INTRODUCTION

ABOUT JOHNSON COUNTY EXECUTIVE AIRPORT

Johnson County Executive Airport (OJC) is owned and operated by Johnson County, Kansas, along with New Century AirCenter (IXD). The Johnson County Airport Commission (JCAC) manages both airports, which have a combined annual economic impact of $1.1 billion and support nearly 5,000 jobs, according to a 2024 study conducted by the County Economic Research Institute. OJC is located in the south-central portion of the county, within the City of Olathe, and comprises approximately 568 acres. It is considered a national reliever airport, according to the Federal Aviation Administration's (FAA) *National Plan of Integrated Airport Systems* (NPIAS). As such, it serves a vital role in accommodating all forms of general aviation traffic, including corporate aviation, flight training, emergency medical flight services, charter flights, and recreational flying, in addition to military operations. OJC is a vital infrastructure component that supports economic development and quality of life for residents in and around Johnson County.

WHAT IS A MASTER PLAN?

The FAA recommends that airports update their long-term planning documents every seven to 10 years, or as necessary, to address local changes at the airport. The last master plan update for OJC was completed in 2006, with periodic updates made to the airport layout plan (ALP). Johnson County, the sponsor of the airport, received a grant from the FAA to update the airport master plan.

The sponsor is responsible for funding capital improvements at OJC, as well as obtaining FAA and Kansas Department of Transportation (KDOT) development grants. The master plan is intended to provide a true vision for how OJC is developed, with guidance for future development and justification for projects for which the airport may receive funding. This will be achieved through a recommended development plan, which will form the basis of the ALP, and an associated capital improvement program (CIP), which will demonstrate the future investments required by Johnson County, KDOT, and the FAA.

The airport master plan follows a systematic approach outlined by the FAA to identify airport needs in advance of the actual need for improvements. This is done to ensure the airport sponsor can coordinate environmental reviews, project approvals, design, financing, and construction to minimize the negative effects of maintaining and operating inadequate or insufficient facilities. An important outcome of the master plan process is the aforementioned recommended development plan, which reserves sufficient areas for future facility needs. Such planning will protect development areas and ensure they will be readily available when required to meet future needs. The intended outcome of this study is a detailed on-airport land use concept that outlines specific uses for all areas of airport property, including strategies for revenue enhancement. Some common questions regarding what a master plan is and is not are answered on **Exhibit iA**.

The preparation of this master plan is evidence that the county recognizes the importance of the airport and the associated challenges inherent in providing for its unique operating and improvement needs. The cost of maintaining an airport is an investment that yields impressive benefits to the local community.

An Airport Master Plan is:

A comprehensive, long-range study of the airport and all air and landside components that describes plans to meet FAA safety standards and future aviation demand.



Required by the FAA to be conducted every 7-10 years to ensure plans are up to date and reflect current conditions and FAA regulations. The last master plan for OJC was completed in 2006.



Funded 95% by the FAA. The remaining 5% is funded by Johnson County.



A local document that will ultimately be presented for approval from the Johnson County Airport Commission. The FAA approves only two elements of the master plan: the aviation demand forecasts and the airport layout plan (ALP) drawing set.



An opportunity for airport stakeholders and the public to engage with airport staff on issues related to the airport, its current and future operations, and environmental and socioeconomic impacts. Three public information workshops will be conducted during the master plan process to facilitate this public outreach effort.



An Airport Master Plan is NOT:

- A guarantee that the airport will proceed with any planned projects. Master plans are guides that help airport staff plan for future development; however, the need/demand for certain projects might never materialize.
- A guarantee that the Johnson County Airport Commission or the FAA will fund any planned projects. Project funding is considered on a case-by-case basis and requires appropriate need and demand. Certain projects may require the completion of a benefit-cost analysis.
- A binding or static plan. Elements of the master plan may be updated to reflect changes in aviation activity at the airport, economic conditions of the region, or the goals of Johnson County.
- Environmental clearance for specific projects. The master plan includes an environmental overview, which identifies potential environmental sensitivities per *National Environmental Policy Act of 1969* (NEPA) guidelines. Most planned projects will require a separate environmental study prior to construction.

With a sound and realistic master plan, the airport can maintain its role as an important link to the regional, state, national, and global air transportation systems. Moreover, the plan will aid in supporting decisions for directing limited and valuable county resources for future airport development. Continued investment in the airport will ultimately allow the sponsor to reap the economic benefits.

WHO IS PREPARING THE MASTER PLAN?

Johnson County has contracted with Coffman Associates, a subsidiary of Pape-Dawson, to undertake the airport master plan. Coffman Associates is an airport planning and consulting firm that specializes in master planning and environmental studies. The following firms are supporting Coffman Associates in the development of the master plan:

- **HDR**: cost estimating and engineering support and regional economic impact assessment of key projects
- **Martinez Geospatial**: aerial photography, ground survey, and geographic information system (GIS) products to meet FAA 5300-18B requirements for Airports GIS data submittal
- **Security 1st Title**: Deed research for development of the Exhibit 'A' Airport Property Map

The airport master plan is being prepared in accordance with FAA requirements, including Advisory Circular (AC) 150/5300-13B, *Airport Design* (as amended), and AC 150/5070-6B, *Airport Master Plans* (as amended). The plan will be closely coordinated with other planning studies relevant to the area and aviation plans developed by the FAA and KDOT. The plan was also coordinated with Johnson County, the JCAC, and other local and regional agencies, as appropriate.

STUDY GOALS, OBJECTIVES, AND ASSUMPTIONS

The primary goal of this master plan is to provide the framework needed to guide future airport development that will satisfy aviation demand in a cost-effective way while considering potential environmental and socioeconomic impacts. Accomplishing this goal requires an evaluation of the existing airport to decide what actions should be taken to maintain a safe, adequate, and reliable facility. A long-range planning study also requires several baseline assumptions that will be used throughout the analysis. Specific objectives and assumptions for this study are as follows.

STUDY OBJECTIVES

- Research factors likely to affect all air transportation demand segments in Johnson County and the regional area over the next 20 years, including the development of forecasts for annual operations and based aircraft.
- Determine the projected needs of airport users for the next twenty (20) years, taking into consideration recent revisions to FAA design standards, the airport's conformance requirements, and the impact of general aviation fleet transitions on design standards.

- Recommend improvements that will enhance the airport's ability to satisfy future aviation needs, taking into consideration the potential for increased traffic and general aviation needs.
- Analyze the airfield system to determine existing and future airfield needs for runways, taxiways, safety areas, and overall airfield geometry, based on FAA design criteria and operational needs.
- Analyze the landside needs to determine future facility needs for aircraft apron areas, hangars, and various support services.
- Produce accurate base maps of existing and proposed facilities and an updated ALP drawing set consistent with FAA Standard Operating Procedure (SOP) No. 2.00.
- Produce an Exhibit 'A' Property Inventory Map consistent with FAA SOP No. 3.00.
- Develop new noise exposure contours utilizing the most recent version of the FAA's Aviation Environmental Design Tool (AEDT).
- Establish a schedule of development priorities consistent with the FAA's capital improvement program planning.
- Consider sustainability efforts, specifically a waste and recycling analysis and plan. In addition, broader sustainability goals will be addressed.
- Reevaluate runway safety area determinations, declared distances, and hot spots, as necessary.

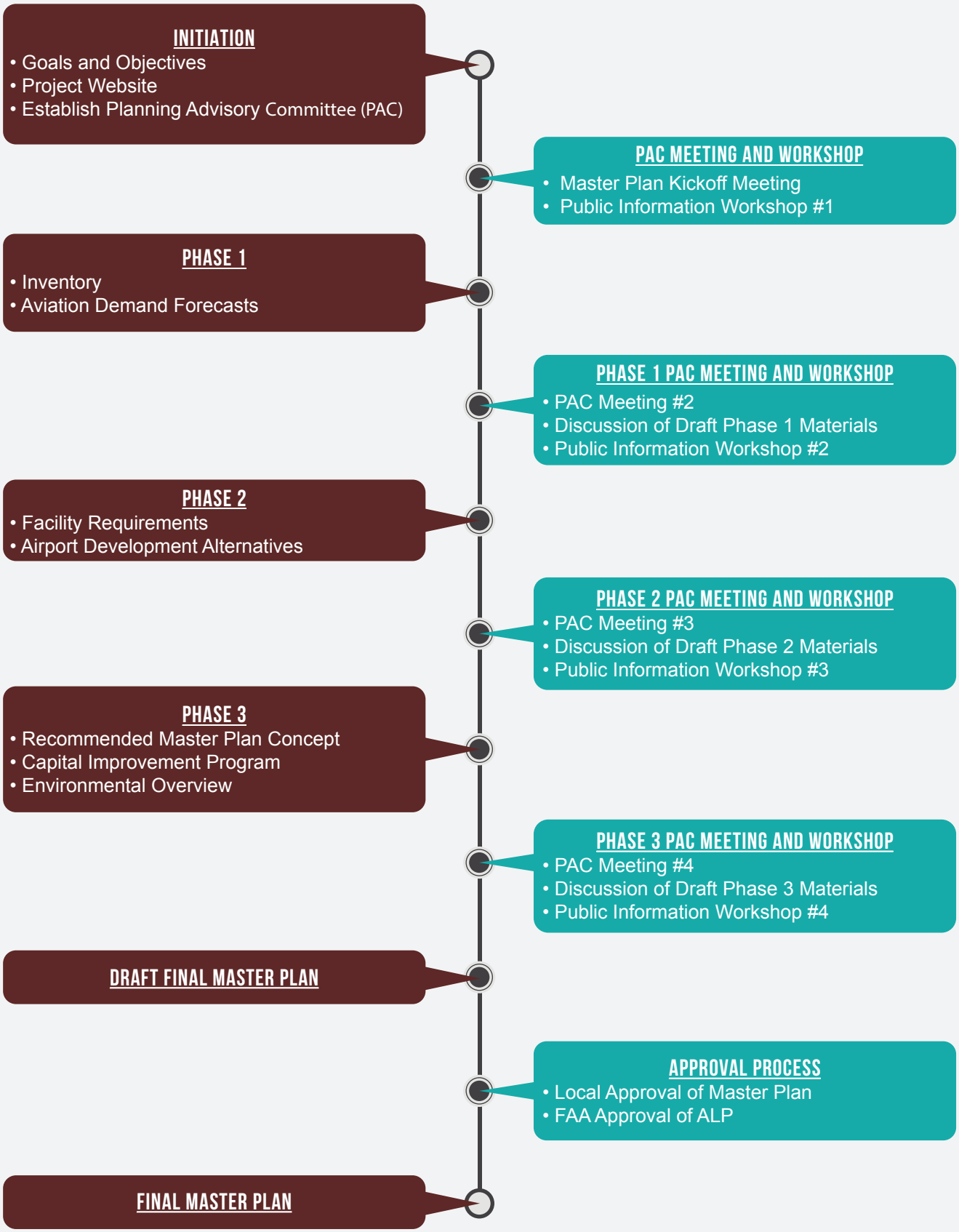
BASELINE ASSUMPTIONS

As previously stated, a long-range planning study requires several baseline assumptions that will be used throughout this analysis. The baseline assumptions for this study are as follows.

- OJC will continue to accommodate general aviation tenants, as well as itinerant and local aircraft operations by air taxi, general aviation, and military operators, through the 20-year planning period.
- The aviation industry will develop through the planning period as projected by the FAA. Specifics of projected changes in national aviation industries are described in Chapter Two.
- The socioeconomic characteristics of the region will generally change as forecasted (Chapter Two).
- A federal and state airport improvement program will be in place through the planning period to assist in funding future capital development needs.

MASTER PLAN ELEMENTS AND PROCESS

The master plan has 14 elements that are intended to assist in the evaluation of future facility needs and provide the supporting rationale for their implementation. **Exhibit iB** provides a graphical depiction of the process involved in the study.


INITIATION
• Goals and Objectives
• Project Website
• Establish Planning Advisory Committee (PAC)
PAC MEETING AND WORKSHOP
• Master Plan Kickoff Meeting
• Public Information Workshop #1
PHASE 1
• Inventory
• Aviation Demand Forecasts
PHASE 1 PAC MEETING AND WORKSHOP
• PAC Meeting #2
• Discussion of Draft Phase 1 Materials
• Public Information Workshop #2
PHASE 2
• Facility Requirements
• Airport Development Alternatives
PHASE 2 PAC MEETING AND WORKSHOP
• PAC Meeting #3
• Discussion of Draft Phase 2 Materials
• Public Information Workshop #3
PHASE 3
• Recommended Master Plan Concept
• Capital Improvement Program
• Environmental Overview
PHASE 3 PAC MEETING AND WORKSHOP
• PAC Meeting #4
• Discussion of Draft Phase 3 Materials
• Public Information Workshop #4
DRAFT FINAL MASTER PLAN
APPROVAL PROCESS
• Local Approval of Master Plan
• FAA Approval of ALP
FINAL MASTER PLAN

Element 1 – Study Initiation and Organization includes the development of the scope of services, schedule, and study website. Study materials will be assembled in a workbook format. General background information will be established, including an outline of the goals and objectives to be accomplished during the master plan.

Element 2 – Inventory of Existing Conditions focuses on collecting and assembling relevant data pertaining to the airport and the area it serves. Information regarding existing facilities and operations is collected. Local economic and demographic data are collected to define the local growth trends and environmental information is gathered to identify potential environmental sensitivities that might affect future improvements. Planning studies that may be relevant to the master plan are also collected.

Element 3 – Airports Geographical Information System (AGIS) Survey and Obstruction Analysis includes collection of high-resolution aerial photography and high-precision surveys of safety critical airport data to provide the sponsor with a digital dataset of the airport and its surrounding environment, in conformance with current FAA standards set forth in ACs 150/5300-13A, -16B, -17C, and -18B. The collected data allow for a detailed airspace analysis for the appropriate airport approach and departure surfaces. An Obstacle Action Plan (OAP) will be developed, which will categorize obstacles by priority level and include a recommended mitigation action.

Element 4 – Aviation Demand Forecasts examines the potential aviation demand at OJC. The analysis utilizes local socioeconomic information and national air transportation trends to quantify the levels of aviation activity that can reasonably be expected to occur at OJC over a 20-year period. An existing and ultimate critical design aircraft, based on AC 150/5000-17, *Critical Aircraft and Regular Use Determination*, is also established to determine future planning design standards. The results of this effort are used to determine the types and sizes of facilities that will be required to meet the projected aviation demand at the airport through the planning period. Forecasts result in estimates of demand for annual aircraft operations and based aircraft. This element is one of two elements that will be submitted to the FAA for approval.

Element 5 – Facility Requirements determines the available capacities of various facilities at the airport, whether they conform with FAA standards, and what facility updates or new facilities will be needed to comply with FAA requirements and/or the projected 20-year demand.

Element 6 – Airport Development Alternatives considers a variety of solutions to accommodate projected airside and landside facility needs through the long-term planning period. An analysis is completed to identify the strengths and weaknesses of each proposed development alternative, with the intention of determining a single direction for development.

Element 7 – Recommended Master Plan Concept involves coordination with airport staff and the planning advisory committee to result in the selection of a recommended development concept. An on-airport land use plan will also be developed to identify property for existing and future aeronautical uses, as well as portions of airport property that should be used for non-aeronautical purposes.

Element 8 – Financial Management and Development Program analyzes the benefits and costs associated with the recommended plan. Specific project costs are established for the development of a CIP that ensures logical staging of improvements and potential funding sources are identified.

Element 9 – Land Use Compatibility Analysis includes development of noise exposure contours and evaluates land use compatibility.

Element 10 – Environmental Evaluation identifies any potential environmental concerns that must be addressed prior to the implementation of the recommended development program.

Element 11 – Airport Layout Plans will be developed to depict the recommended development concept. The drawings will meet the requirements of FAA SOP No. 2.00, *Standard Procedure for FAA Review and Approval of Airport Layout Plans (ALPs)* (effective October 1, 2013). The updated ALP set will be included as an appendix to this study.

Element 12 – Exhibit 'A' Property Map identifies all designated airport property or new property to be acquired and includes transaction details, such as the type of acquisition and its purpose.

Element 13 – Public Involvement includes a robust public outreach component designed to familiarize community members with the master plan. This element includes the development of a dedicated project website, as well as the formation of a planning advisory committee (PAC). Public information workshops are also included.

Element 14 – Approvals and Final Reports produces the draft final report and ALP drawings in print and digital form. These materials will be presented to the JCAC and FAA for review and approval. Once approved, a final report will be prepared and made available in print and digital formats.

COORDINATION AND OUTREACH

This study is of interest to many within the local community and region, including local citizens, businesses, community organizations, city and county officials, airport users/tenants, and aviation organizations. As a component of the regional, state, and national aviation systems, OJC is of importance to state and federal agencies responsible for overseeing the air transportation system.

To assist in the development of the master plan, a PAC has been established to act in an advisory role. PAC members will meet at designated points during the study to review study materials and provide comments to help ensure a realistic, viable plan is developed.

Draft phase reports will be prepared at various milestones in the planning process. The phase report process allows for timely input and review during each step within the master plan to ensure all issues are fully addressed as the recommended program develops.

Four open-house public information workshops will also be held as part of the study coordination and outreach efforts. Workshops are designed to allow all interested persons to become informed and provide input concerning the master plan process. Notices of meeting times and locations will be advertised through local media outlets. All draft phase reports, meeting notices, and materials will be made available to the public on a study-specific website: **OJC.airportstudy.net**.

SWOT ANALYSIS

A SWOT analysis is a strategic business planning technique used to identify **S**trengths, **W**eaknesses, **O**pportunities, and **T**hreats associated with an action or plan. The SWOT analysis involves identifying an action, objective, or element, and then identifying the internal and external forces that positively and negatively impact that action, objective, or element in a given environment.

This SWOT analysis groups information into two categories:

- **Internal**: attributes of the airport and market area that may be considered strengths or weaknesses to the action, objective, or element
- **External**: attributes of the aviation industry that may pose opportunities or threats to the action, objective, or element

The SWOT further categorizes information into one of the following:

- **Strengths**: internal attributes of the airport that are helpful to achieving the action, objective, or element
- **Weaknesses**: internal attributes of the airport that are harmful to achieving the action, objective, or element
- **Opportunities**: external attributes of the industry that are helpful to achieving the action, objective, or element
- **Threats**: external attributes of the industry that are harmful to achieving the action, objective, or element

It is important to note that some attributes may fit into multiple categories; for example, an attribute can be considered both a strength and a weakness, depending on the perspective of the person or entity describing it. A SWOT analysis was conducted at the first PAC meeting and the findings are summarized in **Table iA**.

TABLE iA: OJC SWOT Analysis

Strengths	• Good financials and accounting systems in place • Clean audits • All new infrastructure and recently rehabilitated pavements • Strategic location within Johnson County • Recently updated *Airport Land Use Compatibility Plan* for the county to address noise concerns and provide guidance for new development near the airport	• Johnson County Executive Airport is the "front door" for people wanting to do business in the county • The airport is served by an airport traffic control tower with radar capability • The airport is served by and provides facilities for air medical evacuation services
Weaknesses	• Runway length; need longer runway to accommodate existing and future airport users • Encroaching residential development; residents concerned about noise • Current need for runup area serving Runway 36 • The airport is landlocked and has limited opportunity to expand its footprint	• Lack of staffing; currently, there are 18.25 employees to cover New Century AirCenter (IXD) and Johnson County Executive Airport • Primary focus is given to IXD for snow removal • Existing terrain is not conducive to future development

(Table continues)

TABLE iA (continued): OJC SWOT Analysis

Opportunities	• New aviation fuel sources; electric; hydrogen; unleaded • Could be a base for flight training to compete with university programs • Potential for runway extension to better serve corporate users	• New runup area planned near Runway 36, which could help alleviate noise concerns from neighbors • Emerging advanced air mobility (AAM) technologies
Threats	• Encroaching residential development • Residential noise complaints • Temporary federal funding opportunities are beginning to phase out	