

**Auburn-Lewiston Municipal Airport  
Airport Master Plan Update  
Technical Advisory Committee and Public Meeting #1**

January 22<sup>nd</sup>, 2025  
5:30-7:30pm

**Agenda:**

1. What is a master plan?
2. Why a new master plan?
3. Master plan process
4. Schedule
5. Public outreach
6. What is the TAC?
7. Key goals and issues
8. Inventory
9. Forecasts
10. Environmental Overview
11. Facility Requirements
12. Next steps



Auburn-Lewiston Airport

# Auburn-Lewiston Municipal Airport

Master Plan Project

January 22, 2025

# Agenda

- What is a master plan?
- Why a new master plan?
- Master plan process
- Schedule
- Public outreach
- What is the TAC?
- Key goals and issues
- Inventory
- Forecasts
- Environmental Overview
- Facility Requirements
- Next steps



# What is the Master Plan?

- The official FAA airport planning document
- A comprehensive study for short-, medium-, and long-term development
- The Airport's long-term development plan graphically shown
- The justification and validation for proposed development
- 20-year implementation plan
- Document prepared per FAA AC 150/5070-6B, *Airport Master Plan*

# Why a New Master Plan?

- The last Master Plan was published in 2007
- The Federal Aviation Administration standards have changed
- The airplane fleet has changed since the last Master Plan

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# Master Plan Process



Collect Data and Document Existing Conditions

Create Realistic Forecast Based on Industry Trends and Local Factors

Identify Environmentally Sensitive Areas

Identify Non-Standard Design

Identify Airport Needs

Recommend Airside and Landside Facilities

No Build Alternative  
Alternative to Meeting FAA Standards

Alternative to Meet Facility Requirements

Incorporate alternatives into future development plans

Access various scenario-based developments

Graphic Depiction of Recommended Alternative

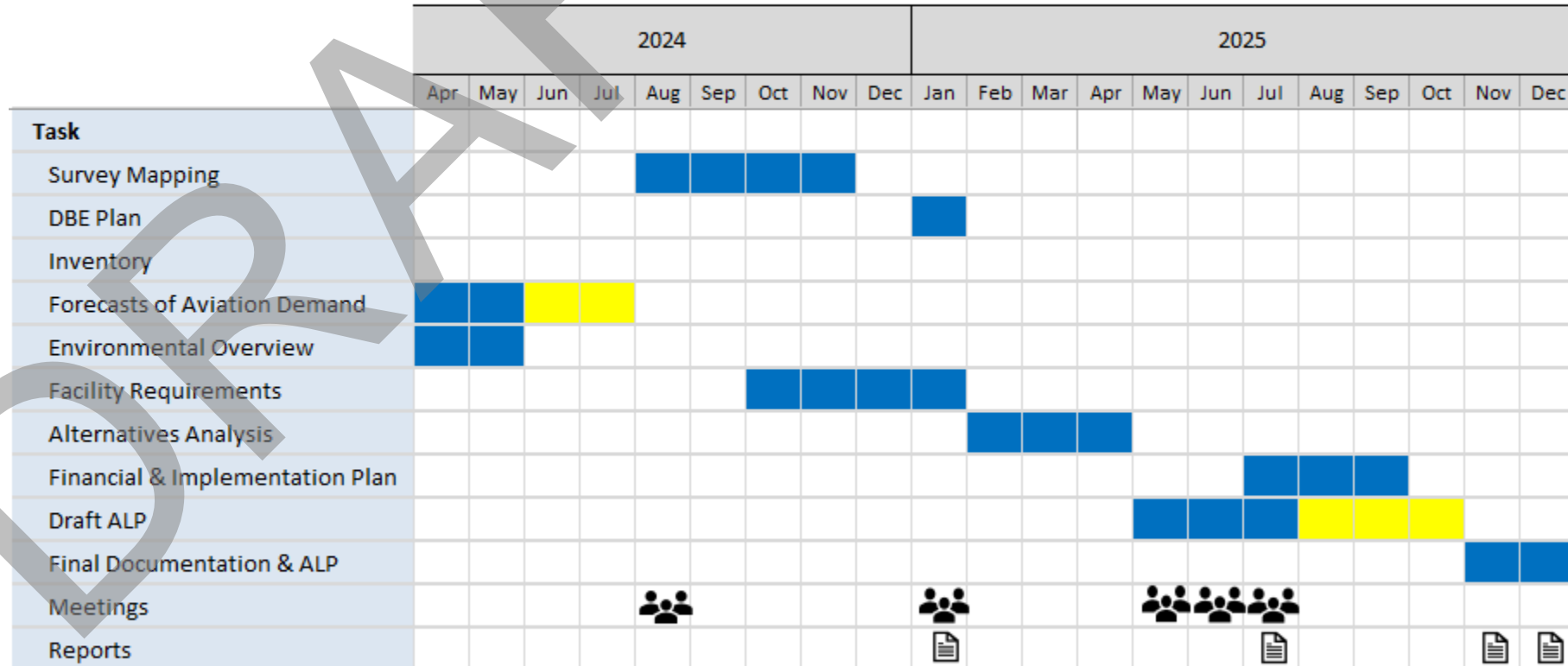
**Public Outreach**

# Schedule

- Completed
  - Survey Mapping
  - DBE Plan
  - Inventory
  - Forecasts (FAA approved)
  - Environmental Overview
- In progress
  - Facility Requirements

## Auburn-Lewiston Municipal Airport Master Plan Update

McFarland Johnson



Legend

MJ Work



FAA Review



# Public Outreach

- Two technical advisory committee (TAC) meetings
  - TAC meeting #1
  - TAC meeting #2
- Two public meetings
  - Public meeting #1 held jointly with the TAC meeting #1
  - Public meeting #2 held on same day as TAC meeting #2



# What is the TAC?

- The Technical Advisory Committee:
  - Assists project team with technical expertise
  - Advises the master plan process
  - Provides oversight and technical review of work
  - Acts as a 'sounding board' for the development and analysis of various alternatives
  - Communicates information to constituents and Planning Team
  - Attends two (2) meetings

# Key Goals

- Meet aviation needs of citizens and businesses in the airport service area
- Maintain safe and efficient airside facilities compliant with design standards with FAA and MaineDOT compliance
- Create opportunity for economic stability
- Position to be regional air transportation leader
- Maintain flexibility for future changes
- Engage public throughout planning process

# Key Issues

- Additional hangar space need
- Crosswind runway eligibility
- Aeronautical and non-aeronautical land
- Airport electrification
- Intermodal connections
- Airport financials



# Inventory

Inventory

Forecasts

Environmental  
Overview

Facility  
Requirements

Alternatives

Financial  
Implementation

Airport Layout  
Plan (ALP)

**Complete**

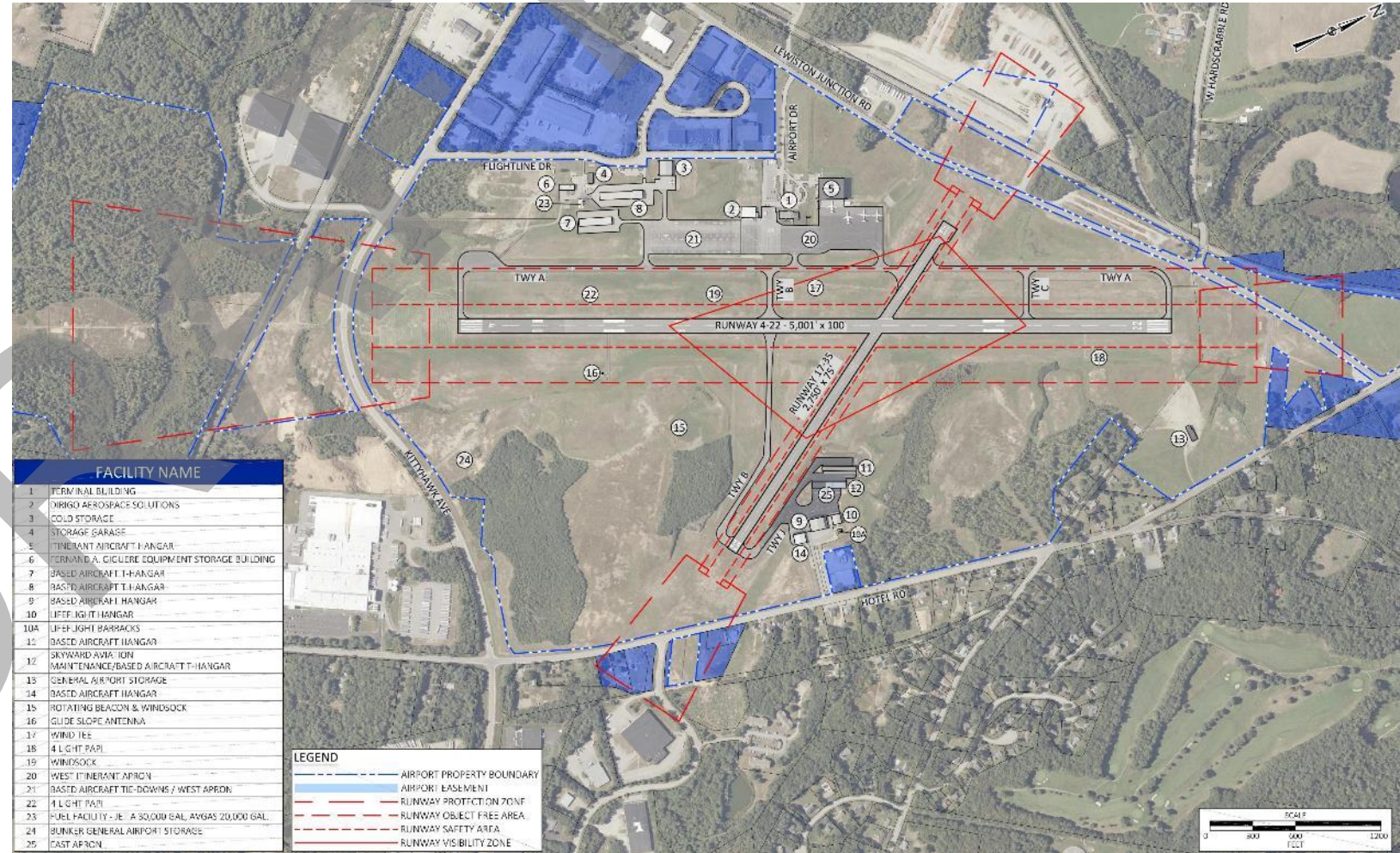
- Goal: Identify existing facilities and conditions

- Runway
- Taxiways
- Aprons
- Hangars
- Terminal building
- Support facilities



# Runways, Taxiways, Hangars, and Aprons

- Runway 4-22 (primary)
  - 5,001' x 100'
  - Precision approach
- Runway 17-35 (crosswind)
  - 2,750' x 75'
  - Visual approach
- Taxiways
  - Parallel: A, B, J
  - Entrance: B, C, J
  - Crossover: D, E, H
- 10 hangars
- Three aprons: based & itinerant aprons



# Terminal Building and Support Facilities

- Terminal: 6,000 SF
  - Constructed in 2011
  - Expanded in 2012
  - Used for
    - Airport administration offices
    - Fixed base operator (FBO) offices
    - Public space/pilot flight planning
- Support facilities
  - Fueling: Jet-A, 100LL
  - Snow removal equipment and maintenance equipment



# Forecasts

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Facility  
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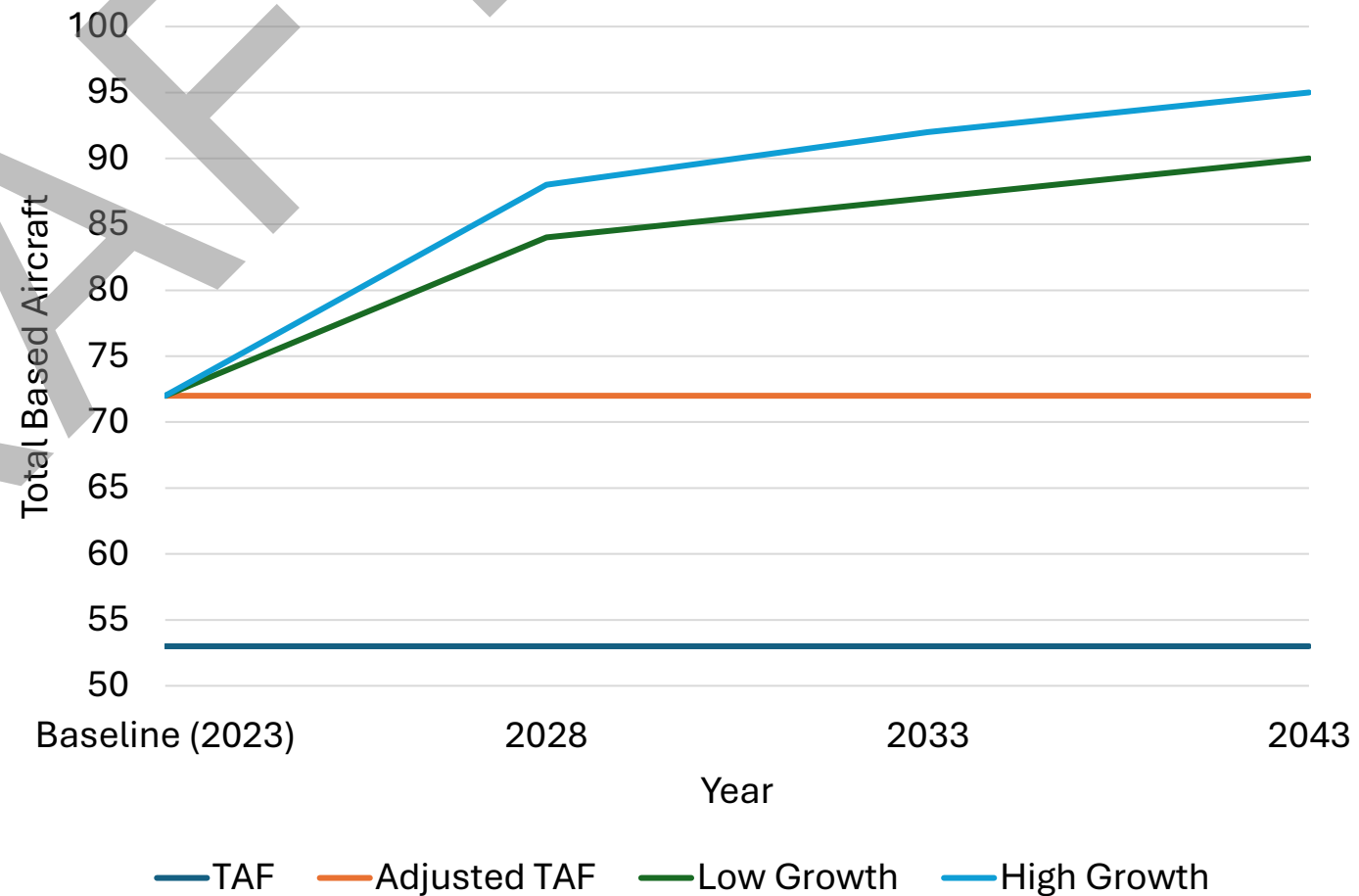
Airport Layout  
Plan (ALP)

**Complete**

- Goal: Devise a realistic forecast to predict airport usage over the next 20 years
  - Document historical operations, based aircraft, enplanements
  - Forecast operations, based aircraft, enplanements
  - Review historical airport trends and national trends
  - Determine the existing and future critical aircraft

# Based Aircraft Forecasts

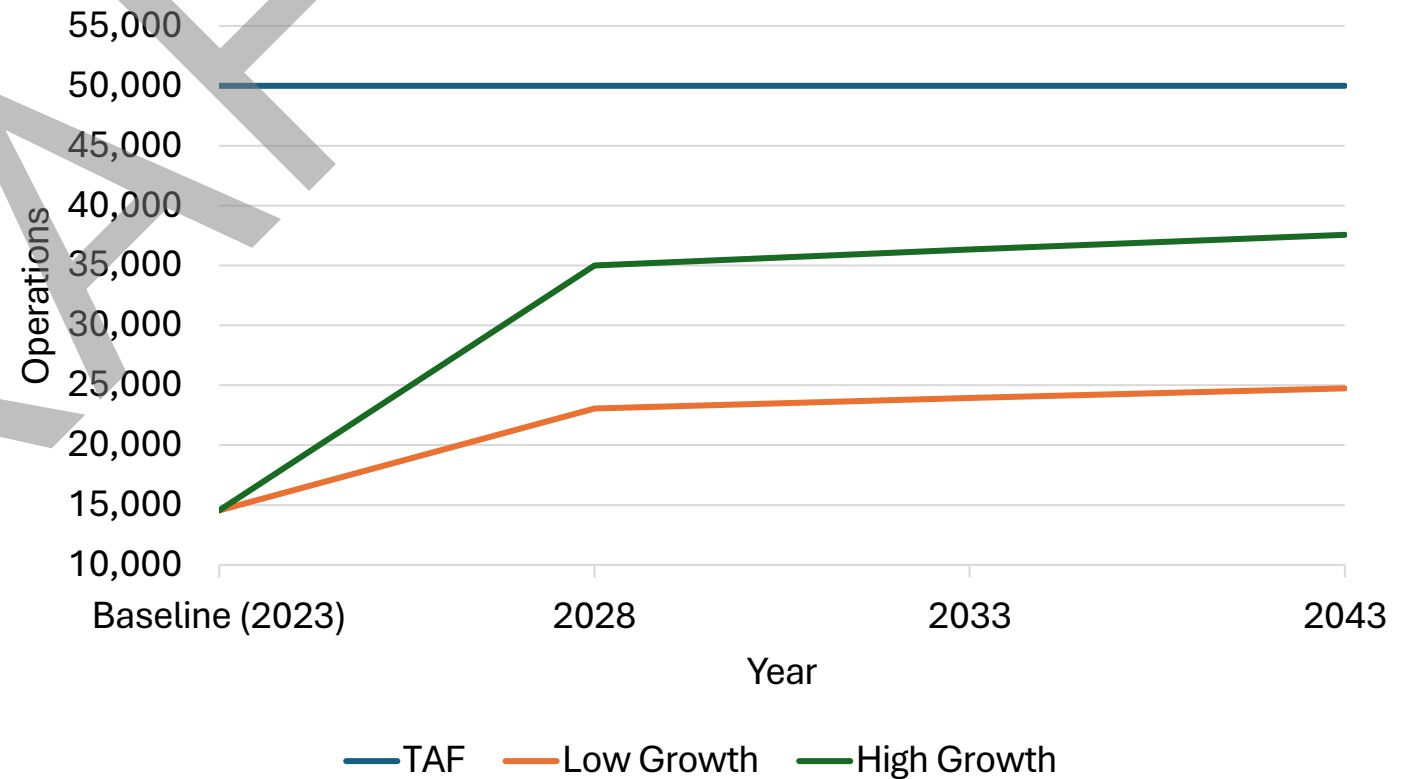
- Low growth selected
  - Includes flight school and new T-hangar growth
  - Starting in 2030, FAA Aerospace Forecast growth applied
- 1.1% compound annual growth rate
- 2023: 72 based aircraft
- 2042: 90 based aircraft





# Forecast Annual Operations

- Low growth selected
- 2.7% compound annual growth rate 2023-2043
- Operations per based aircraft
- 2023: 14,550 operations
- 2024: 27,856 operations
- 2043: 24,740 operations (forecast Low Growth)
- 2043: 37,600 operations (forecast High Growth)



# Critical/Design Aircraft (Existing and Future)

- Airport design aircraft: King Air 200
- Runway 4-22: B-II
- Runway 17-35: B-I, small
- Taxiway design group:
  - 1B existing
  - 2A future
- There can be different design aircraft for different portions of the airport



King Air 200

# Environmental

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Plan (ALP)

**Complete**

- **Goal: Early identification of constraints to avoid or minimize environmental impacts**
  - Biotic resources
    - Air quality
  - Water resources
    - Hazardous materials and solid waste
  - Coastal resources
    - Energy
  - Section 4(f) resources
    - Climate
  - Historic resources
    - Socioeconomics and environmental justice
  - Farmlands
  - Land use
  - Noise
  - Visual effects



# Biotic Resources

- Plants: none
- Federal:
  - 1 endangered
  - 1 proposed endangered
- State:
  - 1 endangered
  - 3 threatened



Tri-Colored Bat



Northern Long-Eared Bat



Upland Sandpiper



# Historical and Cultural Resources

- Multiple pre-European Indigenous archeological sites
- Documented and excavated sites:
  - Keogh
  - Michaud
  - Taxiway
  - Cornier
- Documented: Beacon Hill
  - Paleoindian period
  - Native American history



# Facility Requirements

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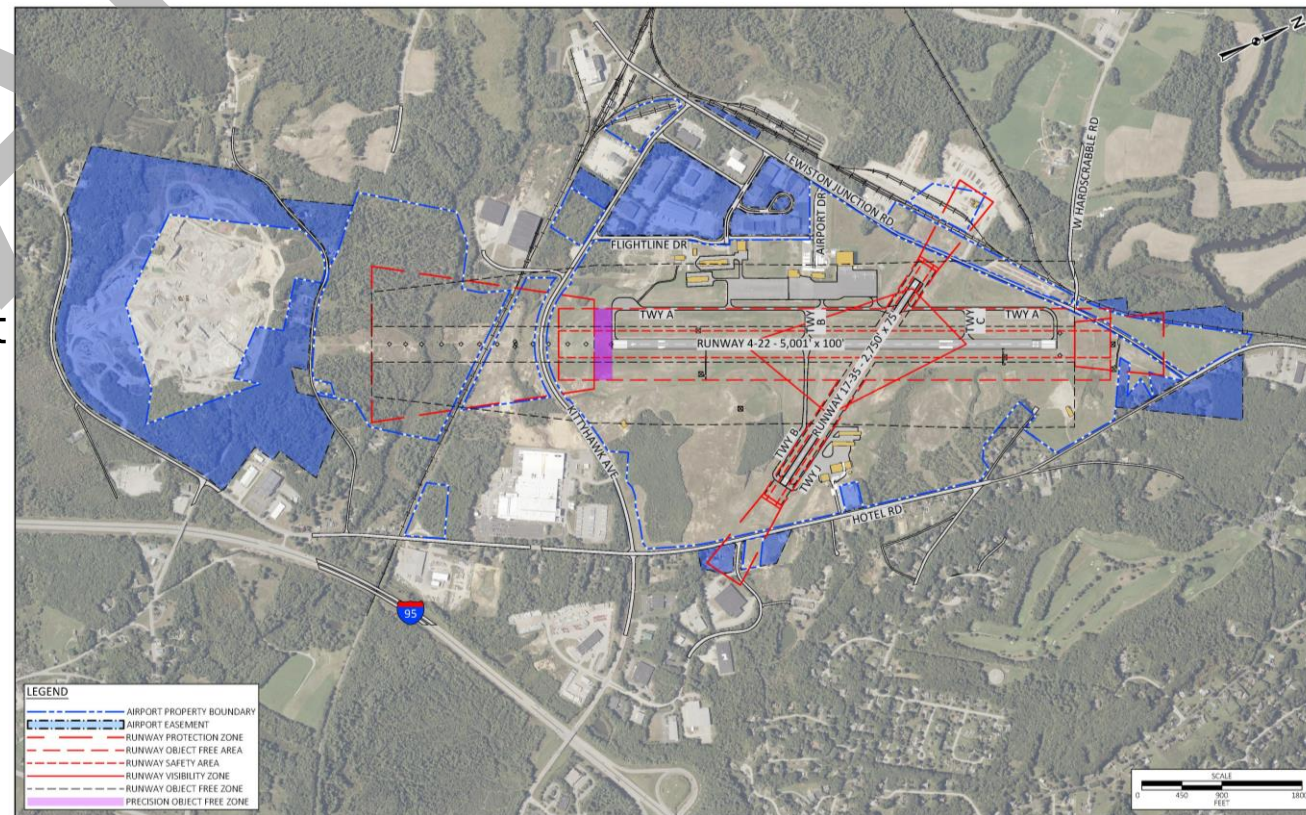
Alternatives

Financial  
Implementation

Airport Layout  
Plan (ALP)

In Progress

- Goal: Identify needs for airport
  - Compare existing conditions to:
    - FAA safety and design standards
    - Code of Federal Regulations airspace surfaces
    - Approved forecasts and document the differences/additional needs

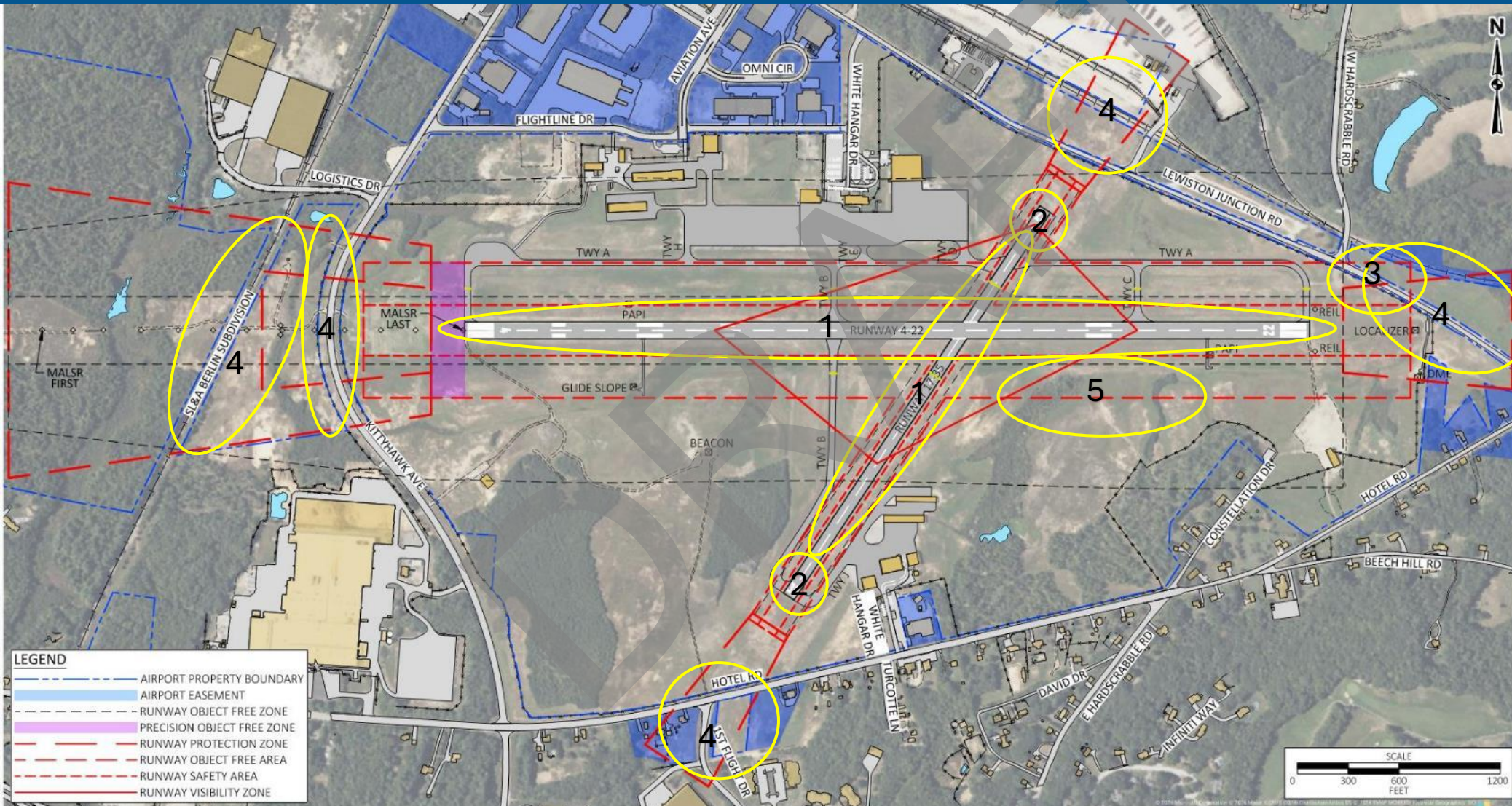


# Runway Recommendations

- Extend Runway 4-22 to 5,400'
- Extend Runway 17-35 to 3,100'
- Renumber Runway 17-35 to 16-34
- Runway 17-35 is an eligible A/B-I crosswind runway



# Airside Facility Requirements Overview



1. Runway extensions
2. Runway 17-35 renumbering to 16-34
3. Runway Object Free Area (ROFA) conditions
4. Runway Protection Zone (RPZ)
5. Obstacle Free Zone (OFZ)

Not shown:

- PAPI – precision approach path indicators
- Perimeter road
- Obstruction clearing
- Taxiways



# Landside Facility Requirements Overview

Item	Existing	Additional Need
General Aviation Terminal	~6,000 SF	4,500 – 5,000 SF
Aircraft Parking/Maneuvering	Based aircraft: 48 tie-downs Itinerant parking: 107,600 SF	Maintain existing apron
Hangars	32 T-hangars 56,500 SF based conventional 6,600 SF itinerant conventional	10 T-hangars 800 SF based conventional 12,800 SF itinerant conventional
Airfield Fence	Gaps in fencing Airport property does not match City of Auburn parcel maps	Construct deer resistant fencing Complete a boundary survey Construct a perimeter road
Maintenance/Snow Removal Equipment	7,100 SF 10 vehicles	Consolidate and expand by 4,100 SF Replace vehicles, as needed
Fuel Storage and Distribution	Jet-A: 30,000 gallons 100LL: 20,000 gallons	Replace tanks as needed Consider sustainable aviation fuel, unleaded Avgas, and electric aircraft charging stations

# Next Steps

- Facility requirements finalized
- Alternatives
- TAC/public meeting #2
- Financial/implementation plan
- Airport layout plan

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# Thank you!

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