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BELFAST

Municipal Airport

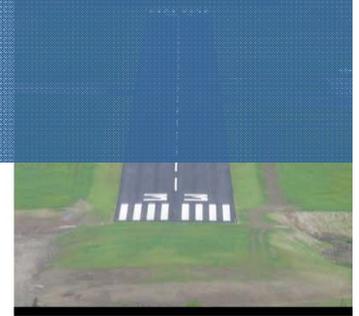
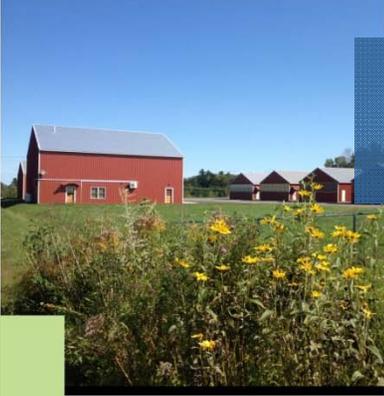
ASG Innovative Airport Development Specialists

Belfast Municipal Airport

Airport Master Plan
Phase II



Meeting Agenda



Objective: To share the preliminary results of the Belfast Municipal Airport (BST) Master Plan process and gather community input to determine the best path forward.

Process:

1. Consultant Presentation
2. Public Questions & Comments for the Record
3. Closing

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Belfast Municipal Airport

Airport Master Plan
Phase II



Airport Master Plan Purpose & Functions



Purpose:

A comprehensive study that describes the short-, medium-, and long-term development plans to meet future aviation demand.

Primary Functions:

- Sponsor's strategy for the development (20 years) of the airport as required by the FAA for future project funding. It should be updated every 7-10 years. *(BST Master Plan last updated 1999)*
- Provide the framework to guide future airport development that will cost-effectively satisfy current and future aviation demand, while considering potential environmental and community factors.
- **Inclusion of projects in a Master Plan is not a commitment – It protects for the future potential**

Belfast Municipal Airport

Airport Master Plan
Phase II



Project Advisory Committee (PAC) Goals

“The Master Plan . . .”

- Must address development on and around BST (incl. residential and commercial).
- Must plan for BST to continue to grow as an economic asset for the entire community.
- Must reflect BST’s existing needs and anticipate future challenges.
- Must be consistent with the City’s overall comprehensive plan. (Note that this may affect the existing airport zoning overlay district and land uses, as well as their dimensional standards.)
- Must review existing land uses on and around BST, and must anticipate potential future uses and users.
- Should aspire to find realistic numbers to underlie the goals we set such as number of landings per year.
- Should serve all aviation needs and uses including recreational aviation uses at BST.
- Must attempt to quantify the specific impact of a potential runway extension.
- Must continue to provide maximum service to all medical related flights.

Belfast Municipal Airport

Airport Master Plan
Phase II



Project Advisory Committee (PAC) Goals



“The Master Plan . . .”

- Should pursue a runway length that best supports the users of the runway.
- Must support the needs of local visitors to BST and the City.
- Must maintain safety as the highest priority.
- Should investigate if it is realistic that BST could support small commercial flights today or in the future.
- Should identify appropriate facilities and airport policies to attract a new FBO for BST.
- Should plan for fuel storage and fuel services at BST at a level commensurate with future demand.
- Must preserve BST’s long-term development potential in order to allow the City to be flexible to respond to future needs while respecting the environment.
- Must include an opportunity for general public review and input prior to presentation to the City Council.

BST Inventory

Annual Operations = 10,000 (FAA TAF)

Based Aircraft = 17 (FAA TAF)

Nonprecision Instrument Approaches





WHERE are we in the Master Plan process?

Master Plan Process

1. Inventory
2. Projections / Requirements
3. Alternatives Phase
4. Final Project Report / Plans

Alternatives Phase

- a) Identify Potential Alternatives
- b) Assess Individual Alternatives
- c) PAC Reviews / Offers
Recommendations
- d) Final Recommended Plan





Individual Alternatives

- **Airside Facilities**
 - Runway 15-33 (existing)
 1. Airspace
 2. Easements
 3. Navigational Aids
 - Taxiway A
 1. Centerline Separation
 2. Full-length
- **Landside Facilities**
 - Operational Areas
 - Development Areas
 - Fuel Farm
 - Other Improvements
- **Other Issues**
- **Runway 15-33 Extension**



Airside: Runway 15-33 (existing)

Airspace Clearance

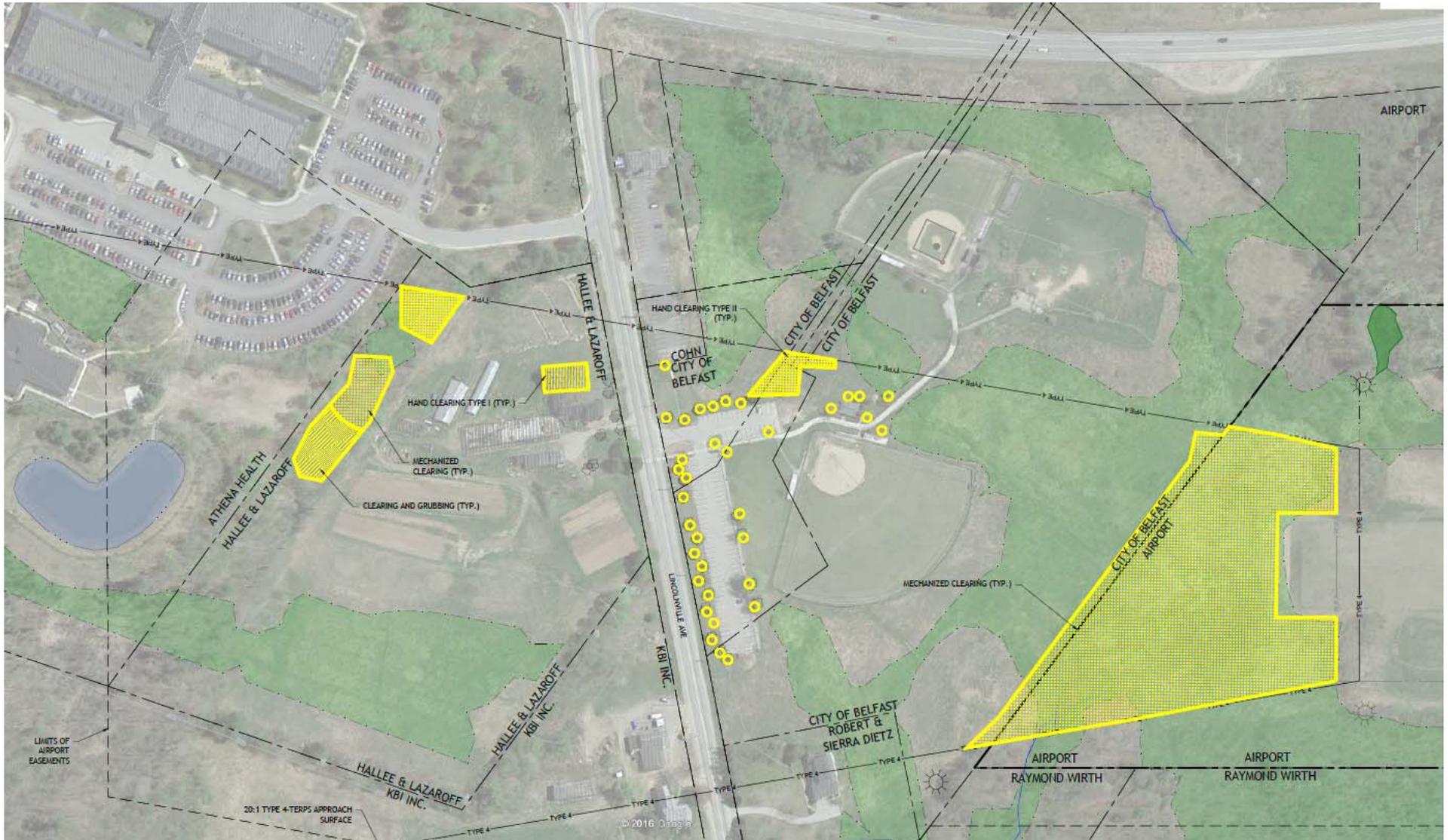
Evaluation Process

- **Identified Alternatives**
 - A. No Action
 - B. Clear vegetative obstructions based on existing runway
 - C. Modify airport operations to consider other less restrictive surfaces
 - D. Physically change the runway end locations
 - E. Other
- **PAC Recommendation**
 - *Clear vegetative obstructions based on existing runway*



Airside: Runway 15-33 (existing)

Airspace Clearance



Airside: Runway 15-33 (existing)

Easement Acquisition

Evaluation Process

- **Identified Alternatives**
 - A. No Action
 - B. Obtain aviation easements to maintain clear FAA approach surfaces for the existing runway
 - C. Other?

- **PAC Recommendation**
 - Obtain aviation easements to maintain clear FAA approach surfaces for the existing runway



Airside: Runway 15-33 (existing)



Airside: Runway 15-33 (existing)

Navigational Aids (Precision Approach Path Indicators)

Evaluation Process

- **Identified Alternatives**

- A. No Action
- B. Install Precision Approach Path Indicators

- **PAC Recommendations**

- Install Precision Approach Path Indicators on both runway ends



Airside: Runway 15-33 (existing)

Navigational Aids (Windsocks)

Evaluation Process

- **Identified Alternatives**
 - A. No Action
 - B. Install Windsocks
- **PAC Recommendations**
 - *Install Windsocks on both runway ends*



Airside: Runway 15-33 (existing)

Navigational Aids (Non-Directional Beacon)

Evaluation Process

- **Identified Alternatives**
 - A. No Action
 - B. Decommission Non-Directional Beacon
- **PAC Recommendations**
 - ***Decommission Non-Directional Beacon***



Airside: Taxiway A

Relocation of Taxiway

Evaluation Process

- **Identified Alternatives**
 - A. No Action / Request Modification of Standards
 - B. Relocate Taxiway A Centerline 40 feet
 - C. Relocate Runway 15-33 Centerline 40 feet
 - D. Other
- **PAC Recommendation**
 - Relocate Taxiway A Centerline to meet FAA Standards.



Airside: Taxiway A

Extend Taxiway for Existing Runway

Evaluation Process

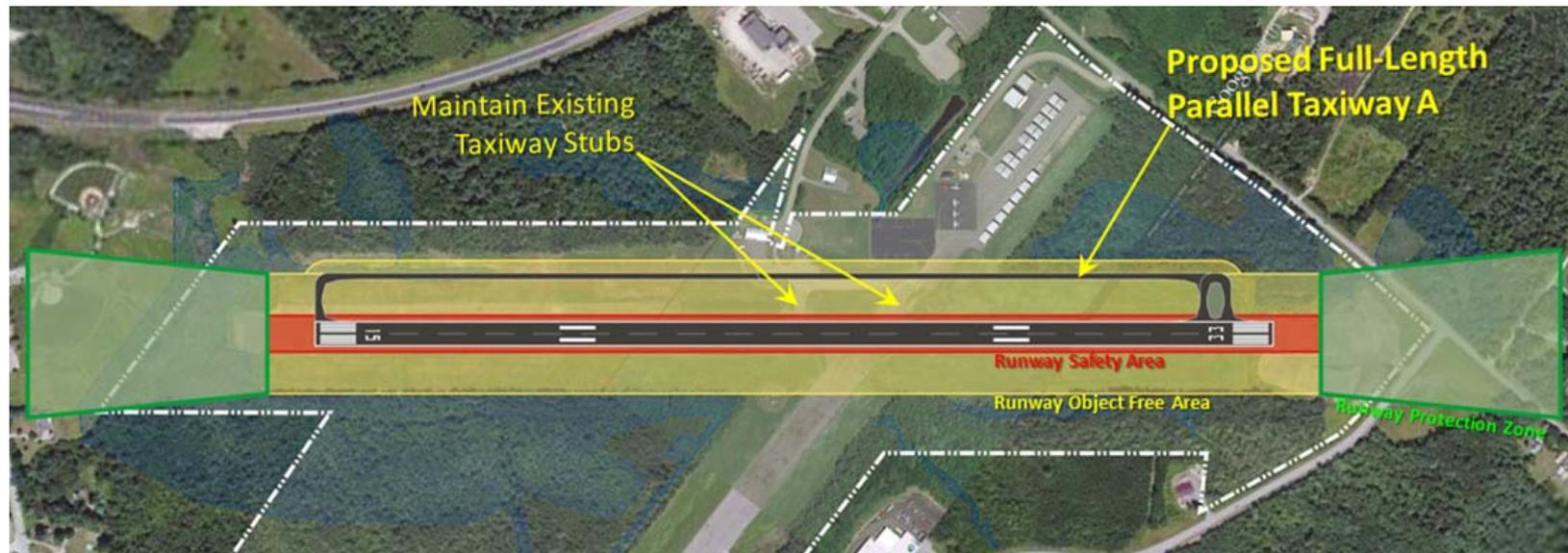
- **Identified Alternatives**

- A. No Action
- B. Construct Full-Length Parallel Taxiway A (two phases due to funding limitations)
- C. Other

- **PAC Recommendation**

- Construct Full-Length Parallel Taxiway A in two phases

Note: These actions have been endorsed by FAA for safety-related reasons and was a recommendation of both the 1999 BST Airport Master Plan and the 2008 BST Airport Layout Plan Update.



Landside: Facilities & Issues

Separation of On-Airport Based Operations

Evaluation Process

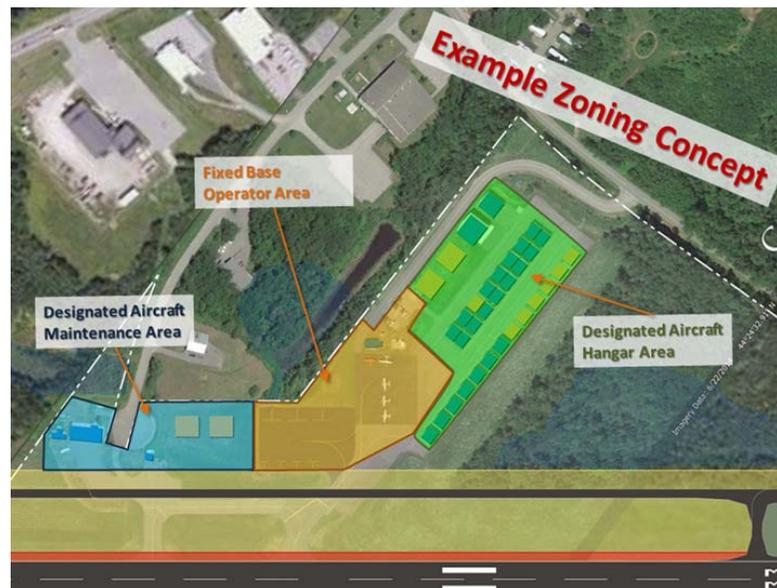
- **Identified Alternatives**

- A. Separate On-Airport Operations (*Commercial vs. Recreational vs. Other Types*)
- B. Do Not Separate On-Airport Operations (*Commercial vs. Recreational vs. Other Types*)
- C. Other

- **PAC Recommendation**

- *Other / Continue to Evaluate*

Note: It was determined by the PAC that this issue be “tabled” pending the results of the City’s recent effort to allow mixing of on-Airport operations through its leasing agreements.



Landside: Facilities & Issues

Designate On-Airport Development Areas

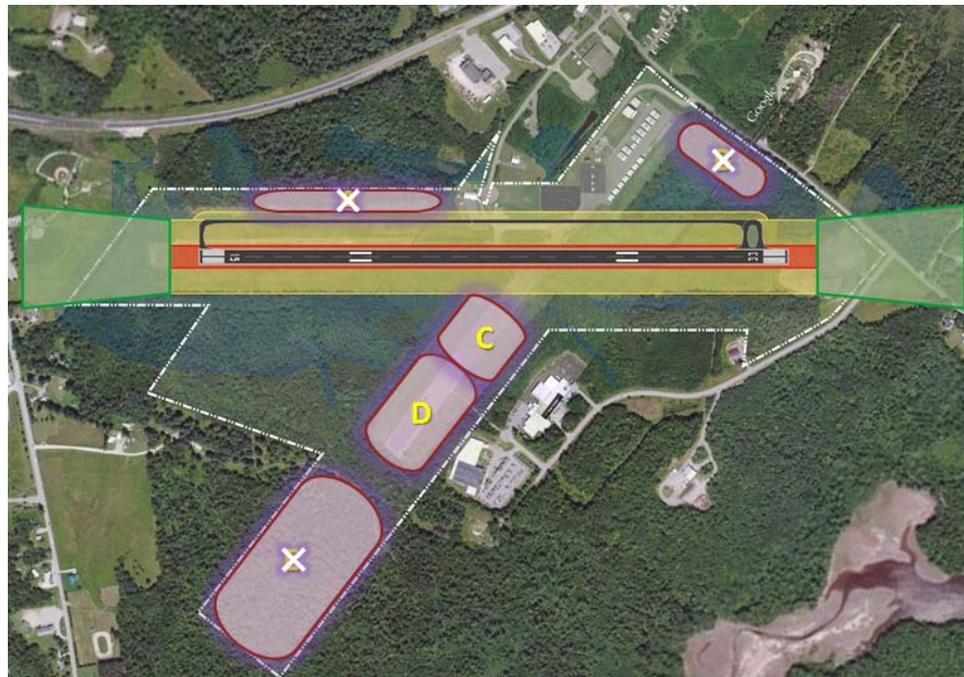
Evaluation Process

- **Identified Alternatives**

- A. No Action
- B. Dedicated Aviation-Related Areas
- C. Dedicated Non-Aviation-Related Areas
- D. Other

- **PAC Recommendation**

- *No Action / All Airport Properties Remain Reserved for Airport-Related Development*



Landside: Facilities & Issues

Aircraft Fuel Farm

Evaluation Process

- **Identified Alternatives**
 - A. No Action
 - B. Conduct a phased installation of fuel tanks
 - C. Other
- **PAC Recommendation**
 - Conduct a phased installation of fuel tanks

Note: Initial AvGas tank; Jet-A tank installation only based on demand



Landside: Other Improvements

Existing Aircraft Apron

Evaluation Process

- **Identified Alternatives**

- A. No Action
- B. Redesign Aircraft Apron - Adjust the design and/or usage of the existing aircraft apron (*i.e., remarking tiedowns, consider hangar development on apron, etc.*)
- C. Other

- **PAC Recommendation**

- *Redesign Aircraft Apron*



Landside: Other Improvements

Terminal / Administration Building

Evaluation Process

- **Identified Alternatives**

- A. No Action
- B. Maintain/update existing terminal/administration building (*i.e., ADA compliance*)
- C. Other

- **PAC Recommendation**

- ***Maintain/update existing terminal/administration building***



Landside: Other Improvements

Airport Security

Evaluation Process

- **Identified Alternatives**

- A. No Action
- B. Define and establish enhanced airport security measures (*i.e., updating the airport security plan, expanding security fencing, installing security cameras, etc.*).
- C. Other

- **PAC Recommendation**

- ***Define and Establish enhanced airport security measures***



Landside: Other Improvements

Auto Parking

Evaluation Process

- **Identified Alternatives**

- A. No Action
- B. Improve auto parking (*i.e., establish a remote/secure lot for longer-term parking*).
- C. Other

- **PAC Recommendation**

- *Improve Auto Parking*



Landside: Other Improvements

Aircraft Deicing

Evaluation Process

- **Identified Alternatives**

- A. No Action
- B. Construct a deicing pad or establishing protocols with local tenants to provide heated hangar access for transient aircraft for the purposes of deicing.
- C. Other

- **PAC Recommendation**

- *Other – Further Evaluate the Issue*



Other Issues: Airport Administration

Airport Land Use Compatibility Plan

Evaluation Process

- **Relevant Notes**

- A plan would help ensure the long-term viability of BST by preventing development in specific areas that is inherently incompatible with airport operations (i.e., towers, residential development, schools, hospitals, etc.). A plan would help ensure that those who occupy areas of future growth are not located in an area that would have them realize direct and unreasonable impacts due to regular airport operations.

- **Identified Alternatives**

- A. No Action
- B. Establish an Airport Land Use Compatibility Plan
- C. Other?

- **PAC Recommendation**

- **Establish Airport Land Use Compatibility Plan**

Other Issues: Airport Administration

Airport Best Management Practices

- **Other Various Improvements**
 1. Airport Rules & Regulations, and Minimum Standards
 2. Airport Security Plan
 3. Airport Emergency Response Plan
 4. Airport Wildlife Hazard Assessment, and Action Plan (FY2025)
 5. Vegetation Management Plan
 6. Rates/Charges Assessment
 7. Airport Ground Lease Review
 8. Stormwater Pollution Prevention Plan (SWPPP)
 9. Spill Prevention, Control and Countermeasure Plan (SPCC)
- **Identified Alternatives**
 - A. No Action
 - B. Action
- **PAC Recommendation**
 - *Enact All Airport Best Management Practices*



Runway 15-33 Extension

● Runway Facts

- Runway 15-33 only Runway
- Non-precision Approaches
- Dimensions: 4,000 ft x 100 ft
- Surface: Asphalt
- Airspace Obstructions

● Facility Requirements

- Design Aircraft = Pilatus PC-12 / King Air C90
- FAA Rec. Length = 3,650 ft - 4,050 ft
- FAA Rec. Width = 75 ft

● Planning Considerations

- FAA Grant Assurances
- City / Airport Liability Exposure
- Potential Impact on Avigation Easements
- Potential Additional Obstructions Removal
- Long-term Potential Requirements



Pilatus PC-12

Cessna Citation V

Cessna 172

King Air C90

Runway 15-33 Extension

FAA AC 150/5325-4B specifically advises the following:

b. *Future Airport Expansion Considerations.* ...it is recommended that the airport designer assess and verify the airport's ultimate development plan for realistic changes that, if overlooked, could result in future operational limitations to customers. The airport designer should at least assess and verify the impacts of:

(1) Expansions to accommodate airplanes of more than 12,500 pounds. Failure to consider this change during an initial development phase may lead to the additional expense of reconstructing or relocating facilities in the future.



Pilatus PC-12



Cessna Citation V



Cessna 172



King Air C90

Runway 15-33 Extension

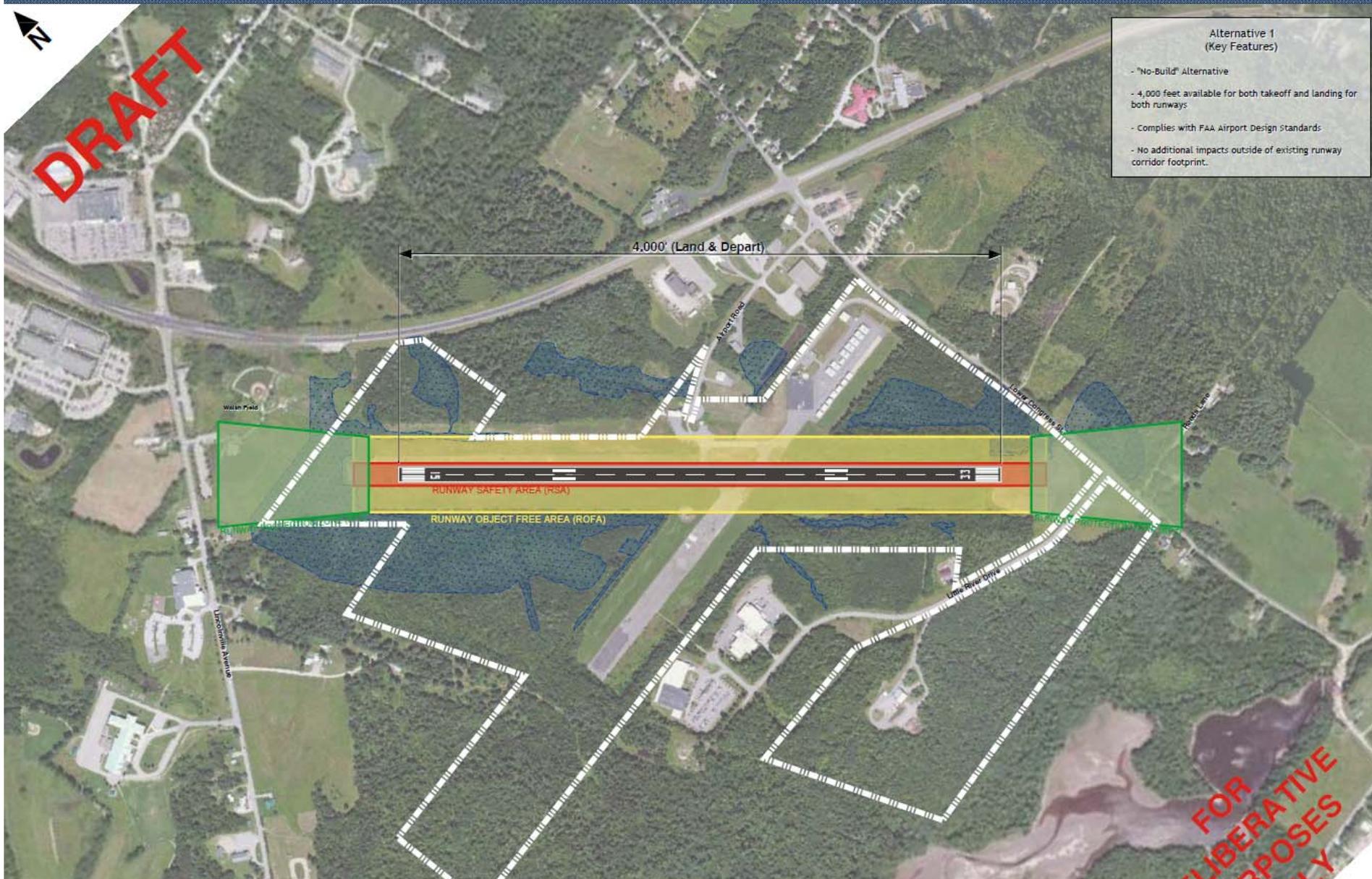
• Relevant Comments

- FAA recommended length for aircraft >12,500 lbs = 4,990'
Master Plan goal to protect for potential.
- Runway extension **not justified** for application of federal funding due to insufficient operations – *development potential likely only through Public / Private Partnership*
- Local business interests to accommodate up to mid-sized business aircraft – standard **5,000-foot runway** for departures.
- **Master Plan established range of potential extension alternatives** (if warranted by demand) and to provide a recommendation for a preferred length if a runway extension were to be ultimately pursued.
- **Master Plan conducted unconstrained / constrained alternatives analysis** in an effort to balance operational demands with local physical limitations
- Through coordination with key stakeholders (FAA / Maine Department of Transportation / City of Belfast / BST users), a **preferred runway length** was established at 4,710' (aka 4,700')
- **PAC recommended Alternative 3A** as the preferred alternative for inclusion on the Airport Layout Plan (ALP).



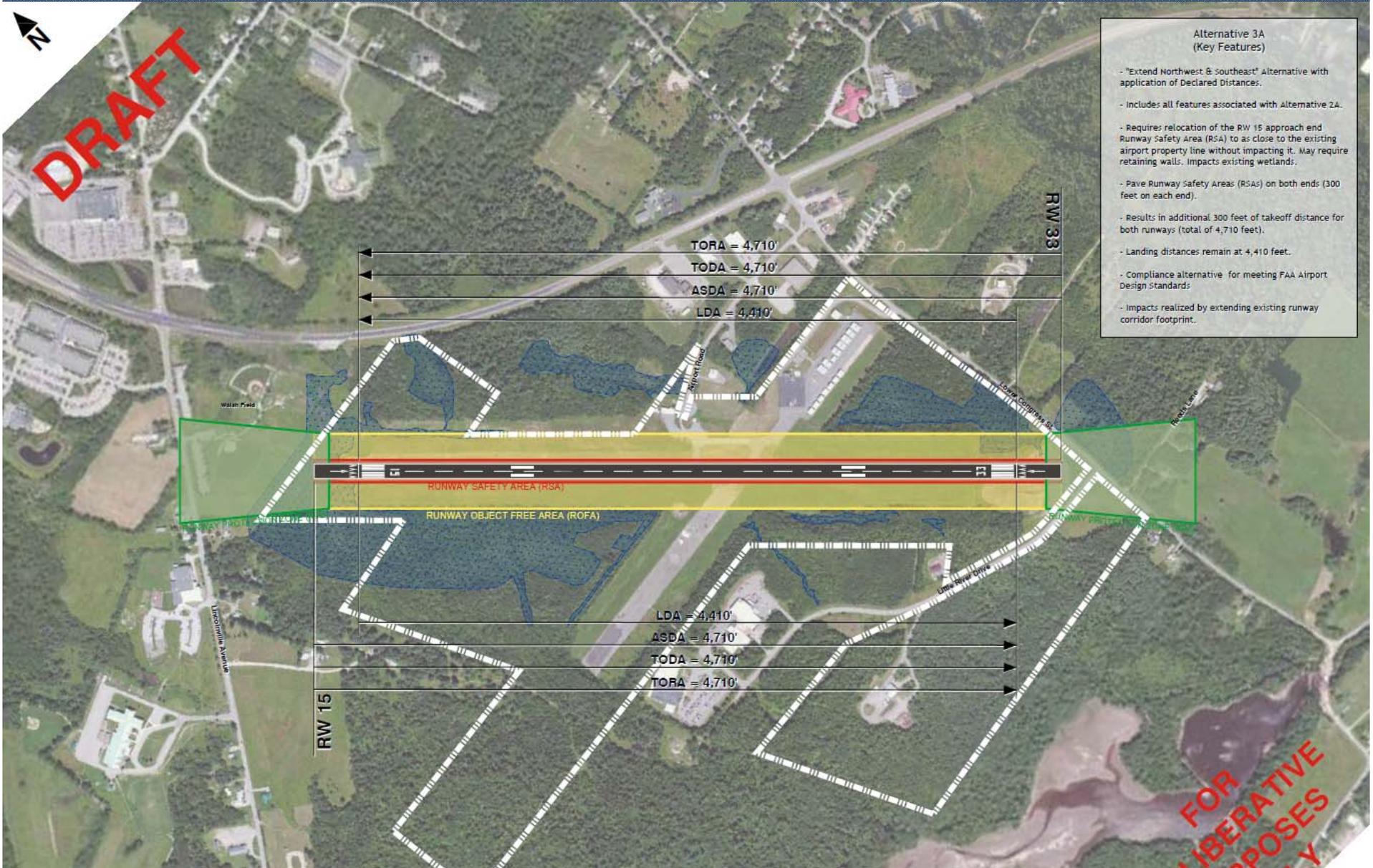
Runway 15-33 Extension

Alternative 1 – Existing Conditions



Runway 15-33 Extension

Alternative 3A – Extend Pavement Southeast (470' /170') & Northwest (540'/240') - Remain On-Airport



Runway 15-33 Extension

- **Key Considerations related to Alternative 3A**
 - Inclusion of a runway extension on the Airport Layout Plan does not mean that it will be built – it simply allows for the potential. Airport Layout Plans have a note that specifically states that inclusion of a project on the sheet does not guarantee funding of any projects.
 - Proposed extension would fulfill operational demands/requirements for multiple area businesses. It would provide “value-added” benefits to others, and multiplier economic impacts throughout the area economy.
 - Immediate impacts include:
 - Runway Protection Zones being shifted 170’ Southeast & 240’ Northwest
 - Lowest airspace surfaces being lowered 5’ to the Southeast & 7’ to the Northwest
 - Aircraft would land 170’ closer to the Southeast property line & 240’ closer to the Northwest property line.
 - Aircraft could start their departure roll 470’ closer to the Southeast property line & 540’ closer to the Northwest property line.
 - Before any construction could occur, all environmental considerations would first have to be addressed in a formal FAA Environmental Assessment – a federal action requiring public participation with respect to 18 individual investigative categories; as well as formal State of Maine permitting actions.

Runway 15-33 Extension

Evaluation Process

- **Identified Alternatives**

- A. No Action (Alternative 1)
- B. Various Options (Alternatives 2-7)
- C. Other

- **PAC Recommendation & Comments**

- Alternative 3A was recommended for inclusion on the Airport Layout Plan
 - *A dissenting opinion requested “No action; but continue to evaluate all impacts of proposed option 3A”.*
- For the project to proceed, it would require a private/public partnership.
- For a future runway extension even to be considered by the sponsor, the state and the FAA, it must be included on the Airport Layout Plan. If it is not included on the Airport Layout Plan, it cannot be considered - a new Master Plan effort would have to be undertaken to put the extension on the Airport Layout Plan to allow for that consideration.
- It was suggested that the City should not endorse the actual proposed “construction” of the extension, but rather to endorse the continued “evaluation of the possibility” of the extension. Note that even if private money were to be offered, there is no guarantee that the City Council would endorse the construction – like all projects, it would have to be weighed, debated, and voted on in a public forum



Next Steps



Upcoming Tasks

1. **PAC Meeting # 5 to establish Final Recommendations** (added to the original schedule)
2. **Formal Presentation to the City Council**
 - PAC to provide City Council with recommendations / dissentions
3. **Public Hearing and City Council vote on Final Recommendations** (vote could also take place at a time separate from the public hearing)
4. **Complete Master Plan Technical Report**
5. **Complete / Submit Airport Layout Plan**

Belfast Municipal Airport

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Phase II**



Public Questions & Comments

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Thank You!

Innovative Airport Development Specialists

