

Airport Commission Agenda
May 16, 2024
Reedsburg Municipal Airport, 1780 E Main Street
7:30 AM

DUE TO THE RESTRICTIONS CAUSED BY THE COVID-19 PANDEMIC, SOME VOTING MEMBERS MAY BE PRESENT VIA TELECONFERENCE OR VIDEO CONFERENCE, AS PROVIDED BY THE RECOMMENDATIONS OF THE WISCONSIN DEPARTMENT OF JUSTICE. [HTTPS://WWW.DOJ.STATE.WI.US/NEWS-RELEASES/OFFICE-OPEN-GOVERNMENT-ADVISORY-CORONAVIRUS-DISEASE-2019-COVID-19-AND-OPEN-MEETINGS](https://www.doj.state.wi.us/news-releases/office-open-government-advisory-coronavirus-disease-2019-covid-19-and-open-meetings)

NOTICE IS HEREBY GIVEN THAT A MAJORITY OF THE MEMBERS OF THE COMMON COUNCIL MAY ATTEND THIS MEETING TO GATHER INFORMATION ABOUT A SUBJECT OVER WHICH THE COMMON COUNCIL HAS DECISION-MAKING AUTHORITY. IF A QUORUM OF THE COMMON COUNCIL ATTENDS THIS MEETING, NO ACTION WILL BE TAKEN BY THE COMMON COUNCIL AT THIS MEETING.

CALL TO ORDER

APPROVAL OF MINUTES

THE COMMITTEE WILL RECEIVE INFORMATION ON NON-AGENDA TOPICS BROUGHT BEFORE THE COMMITTEE BY MEMBERS OF THE PUBLIC. THE COMMITTEE WILL NOT DISCUSS THESE TOPICS, AND WILL NOT TAKE ACTION ON ANY OF THEM AT THIS MEETING

I. GENERAL BUSINESS:

- A. Discussion of Airport Master Plan
- B. Consideration purchasing FlightAware data to evaluate
- C. Review Code of Ethics

II. ADJOURN:



The City of Reedsburg does not discriminate on the basis of disability in the admissions or access to, or treatment of or employment in, its programs or activities. Disability-related aids or services, including printed information in alternate formats, to enable persons with disabilities to participate in public meetings and programs are available by calling (608) 524-6404. To be able to meet the needs of a request for a different format contact the City Clerk-Treasurer at 134 S. Locust Street, Reedsburg, WI at least 48 hours prior to the commencement of the meeting so that any necessary arrangements can be made to accommodate each request.



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Overview of Meeting

- Project Updates
- User Survey Recap
- Runway 7/25 and Parallel Taxiway Recommendations and Alternatives Refresher
- Runway 18/36 and Parallel Taxiway Recommendations and Alternatives Refresher
- Next Steps

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Progress Update

- Airport Layout Plan (ALP) Pen and Ink Change Submittal
 - Submitted to FAA for approval on March 8, 2024
- Exhibit A Property Map Submittal
 - Initial submittal of existing conditions (excludes Viking Drive extension and land release)
 - Submitted to BOA for review on May 13, 2024

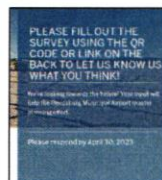


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User Survey

- Sent out April 2023
- 127 total postcards were mailed
 - Local and Regional registered pilots
 - Local area businesses
- QR codes Available in the terminal
- 31 responses



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User Survey Aircraft

- Most respondents own aircrafts with RDC of A-I
- One respondent owns a Cessna Citation, RDC B-II Large



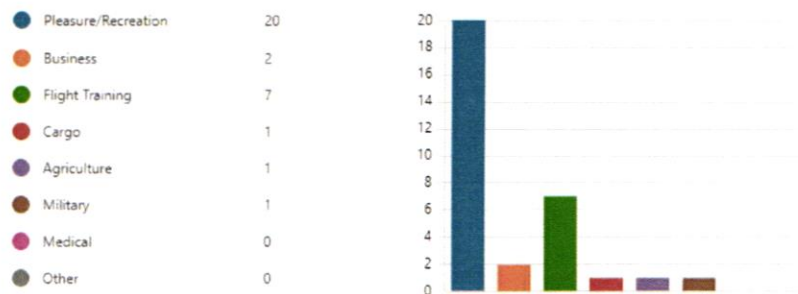
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User Survey Highlights – Operations

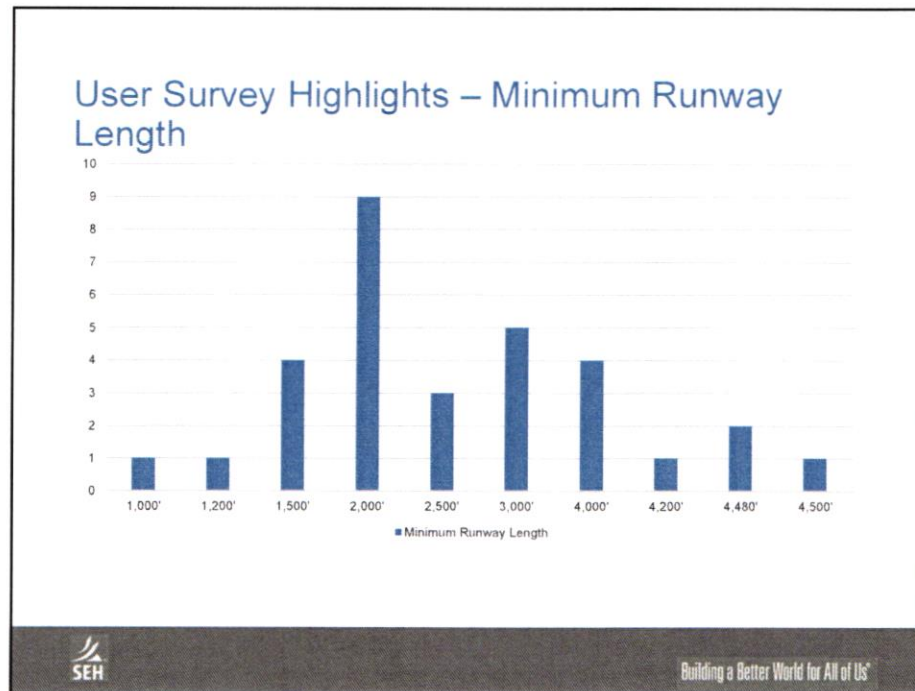
Please select the types of operations you perform.

[More Details](#)



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User Survey Highlights – Area for Improvements

- A/V system in the terminal building needs improvement
- Approaches - minimums, approaches NA at night, approach lighting
- Hangar space, transient hangar space
- Mechanic (mechanical, avionics, paint)
- Pavement surfaces need improvement

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User Survey Highlights

– Role in the NPIAS and SASP

- SEH surveyed DLL users on impacts of C35 to their operations
 - 4 based aircraft from DLL responded
 - Would consider using C35 more if maintenance/painting
 - Needs more hangar space
 - Everyone agreed that the services around the airport are beneficial (restaurants, centrally located)
 - One respondent noted that non-aeronautical uses of hangars should be limited to allow for aircraft storage at C35
- 10 others based aircraft at other airports than C35 and DLL
 - Expected growth at C35 if additional services are provided
- Based aircraft forecasted growth
- Operations and based aircraft support the role of the airport in both NPIAS and SASP



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User Letters – Received after User Survey

- A-I, and B-I, Small (FAA recommended takeoff distance 2,200')
- 1 Citation Encore (C560), B-II, Large (FAA recommended takeoff distance 4,500')*

Concerns

- Industry shift to smaller jets; adequate runway length crucial for safety and future growth.
- Shortening runway will harm operations, hangar value, fuel sales.
- Flight training hub; current runway length essential for varied conditions, including high density altitude conditions.
- Runway reduction will impact local businesses relying on airport visitors.
- Consider a traffic counter for operations data



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Critical Aircraft Determination

Most demanding aircraft type, or grouping of aircraft with similar characteristics, that make regular use of the airport. (500 annual operations)

Determining the Critical Aircraft is crucial for airport planning and design, especially for federally-obligated airports. The critical aircraft sets the:

- Dimensions of runways and taxiways
- Separation distances for runways and taxiways
- Size of areas protecting the safety of aircraft



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Runway 7/25 and Parallel Taxiway Refresher



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Existing Runway 7/25

- 2,510' x 50'
 - Operational distances are less than paved runway length
 - Non-standard width (smaller than standard)
- A-I, small
- RSA/OFA Standards
- RPZs not owned in fee (controlled through easement)
- MIRLs (edge lighting)
- Visual runway with circling approaches
- Limited taxiway network



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Aviation Activity Forecasts – Runway 7/25

- Critical Aircraft: Cessna 310 (C310)
- Runway Design Code (RDC): A-I small
 - AAC: A (approach speed less than 91 knots)
 - ADG: I (wingspan up to 49')
 - MTOW: 12,500 lbs. or less
- Visual approach
- Associated taxiway network: TDG 1A (25' wide)

The critical aircraft does not restrict the aircraft that can operate at an airport

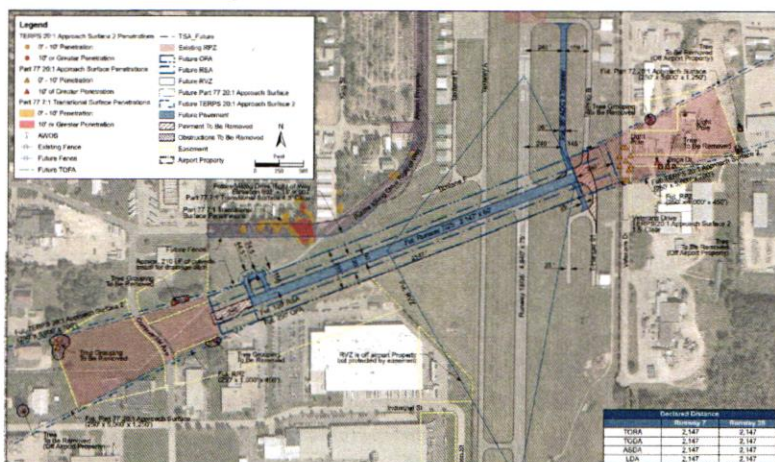


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Runway 7/25 Alternative

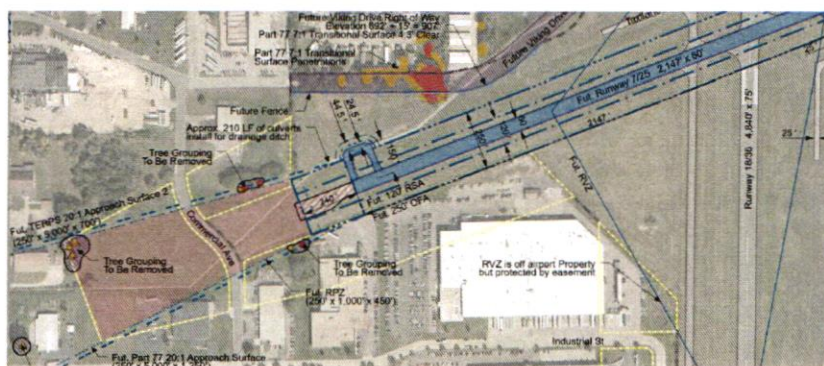
A-1, Small Runway



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7/25 Parallel Taxiway Recommendations

Standard taxiway turnaround



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Runway 7/25 Alternative

- Critical Aircraft is Cessna 310
 - RDC A-I, Small
- Taxiway network, TDG 1A
- 2,200' FAA eligible length
- Runway widened to 60' (*to meet design standards*)
- Declared distances are removed
- Obstructions will be removed from both on & off property
- RPZs will remain within existing easements
- Standard RVZ, OFA, and RSA
- Funding Eligibility considerations
 - Runway length
 - Crosswind eligibility – changing FAA guidance



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Runway 18/36 Facility Recommendations Refresher



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Runway 18/36 Dimensions

Runway Length

- FAA recommends 3,400' for small airplanes with less than 10 passengers and approach speeds greater than 50 knots. **This is the length eligible for FAA funding.**
- WI SASP 2030 (Adopted 2014) recommends 4,000' for medium GA airports.
- User survey results shows users need 4,000' or less

Runway Width

- B-II small runway must be 75' wide



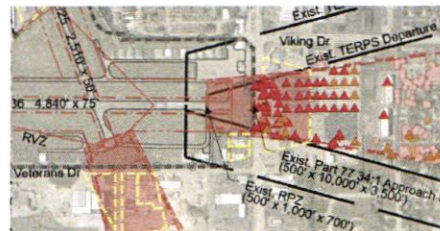
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Instrument Approach Procedure

- Runway 18 and 36 have LP and LNAV with 1-mile visibility minimums. (land use and property limitations prevent minimums of lower than 1 mile)
- Runway 18 procedure is NA (not available) at night.
 - Majority of controlling obstacles causing the NA conditions are streetlamps north of Runway 18.

B-II small runway will reduce approach slope from 34:1 to 20:1.



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IFR Flight Plan Data: 2013 - 2023

RDC	Flight Plans Filed										
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
A-I	196	123	139	100	107	138	131	153	169	125	149
A-II	8	4	4	-	2	41	6	2	4	8	-
B-I	23	10	8	15	10	165	15	14	53	16	11
B-II	4	7	4	11	17	42	19	12	20	13	9
B-III	-	-	-	-	-	6	-	-	1	-	-
C-I	-	-	2	-	-	-	-	-	2	-	-
C-II	2	-	2	-	-	-	-	-	-	4	-
Helicopter	2	4	-	1	-	4	3	1	-	-	1
Unknown	-	4	-	-	2	1	1	1	3	1	2
Total	235	152	159	127	138	397	175	183	252	167	172

Source: FAA TFMSC 2013-2023; SEH

- IFR flight plans typically don't capture the A-I and B-I small aircraft as they typically fly VFR
- For forecasting, larger aircraft B-II and larger will almost always file IFR due to the operational limitations (speed and altitude)



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B-II Small vs. Large

**B-II
Small**

- King Air 90
- King Air 200
- Cessna 208 Caravan
- Cessna CJ2



**B-II
Large**

- Citation Sovereign
- Citation II
- Citation V/Ultra/Encore
- Dassault Falcon 900



Source: TFMSC, 2018-2022



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FAA ACRP Small Aircraft Runway Length Analysis Tool (SARLAT)

Aircraft Type	Useful Load of Aircraft to Operate - Dry Runway		
	4,400' (Current Operational Length)	4,000' (WI SASP)	3,400' (FAA Eligible)
Cessna 172/177/180/208 Beechcraft King Air C90 SR 22 Scout TBM 700	100%	100%	100%
Beechcraft King Air 350ER (Avg. 4 ops/yr)	15%	0%	0%
Cessna 310 (Avg. 8 ops/yr)	89%	80%	64%
Cessna 421 Golden Eagle (Avg. 4 ops/yr)	89%	79%	63%
Cessna 560XL (Avg. 2 ops/yr)	90%	74%	0%
Cessna CitationJet 3 (Avg. 2 ops/yr)	100%	94%	64%
Phenom 300 (Avg. 2 ops/yr)	100%	94%	0%
Pilatus PC 12 NG (Avg. 10 ops/yr)	100%	97%	96%
Piper 30 Twin Comanche	100%	82%	51%
Socata TBM 850 (Avg. 2 ops/yr)	100%	100%	87%



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Considerations Used for Developing the Alternatives for Runway 18/36

- FAA runway length recommendation: 3,400' (eligible length)
- WI SASP runway length recommendation: 4,000'
- No improvements to approach minimums
- Standard RSA, OFA (must be met by FAA design standards)
- Eliminate or minimize declared distances
 - Declared distances cannot be used to *meet* standards
- RPZ in fee or protected by easements
- RVZ, remove incompatible objects



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User Letters

- A-I, Small and B-I, Small (FAA recommended takeoff distance 1,872')
- 1 Citation Encore, B-II, Large (FAA recommended takeoff distance 4,521')

Concerns

- Industry shift to smaller jets; adequate runway length crucial for safety and future growth.
- Shortening runway will harm operations, hangar value, fuel sales.
- Flight training hub; current runway length essential for varied conditions, including high density altitude conditions.
- Runway reduction will impact local businesses relying on airport visitors.
- Consider a traffic counter; accurate operations data (Airport management agree)



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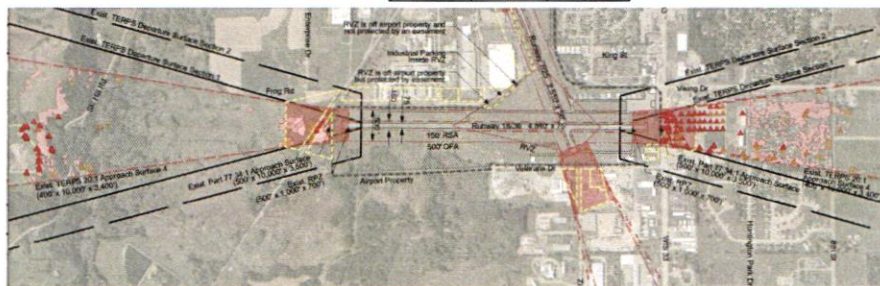
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Alternative 3A

B-II, large Alternative

		Alt 3A
		Existing Conditions
Runway Design Code (RDC)		B-II Large
Paved Runway Length		4,840'
B-II Small Recommended Runway Length (3,400')		Exceeds
B-II Large Recommended Runway Length (4,800')		Yes
Runway Width		75
Runway 18	TORA	4,540'
	TODA	4,540'
	ASDA	4,540'
	LDA	4,100'
Runway 36	TORA	4,400'
	TODA	4,400'
	ASDA	4,400'
	LDA	4,100'

TERPS 201 Approach Obstructions On Property	✓ (Surface 3)
TERPS 201 Approach Obstructions Off Property	✓ (Surface 3)
Part 77 Obstructions On Property	✓
Part 77 Obstructions Off Property	✓
Summary of obstructions	Rwy 18 - Street lamps, tree groupings Rwy 36 - Tree groupings, road
Approach RPZs Owned in Fee/Leasehold	✓
Departure RPZs Owned in Fee/Leasehold	✓
No new incompatible Land Use in RPZ	✓



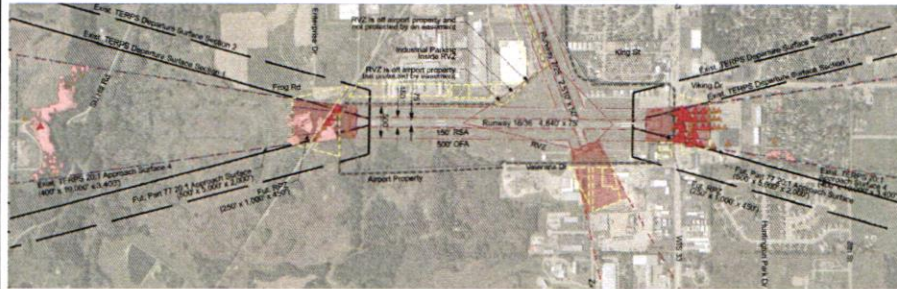
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Alternative 3B

B-II, small, existing length
and declared distances

	Alt 3B	TERPS 20.1 Approach Obstructions On Property	✓ (Surface 2)
	No Change to pavement	TERPS 20.1 Approach Obstructions Off Property	✓ (Surface 2)
Runway Design Code (RDC)	B-II Small	Part 77 Obstructions On Property	✓
Paved Runway Length	4,840'	Part 77 Obstructions Off Property	✓
B-II Small Recommended Runway Length (3,400')	Exceeds	Summary of obstructions	Rwy 18 - Street amps, tree groupings Rwy 36 - Tree groupings, street
B-II Large Recommended Runway Length (4,800')	Yes	Approach RPZs Owned in Fee/basement	✓
Runway Width	75'	Departure RPZs Owned in Fee/basement	✓
Runway 18		No new incompatible Land Use in RPZ	✓
	TORA		
	TODA		
	ASDA		
	LDA		
Runway 36			
	TORA		
	TODA		
	ASDA		
	LDA		



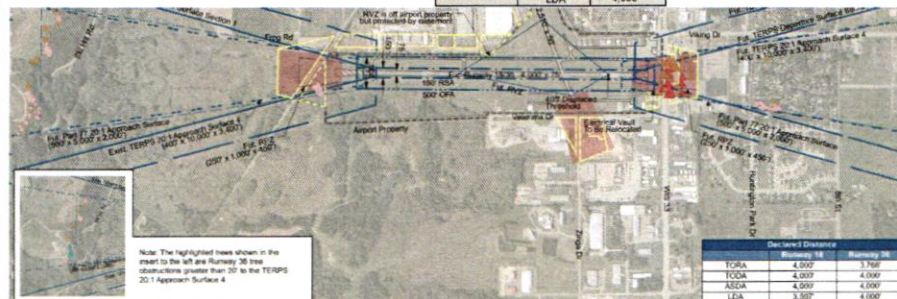
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Alternative 3E

4,000' B-II, small with 403'
runway 18 displaced
threshold

	Alt 3E	TERPS 20.1 Approach Obstructions On Property	Rwy 18 - Clear
	Runway w/ Displaced Thresholds	TERPS 20.1 Approach Obstructions Off Property	Rwy 18 - Clear
Runway Design Code (RDC)	B-II Small	Part 77 Obstructions On Property	✓
Paved Runway Length	4,000'	Part 77 Obstructions Off Property	✓
B-II Small Recommended Runway Length (3,400')	Exceeds	Summary of obstructions	Rwy 18 - Street amps, tree groupings Rwy 36 - Tree groupings (3.5 Acres) direct
B-II Large Recommended Runway Length (4,800')	No	Approach RPZs Owned in Fee/basement	✓
Runway Width	75'	Departure RPZs Owned in Fee/basement	✓
Runway 18		No new incompatible Land Use in RPZ	✓
	TORA		
	TODA		
	ASDA		
	LDA		
Runway 36			
	TORA		
	TODA		
	ASDA		
	LDA		



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Alternative 3F

3,400' B-II, small

	AH 3F
	3,400' Runway
Runway Design Code (RDC)	B-II Small
Paved Runway Length	3,400'
B-II Small Recommended Runway Length (3,400')	Yes
B-II Large Recommended Runway Length (4,800')	No
Runway Width	75'
Runway 18	TORA 3,400'
	TODA 3,400'
	ASDA 3,400'
	LDA 3,400'
Runway 36	TORA 3,400'
	TODA 3,400'
	ASDA 3,400'
	LDA 3,400'

TERPS 201 Approach Obstructions On Property	-
TERPS 201 Approach Obstructions Off Property	RWY 18 - Clear
Part 77 Obstructions On Property	-
Part 77 Obstructions Off Property	✓
Summary of obstructions	RWY 18 - Sheet amp RWY 36 - Tree groings (1.2 Acres)
Approach RPZs Owned in Fee/Leasement	✓
Departure RPZs Owned in Fee/Leasement	✓
No new incompatible Land Use in RPZ	✓

Note: The highlighted trase shown in the insert to the left are Runway 36 trase distributions greater than 25' to the TERPS 201 Approach Surface 4.

	Desired Distance	Minimum Distance
TORA	3,400'	3,400'
TODA	3,400'	3,400'
ASDA	3,400'	3,400'
LDA	3,400'	3,400'

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Airport Inventory – Pavement Condition Index

- 2021 WIBOA Pavement Study
 - Runway 18/36 reconstructed in 1999
 - Runway 7/25 reconstructed in 1999
 - Apron reconstructed in 1999
- Runway 18/36 PCI estimated to be below 70 in 2024
 - Major Maintenance and Repair (mill & overlay / reconstruction) is recommended in 2024.



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Alternative Cost Comparison

- Alt. 3B: Includes 3,400' federally eligible pavement, 600' of state eligible pavement, 840' local funded pavement, and land costs.
- Alt. 3E: Includes 3,400' federally eligible pavement, 600' of state eligible pavement, and land costs.
- Alt. 3F: Includes 3,400' federally eligible pavement and land costs.

Description	Runway Length	Total Federal Share (Eligible)	Total State Share (Eligible and Ineligible Cost)	Total Local Share (Eligible and Ineligible Cost)
Runway 18/36 Alternative 3B (Current Runway Length)	4,840'	\$3,600,000	\$800,000	\$1,350,000
Runway 18/36 Alternative 3E (4,000' W/ SASP Length)	4,000'	\$3,800,000	\$850,000	\$400,000
Runway 18/36 Alternative 3F (3,400' Eligible Length)	3,400'	\$4,000,000	\$250,000	\$250,000



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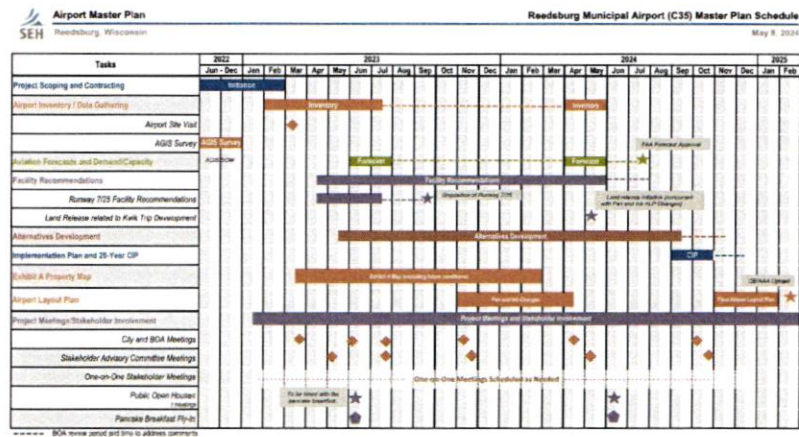
Additional Analysis and Next Steps



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Project Schedule



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Additional Analysis

- Contract Amendments
 - Planning contracts (that accept federal funds) cannot be amended
 - FlightAware Data – not an eligible cost to be included in the project; can be funded outside of the project
- Narrative Reports
 - Completed as a separate contract (likely eligible for Federal and State funding) to support an upcoming project based on data collected from traffic counter, FlightAware, etc..
 - Justifies the funding eligibility to the FAA and BOA at the time of the project.

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Additional Analysis

- Evaluate Wind Data
 - 10-years of wind data is required for justification
 - Not available online from FAA or NOAA
 - Likely will come in a narrative report
- Traffic Counter
 - Will validate existing fleet mix and operations by aircraft
 - One year of data to support a narrative update – more time to continue long term evaluation



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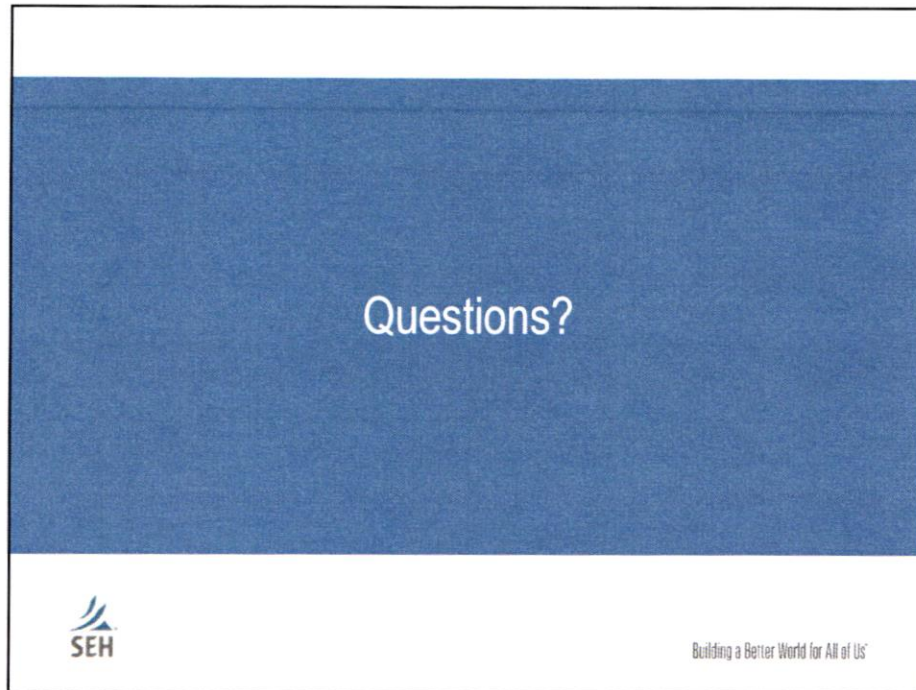
Next Steps

- Land Release coordination for Viking Drive Extension
- Evaluate Taxiway Connectors (Runway 18/36)
- Remaining facility recommendations and alternatives development
- Taxiway Network and Building Area Alternatives
- Landside Access Alternatives



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