



Introduction

WHAT IS A MASTER PLAN?

The Federal Aviation Administration (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 most recent planning study for Waupaca Municipal Airport (PCZ) was completed in 2009 and the airport layout plan (ALP) was approved in 2016. The City of Waupaca, the sponsor of the airport, received a grant from the Wisconsin Department of Transportation (WisDOT) Bureau of Aeronautics (BOA)¹ to update this airport master plan.

The city is responsible for funding capital improvements at the airport and obtaining FAA Airport Improvement Program (AIP) and WisDOT-BOA development grants. In addition, the city oversees facility enhancements and infrastructure development conducted by private entities at the airport. The master plan provides guidance for future development and justification for projects for which the airport may receive funding through an updated capital improvement program (CIP) by demonstrating the future investments required by the city, the FAA, and the BOA.

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 city 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 a 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.

The preparation of this study is evidence that the city recognizes the importance of the airport to the surrounding region, as well as 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. With a sound and realistic master plan, the airport can maintain its role

¹ WisDOT participates in the State Block Grant Program, which administers federal grants from the AIP for the FAA.



as an important link to the regional, state, and national air transportation systems. Moreover, the plan will aid in supporting decisions for directing limited and valuable city resources for future airport development. Ultimately, the continued investments in the airport will allow the city to reap the economic benefits generated by historical investments.

AN AIRPORT MASTER PLAN IS...



A comprehensive, long-range study of the airport, including 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.



Funded 90% by a BOA apportionment grant, derived from FAA discretionary funds allocated to the BOA. The remaining 10% is split between the State of Wisconsin and the City of Waupaca.



A local document that will ultimately be presented for approval from the City of Waupaca. 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. Two 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 City of Waupaca, the BOA, 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 the City of Waupaca.



Environmental clearance for specific projects. The master plan includes an environmental overview, which identifies potential environmental sensitivities per the *National Environmental Policy Act of 1969* (NEPA) guidelines. Most planned projects will require a separate environmental study prior to construction.

WHO IS PREPARING THE MASTER PLAN?

The City of Waupaca has contracted with Coffman Associates, Inc. to undertake this airport master plan. Coffman Associates is an airport planning and consulting firm that specializes in master planning and environmental studies. Coffman Associates will lead the planning team, with engineering support from Strand Associates.



The airport master plan is being prepared in accordance with FAA requirements, including the following:

- Advisory Circular (AC) 150/5070-6B, *Airport Design*
- AC 150/5070-6B, Change 2, *Airport Master Plans*
- AC 150/5300-13B, *Airport Design*, Change 1

The development of the master plan will include applicable FAA ACs, grant assurances, and the Wisconsin Administrative Code Chapter Trans 55 criteria. The plan will be closely coordinated with other planning studies relevant to the area and with aviation plans developed by the FAA and BOA. The plan will also be coordinated with the City of Waupaca, as well as other local and regional agencies, as appropriate.

GOALS AND OBJECTIVES

The primary goal of this master plan is to develop and maintain a financially feasible long-term development program that will satisfy the aviation demand of the region; be compatible with community development, other transportation modes, and the environment; and enhance employment and revenue for the local area. 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.

Specific objectives of the study include the following:

- Prepare initiation materials and conduct a planning advisory committee (PAC) kickoff meeting.
- Develop a project website to host and allow public access to various project materials.
- Inventory the airport facilities and existing land within the present boundaries of Waupaca Municipal Airport.
- Inventory air traffic and passenger data, including procedures, navigational aids, and operations.
- Inventory local plans, land uses, environmental plans, and different demographic data that can provide greater insight into the local area.
- Obtain tabulated wind data from the National Oceanic and Atmospheric Administration and the National Climatic Data Center to prepare an updated wind rose for the airport layout plan.
- Complete an environmental inventory to gather information regarding environmental sensitivities on and/or near airport property.
- Define based aircraft service areas to help determine local air services, based on the closest commercial service and general aviation airports.
- Prepare new based aircraft and annual operations forecasts for general aviation and military aircraft, as applicable.



- Prepare forecasts for operational activity information concerning regarding peak month, day, and hour activity for facility needs evaluations.
- Establish physical planning criteria and determine the airport's critical aircraft.
- Identify airfield facility criteria to help determine the adequacy of airside facilities.
- Identify general aviation criteria for evaluating the adequacy of various general aviation facilities for forecast demands.
- Establish alternative development design issues.
- Evaluate potential airside alternatives.
- Evaluate potential general aviation alternatives.
- Develop a master plan concept.
- Analyze land use controls and plans for compatibility.
- Provide an environmental overview and recycling plan.
- Prepare airport development schedules and an opinion of probable construction costs (OPCC).
- Prepare a capital program and financial plan.
- Prepare the final master plan report.

BASELINE ASSUMPTIONS

A long-range planning study requires several baseline assumptions, which will be used throughout this analysis. The baseline assumptions for this study are as follows:

- Waupaca Municipal Airport will continue to operate as a local general aviation airport through the 20-year planning period.
- The airport will continue to accommodate general aviation tenants, as well as itinerant and/or local aircraft operations by air taxi, general aviation, and military operators.
- 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 – Forecasts.)
- The socioeconomic characteristics of the region will generally change as forecast. (See 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 includes eight elements that are intended to assist in the evaluation of future facility needs and provide the supporting rationale for their implementation.

Element 1 – Study Initiation and Organization includes the development of the scope of services and schedule, as well as the establishment of a PAC. Study materials are assembled in a workbook format. General background information is established, including an outline of the goals and objectives to be accomplished during the master plan. A project-specific website is also developed to house draft materials and allow for the receipt of comments.

Element 2 – Inventory of Existing Conditions focuses on collecting and assembling relevant data pertaining to the airport and the area it serves. Information on 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 have relevance to the master plan are also collected.

Element 3 – Forecasts examines the potential aviation demand at the airport. 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 Waupaca Municipal Airport over a 20-year period. Existing and ultimate critical aircraft are also established to determine future planning design standards, based on AC 150/5000-17, *Critical Aircraft and Regular Use Determination*. 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. This element is one of two elements that are submitted to the BOA for approval.

Element 4 – Airport Facility Requirements Analysis determines the available capacities of various facilities at the airport, whether they conform with FAA/BOA standards, and what facility updates or new facilities will be needed to comply with FAA/BOA requirements and/or the projected 20-year demand. The Phase 1 draft report will be created and the Phase 1 meeting will be conducted.

Element 5 – 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 6 – Recommended Plan and Land Use Compatibility provides both graphic and narrative descriptions of the recommended plan for the use, development, and operation of the airport. This plan forms the basis of the ALP drawing set. Existing zoning ordinances and other land use management documentation will be reviewed and summarized, and land use management techniques in the airport vicinity will be outlined. This element also includes the formulation of an environmental overview and recycling plan.

Element 7 – Financial Management and Development Program includes a 20-year capital improvement program (CIP), which is established to define the schedules, costs, and funding sources for the recommended development projects.



Element 8 – Final Reports and Approvals provides documents that depict the findings of the study effort and present the study and its recommendations to appropriate local organizations. The final document incorporates the revisions to previous working papers prepared under earlier elements into a usable master plan document.

COORDINATION AND OUTREACH

The Waupaca Municipal Airport master plan is of interest to many within the local community and region, including local citizens and businesses, community organizations, city officials, airport users/tenants, and aviation organizations. As a component of the regional, state, and national aviation systems, the airport is of importance to both state and federal agencies responsible for overseeing the air transportation system.

To assist in the development of the master plan, a PAC was established to act in an advisory role during the preparation of the study. Committee members are scheduled to meet four times at designated points during the study to review study materials and provide comments to help ensure the development of a realistic, viable plan.

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

Two open-house public information workshops will also be conducted 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 and all draft reports, meeting notices, and materials will be made available to the public on the project website at www.waupaca.airportstudy.net.

SWOT ANALYSIS

A SWOT analysis is a strategic business planning technique used to identify **Strengths**, **Weaknesses**, **Opportunities**, and **Threats** 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. A summary of this exercise and discussion is included below.

SWOT DEFINITIONS

This SWOT analysis groups information into two categories:

- **Internal** – attributes of the airport and market area that may be considered strengths or weaknesses for the action, objective, or element
- **External** – attributes of the aviation industry that may pose as opportunities or threats for 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. An attribute might be considered both a strength and a weakness, depending on the perspective of the person or entity describing it. A completed SWOT will be added after the first PAC meeting is held on September 18, 2024.