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Flying Cloud Airport

2040 Long-Term Plan Update

May 24, 2023





Welcome Remarks



Rick King

Metropolitan Airports Commission Chair



Bridget Rief

Vice President, Planning and Development



Agenda

- Introduction to the Planning Team
- Long-Term Plan (LTP) Goals & Schedule
- LTP Project Updates
 - Facility Requirements
 - Preliminary Airfield Alternatives
 - Runway
 - Hangar Development
 - Miscellaneous Items
- Next Steps
- Feedback / Survey



Planning Team



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**Technical
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Frequent Flyer at
FCM



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Long-Term Plan Goals & Schedule





What is a Long-Term Plan (LTP)?

- A document that records current and future needs of an airport
- Focuses on a 20-year horizon, with intermediate steps at 5- and 10-years
- The last LTP update for Flying Cloud Airport (FCM) was completed in 2010
- Does not authorize actual construction





Flying Cloud LTP Goals



Enhance airport safety



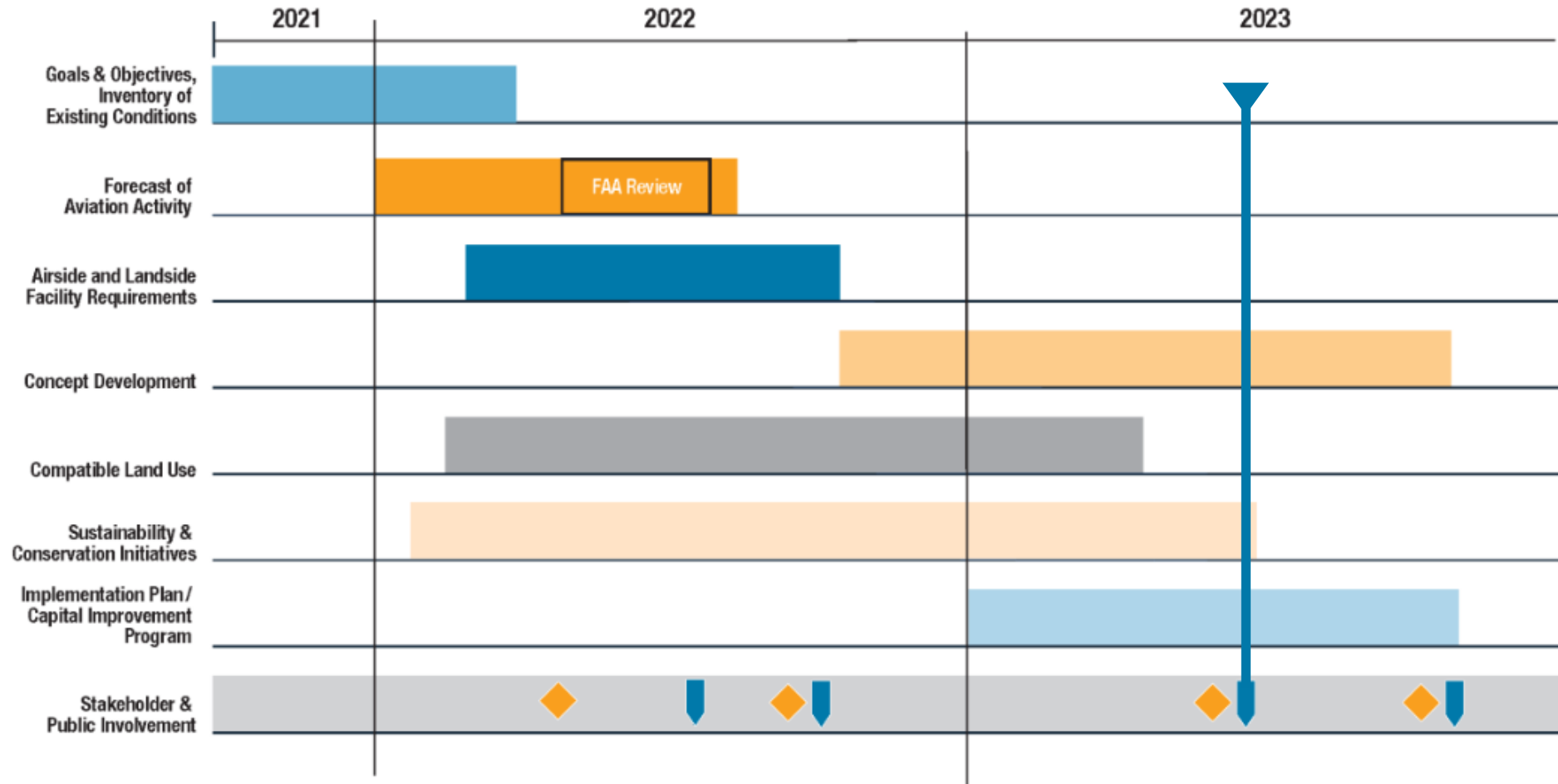
Preserve and, if possible, improve operational capabilities for the current family of aircraft using the airport



Promote financial sustainability of the MAC Reliever Airport system by exploring revenue opportunities for aeronautical and non-aeronautical development



LTP Schedule





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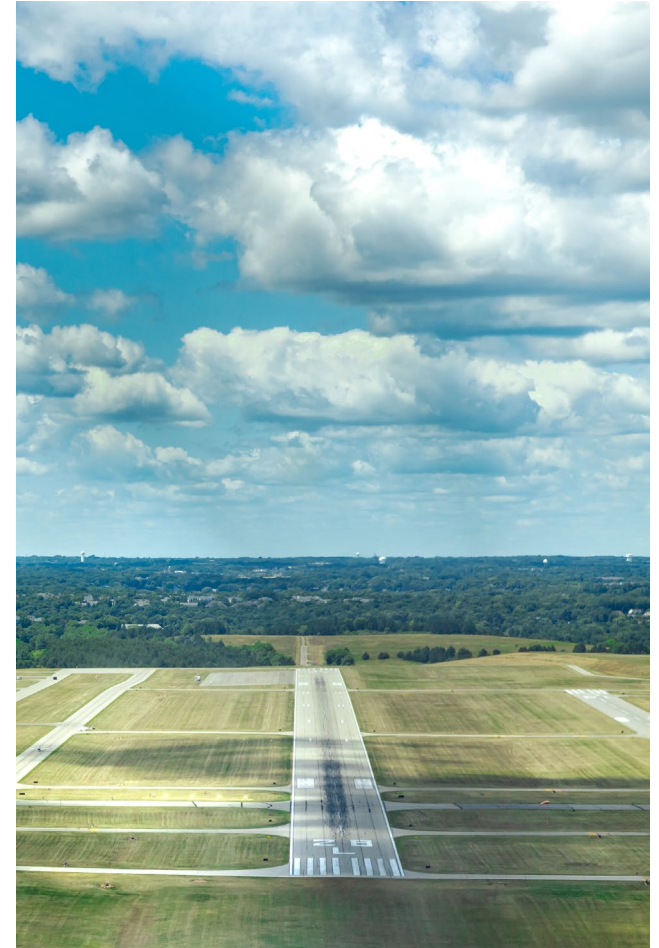
Facility Requirements





Critical Aircraft

- FAA defines “Critical Aircraft” as the most demanding aircraft with greater than 500 annual operations at an airport
- The critical aircraft sets dimensional requirements of the airport
- Accurate critical aircraft determination helps ensure proper development of airport facilities





Critical Design Aircraft

Citation 3
(Previous)



Wingspan: 53.5'
Tail Height: 17.25'
Max. Takeoff Weight: 22,000 lbs

Challenger 350
(Existing and Future)

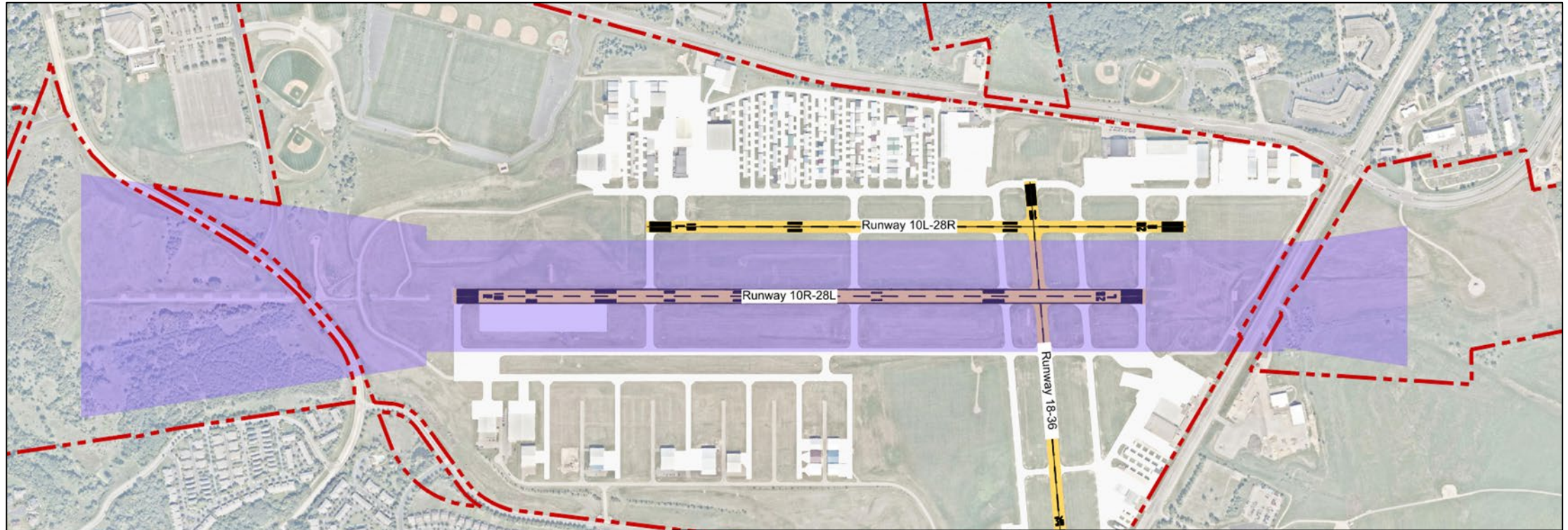


Wingspan: 69'
Tail Height: 20'
Max. Takeoff Weight: 40,600 lbs

Operations by C-II aircraft accounted for approximately 2% of total operations at FCM in 2021



Critical Aircraft Focus Area



DRAWING LEGEND	
RUNWAY PAVEMENT	
TAXIWAY / APRON PAVEMENT	
C-II FOCUS AREA	
AIRPORT PROPERTY	

- Runway length is capped at 5,000 feet per Minnesota Legislation
- Minnesota Statute Section 473.641 prohibits MAC from extending the runway length at minor airports beyond 5,000 feet.



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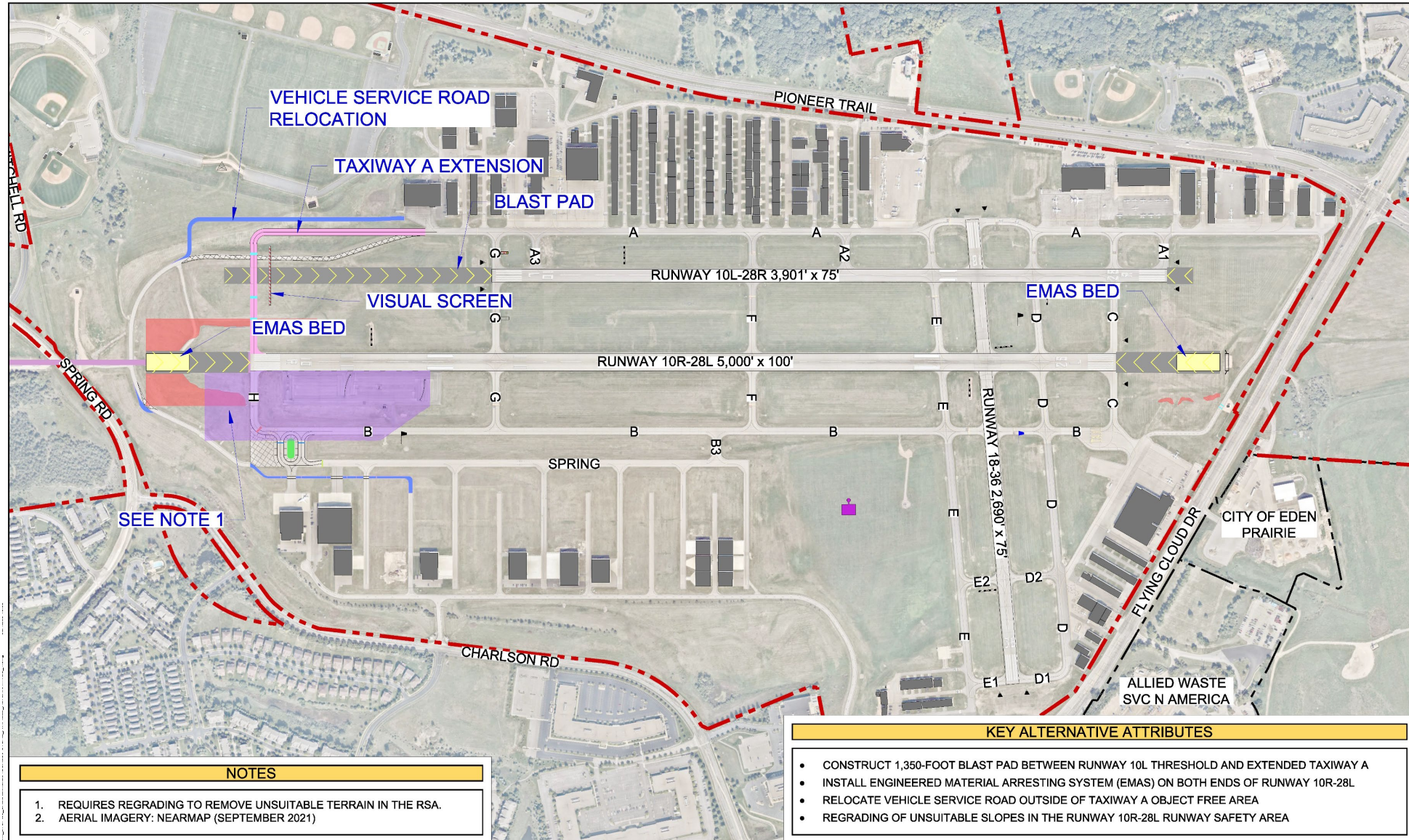
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Preliminary Airfield Alternatives: Runways





Runway Alternative 1





What is an EMAS Bed?



Image showing an example of EMAS at St. Paul Downtown Airport (STP)

- EMAS - Engineered Material Arresting System
- Lightweight, crushable material placed at the end of a runway to safely stop an aircraft that overruns the end of the runway
- An FAA approved mitigation strategy when it is not practical to achieve the full standard Runway Safety Area
- The size varies and is based on dimensions of the runway safety area and aircraft using the airport



What is a Blast Pad?



- A surface adjacent to the ends of runways provided to reduce the erosive effect of jet blast and propeller wash
- Not usable pavement for aircraft operations
- Cannot be used in the calculation of aircraft performance
- They do not change the published runway length

Image showing an example of a Blast Pad at Crystal Airport (MIC)



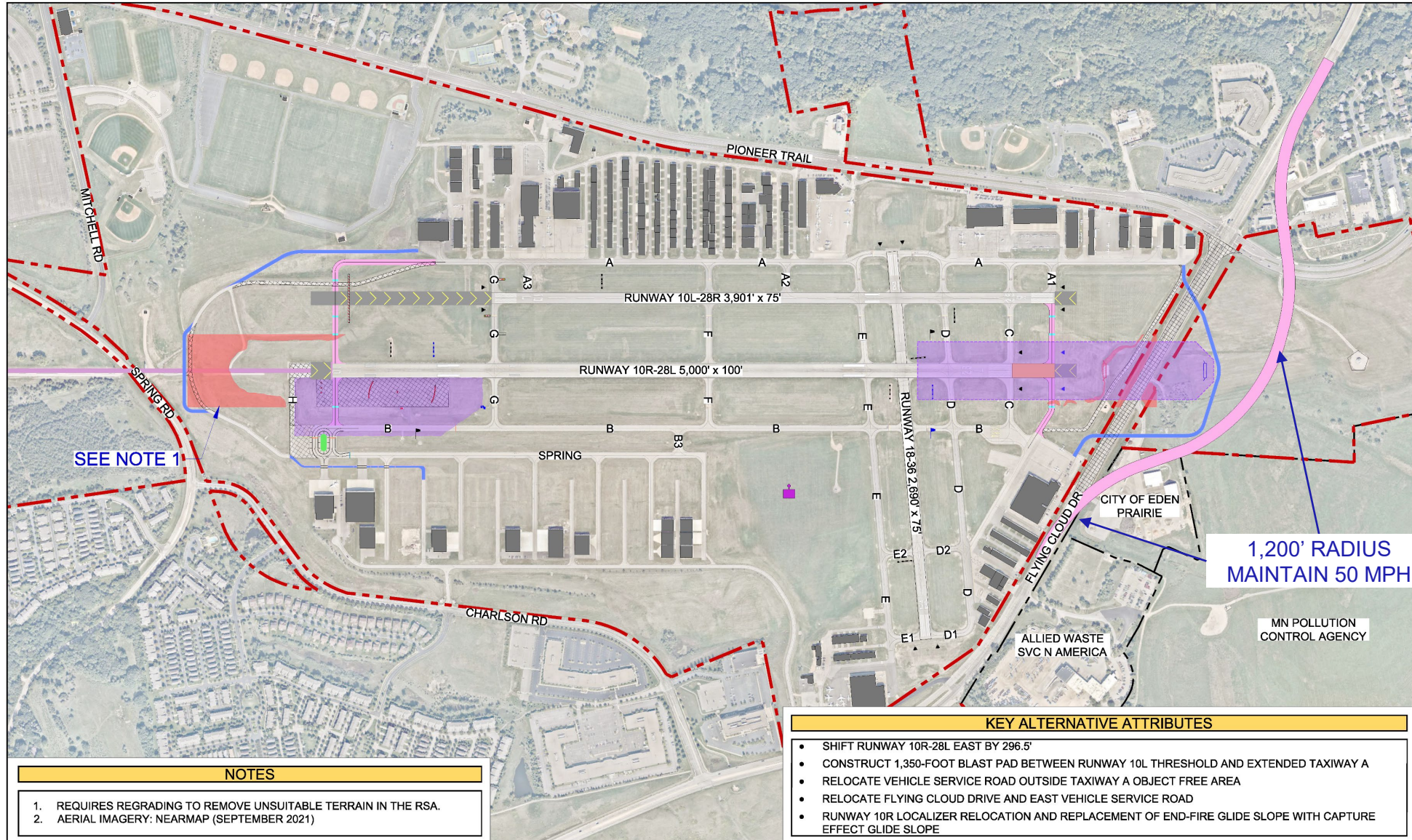
What is a Visual Screen?



- Blocks the sight of aircraft using a taxiway
- Prevent pilots who are departing the runway from thinking an aircraft is crossing the active runway

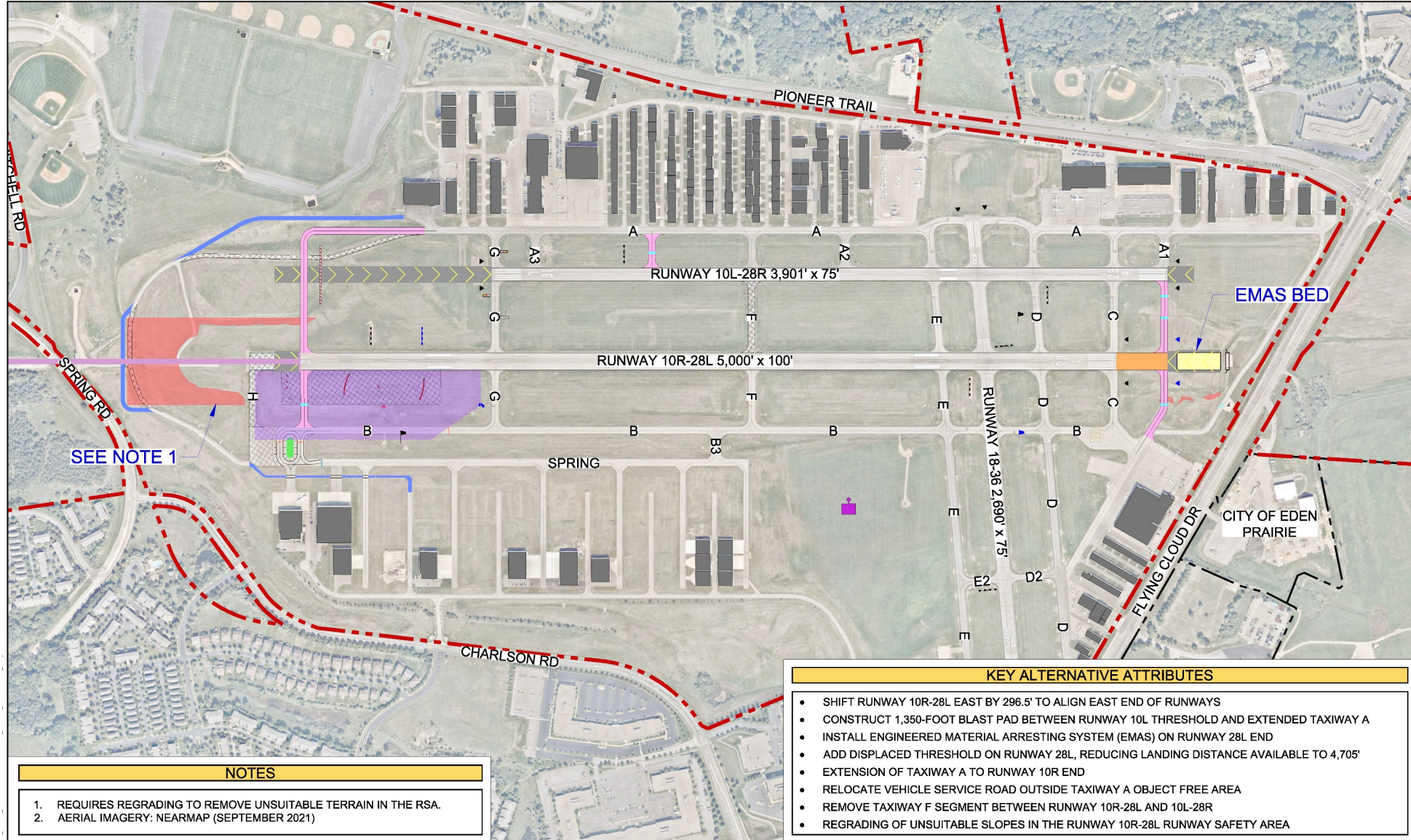


Runway Alternative 2





Runway Alternative 3





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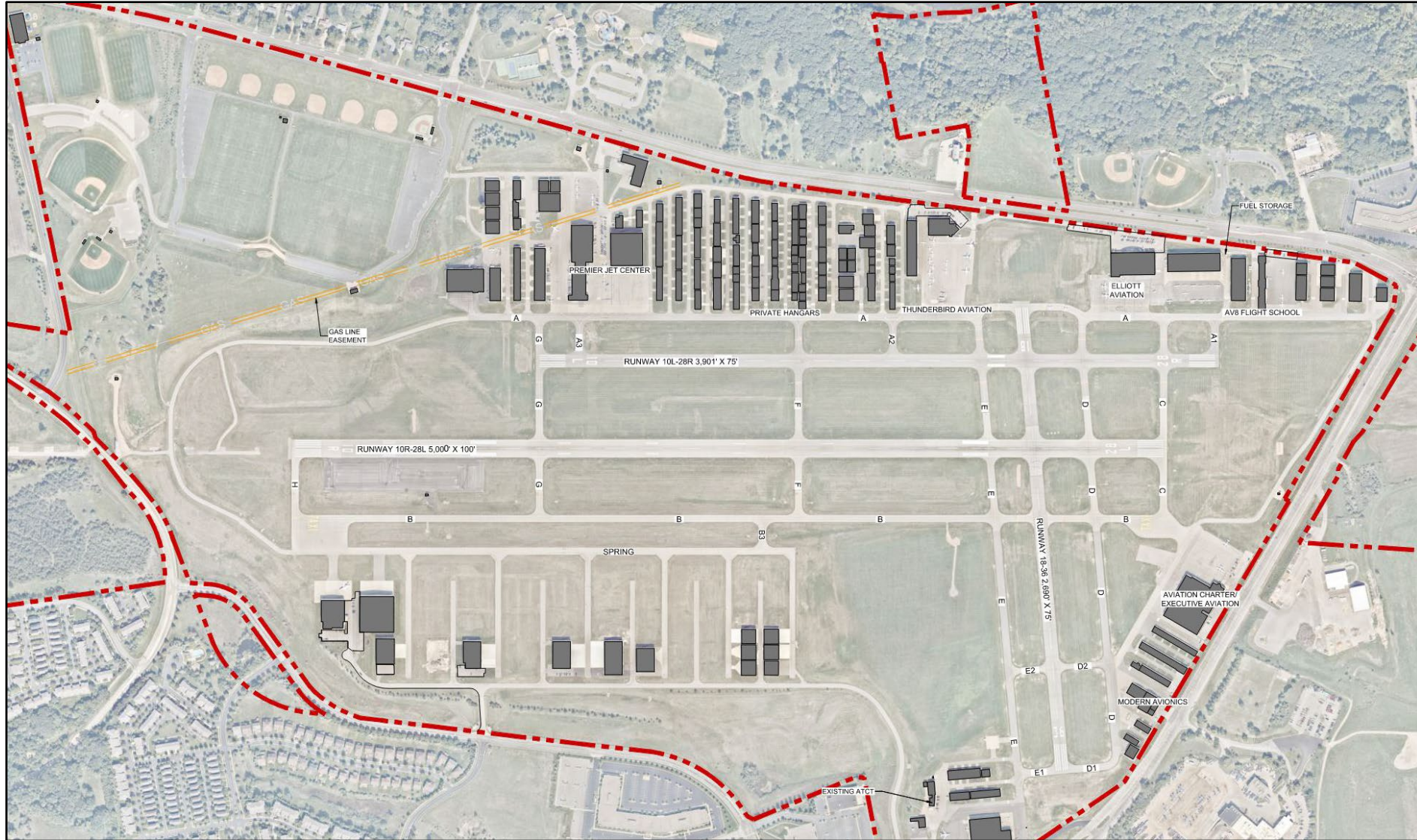
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Preliminary Airfield Alternatives: Hangar Development



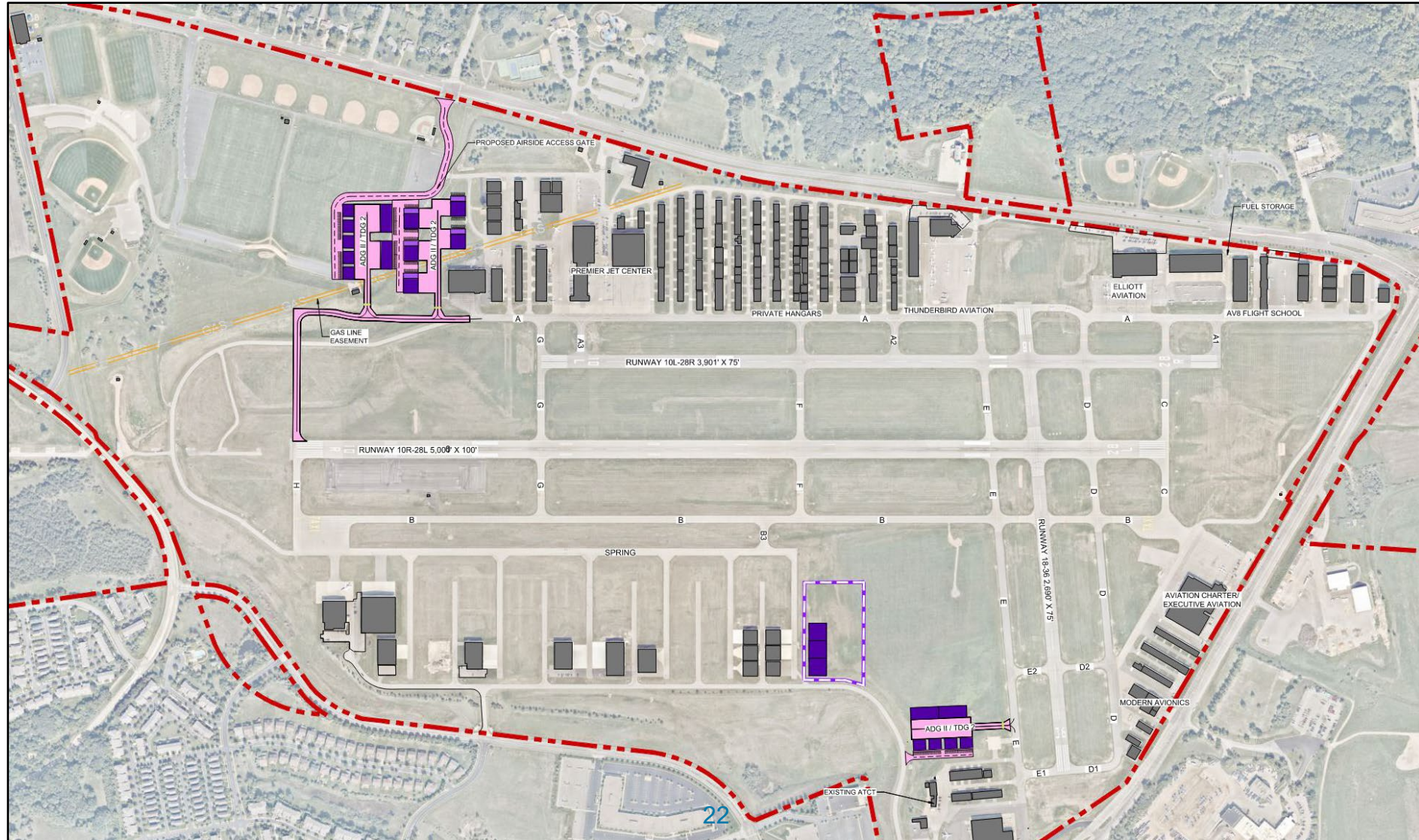


Existing Hangars



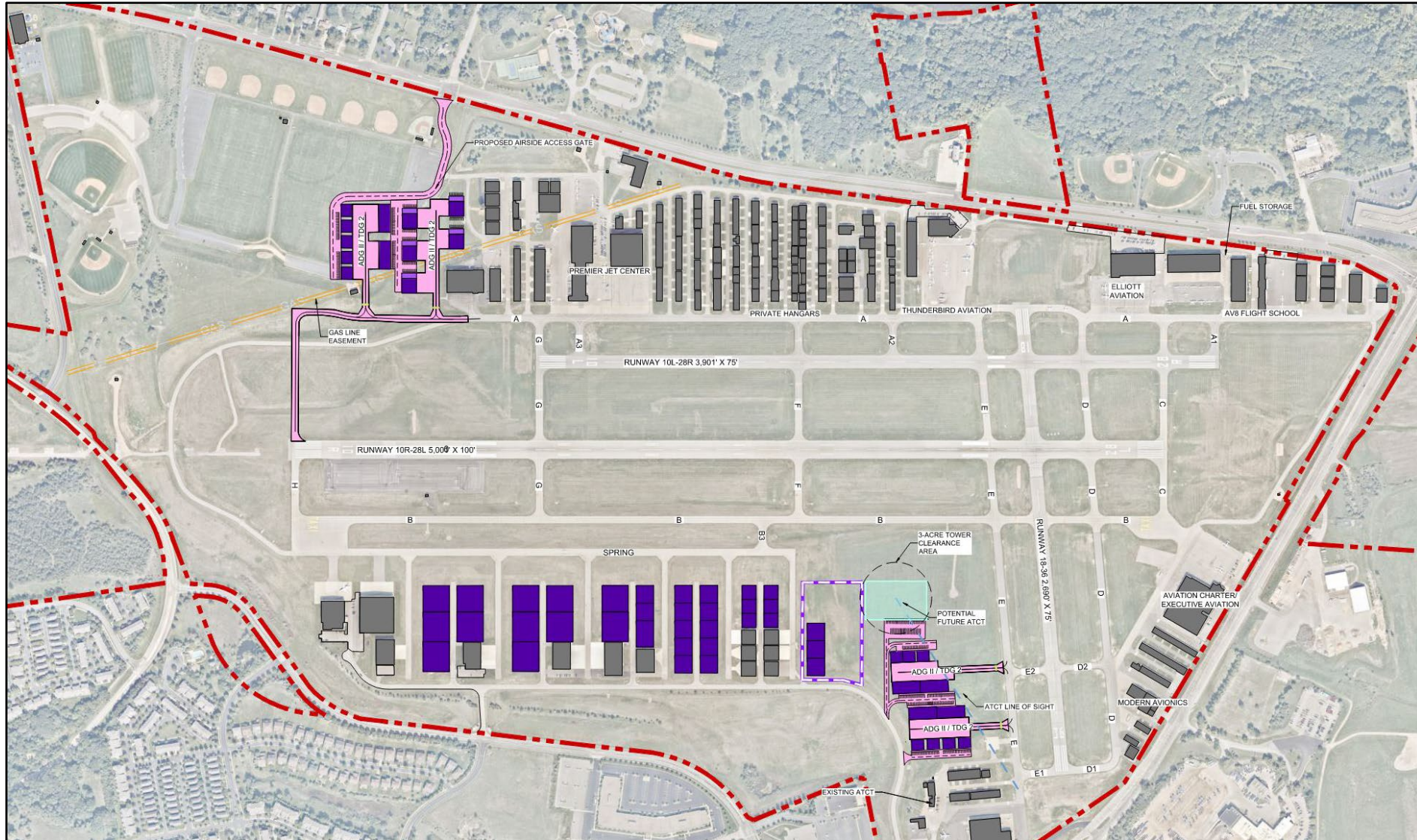


Hangar Development – Pre-Tower Relocation





Hangar Development – Post-Tower Relocation





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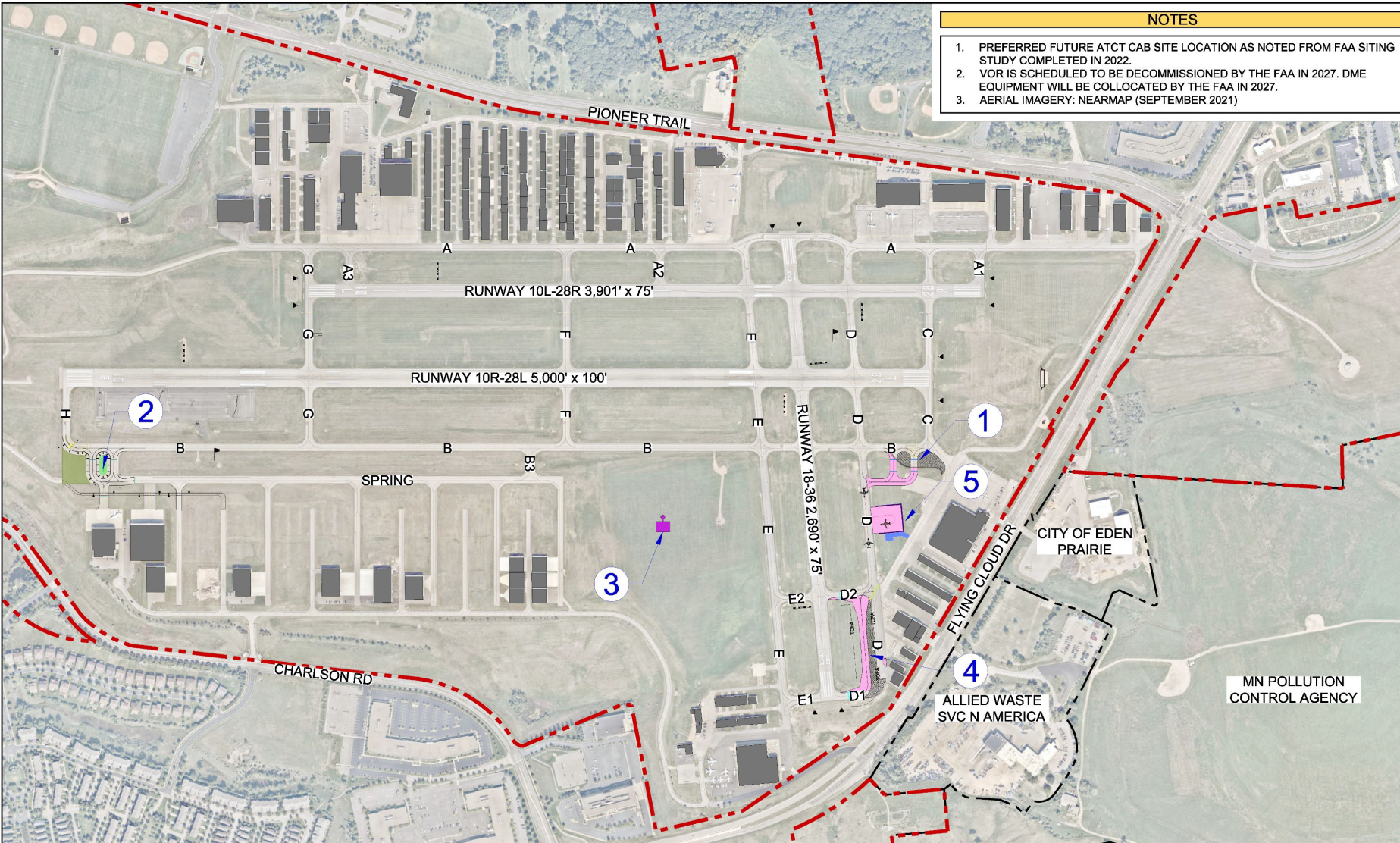
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Preliminary Airfield Alternatives: Miscellaneous Items





Miscellaneous Items



Potential LTP Projects

1. Runway 28L holdbay
2. Reconfigured Runway 10R holdbay (approved 2023 project)
3. Air Traffic Control Tower Relocation (see Note 1)
4. Taxiway D reconstruction
5. Ground Run Up Enclosure

Potential projects not labeled on map include relocating the airport weather sensor and updating airfield signage



What is a Ground Run Up Enclosure?



- A 3-sided, open top structure which can accommodate aircraft performing high-powered engine maintenance run ups
- They are acoustically and aerodynamically designed to dampen noise impact from engine maintenance run ups



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Next Steps/Schedule



Next Steps

Consider Feedback

- SAP #3 and today's public presentation
- Make alternative refinements

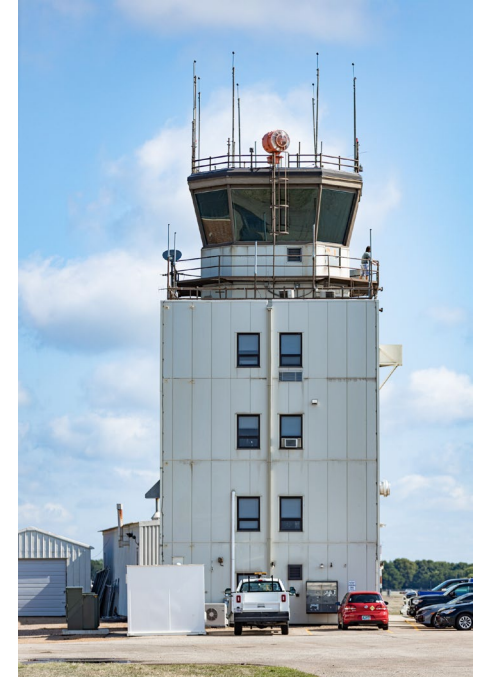


Evaluate Preliminary Airfield Alternatives

- Estimate costs
- Consider project phasing
- Conduct high-level evaluation of environmental considerations

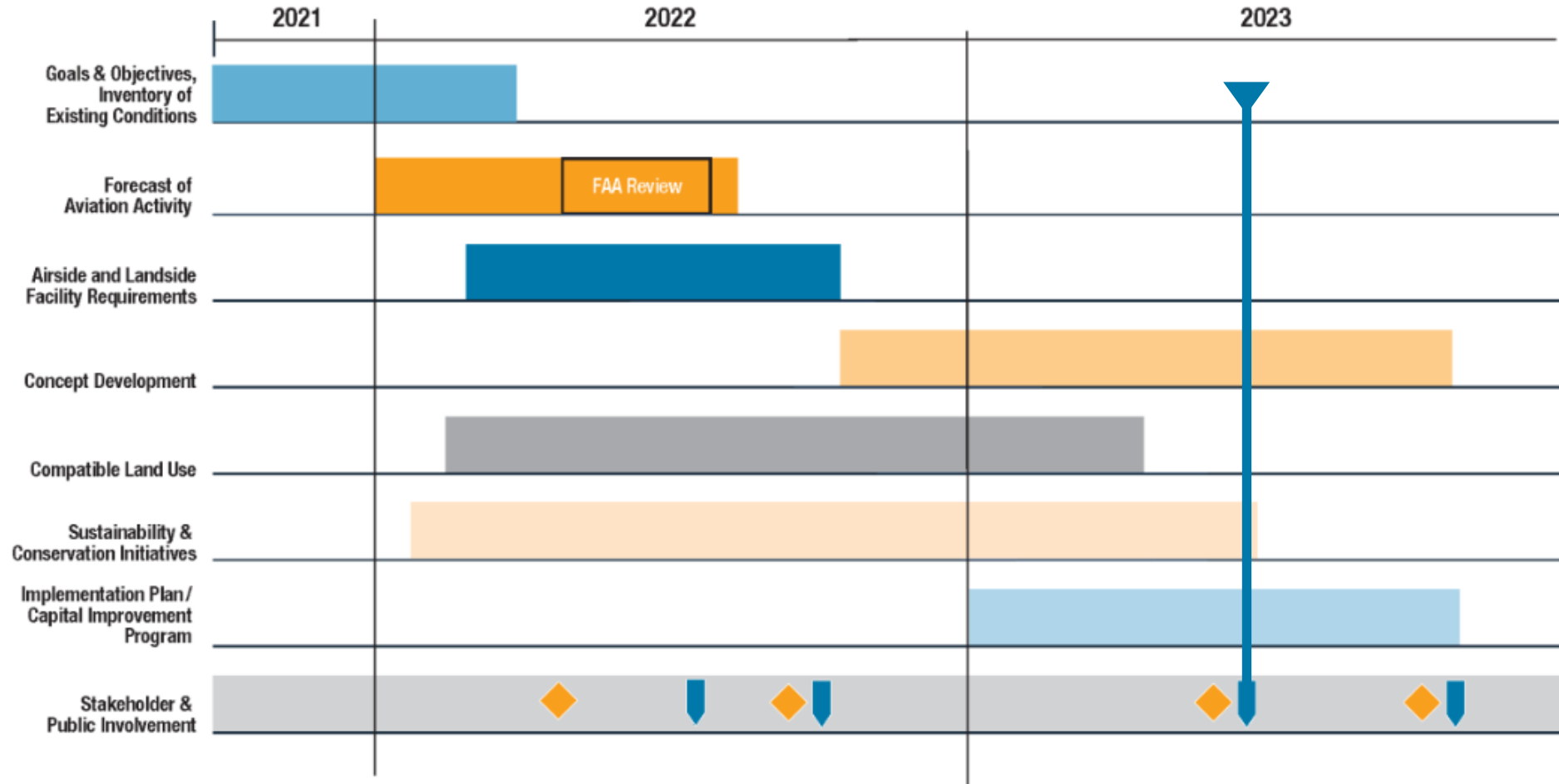
Identify, Share and Take Public Comments on Preferred Alternative

- Engage SAP & Hold Discover Flying Cloud Public Event #4





LTP Schedule



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Questions?



Please complete our survey



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Thank you for attending



Please complete our survey

