA AC-18B, Table 2-1 "Survey Requirements Matrix" for Airport Layout Plan
- Full field-collected attribution of all airport features
- Final Survey Report

Photogrammetric Mapping

We will collect the features normally shown on 1"=100' scale mapping within the mapping limits identified in the exhibit. The final data will be delivered in ESRI Shapefile format (FAA) and AutoCAD format (McFarland Johnson).

Orthophoto Mapping

We will use the control solution and imagery to generate a Digital Elevation Model (DEM) of the VG surfaces. The imagery will be processed into color digital orthophotos using the aforementioned DEM to rectify the images. Orthophotos for the entire project area will be developed with a 1.0' pixel resolution and

for the airport property and surrounding area, with a 0.5' pixel resolution. Orthos will be delivered in a GeoTIFF and MrSID file formats.

18B Obstruction Surveys

The Obstructions Surfaces to be uploaded to the ADIP database will satisfy the requirements of AC 150/5300-18B:

- 2.7.1.1 Analysis of EXISTING Runway 18/36 and 8/26 with Vertically Guided Operations (Surfaces include the VGRPS, VGPCS, VGAS, VGPS, VGATS, VGHS, and VGCS)

Other Obstruction Surveys

As shown in attached exhibits, other obstructions to be provided directly to McFarland Johnson include:

- Existing Runway 18/36 - Part 77 – PIR (**limited to extent of 18B VG surfaces**)
- Existing Runway 18 – AC 13B – Surface 4 (20:1), 5 (20:1) and Surface 7
- Existing Runway 36 – AC 13B – Surface 4 (34:1), 5 (34:1), 6, and Surface 7
- Existing Runway 8/26 - Part 77 – VIS B
- Existing Runway 8/26 – AC 13B – Surface 3
- Future Runway 18/36 – Part 77 - PIR (**limited to extent of 18B VG surfaces**)
- Future Runway 8/26 – Part 77 – NPIR C
- Future Runway 8/26 – AC 13B – Surface 3

The specific types and quantities of obstructions for each surface are outlined and clearly defined for the particular surface in each circular section. Any obstructions that meet the requirement of the circular, but are of a nature that elevations at the highest point of the obstruction are virtually impossible to read through photogrammetric methods (cell tower, electrical tower, etc.), will be identified and relayed to the surveyor to initiate field surveyed elevations for the obstruction.

The obstruction delivery will include the limited landmark planimetric feature collection.

The final data will be uploaded in ADIP in ESRI Shapefile format.

Production Schedule

We will work with you to finalize a mutually agreeable schedule for the project after FAA Control Plan approvals. We will make a reasonable effort to maintain the agreed-upon schedule. However, should the project be interrupted by technical problems beyond our control, including control deficiencies or map file re-deliveries rescheduling may become necessary.

Deliverables

NV5 Geospatial will submit all data collected and associated required deliverable in the formats specified in the appropriate advisory circulars to the FAA Office of Airports, Airports Surveying-GIS Program. All data submissions to the FAA will be through the program's web site at <https://adip.faa.gov/agis/portal/>.

The AC 150/5300-17C project data deliveries that will not be submitted through the web site will be delivered on external hard drives or DVDs.

Deliverables

The 18B deliverables that will be uploaded to the ADIP website include:

- Imagery Plan and Survey and Quality Control Plan
- Image Delivery (sent to FAA)

- Color digital orthophotos (sent to FAA)
- Digital limited landmark detail outside the airport
- Obstruction survey data for **EXISTING** Runway 18/36 and 8/26
- Planimetric data and one foot contours to 18B specs (Shapefile format)
- Photogrammetrically derived and surveyed attributes in defined format
- Surveyed ends and profile for each runway
- NAVAID data
- FGDC compliant metadata
- Final Report

We will deliver the following items to McFarland Johnson:

- Planimetric data and one foot contours in AutoCAD format (mapping limits)
- OAS obstacle data spreadsheet containing changes (XLS format)
- Other Obstruction Survey data in CSV/XLS format
- Color digital orthophotos with a 1.0' pixel resolution in GeoTIFF (ortho limits)
- Color digital orthophotos with a 0.5' pixel resolution in GeoTIFF (mapping limits)
- 2 color enlargements (30"x40") covering the airport and surrounding area (mounted/laminated/framed)

All digital files will be delivered on external hard drive or CD/DVD.

Cost and Payment Terms

Compensation for the above services will be provided as a lump sum cost: \$116,598.00.

Breakdown of Fee includes:

Acquisition - \$14,234

Field Survey & Attribution - \$45,500

Photogrammetric mapping/Obstructions - \$50,864

Topo (1' contours) - \$6,000

Client Responsibilities

The successful and timely completion of this project is dependent upon a number of elements and work tasks, some of which involve participation by McFarland Johnson. You will be responsible for designating a representative for the project who will have the authority to transmit instructions, receive information, and make timely decisions with respect to the services provided by NV5 Geospatial.

NV5 Geospatial Representative

Jill Mahoney, Project Manager and Marlin Zook, Technical Manager, will represent us during the performance of the services to be provided under this agreement. Each has the authority to transmit and receive instructions and make decisions with respect to the services. Each is authorized to commit the necessary resources towards completing the services described herein.

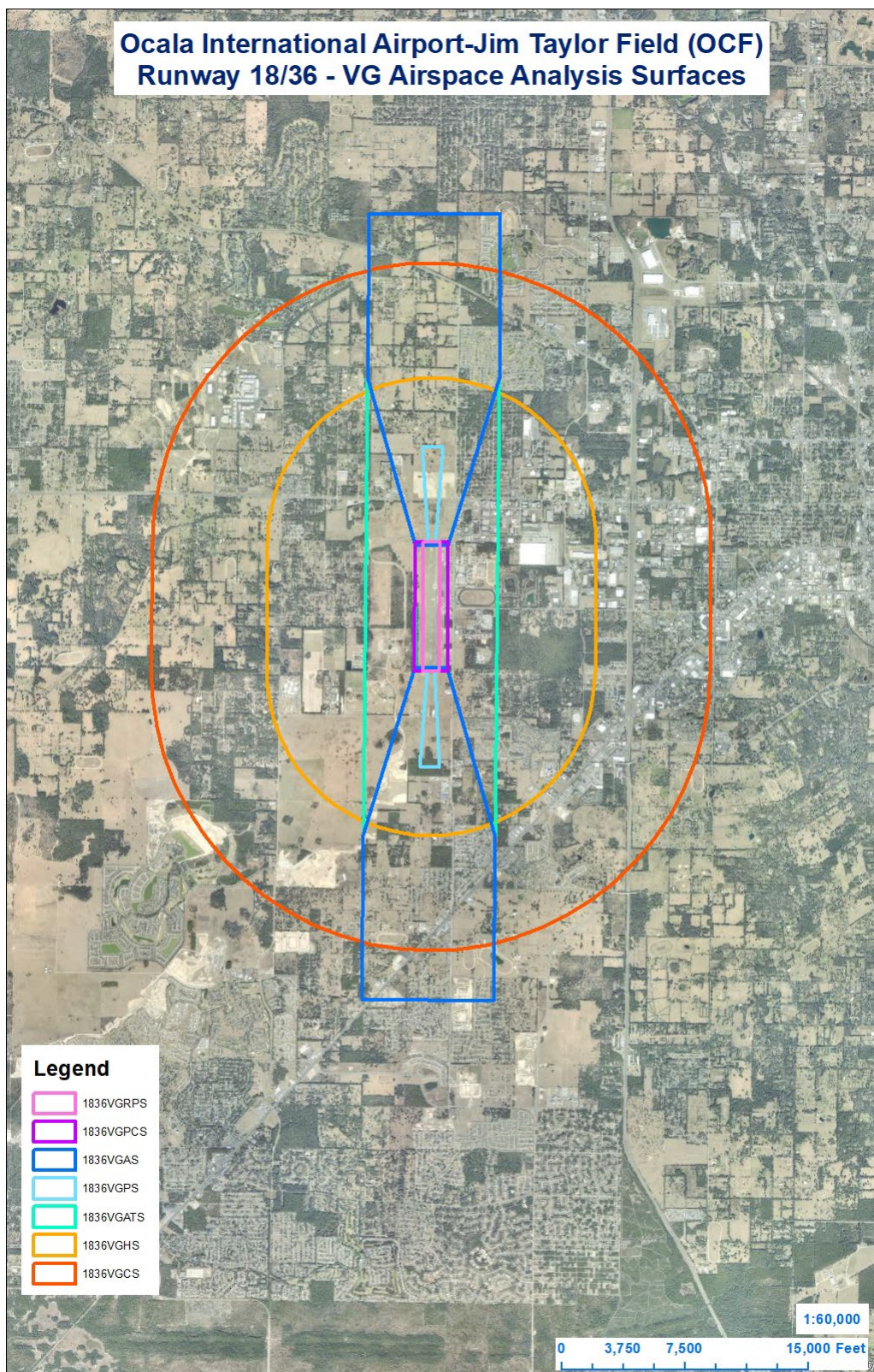
We look forward to working with you and your staff to complete this project in a timely and cost effective manner. Should you have any questions, please call our office at 803-351-3136 or email me at the address shown below.

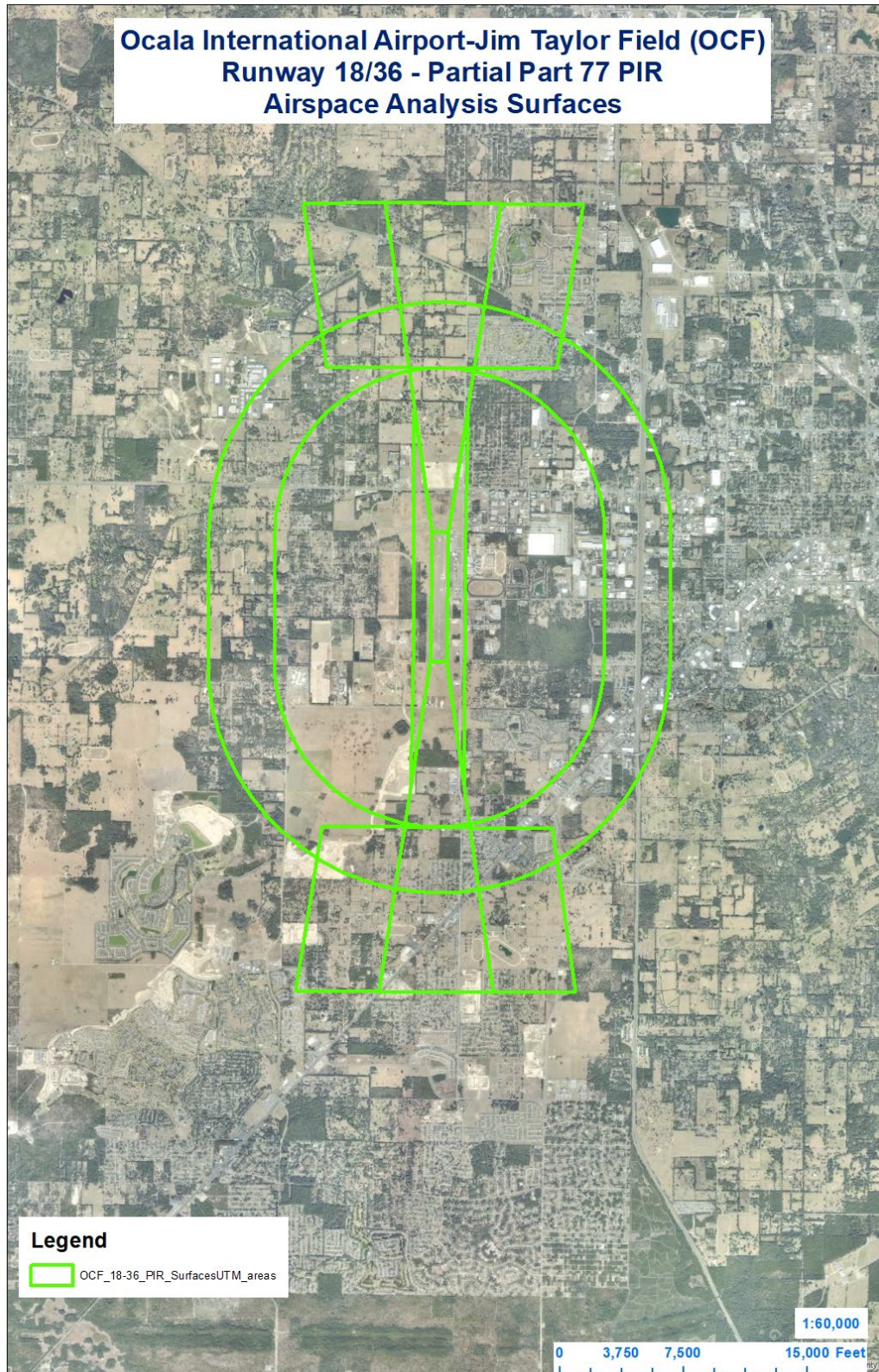
Sincerely,

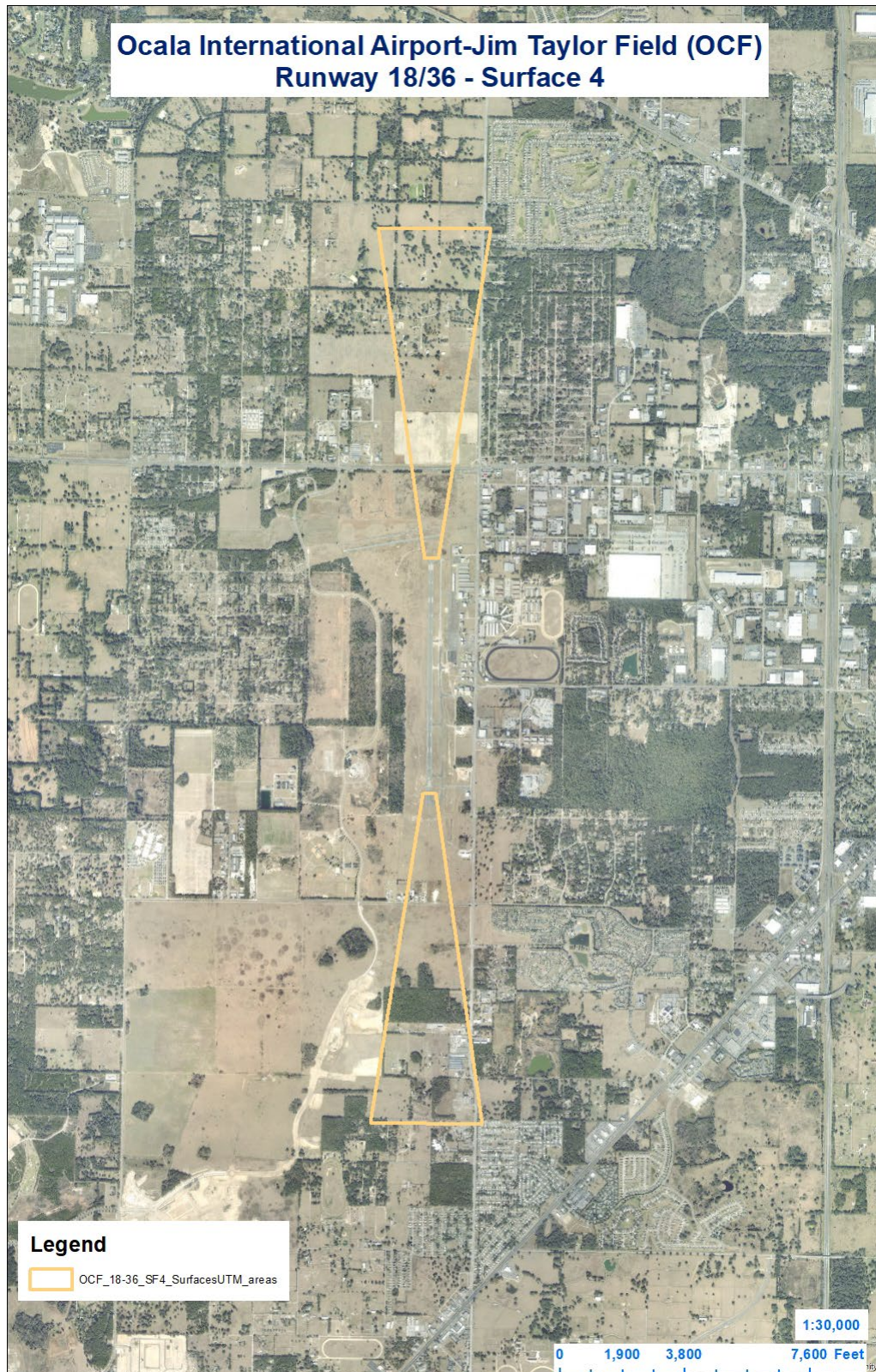


David Grigg
Aviation Program Director

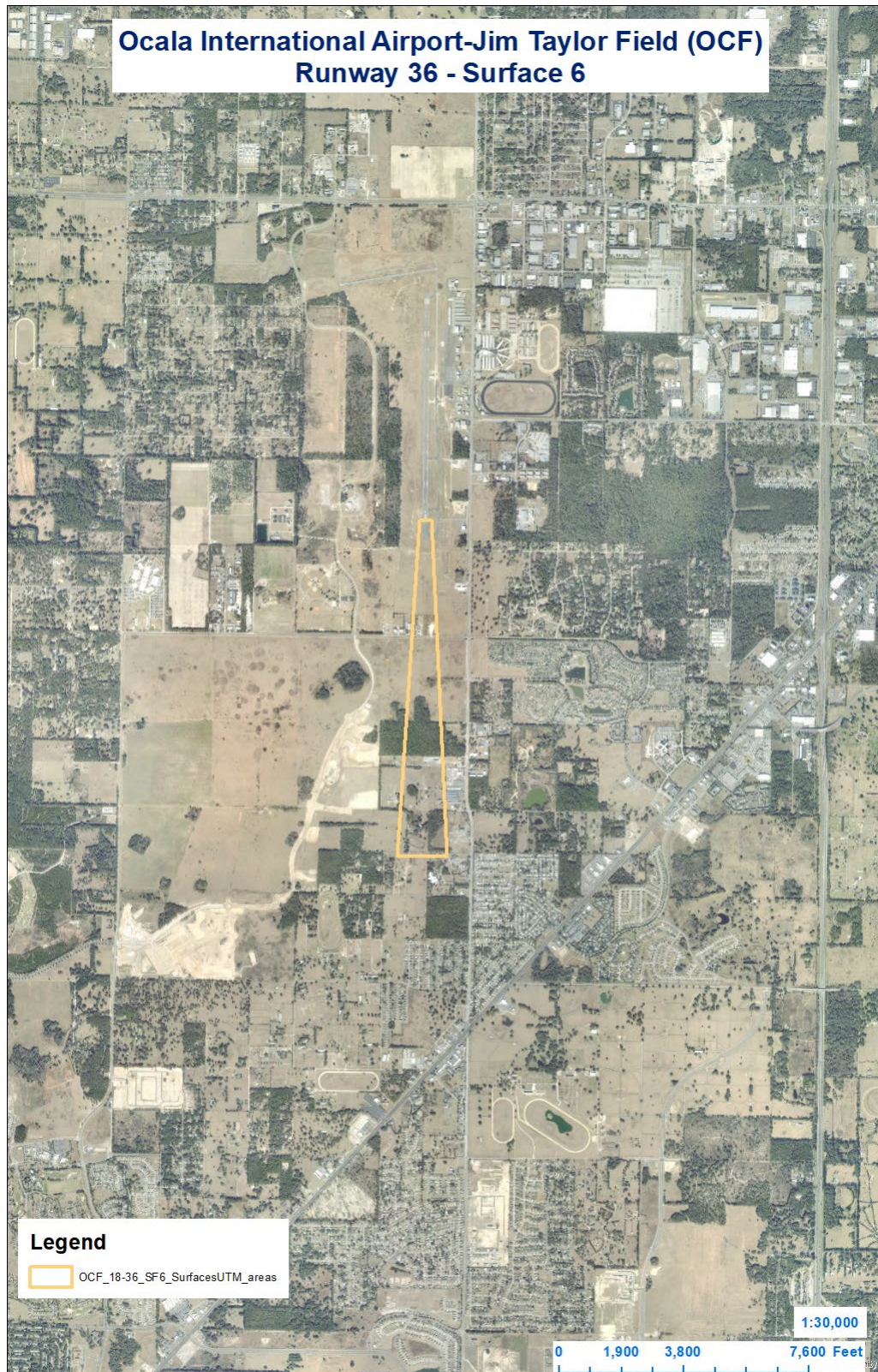
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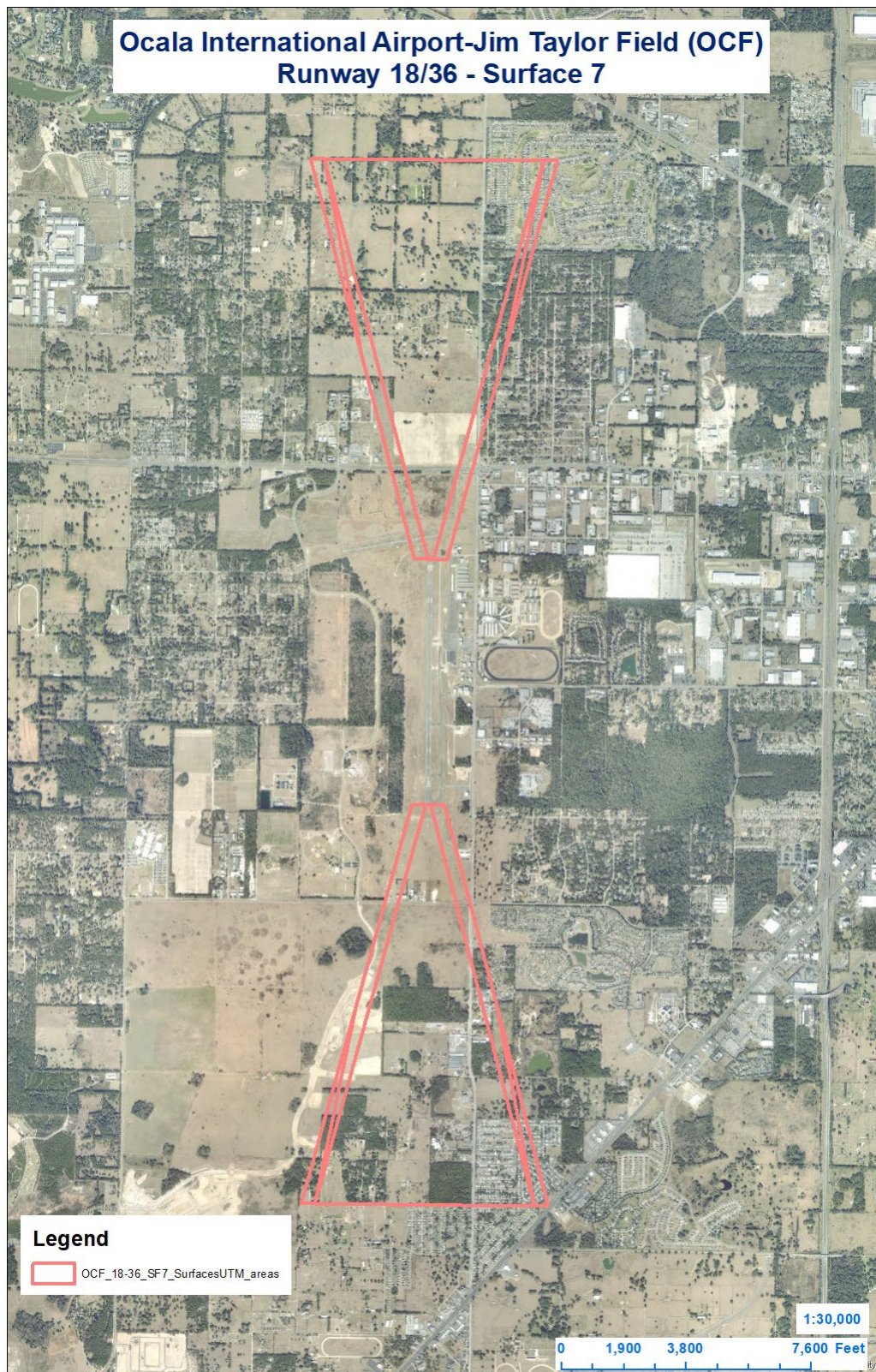


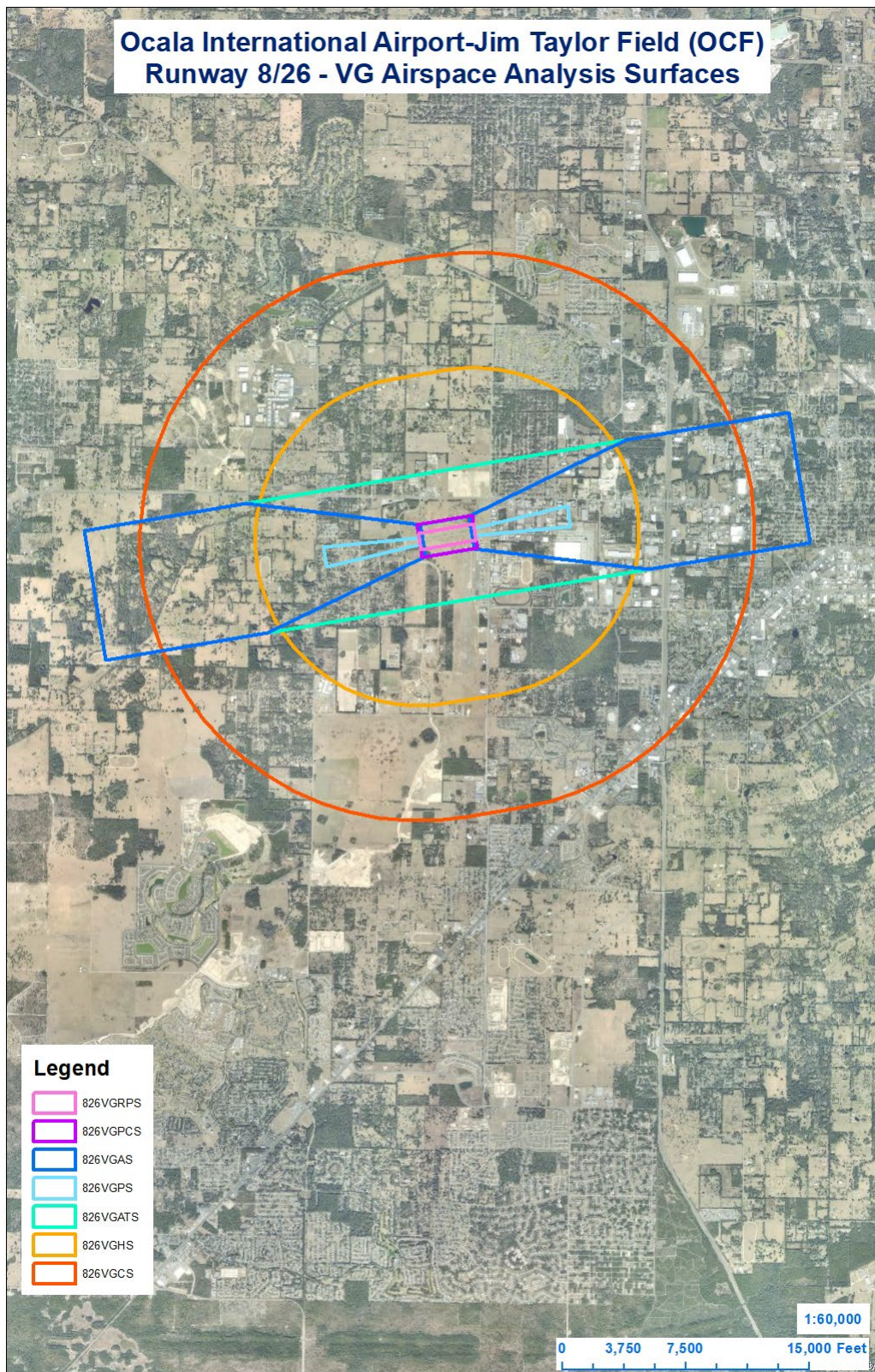


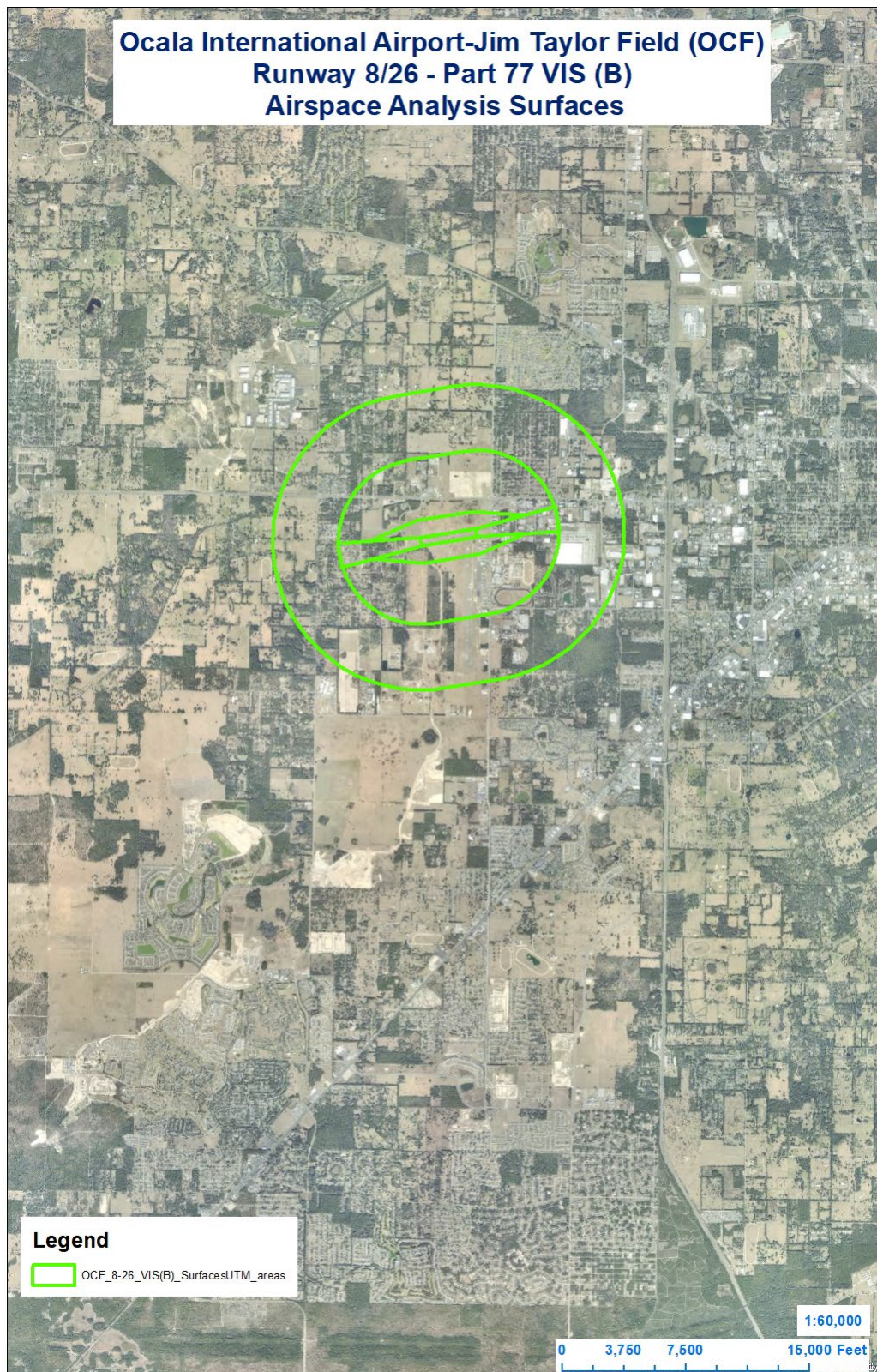




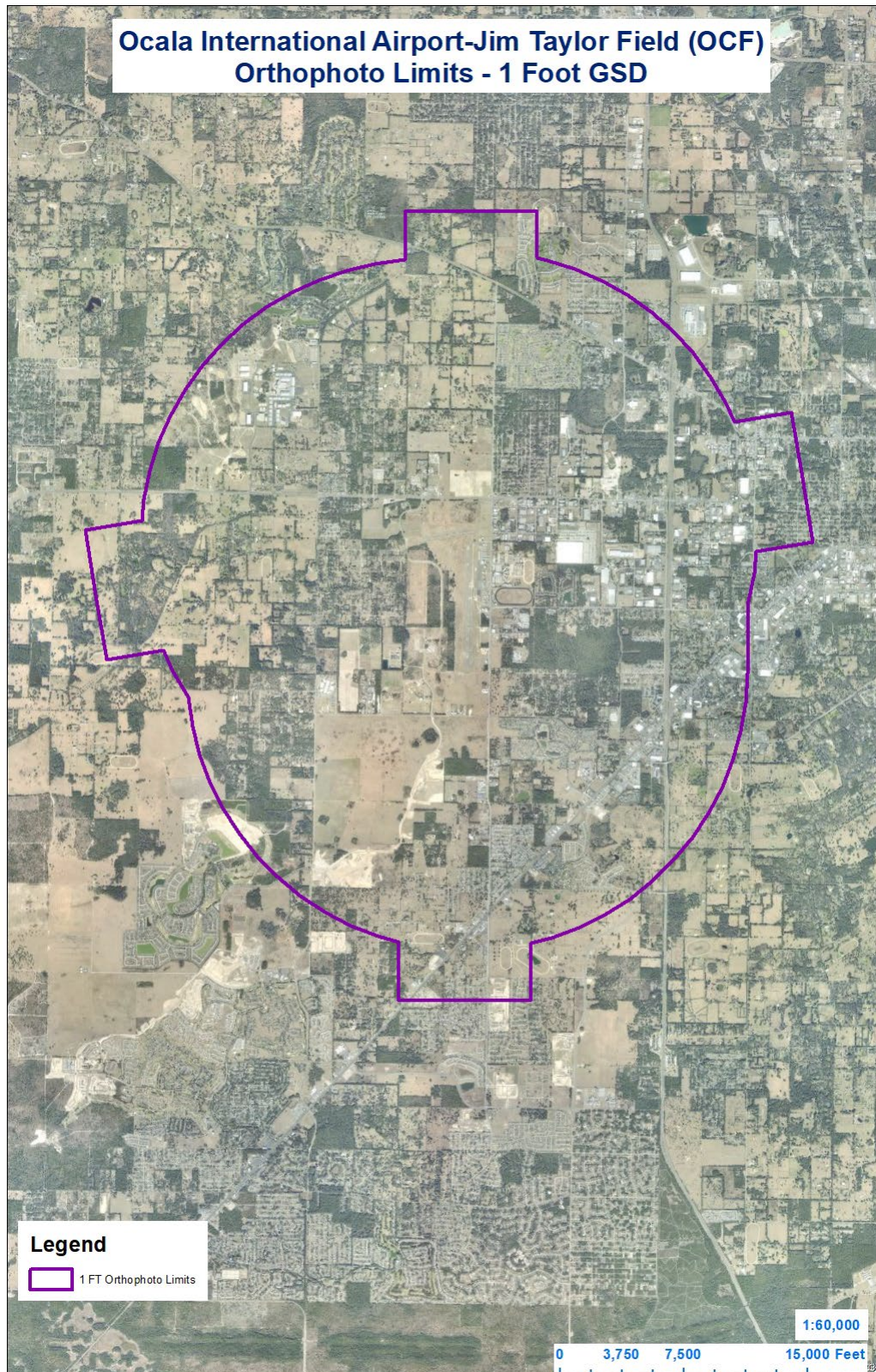


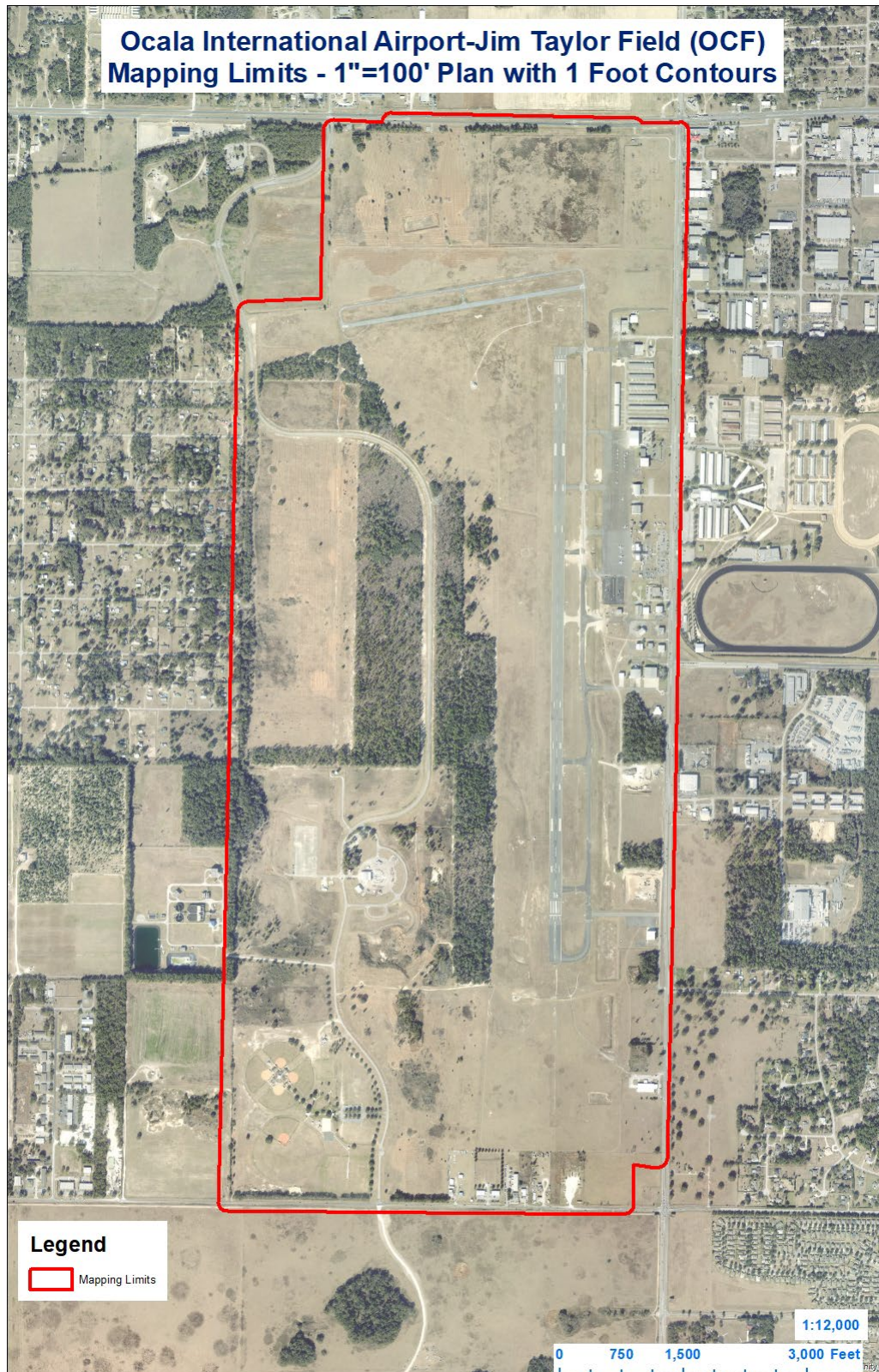


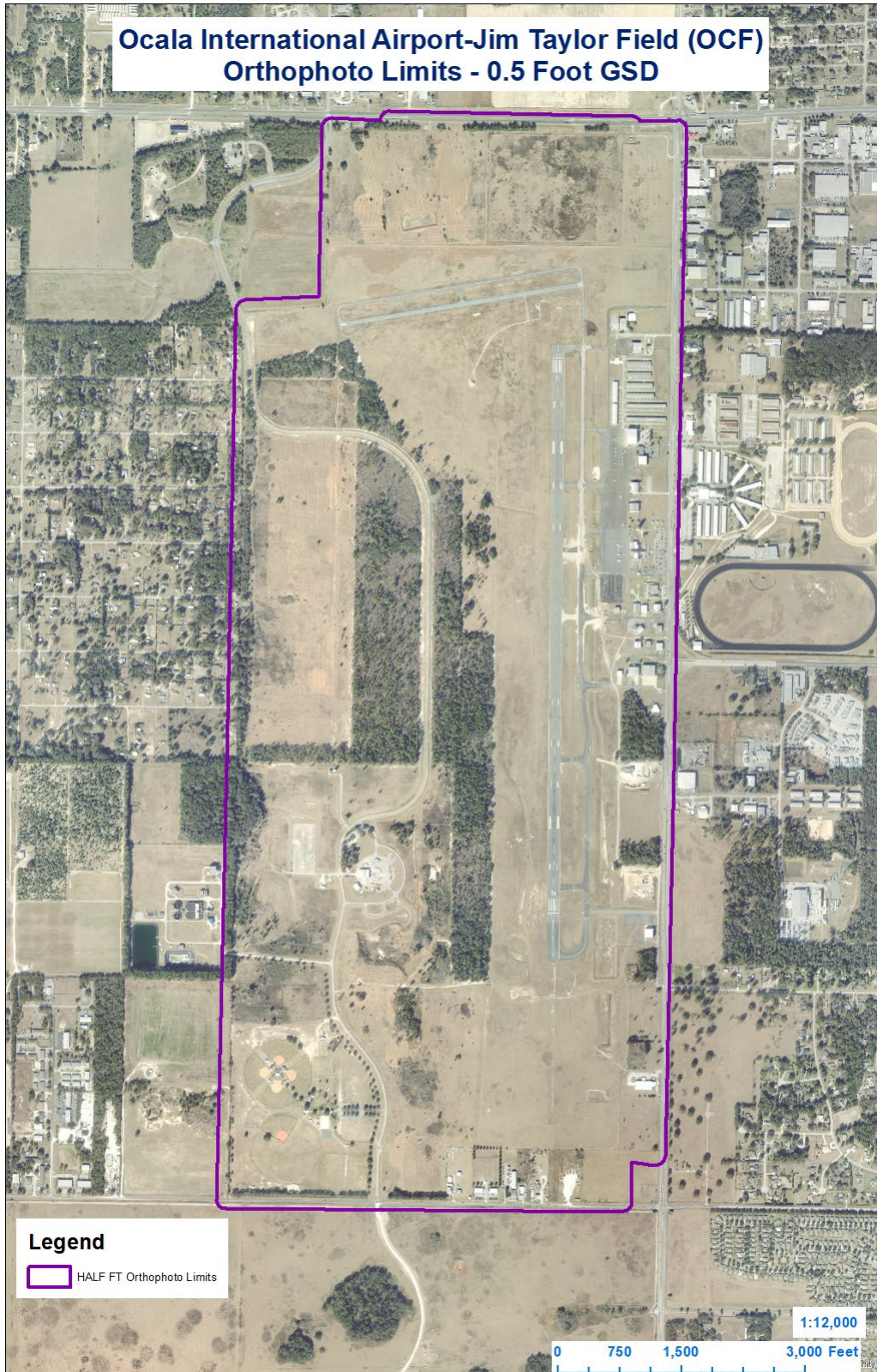












August 12, 2023

Mr. Jeff Mishler
Senior Project Manager
McFarland Johnson
(713) 303-5688

Dear Mr. Mishler,

This Letter of Proposal is submitted to McFarland Johnson (MJ) based on our discussion of Tuesday, August 8th, and our general understanding of the objectives of Ocala International Airport (OCF) regarding potential sale of landside property. One of these objectives is presumed to be achieving the maximum economic and financial yield from any land included in a sales strategy. This, in turn, will require a highest and best use perspective which will be derived through a methodology that centers on conducting a sector-based market analysis.

Our approach to this type of work is to achieve a holistic understanding of the land, including the client's goals, the physical nature of the properties involved, their context and orientation to the Airport itself as well as to the City of Ocala, commercial and other business centers, retail and entertainment, residential neighborhoods, healthcare, transportation access and connections, major employers, and other components of the overall market environment.

We employ both the top-down and bottom-up approaches to market analysis, assimilating demographic, economic and other data sets from the first, and evaluating location, physical characteristics, transportation access, relationships to proximal business and residential activity, local and sub-regional market and economic forces, in the second. For a project of this type, we will place a greater emphasis and weight on the bottom-up approach, resulting in a more pragmatic understanding of the market environment, geared toward informing the client and the private sector of supportable opportunities, and the land value they engender.

Importantly, we will also look hard at market opportunities that may exist in rapidly expanding sectors including aerospace, autonomous vehicles and technology, advanced materials, life-sciences, environmental sciences, artificial intelligence, advanced manufacturing, and renewable energy. While these sectors may have limited local presence currently, they may nonetheless offer opportunities for development (purchase) that have a synergistic benefit to OCF in some way. The analysis will explore this potential.

Thank you for your consideration of this proposal. We strive to provide the client with exactly the professional services required, at the best possible value, in a timely fashion. We are happy to discuss any aspect of this proposal to ensure a good fit for MJ and OCF. We look forward to next steps.

Sincerely,



Ernest E. Bleinberger
Principal
Strategy 5 Consulting LLC
Andover, Massachusetts

Scope of Work

Work Area 1 – Research – Strategy 5 Consulting LLC will conduct a review of all pertinent plans, reports, maps, data, etc. which may be available from MJ and OCF at the outset of work. These materials could include, but not be limited to, the most recent airport master plan, details regarding potential landside development areas and specific sites, City of Ocala economic development or other plans, Marion County plans of a similar nature, and other public organizations and institutions that have a stake in the local and regional economy.

Work Area 2 – Site Analysis – Map graphics provided to us indicate that the properties involved may include 4 parcels located just west of the main Airport complex. These parcels include (from north to south): A 115-acre parcel labeled “Distribution”; a 110-acre parcel labeled “Warehousing”; a 40-acre parcel labeled “Industrial”; and a 102-acre parcel labeled “Mixed-Use Commercial”. In all, the study area could include about 367 acres of property, much of which is vacant land, but some businesses and other buildings do exist as well. It is unknown whether all 4 parcels will be included in the study area, but regardless, they will each have an analytical context for the work. The site analysis will focus on the characteristics influencing feasible development, market support, value, and relationship to the OCF.

The site analysis will also include a review of the current zoning ordinances and development regulations applicable to the study area and specific properties. Any restrictions, standards or guidelines for development associated with the proximity to OCF operations will need to be understood and taken into consideration. Allowable densities, height restrictions, general access and parking requirements, and other factors that could influence value and development feasibility will be considered. The interface with FAA regulations and policies will also be reviewed.

Work Area 3 – Sector-Based Market Analysis – Strategy 5 Consulting LLC makes no advance determination of what the market analysis may reveal and prefers to take a broad view of potential that may be derived from different sectors as summarized herein. However, we would prioritize sectors that show the most potential early, and either minimize or reject sectors in consultation with MJ and OCF that are not warranted.

In addition to the market sectors referenced in the cover letter, others that may be evaluated include, but are not necessarily limited to:

- A range of aviation and aerospace sectors
- Information and other technology business sectors
- Advanced manufacturing and materials
- Warehousing/distribution
- Logistics and supply chain services
- Research and development
- Wholesale and retail businesses sectors
- Equine industry
- Residential including multi-family
- Hospitality and lodging

A real estate market scan will be conducted that establishes comparable sales values for properties located in the study area, and those located in the general market area that will be used as another baseline for the analysis. Attention will also be given to the existing supply of available space in general proximity to the Airport, vacancy rates, lease and sales rates that are commanded and other market characteristics. We will review the assessed value of the property as included on the local tax roles and seek other information that may inform the valuation aspect of the analysis. Strategy 5 Consulting LLC is not an appraisal firm, nor will we be performing an appraisal for the properties in the study area.

Work Area 4 – Interim and Final Report Documents – We favor a work process that includes the production of a series of interim reports, or Technical Memoranda, that serve to inform the client group of progress, convey iterative observations and findings, and allow for course adjustments in the analysis. We envision producing 3 Technical Memoranda in conjunction with the scope outlined herein, submitted as draft deliverables as they are completed.

The Technical Memoranda will be compiled into a Final Report that includes all pertinent data, tables, spreadsheets, narratives, and other support material for the client's use moving forward. The Final Report will include an Executive Summary suitable for wider distribution, and be provided in electronic format at the conclusion of the work program.

Project Management, Schedule, and Budget

For Strategy 5 Consulting LLC, Principal Ernest E. Bleinberger will be the Project Manager, oversee all work done by the firm, and be the point of contact. Mr. Bleinberger will perform all work personally and be present in a virtual setting for all meetings. If his physical presence is desired, or required, arrangements will be made, and the request accommodated. Strategy 5 Consulting LLC does not charge for travel time to and from project locations, and direct expenses are billed at cost, without mark-up.

With regard to schedule, Strategy 5 Consulting LLC is ready to begin work immediately. The firm has the necessary financial and professional resources to devote a concentrated work effort that will be front-end loaded. It is anticipated that the Scope of Work summarized herein can be completed within approximately 90 days of contract signing.

With regard to budget, we have estimated a range of professional time required to complete each Work Area which total between approximately 80 hours and 100 hours, spread over the 3-month schedule. This equates with a budget range of between \$11,200 and \$14,000 based on the principal's regular billing rate of \$140 per hour. We suggest the mid-point of \$12,600 as the lump-sum, not-to-exceed budget amount for professional time.

Additional professional time / services can be requested and billed separately at the principal's regular billing rate. Direct expenses for travel and subsistence will be billed in addition, at cost. Strategy 5 Consulting LLC bills monthly for actual time and expenses and requests that invoices be paid within 30 days. We request, but do not require, a retainer equal to 15% of the contract amount be paid in conjunction with a notice to proceed.

NV5 Geospatial, Inc.

Job Classification	Average Contract Rate	Multiplier	Fully Burdened Hourly Rate
Production Manager	\$87.50	3.35	\$293.24
Project Manager	\$59.00	3.35	\$197.73
Survey Manager	\$50.34	3.35	\$168.71
Acquisition Field Surveyor	\$33.24	3.35	\$111.38
Geo-Spatial Lead	\$57.09	3.35	\$191.33
Geo-Spatial Analyst	\$38.27	3.35	\$128.27
GIS Lead	\$55.82	3.35	\$187.07
GIS Analyst	\$40.54	3.35	\$135.86