

**Center for Airport Management and Development  
Florida Institute of Technology  
Melbourne, FL**

**Scope of Services  
for  
Airport Master Plan Update  
Valkaria Airport (X-59)  
Brevard County, Florida**

**I. - GENERAL**

This project involves preparation of an Airport Master Plan (AMP) update for Valkaria Airport that will serve as a guide to airport development and operation in accordance with the needs and desires of Brevard County, Florida during the period 2006-2026. The process will explore and identify all relevant issues and public concerns, and develop recommended alternatives that will reflect the will and vision of Brevard County, the airport's owner and operator ("Sponsor" in FAA and FDOT terminology), and its various constituencies. The project will include a review of the most recent Valkaria AMP (Kimley-Horn and Associates, 1990) and revision of all relevant sections to reflect current and future conditions, and community goals for the airport's future development and management. The AMP update will be developed in cooperation with Brevard County's citizens and government; and in accordance with the Florida Department of Transportation's (FDOT) "Guidebook for Airport Master Planning;" the Federal Aviation Administration's (FAA) Advisory Circular (AC) 150/5070-6B, "Airport Master Plans," and AC 150/5300-13, "Airport Design;" and Florida Statutes, Chapters 330, 332, and 333; and any other relevant documents.

Public participation in the planning process will be integral, welcome, and essential to the development of a viable plan that has public support. A cursory review indicates that the 1990 Valkaria AMP may represent an overly ambitious and development-intensive approach that may not accurately represent present and future needs and desires of Brevard County and its citizens. It is possible that Valkaria Airport's future development may be limited to those facility and service developments that are sensitive to the environment and the surrounding community, that provide a safe and attractive general aviation base, that help the airport become financially self-sufficient in regard to operating budgets and matching funds for capital improvement projects, and that make the airport eligible for FDOT and FAA grants, if desired.

This AMP update will entail a detailed review of each chapter of the 1990 AMP, and the update of those sections indicated by changed conditions, changed standards, or changed goals and objectives of the sponsor and community. Initial indications are that the following AMP elements need to be addressed, each of which will be discussed in detail later in this document:

- Inventory of Existing Conditions
- Aviation Activity Forecasts
- Demand/Capacity Analysis and Facility Requirements

- Airport Development Alternatives
- Airport Layout Plans
- Capital Improvement Program and Financial Analysis
- Environmental considerations (to include, but not necessarily limited to: flora, fauna, noise, land use, water, and community compatibility) in general, and for each recommended development alternative

In addition, this AMP update process will include a formal Public Involvement Program (PIP) whose objective will be to provide for timely and adequate public involvement throughout the study. It will specifically address establishment of communication channels, identification of the various stakeholders, identification of key issues, and review of planning products.

## **II. - PROJECT ELEMENTS AND TASK DESCRIPTIONS**

### **ELEMENT 1. - PUBLIC INVOLVEMENT PROGRAM**

#### ***Task 1.1 - Public Involvement Program Implementation***

The Public Involvement Program (PIP) will follow the principles outlined in FAA AC 150/5070-6B, "Airport Master Plans." It will involve a public awareness, information, and feedback process to encourage information sharing between the various stakeholders throughout the AMP update process. The goal of the PIP is to generate public awareness and to elicit public input so the Sponsor can insure the planning effort meets community needs. The entire PIP will be documented and included as an appendix to the final AMP update report.

Elements of the PIP will include:

- Establishment of a Valkaria Airport Master Plan Update web page by Brevard County
- Public media announcement and web posting of all particulars of the AMP update commencement as soon as approved by the Brevard County Commission. Done by Brevard County.
- Web posting of public comment response form to provide for structured public input to the planning effort. Input will be categorized, summaries made public, and results used in the planning process, as appropriate. Development of the comment form and compilation of responses will be the responsibility of the consultant. Web posting of the form and of public feedback periodically developed by the consultant will be the responsibility of Brevard County.
- Valkaria Airport Open House and Public Workshop to answer public questions about the AMP update in particular, and other planning, operational, and regulatory issues, in general. Organization, public notice, and hosting will be the responsibility of Brevard County. The consultant will provide appropriate consultant expertise and visual aids.
- Public meetings to disseminate information and receive comments will be held after publication of each of five working papers. Advertising and arrangement of meeting places will be the responsibility of Brevard County. (Six man-hours of preparation and nine man-hours of meeting participation are in the budgeted baseline for each meeting. Costs are distributed across subsequent tasks per FAA/FDOT convention)

- Documentation of the PIP and key issues for public record and inclusion as an appendix to the AMP update. (Costs are distributed across this and subsequent tasks per FAA/FDOT convention)
- The public will have the opportunity to ask questions and/or provide comments at each of the public meetings identified herein, in addition to the ability to provide comments via the AMP Update web page or templated public input forms. All public input forms, whether on the AMP Update web page or in printed form, will contain a section allowing the respondent to indicate his/her geographic location.

***Task 1.2 - Identification of Key Issues, Goals, and Objectives***

Clearly identify the stakeholders involved in the project. Document the information obtained through the information exchange channels. Perform a content analysis of the information collected in order to identify, categorize, and document the key issues that will help planners understand the stakeholders’ concerns and to articulate appropriate goals and objectives of the study. Issues identified by this process will be addressed by the AMP update in the appropriate sections.

**ELEMENT 2. - INVENTORY OF EXISTING CONDITIONS**

The inventory of existing conditions is a critical task in a master plan study, because it is the base upon which subsequent analyses are made. Only information needed for essential planning tasks will be addressed.

***Task 2.1 - Obtain, Review, and Evaluate Existing Documents and Background Information***

Existing documents will be reviewed for currency, accuracy, completeness, and utility to the AMP update project. Typical documents will include, but not be limited to: previous FAA and FDOT deeds, grants, and other instrumentalities; previous AMPs, airport layout plans (ALP), and property maps (including fee-simple and easements) for Valkaria Airport; FAA Airport Master Records; FDOT airport inspection reports; NACA publications; comprehensive operations and capital financial documents; tenant lease documents; as-built drawings of airport structures; previous environmental studies; Comprehensive Florida Aviation System Study; and Brevard County planning documents.

***Task 2.2 - Inventory Airport Facilities and Services***

The airport facilities inventory will be comprised of an on-site review of size, condition, age, use, configuration, and adequacy of existing airport facilities. Current airport property land uses will be analyzed and evaluated. Example facilities to be inventoried include the following:

- Airfield Facilities: Runway and taxiway configuration (including dimensions, pavement strength, markings, signage, lighting, navigational aids, weather reporting facilities, pilot communications services, circulation and access on the airport operational areas, and various "imaginary" surfaces as defined by FAA.
- General Aviation\* Facilities: GA terminal and management facilities; structures used for servicing, maintenance, or storage of GA aircraft; fueling facilities; ground vehicle access and parking; and airport support facilities

- Other Facilities and Services: Public road access, rights-of-way and easements, public facilities, open areas, and non-aeronautical tenant facilities.
- \*General Aviation (GA) is the term used to designate civil aviation, specifically excluding certificated passenger and cargo airlines; but including typical activities such as recreational flying, business flying, mosquito spraying, law enforcement, and emergency services.

### ***Task 2.3 - Airspace Issues***

Structure and operational issues related to the National Airspace System surrounding Valkaria Airport will be analyzed and evaluated. This analysis will include, but will not be limited to relevant airways, restricted airspace, controlled airspace, obstructions to air navigation, and nearby airports such as Melbourne International Airport and Sebastian Municipal Airport.

### ***Task 2.4 - Vicinity Land Use and Land Use Controls***

Brevard County and Malabar (and Grant/Valkaria, in the event Grant/Valkaria incorporates and lawfully adopts land use regulations during the course of the AMP update) comprehensive plans, small area plans, zoning controls, sub-division regulations, and other documentation pertaining to current and future land use in the vicinity of Valkaria Airport will be reviewed and evaluated in order to determine locations where potential non-compatible land use could develop. Local planning officials will be interviewed to identify the potential for future residential, commercial, and industrial development in the vicinity of the airport, and particularly along the extended centerlines of the active runways at Valkaria Airport.

### ***Task 2.5 - Environmental Overview***

The AMP update will include a review of airport and vicinity environmental conditions per guidance in FAA Order 1050.1, “Environmental Impacts: Policies and Procedures.” Conditions previously documented in the 1990 AMP, to specifically include Appendix A, “Valkaria Airport Preliminary Environmental Assessment” by the Brevard County Office of Natural Resources Management will be the baseline. That appendix specifically addressed wetlands, aquifer recharge, habitat of flora and fauna, and noise impacts. Any significant changes from the 1990 environmental review will be noted. Environmental factors and noise impacts of alternative airport developments to be developed in later stages of the study will be covered in conjunction with discussion of respective development alternatives. Specific requirements regarding environmental assessments, environmental impact statements, or categorical exclusions will be analyzed and addressed in the following sections.

### ***Task 2.6 - Demographic and Economic Data***

Information that defines local and regional socio-economic status and potential for growth will be obtained for use in subsequent tasks. This information will include, but not be limited to: base population, composition by age group, rate of change, historical and projected per capita income, historical and projected disposable income, employment trends by sector, industrial growth by sector, building permit information, property tax rolls, and overall value of construction in the area.

## **ELEMENT 3. - AVIATION ACTIVITY FORECASTS**

### ***Task 3.1 - Develop Information on Key Aviation Activity Drivers***

Information regarding key aviation activity drivers will be collected and organized into a database. This process will include, but not be limited to: interviews of Valkaria Airport tenants, Brevard County pilots and aircraft owners, and regional airport management to solicit opinions regarding satisfaction of present needs and perceived future aviation needs at Valkaria Airport, and in Brevard County, in general. They will be queried regarding past and present Valkaria Airport use patterns, and future plans for aircraft type or activity changes during the planning forecast window. Airport managers and fixed-base-operators in Brevard and Indian River Counties will be queried regarding their perceptions of aviation trends in Brevard County and East-Central Florida, and perceived economic value of Valkaria Airport to the community.

### ***Task 3.2 - Inventory Historical and Current Air Traffic Activity***

Data on historic and current air traffic activity at Valkaria Airport will be collected and analyzed via surveys of actual traffic, and review of FAA and FDOT data. The primary goal will be to determine reasonably accurate data regarding numbers and types of based aircraft, numbers and types of itinerant flight operations, types of aircraft using the airport, and flight conditions (day or night, visual or instrument flight rules). A secondary goal will be to determine origin of flight, purpose of flight operation (e.g. business, personal, training, etc.), and reason for using Valkaria Airport (e.g. home base, local visit, fuel stop, etc). This information, in conjunction with information from Task 2.1, will be useful in determining the service area of Valkaria Airport, which is an important factor in forecasts.

### ***Task 3.3 - Preparation of General Aviation Forecasts***

This task develops short term (5 years), intermediate term (10 years), and long-term (20 years) forecasts for general aviation activity at Valkaria Airport. These forecasts, when validated by FAA and FDOT, will be used in shaping future development alternatives. The process will review and consider previous AMP forecasts, FAA national and regional forecasts, and FDOT forecasts to identify broad aviation trends. Those indications will be further refined by forecasts of demographic and economic factors for Brevard County that are known to shape aviation activity, with emphasis on businesses, tourism, and related industries. A number of standard forecasting techniques will be employed to produce a range of forecasts for the 20-year planning horizon, and professional judgment be used to indicate preferred projections. Historic airport activity, FDOT guidelines, factors identified in Task 2.3, and a survey of local events and attractions will be used to estimate aircraft operational peaking at the airport.

- Based aircraft totals and fleet mix.
- Annual general aviation operations (local vs. itinerant).
- Annual instrument operations.
- Peak month, average day peak month, and peak hour operations.

### ***Task 3.4 - Prepare Working Paper #1***

Working Paper #1 will be comprised of drafts of the AMP update chapters addressing the issues and information developed during Element 2, the inventory phase of the project, and the analyses

and forecasts developed in Element 3. Twenty (20) black and white paper copies of Working Paper #1 will be prepared for distribution and review.

#### ***Task 3.5 - Coordination Meeting #1***

Working Paper #1 will be distributed electronically and in draft paper form for review and comment at least one week prior to Coordination Meeting #1. Representatives of the Sponsor, the FAA Orlando Airport District Office (ADO), the FDOT, and the consultant should attend this meeting. FAA and FDOT approval of the Aviation Activity Forecasts on their technical merits must be obtained before further demand-driven planning can proceed.

#### ***Task 3.6 - Public Meeting #1***

Public Meeting #1 will be held soon after Coordination Meeting #1 to present the FAA and FDOT approved Aviation Activity Forecasts to the public. The approved forecasts will also be posted on the Valkaria Airport AMP Update web page.

### **ELEMENT 4. - DEMAND/CAPACITY ANALYSIS AND FACILITY REQUIREMENTS**

#### ***Task 4.1 - Analyze Airport Capacity and Delay***

This capacity assessment will analyze the ability of the current airfield configuration to meet forecast demand developed and approved in study Element 3. It will consider configuration of runways and taxiways, historical weather conditions, aircraft fleet mix, and the percentage of local touch and go operations. Results will be expressed in terms of the hourly and annual service volume of the airfield, in minutes of delay per aircraft operation, and total estimated annual delay. Valkaria Airport is anticipated to remain a relatively low activity GA airport throughout the 20-year planning window; therefore the abbreviated analysis approach prescribed in Chapter 2, FAA AC 150/5050-5, "Airport Capacity and Delay" will be used for this task.

#### ***Task 4.2 - Determine Design Aircraft and Airport Reference Code***

An airport's "design" aircraft is the specific aircraft, or category of aircraft, anticipated to regularly use the airport during the 20-year planning window that has the most critical airport design criteria. Determination of the design aircraft and role of the airport in the air transportation system leads to selection of the Airport Reference Code (ARC) and appropriate airport design standards. The design aircraft and ARC selection for Valkaria Airport will be ascertained from information generated in study Elements 2 and 3, and guidance in FAA AC 150/5300-13, "Airport Design."

#### ***Task 4.3 - Determine Airfield Facility Requirements***

Airfield facility requirements to meet the 5, 10, and 20-year forecast demands will be determined using information developed in study Elements 2 and 3, standard planning criteria and expertise of the consultant. Analysis of runway length requirements will use FAA AC 150/5325-4A, "Runway Length Requirements for Airport Design," and other aircraft-specific performance documents. Weather data necessary for runway analysis will be obtained from the National Weather Service station at Melbourne International Airport, about 10 nautical miles to the north of Valkaria Airport. Airfield facility requirements to be assessed include:

- Runways (length, width, and pavement strength)
- Taxiways (width and separation requirements)
- Helicopter landing zone and hoverways
- FAR Part 77 surfaces and runway protection
- Runway and taxiway lateral clearances
- Lighting and marking
- Navigational aids, communications and weather reporting systems

Airfield facility forecast requirements will be compared to existing facilities to identify excess or deficient capacity or capability in standard measurement units for the item. The FAA Orlando ADO and Flight Procedures Office will be consulted regarding the feasibility and general issues relating to any instrument approaches that might be recommended for Valkaria Airport.

#### ***Task 4.4 - Determine General Aviation Facility Requirements***

The results of previous tasks and accepted planning criteria will be used to determine the general aviation facilities necessary to meet current and projected levels of demand for the 5, 10, and 20-year planning horizons. Requirements will be expressed in terms of typical units and recommended configuration. The goal of this task is to provide adequate levels of service and operational effectiveness throughout the 20-year planning horizon. General aviation facility requirements to be assessed include:

- General aviation terminal and management building
- Transient aircraft apron
- Based aircraft storage/tiedown ramp
- Aircraft storage hangars
- Aircraft maintenance hangar
- Fuel storage and servicing
- Ground vehicle access and parking
- Airport operations and maintenance structures
- Major facility maintenance and rehabilitation issues

#### ***Task 4.5 - Property Requirements***

Any fee-simple property acquisition or avigation easements that might be needed to ensure the safety and land use compatibility of airfield requirements will be identified.

#### ***Task 4.6 - Utility Requirements***

This task will estimate gross water and electrical requirements at the airport boundary for future airport facility developments.

#### ***Task 4.7 - Prepare Working Paper #2***

Working Paper #2 will be comprised of a description of the demand and capacity analysis and the facility requirements produced in study Element 4. Twenty (20) black and white paper copies of Working Paper #2, the draft “Demand/Capacity Analysis and Facility Requirements” chapter of the AMP update, will be prepared for distribution and review.

#### ***Task 4.8 - Coordination Meeting #2***

Working Paper #2 will be distributed for review and comment at least one week prior to Coordination Meeting #2. This meeting's participants should be representatives from the Sponsor, FAA Orlando ADO, FDOT, and the consultant.

#### ***Task 4.9 - Public Meeting #2***

Public Meeting #2 will be held soon after Coordination Meeting #2 to present the FDOT reviewed Demand/Capacity Analysis and Facility Requirements to the public. The reviewed information will also be posted on the Valkaria Airport AMP Update web page.

### **ELEMENT 5. - AIRPORT DEVELOPMENT ALTERNATIVES**

This study element is a sequential process. It first involves the identification of a range of preliminary development options for requirements identified in study Element 4, followed by the selection and evaluation of a small number of alternatives recommended for refinement into a single "refined recommended development alternative." The "refined recommended development alternative" then becomes the basis for development of the ALP, capital improvement program, and financial feasibility analysis conducted in subsequent study elements. In accordance with FAA guidance in AC 150/5070-6B, "Airport Master Plans," relevant environmental considerations (such as noise, flora and fauna, water resources, and community compatibility) associated with each development alternative identified in Tasks 5.1 through 5.4 will be incorporated in the discussion of the respective alternative, and considered in the refinement of the recommended development alternative.

#### ***Task 5.1 - Identify Airfield Facility Alternatives***

On the basis of the airport facility requirements established in preceding elements, airfield development alternatives will be formulated. These airfield alternatives may include such items as runway and taxiway changes, additions, or closures; property or avigation easement acquisition; and lighting and instrument approach capabilities needed for future demand. Existing airfield pavements will be evaluated as to condition and potential use to various airfield alternatives. Airfield alternatives will be based on schemes for development within existing airport boundaries, or within expanded airport boundaries, and will show necessary major runway and taxiway development during the twenty-year planning period, as well as required changes to infrastructure to accommodate each airfield option evaluated. This task will be conducted simultaneously with following tasks, and will result in a series of overall development options. Airfield alternatives will be analyzed based on their ability to satisfy the identified facility requirements, environmental considerations, engineering factors, cost, phasing, political viability, and ease of implementation.

#### ***Task 5.2 - Identify General Aviation Facility Alternatives***

The forecasts of demand and GA facility requirements developed in Element 4 will be used to develop and graphically depict two or three alternatives for GA facilities. This task will be conducted simultaneously with other tasks in this element, and result in a series of overall development options. Factors such as short and long term access to the site, availability and cost

of providing supporting infrastructure, existing and future airfield operational facilities, potential environmental impacts and overall developments costs, will influence the selection of alternative locations and configurations of the proposed facilities.

***Task 5.3 - Identify Lighting, Navaid, Communications, and Weather Reporting Alternatives***

Information developed in previous elements of this study will be used to develop alternative solutions to any lighting, navigational aid, instrument approach, communications, or weather reporting needs that were identified. For example, alternate forms and operational modes for airfield and GA area lighting could be presented to balance costs, utility, and community environmental concerns. Low cost and reliable technologies to meet operational and safety needs of pilots will be explored. A cursory review of the potential for future GPS instrument approaches will be conducted. Potential improvements will be discussed for appropriateness and potential approval with FAA regional and airport district offices, and the FAA Orlando Flight Procedures Office. The potential controlling obstructions and possible approach minimums will be identified.

***Task 5.4 - Identify Economic Development Alternatives***

This task will identify and evaluate the economic development opportunities that are possible for each alternative. The goal will be to develop options that would help make Valkaria Airport financially self-sufficient and also make a contribution to Brevard County's economy. This task will require input from local economic development agencies, South Brevard communities; and from airport tenants, users, and neighbors.

***Task 5.5 - Estimate Preliminary Development Costs***

Preliminary cost estimates for each airport development alternative considered during study Element 5 will be prepared. Cost data from recent construction projects in the airport vicinity, cost schedules provided by the FAA Orlando ADO and FDOT, and industry queries will be used in the process. All cost estimates will be in current year constant dollars.

***Task 5.6 - Selection of Recommended Airport Development Alternatives***

The consultant will confer with the Sponsor to select a series of recommended development alternatives for the airport that meet 5, 10, and 20-year requirements; and will do so in a viable manner from a cost, phasing, engineering, and environmental perspective. These alternatives will be refined into a single "refined recommended airport development alternative" in Task 5.10

***Task 5.7 - Prepare Working Paper #3***

Working Paper #3 will document and compare the "recommended airport development alternatives" produced in study Element 5. Twenty (20) black and white paper copies of Working Paper #3 will be prepared for distribution and review.

### ***Task 5.8 - Coordination Meeting # 3***

Working Paper #3 will be distributed at least one week prior to Coordination Meeting #3. This meeting will normally have participants from the Sponsor, FAA Orlando ADO, FDOT, and the consultant. The “recommended airport development alternatives” from Element 5 will be closely examined to ascertain funding viability and overall ability to meet airport development needs. A definitive response regarding the viability of on-airport development recommendations will be required from FDOT, and from FAA where appropriate, at this stage of the planning. The outcomes of Coordination Meeting #3 will be posted on the Valkaria Airport AMP Update web page.

### ***Task 5.9 - Public Meeting 3***

Public Meeting #3 will be held soon after Coordination Meeting #3 to present the “recommended airport development alternatives” being considered for refinement into the single “refined airport development alternative” future development of Valkaria Airport to the public for review and comment. Comments from the meeting will be summarized, and made available for public information and inclusion in an appendix to the AMP update.

### ***Task 5.10 - Develop Refined Airport Development Concept***

Refinements to the recommended alternatives will be made as deemed necessary after input is received from Brevard County government, FAA, FDOT, and the public. This task should result in the revision of individual alternatives or the combination of individual alternatives into a single “refined” development alternative for implementation. This task will identify the rationale for the refinement, and each refinement will be discussed using the same criteria used to evaluate the initial set of alternatives.

### ***Task 5.11 - Noise Impacts and Compatible Land Use***

Noise impacts on airport property and on the surrounding community; and compatibility of land uses will be determined for the refined airport development concepts. Noise impacts will be determined using the FAA Integrated Noise Model (INM) software and will be based on activity levels and aircraft type for the current year, and each forecast period. Noise exposure contours depicting the 65, 70, and 75 DNL levels will be overlaid on an appropriate base map of Valkaria Airport and the immediate vicinity.

A description of land use impacts comparing existing and planned land uses to the development recommendations of the airport master plan will also be developed. This will include consideration of existing zoning and building restrictions or permits that would be required. This land use task will address airport property, plus off-airport property in close proximity and under extended runway centerlines. Off-airport land uses will be identified to determine compatibility with the operations and development of the airport.

### ***Task 5.12 - Prepare Working Paper #4***

Working Paper #4 will document the alternatives refinement of Task 5.10. Twenty (20) black and white paper copies will be prepared for distribution and review by Sponsor and FDOT.

### ***Task 5.13 - Public Meeting 4***

Public Meeting #4 will be held soon after Working Paper #4 is distributed. Comments from the meeting will be summarized, and made available for public information and inclusion in an appendix to the AMP update.

## **ELEMENT 6. - AIRPORT LAYOUT PLAN SET**

### ***Task 6.1 - Airport Layout Plan (ALP) Set Drawings***

The current ALP set for Valkaria Airport will be updated to reflect existing facilities and airport information, and the recommended development concept(s) developed in this study. The ALP drawings will incorporate the elements prescribed in the FAA AC 150/5300-13, "Airport Design." ALP drawings will reflect possible future development of airfield facilities based on 5, 10, and 20-year phasing requirements. FAA and FDOT guidelines and standards, and compatible Brevard County CAD standards will be followed for ALP set development. The Valkaria Airport ALP set will include the following sheets:

- Cover Sheet
- Airport Layout Plan
- Airspace Drawing (with Approach Profiles)
- Runway Protection Zone (RPZ) Plan and Profiles
- Land Use Plan
- Property Map

### ***Task 6.2 - Cover Sheet***

A cover sheet will provide information concerning name and ICAO identifier of the airport, name of the airport sponsor, FDOT and FAA project numbers, as applicable, and an airport location map.

### ***Task 6.3 - Airport Layout Plan***

The ALP will be updated to reflect the recommended development of future needs as identified in this study. Information on this portion of the ALP set will include, but not be limited to, the physical layout of the airport and of the physical facilities developed on the airport. The ALP sheet will also incorporate building and facilities data, runway protection zones, critical areas, building elevations, topography, roads, and parking areas, wind rose/wind coverage, and the airport boundary. All existing and proposed modifications to FAA standards will be identified and delineated in a table, along with either the waiver allowing the modification, or the proposed method of addressing the modification. A table listing all of the modifications (existing and proposed) along with their proposed disposition will be incorporated onto the ALP and into the corresponding master plan chapter. Additionally, justification for requested modifications to standard will be provided in the airport plans chapter, which will be prepared in conjunction with the ALP drawing set.

#### ***Task 6.4 - Airspace Drawing***

The FAR Part 77 surfaces associated with the ultimate airport configuration and approaches will be generated and superimposed on USGS quadrangle maps. Fifty (50) foot contour intervals will be shown for all FAR Part 77 sloping imaginary surfaces. This sheet will depict objects violating FAR Part 77 surfaces that have not been identified on the ALP or RPZ plans and profiles. The top elevation of each obstruction will be identified on the sheet, as will the disposition of the obstruction. The dimensions of the approach surfaces and transitional surfaces will be charted. The airspace plan (FAR Part 77 Surfaces) will depict the full length of all approach surfaces without the use of match lines or truncated depictions.

#### ***Task 6.5 - Runway Protection Zone (RPZ) Plan and Profiles***

Runway Protection Zone (RPZ) Plans and Profiles will be prepared for each runway and depicting the existing and any future changes to the RPZs associated with the runway system. The drawing will depict the location of roadways, structures, natural ground elevations, and other man-made or natural features with the limits of the RPZ. The drawing will also detain objects that penetrate approach surfaces or violate FAA Object Free Area criteria. Obstructions will be listed numerically in an obstruction table for each approach, with data describing the obstruction type, top elevation, allowable elevation, amount of penetration, and proposed dispositions. Additionally, the drawing will depict the configuration of required safety areas off each runway end. Plan view will be superimposed on aerial photos or on a detailed line drawing.

#### ***Task 6.6 - Land Use Plan***

A Land Use Plan for the area within the boundaries of the airport will be updated based on the identified overall development concepts. Included in the drawing be aeronautical uses, agricultural uses, and industrial/commercial development areas. A depiction of current land uses in the immediate airport vicinity will also be included. Standard classifications of land use (e.g., residential, commercial, agricultural, etc), in addition to the identification of major noise sensitive institutional land uses will be undertaken. The land and information will be depicted graphically over a street layout of the Airport environs showing the Airport and major geographical features such as rivers, lakes, and rail lines.

#### ***Task 6.7 - Property Map***

An Airport Property Map will be updated to reflect parcels acquired either through fee simple purchase or easements purchased by the airport with federal, state, and local funds. The property map will also identify additional property that might be required for future developments identified in this AMP update.

#### ***Task 6.8 - Prepare Draft Airport Layout Plan Set***

A total of ten (10) full size draft ALP sets will also be prepared under this task. Five (5) sets will go to the FAA, two (2) sets to FDOT, and three (3) sets to Brevard County for review. The full size draft ALP sets transmitted to the FAA and FDOT will include a transmittal letter addressing any significant changes to the current ALP, proposed ALP, modifications to standards and rational for same, and the design group for each runway. Twenty (20) copies of the airport plans

chapter and reduced-size ALP set will also be prepared for distribution and review, as needed. The reduced-size ALP set will be printed on 11x17 inch sheets.

## **ELEMENT 7. - CAPITAL IMPROVEMENT PROGRAM AND FINANCIAL ANALYSIS**

### ***Task 7.1 - Develop Airport Development Phasing Schedule***

Airport development will be scheduled in three phases to reflect requirements developed and refined in previous tasks for the 5, 10, and 20-year planning horizons. Development tasks within each phase will be individually scheduled so as to be available when, but no sooner, than actually needed. Funding availability and necessary pre-development tasks will also be considered in scheduling. The short-term development schedule will be coordinated closely with the Sponsor to reflect near term priorities and funding availability.

### ***Task 7.2 - Refine Airport Development Cost Estimates***

Airport development cost estimates will be refined to reflect the revised requirements and schedule of development associated with the final recommended airport development concepts.

### ***Task 7.3 - Prepare Financial Plan***

A recommended airport financial plan, which includes estimates of the amount of funds available from federal and state grant-in-aid programs, will be prepared to determine the net amount of capital funds required by the Sponsor to accomplish each proposed stage of airport improvements. Alternative financing strategies that may be available for implementing certain elements of the proposed development program will be explored. Sources of airport funds will be analyzed as to their financial implications, their use to finance proposed airport development projects, and airport operations and maintenance needs. Estimates of the magnitude and timing of any bond issues that may be required to cover the cost of airport improvements will be made. The financial plan will address the five-year initial phase (2006-2011), an intermediate phase (2012-2016), and long-term phase (2017-26).

### ***Task 7.4 - Prepare Working Paper #5***

Working Paper #5 will present the results of the financial analysis, outlining the overall airport capital improvement program, and ordering projects numerically based on the Sponsor's priority for the first five years. Projects for the intermediate and long-term phases of development will be consolidated and, where possible, listed by the Sponsor's order of priority. Projects will be prioritized by their importance, place in the overall development scheme, and anticipated funding availability. This will include the identification of local, state, and federal funds, as well as potential sources of second or third party private investment for airport improvements. General estimates of equipment acquisitions, and operation and maintenance costs for the airport will be included. Twenty (20) copies of the draft financial plan (Working Paper #5) will be prepared for distribution and review. Working Paper #5 will be prepared in black and white.

### ***Task 7.5 – Public Meeting 5***

Public Meeting #5 will be held soon after Working Paper #5 is distributed. Comments from the meeting will be summarized, and made available for public information and inclusion in an appendix to the AMP update.

## **ELEMENT 8. - FINAL REPORT PREPARATION, COORDINATION, AND DOCUMENTATION**

### ***Task 8.1 - Prepare Final Draft Master Plan Update Report***

Preparation of the Final Draft Airport Master Plan Update Report will incorporate any final review comments, as appropriate, and a compilation of all final working papers and the ALP set. Five (5) color copies of the complete final draft airport master plan update will be prepared. One (1) final draft will be delivered to the FAA, two (2) to FDOT, and two (2) to the Brevard County for final review and comment.

### ***Task 8.2 - Prepare Final Master Plan Update Report***

The final report master plan update will be prepared after the FAA, FDOT, and Brevard County have all approved the final draft. Ten (10) GBC bound, color final reports of the Valkaria Airport Master Plan Update will be prepared for distribution: one (1) copy to FDOT, two (2) copies to the FAA Orlando ADO, and seven (7) copies to Brevard County.

A total of five (5) final full size ALP sets will also be prepared for distribution: one (1) set will go the FAA, two (2) sets to FDOT, and two (2) sets to Brevard County. Digital copies of the master plan report and ALP set will also be delivered to the FAA, FDOT, and Brevard County. The ALP set will also be included in reduced size, and accompanied by a narrative description of content, in a chapter of the final Valkaria Airport Master Plan Update Report.

The report text and tables will be provided using Microsoft Word and Excel. The ALP set will be created using AutoCAD software. Digital files of all documents will be delivered to Brevard County and FDOT.