

# Airport Master Plan Update



Middlebury  
State Airport (6B0)

Public Information Meeting #2  
December 14, 2022



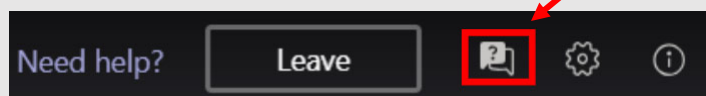
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## Questions/Comments

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**SUBMIT QUESTIONS/COMMENTS:**

AOT.RailAviationProjectDeliveryFolders@vermont.gov.

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## Today's Agenda

- Overview of Master Plan Process
- Review of Study Findings
- Draft Recommended Plan
- Draft Airport Layout Plan
- Next Steps
- *Open Discussion/Questions*



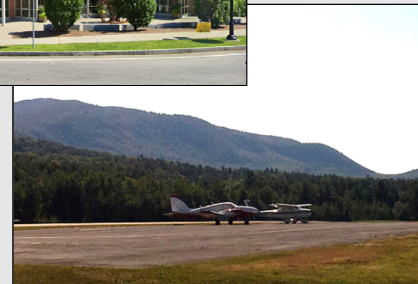
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## What is the Purpose of this Meeting?

- **Community Engagement:**
  - Present the study findings
  - Answer questions
  - Collection input/comments
- **Public Outreach Activities:**
  - 2 Public Meetings
  - 3 Technical Advisory Committee (TAC) meeting



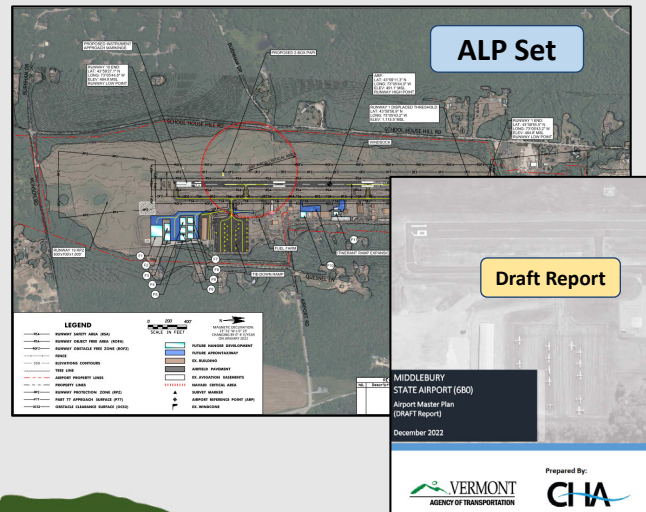
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# What is an Airport Master Plan?

- A study that guides short and long-term Airport Improvements
- Two Parts:
  - *Master Plan Report*
  - *Airport Layout Plan (ALP) Drawing Set*
- Follows FAA Guidance & Standards
- **Required by FAA**

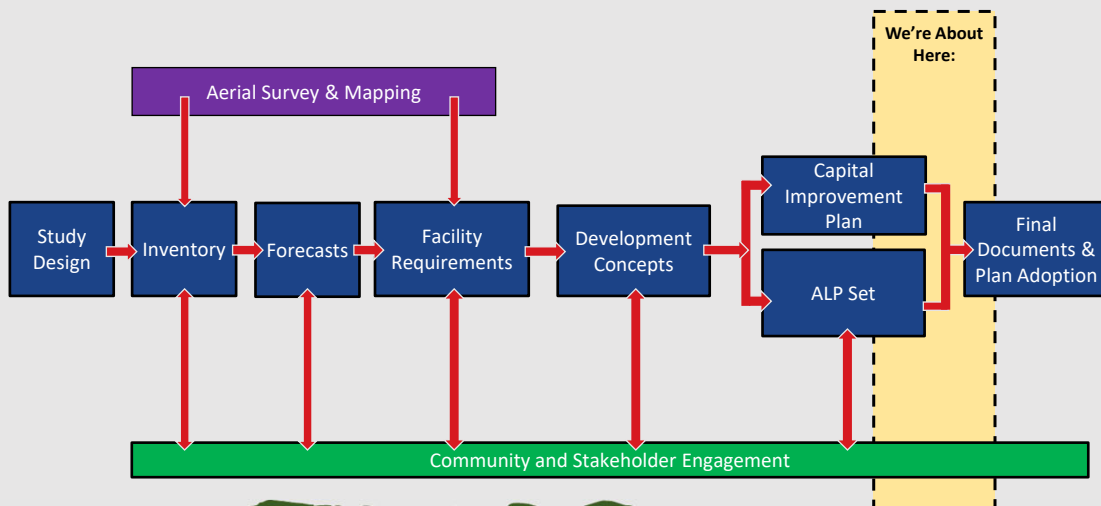


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# Airport Master Planning Process



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# Airport Master Plan – Focus Areas

- Focus Areas:
  - Airport Survey & Mapping
  - Airfield Needs & FAA Design Standards
  - Airspace Obstruction Considerations
  - Potential Improvements
    - Airfield
    - Hangars/Terminal Concepts
  - Phasing and Development Costs
- Follow up to the Vermont Aviation System Plan (VASP)

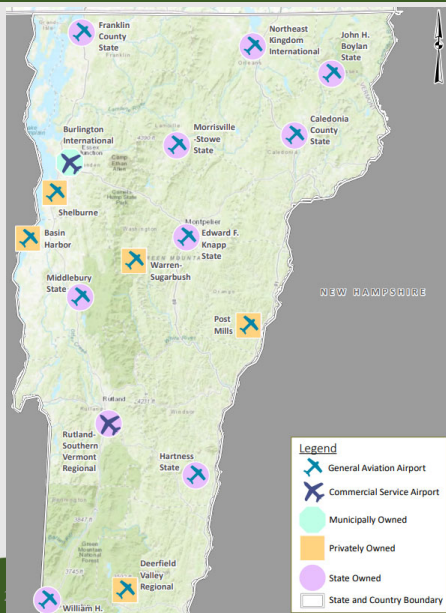


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# Vermont Aviation System Plan (VASP)



- Statewide Aviation Study (2021)
- Identified recommendations for all public-use airports
  - Considering location/distribution
  - Project Needs/Justifications
  - Feasibility

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## Review of Initial Findings



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## Key Airport Features - Airfield

- Approximately 156 acres
- Runway: 1-19 (3,200' in length)
- Full Parallel Taxiway
- Automated Weather Station
- Security Fencing
- **No** Runway/Taxiway Lighting

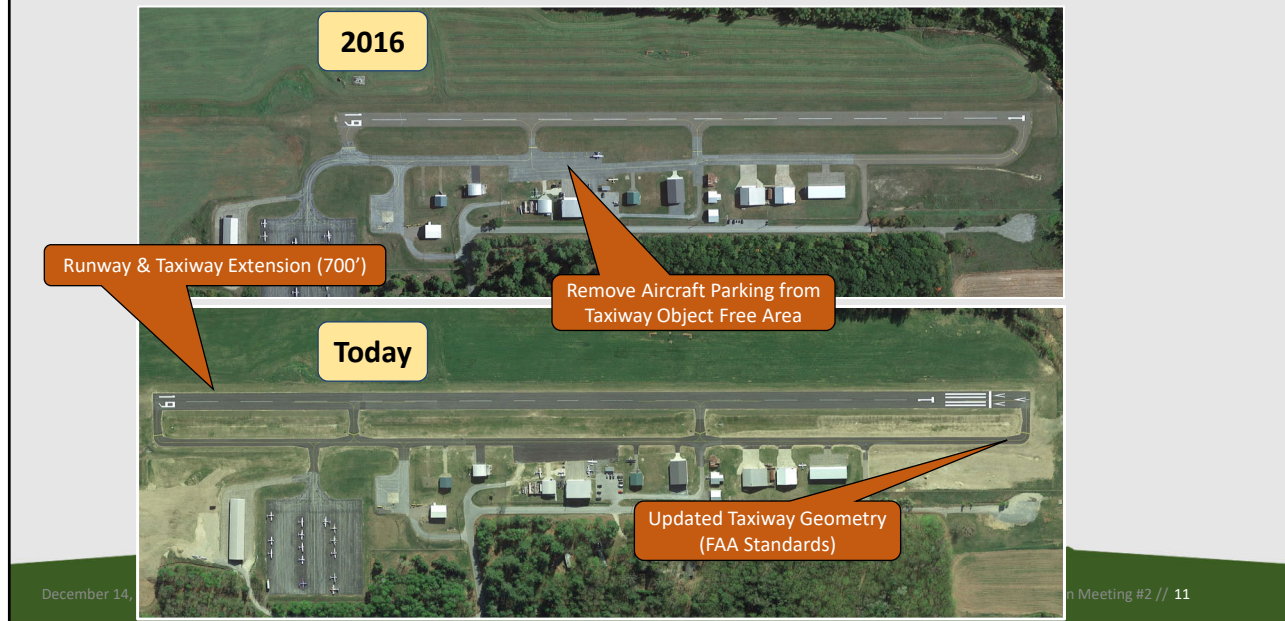


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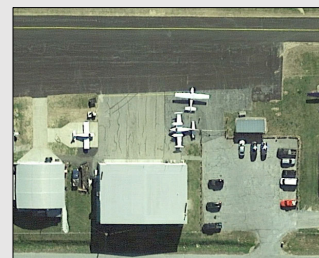
## Recent Airfield Improvements



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## Key Airport Features – Facilities & Tenants

- 13 Aircraft Hangars
- 40 Aircraft Tie-Down Positions
- Aviation Fuel System
- Maintenance Equipment Garage
- Sand Shed
- Parking & Access Road
- 30 Based Aircraft
- Business Tenants
  - Green Mountain Avionics
  - J & M Aviation



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# Airport Forecast



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## 6B0 Master Plan Forecasts

### *Recommended Forecasts\**

#### • Based Aircraft

- VASP High Growth forecast, 9 additional aircraft by 2041

#### *Based Aircraft*

Year	Recommended Forecast
2020	30
2021	30
2026	32
2031	34
2036	36
2041	39

#### • Airport Operations

- VASP High Growth forecast
- 1,220 additional annual operations
- Does not exceed FAA parameters

#### *Airport Operations*

Year	6B0 TAF	Recommended Forecast	Recommended Forecast vs. FAA TAF
2020	6,350	6,350	0.0%
2021	6,350	6,403	0.8%
2026	6,350	6,677	5.1%
2031	6,350	6,962	9.6%
2036	6,350	7,259	14.3%
2041	6,350	7,569	19.2%

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# Critical Aircraft Determination

- Critical Aircraft
  - Type or family of aircraft with 500 or more annual operations at the airport
- Most Activity is of ARC A-I & B-I Aircraft, with Occasional A-II & B-II Aircraft
- Retain Existing A-I / B-I Designation: **No Change**
- Sample Critical Aircraft: **Cessna 421**



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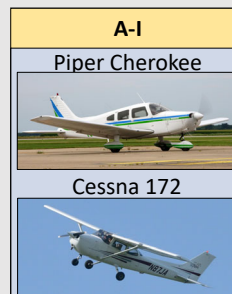
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# Airport Reference Code (ARC)

- FAA System to Classify Airports
  - Based on Approach Speed & Wingspan
  - Identifies Airfield Requirements
- Operations are mostly A-I or B-I, with occasional A-II and B-II

Approach Category		Design Group	
	Airspeed (knots)		Wingspan (feet)
A	< 91	I	< 49
B	91 ≤ 121	II	49 ≤ 79
C	121 ≤ 141	III	79 ≤ 118
D	141 ≤ 166	IV	118 ≤ 171
E	166+	V	171 ≤ 214
		VI	214 ≤ 262



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Middlebury

Pla

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## Airport Facility Requirements



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## Runway & Taxiway Requirements

- Existing: 3,200' Long by 60' wide:
  - Adequate for Critical Aircraft & ARC B-I
  - **No expansion required/recommended**
- Full Parallel Taxiway: 25' wide

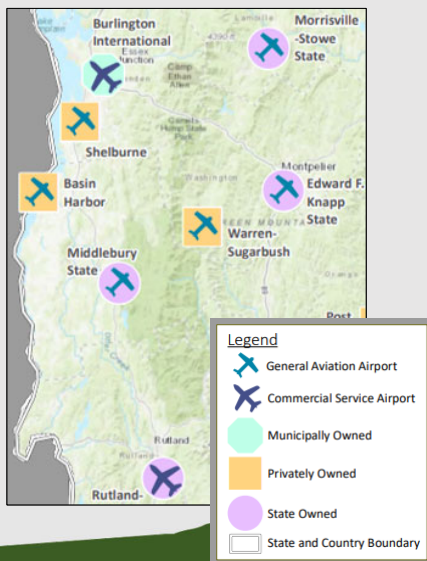


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# Runway Length Requirements



- Statewide airport system already provides longer runways at other airports:
  - Burlington
  - Rutland
  - Montpelier/Barre
- 3,200' is adequate for most light aircraft

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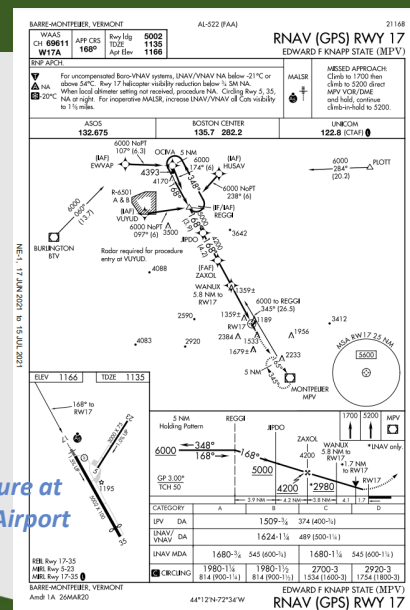
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# Instrument Approaches

- No Current Instrument Approach Procedure (IAP):
  - Provides electronic guidance to the airport
  - Use during low clouds or visibility <3 miles
  - With GPS, no ground equipment is needed
  - **IAP Recommended**



Sample:  
 • GPS Procedure at  
 • E.F. Knapp Airport



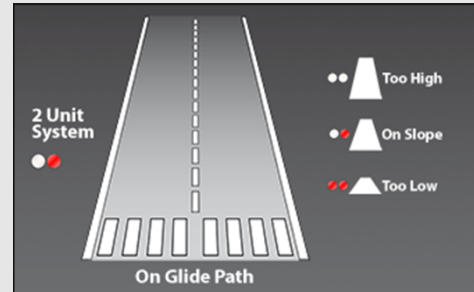
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# Precision Approach Path Indicator

- 2-Box Precision Approach Path Indicator – PAPI-2
  - Visual aid for pilots
  - Indicates if aircraft is on the ideal glide path
  - **PAPI Recommended on both ends**



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# Precision Approach Path Indicator - MVL

- Ground view of 2-box PAPI
  - Image from 150' away
  - View from Munson Road would be 1,900' away



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## Hangar and Apron Requirements

- **Hangars:**

- Existing Hangars are at Capacity (i.e., full)
- Based Aircraft Growth is Anticipated
- Several Hangars in design/application phase
- **Additional Hangars Recommended**



- **Aircraft Parking Apron:**

- Adequate positions available

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## Terminal / Administration Building

- Airport does not have a general aviation Terminal Building

- **Desired Uses:**

- Flight planning & instruction
- Passenger waiting area
- Pilot lounge
- Offices/conference/management space
- Public Restrooms
- **Small Terminal Building Recommended**



Sample: Morrisville-Stowe State Airport

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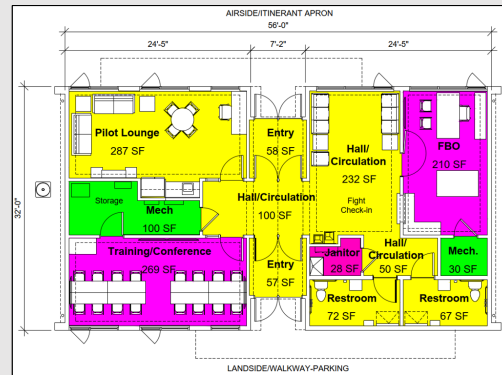
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## Terminal Building Recommendation

- Sample GA Terminal

- 1,400 SF
- Lounge, flight planning, FBO/office, restroom



Conceptual Floorplan

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## Airport Facility Requirements Summary

- **Airfield:**

- Publish Instrument Approach Procedures
- Add PAPI system (both runway ends)
- Additional tree removal (as needed)

- **Landside/Terminal Area:**

- GA Terminal Building
- Additional Vehicle Parking
- Additional Hangars



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# Airport Development Concepts

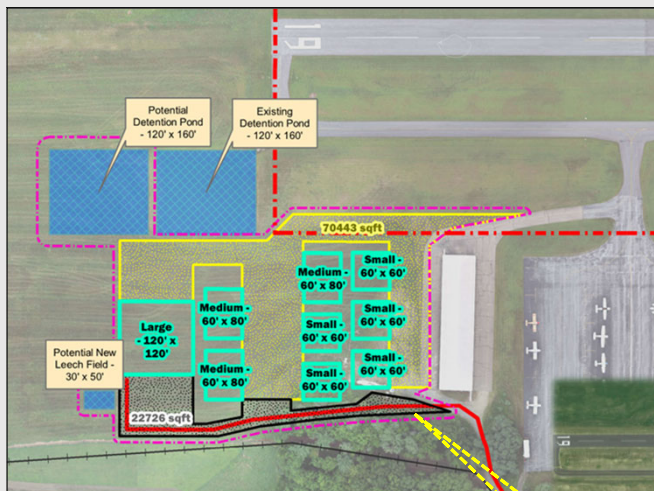


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# Airport Development Concepts

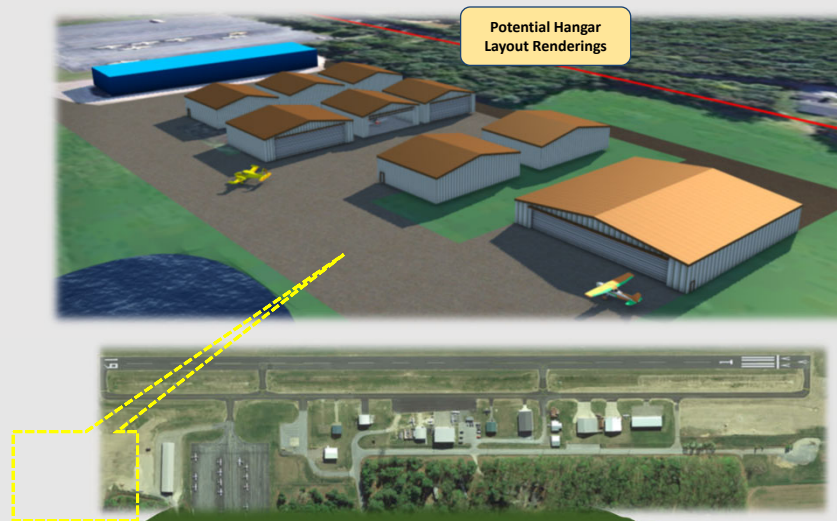


- VTrans is advancing a statewide effort to “pre-permit” hangar sites to foster private investment

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## Airport Development Concepts



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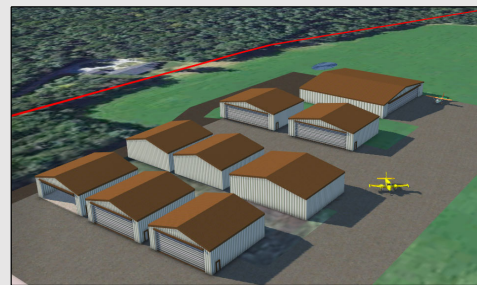
## Act 250 Permitting Process – for Hangars

### • Statewide Program for Airports:

- Identify potential hangar locations
- Sites for small, medium & large hangars
- Complete '**Master Permitting**':
  - General & Construction Stormwater
  - Water & Wastewater
  - Act 250

### • Status for Middlebury Airport

- Act 250 Amendment submitted (No. 9A0158-12)
- A 'major determination' is likely with a public hearing



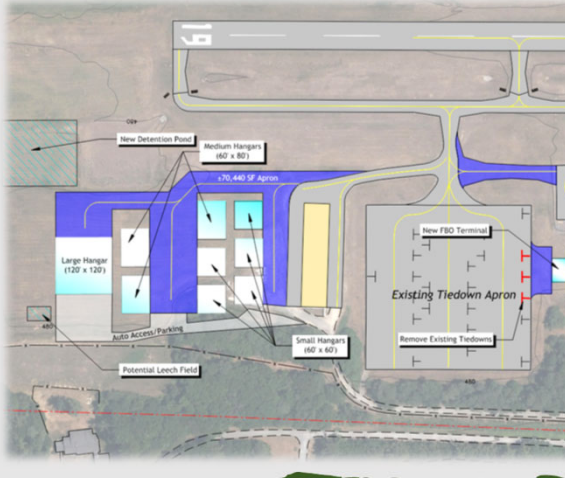
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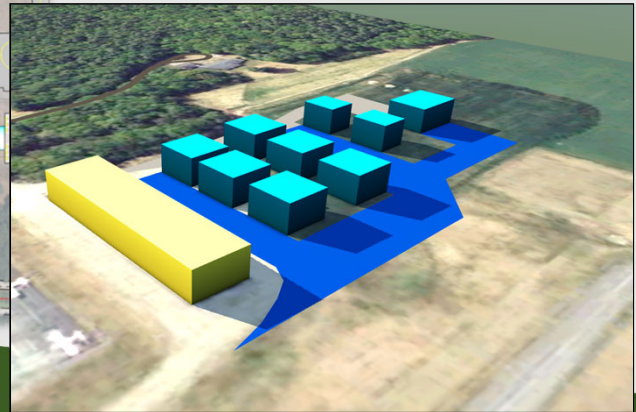
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# Hangar Master Permitting



- North Hangar Development
  - Provides additional hangar opportunities for light aircraft
  - Act 250 Permit in process

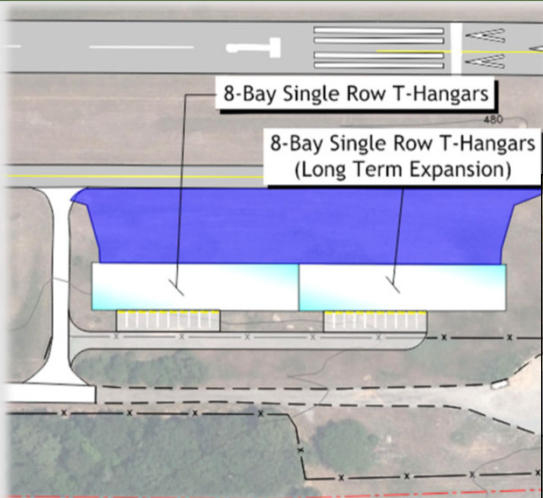


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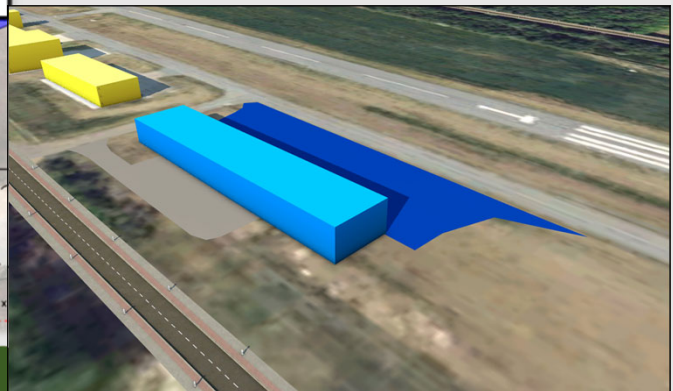
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# T-Hangars (single sided)



- South Development Area
  - Option B
  - Provides additional hangar for corporate and small GA aircraft



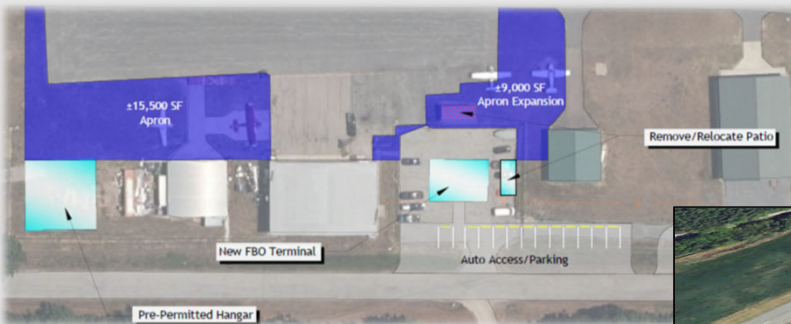
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## Terminal Building Recommendation



- Terminal Development Site 2
  - Provides GA Terminal for Pilots and Airport Users
  - Located on existing parking lot

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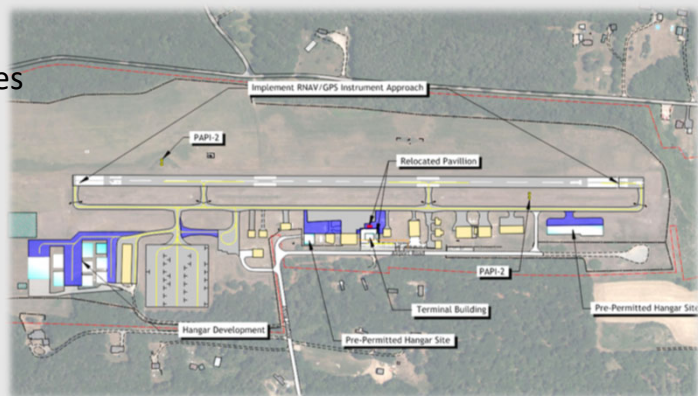
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## Recommended Plan Overview

### • Recommendations

- Instrument Approach Procedures
- PAPI-2 Installation
- Tree Obstruction Removal
- Incorporate Proposed Hangars
- North Hangar Development
- South Hangar Development
- New Terminal Building, with vehicle parking and apron



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## FREQUENTLY ASKED QUESTIONS



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## FAQs – Airport Activity/Operations

***Question A:*** Why is there a lack of data sources for current and forecasted activity levels?

***Question B:*** Why is the forecasted activity so high?

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## FAQs – Airport Activity/Operations

***Question C:*** Will the proposed developments depicted in the Recommended Plan result in higher activity at the airport?

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## FAQs – Act 250 – Hangar Permitting

***Question D:*** Why is the Act 250 Master Permitting project being conducted in advance of the Master Plan?

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## FAQs – Airport Lighting & Visual Aids

***Question F:*** Does the Master Plan recommend airfield lighting for night operations?

***Question G:*** Will the PAPI have visual effects on the neighboring communities?

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## FAQs – Future Airport Facilities

***Question H:*** Will all proposed developments depicted on the Recommended Plan be constructed?

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## Other FAQs – Water Quality

***Question:*** *Is the airport activity contaminating the local aquifer?*

***Question:*** *Does the Master Plan limit the use of herbicides?*

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## NEXT STEPS



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## NEXT STEPS

- Collect & Review Comments – **January 2023**
  - Available at: <http://vtrans.vermont.gov/aviation/airports/middlebury>
  - Comments by *January 13 (please)*
- Final Documents – **Winter 2023**
- FAA Approval – **Winter 2023**



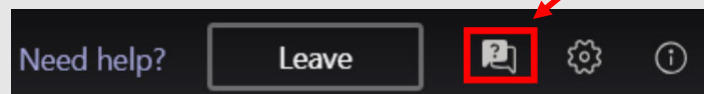
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## Question/Comments

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**SUBMIT QUESTIONS/COMMENTS:**

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## Questions/Comments

**Questions or comments regarding the Airport Master Plan?  
Available for contact:**

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