

Stakeholder Advisory Panel

2040 Long-Term Comprehensive Plan (LTP) Update
Flying Cloud Airport (FCM)

May 2, 2023



Welcome Remarks



Bridget Rief

Metropolitan Airports Commission (MAC)
Vice President, Planning and Development



Agenda

- Goals, Objectives, and Project Schedule
- Facility Requirements
- Preliminary Airfield Alternatives
- Next Steps / Schedule

Meeting Agenda and Presentation are available at:

metroairports.org/fcm-long-term-plan-documents-and-links



Goals, Objectives, and Project Schedule

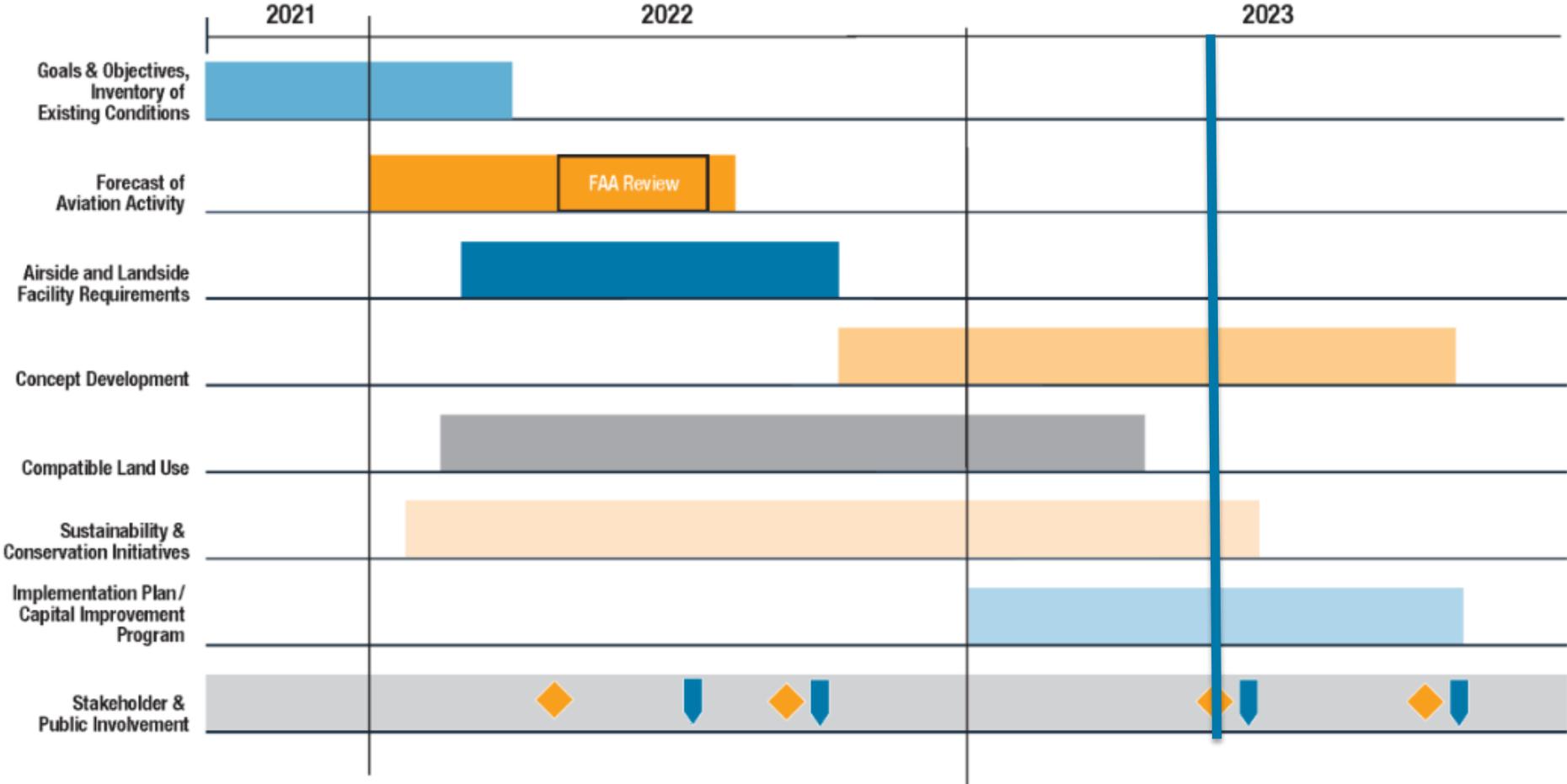


Goals and Objectives

1. Enhance airport safety
2. Preserve and, if possible, improve operational capabilities for the current aircraft using the airport
3. Promote financial stability of the MAC Reliever Airport system by exploring revenue opportunities for aeronautical and non-aeronautical development



Schedule



◆ Stakeholder Advisory Panel (SAP) Meeting ▾ Public Open House

Updated: October 2022 - Timeline is subject to change.



Facility Requirements



Critical Design Aircraft – Aircraft Approach Category (AAC) B to C

- The existing and future critical design aircraft is the Challenger 350 (AAC C)
- The previous critical design aircraft was identified as the Citation 3 (AAC B)

Citation 3



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

Challenger 350

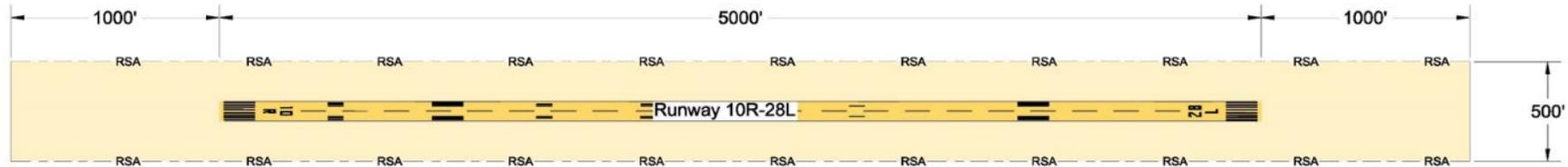


Wingspan: 69'
Tail Height: 20'
Max. Takeoff Weight: 40,600 lbs

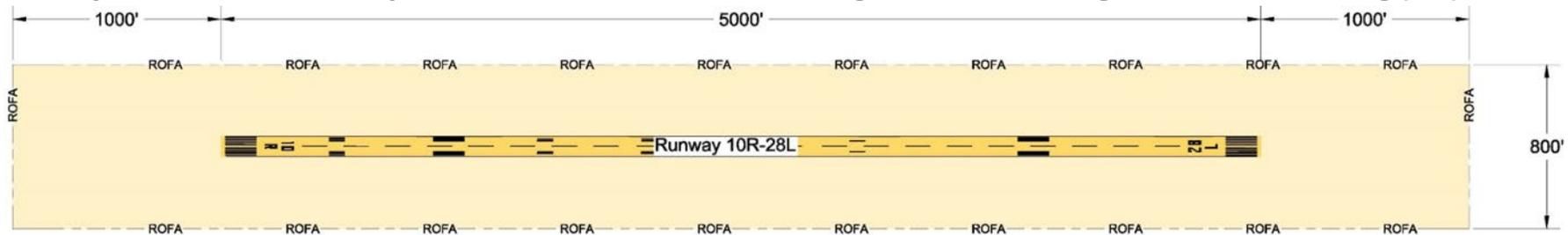


Facility Requirements

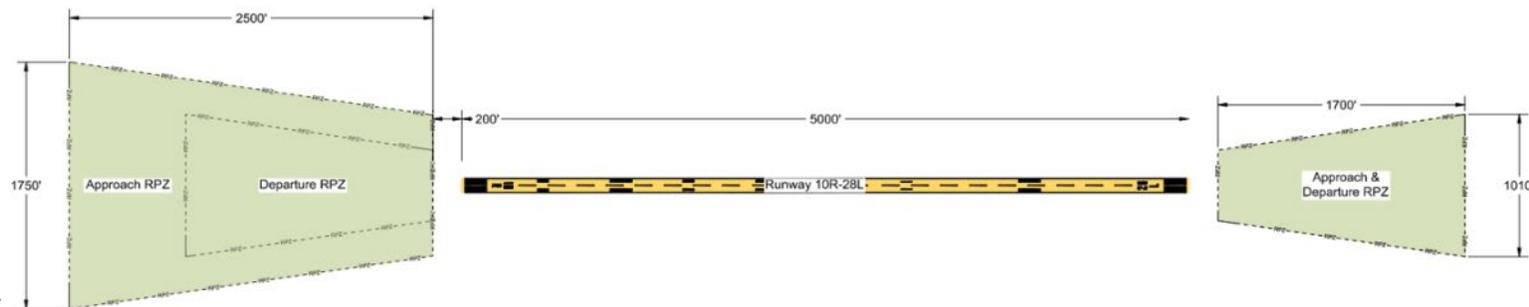
- **Runway Safety Area (RSA):** The area surrounding the runway consisting of a prepared surface suitable for reducing the risk of damage to an aircraft in the event of an undershoot, overshoot, or excursion from the runway.



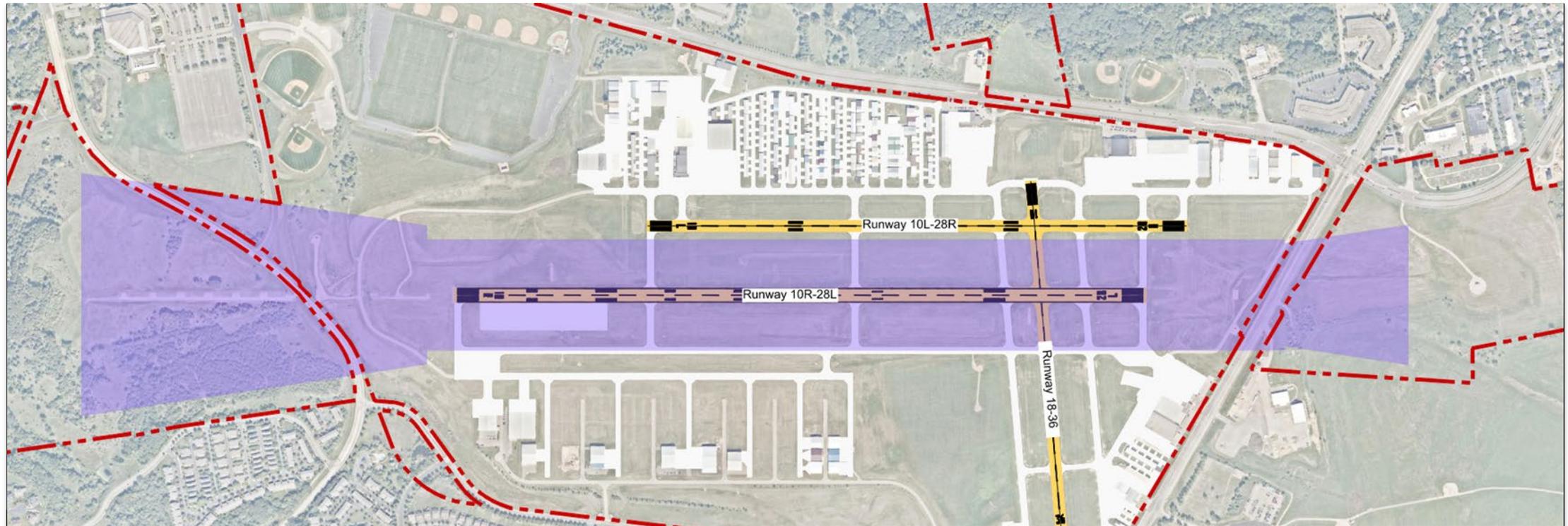
- **Runway Object Free Area (ROFA):** The area centered on the surface of the runway provided to enhance the safety of aircraft by remaining clear of objects, except for objects that are fixed-by-function in the OFA for air navigation or aircraft ground maneuvering purposes.



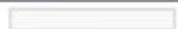
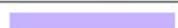
- **Runway Protection Zone (RPZ):** The 2-dimensional trapezoidal area which is intended for land-use compatibility control. The function of the RPZ is to protect people and property on the ground due to undershoots and overshoots of aircraft arriving and departing the runway.



Critical Aircraft Focus Area

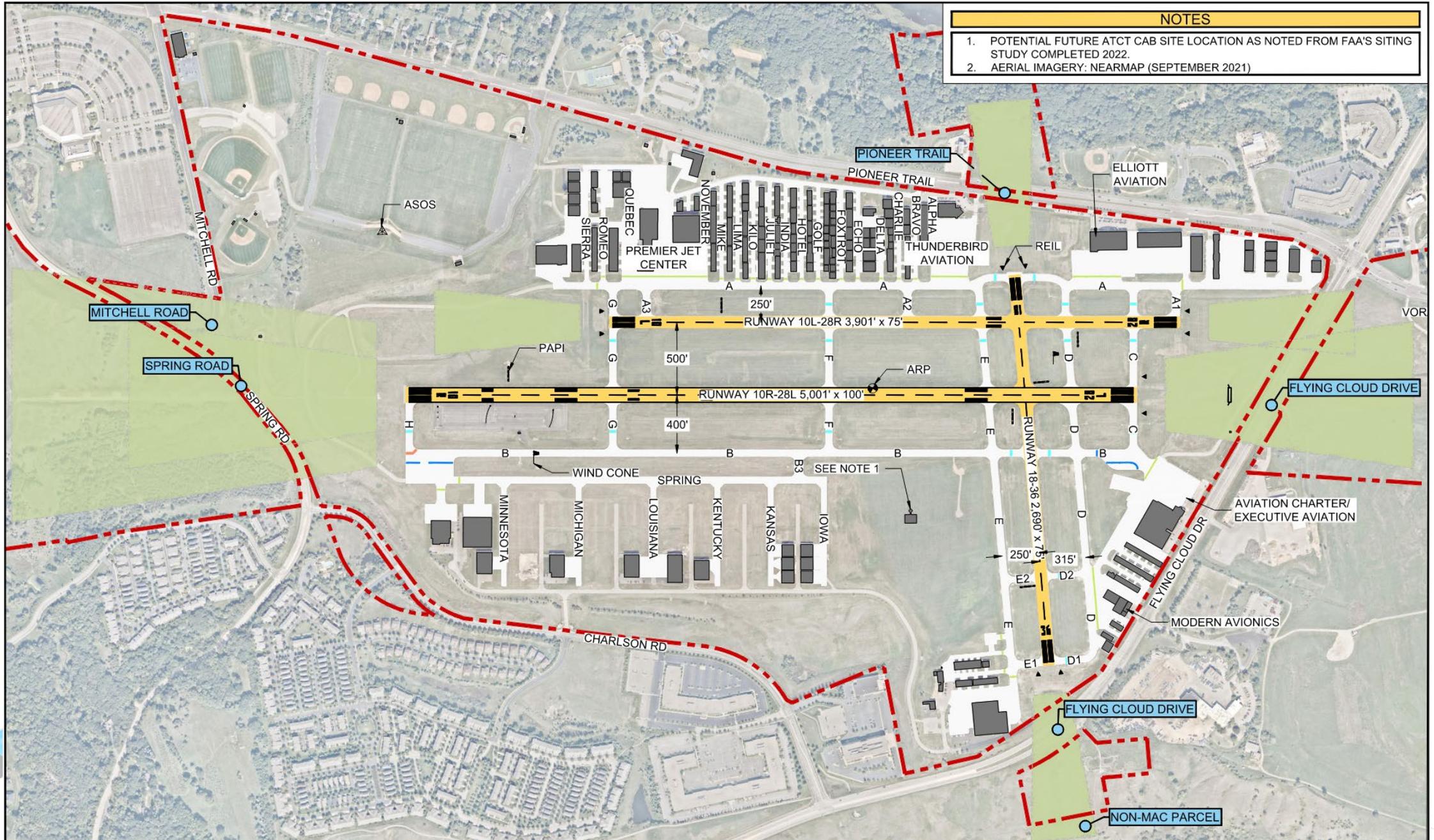


DRAWING LEGEND

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.

Gap Standards Analysis – Runway Protection Zone



- NOTES**
1. POTENTIAL FUTURE ATCT CAB SITE LOCATION AS NOTED FROM FAA'S SITING STUDY COMPLETED 2022.
 2. AERIAL IMAGERY: NEARMAP (SEPTEMBER 2021)

MITCHELL ROAD

SPRING ROAD

PIONEER TRAIL

ELLIOTT AVIATION

ASOS
 QUEBEC
 NOVEMBER
 MIKE
 LIMA
 KILLO
 NINDA
 JULIET
 HOTEL
 GOLF
 FOX TROT
 ECHO
 DELTA
 CHARLIE
 BRAVO
 ALPHA
 THUNDERBIRD AVIATION

250'
 RUNWAY 10L-28R 3,901' x 75'

500'
 400'
 RUNWAY 10R-28L 5,001' x 100'

250'
 315'
 RUNWAY 18-36 2,690' x 75'

PAPI
 WIND CONE
 SPRING
 MINNESOTA
 MICHIGAN
 LOUISIANA
 KENTUCKY
 KANSAS
 IOWA
 SEE NOTE 1

AVIATION CHARTER/
 EXECUTIVE AVIATION

MODERN AVIONICS

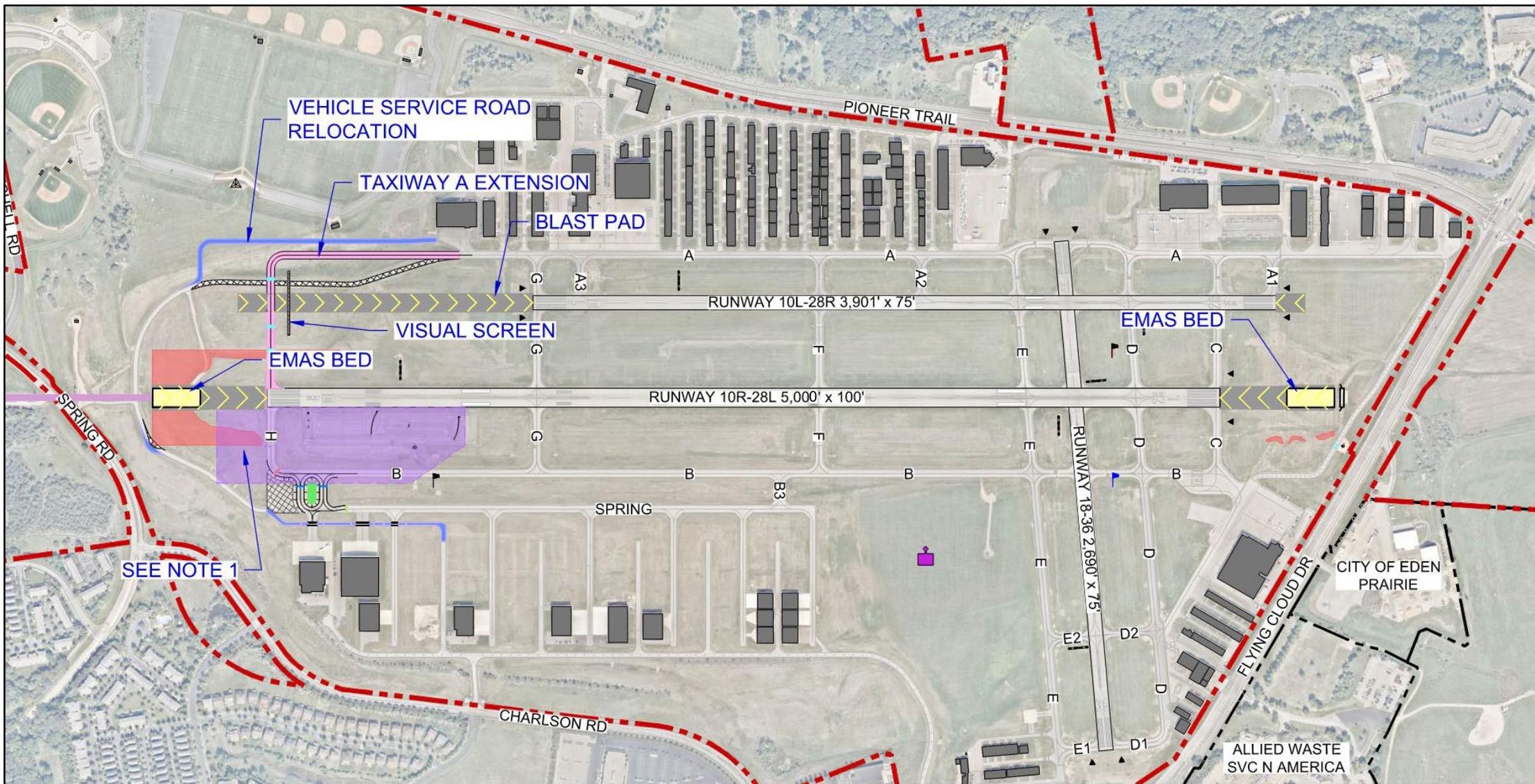
FLYING CLOUD DRIVE

NON-MAC PARCEL

Preliminary Airfield Alternatives (Runways)



Runway Alternative 1 – 10R & 28L EMAS Beds



NOTES

1. REQUIRES REGRADING TO REMOVE UNSUITABLE TERRAIN IN THE RSA.
2. AERIAL IMAGERY: NEARMAP (SEPTEMBER 2021)

KEY ALTERNATIVE ATTRIBUTES

- CONSTRUCT 1,350-FOOT BLAST PAD BETWEEN RUNWAY 10L THRESHOLD AND EXTENDED TAXIWAY A
- INSTALL EMAS ON BOTH ENDS OF RUNWAY 10R-28L
- RELOCATE VSR OUTSIDE OF TAXIWAY A TOFA
- REGRADING OF UNSUITABLE SLOPES IN THE RUNWAY 10R-28L RSA

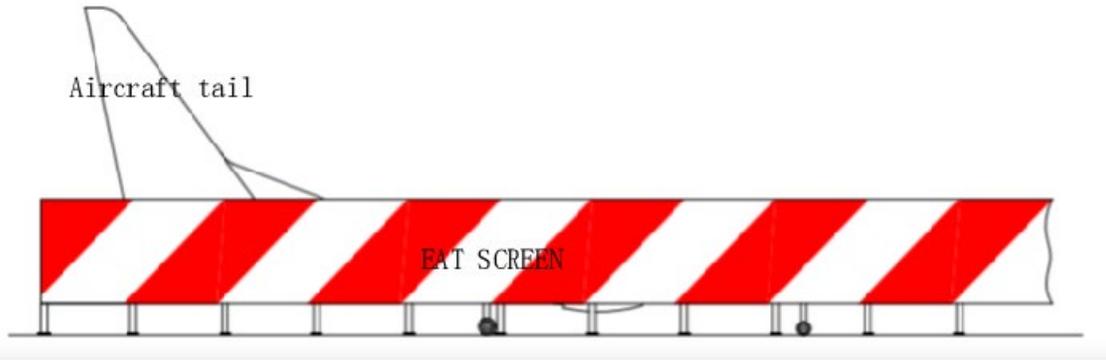
Engineered Material Arresting System



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

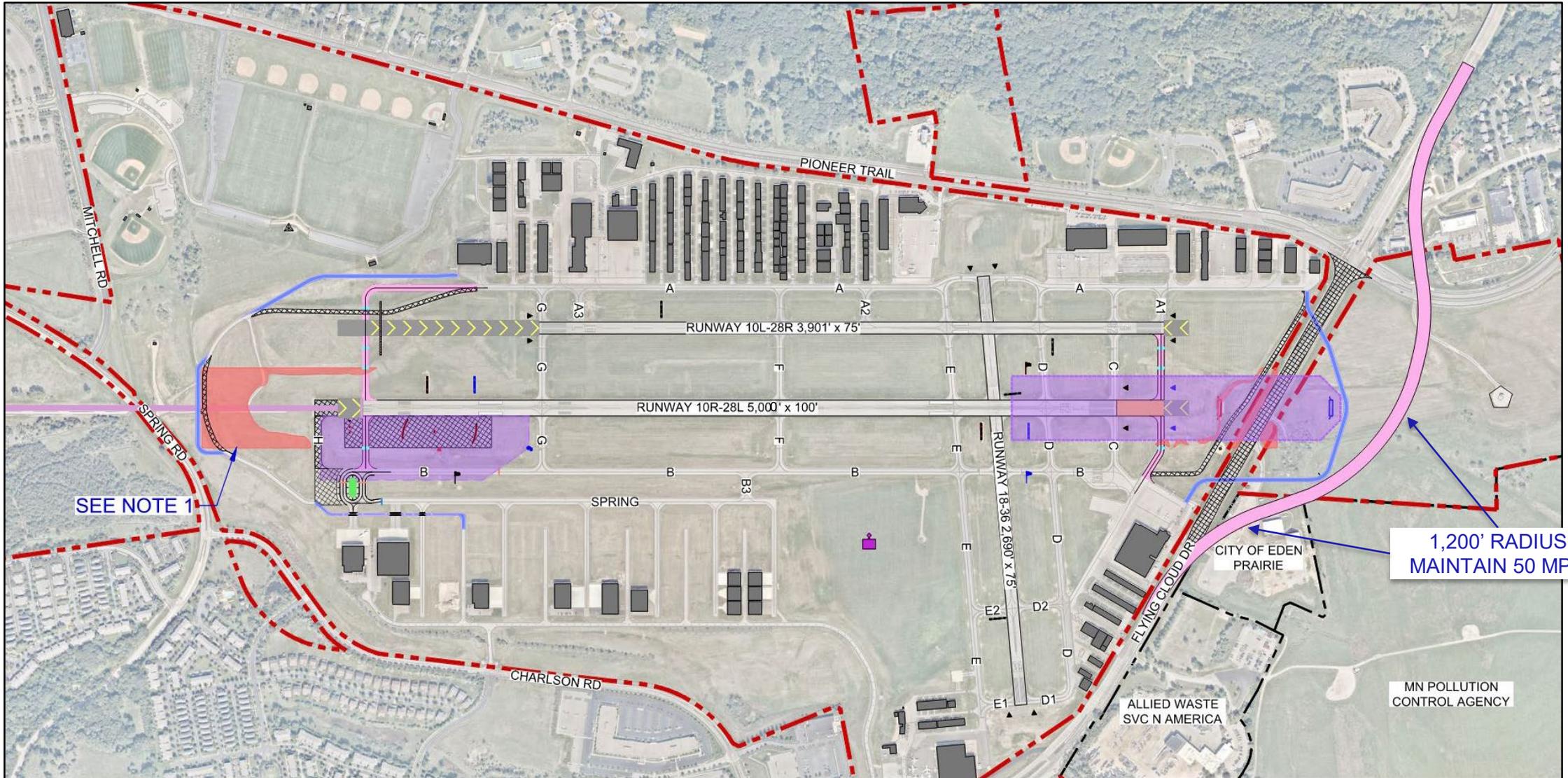
- An Engineered Material Arresting System (EMAS) bed is comprised of lightweight, crushable material placed at the end of a runway to safely stop an aircraft that overruns the end of the runway
- EMAS beds are an FAA approved mitigation strategy when it is not practical to achieve the full standard runway safety area beyond the end of a runway
- The size of EMAS beds vary and is based on dimensions of the runway safety area and aircraft fleet using the airport

Visual Screen



- A visual screen obscures aircraft using an end around taxiway to prevent pilots of departing aircraft from thinking an aircraft is crossing the active runway

Runway Alternative 2 – 10R & 28L RSA Grading



SEE NOTE 1

1,200' RADIUS
MAINTAIN 50 MPH

CITY OF EDEN
PRAIRIE

ALLIED WASTE
SVC N AMERICA

MN POLLUTION
CONTROL AGENCY

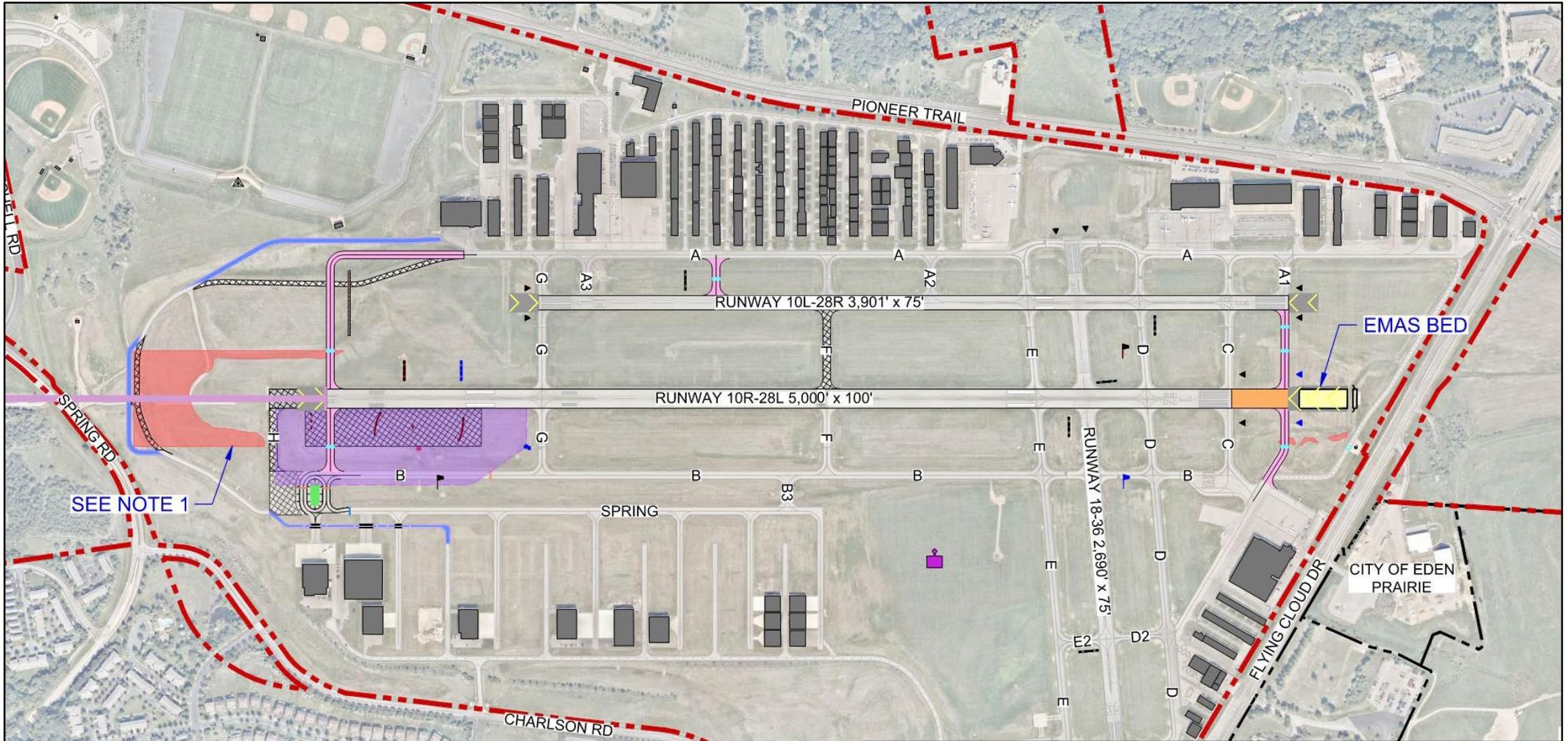
KEY ALTERNATIVE ATTRIBUTES

- SHIFT RUNWAY 10R-28L EAST BY 296.5'
- CONSTRUCT 1,350-FOOT BLAST PAD BETWEEN RUNWAY 10L THRESHOLD AND EXTENDED TAXIWAY A
- RELOCATE VSR OUTSIDE TAXIWAY A TOFA
- RELOCATE FLYING CLOUD DRIVE AND EAST VSR
- RUNWAY 10R LOCALIZER RELOCATION AND REPLACEMENT OF END-FIRE GLIDE SLOPE WITH CAPTURE EFFECT GLIDE SLOPE

NOTES

1. REQUIRES REGRADING TO REMOVE UNSUITABLE TERRAIN IN THE RSA.
2. AERIAL IMAGERY: NEARMAP (SEPTEMBER 2021)

Runway Alternative 3 – 10R RSA Grading; 28L EMAS Bed



NOTES

1. REQUIRES REGRADING TO REMOVE UNSUITABLE TERRAIN IN THE RSA.
2. AERIAL IMAGERY: NEARMAP (SEPTEMBER 2021)

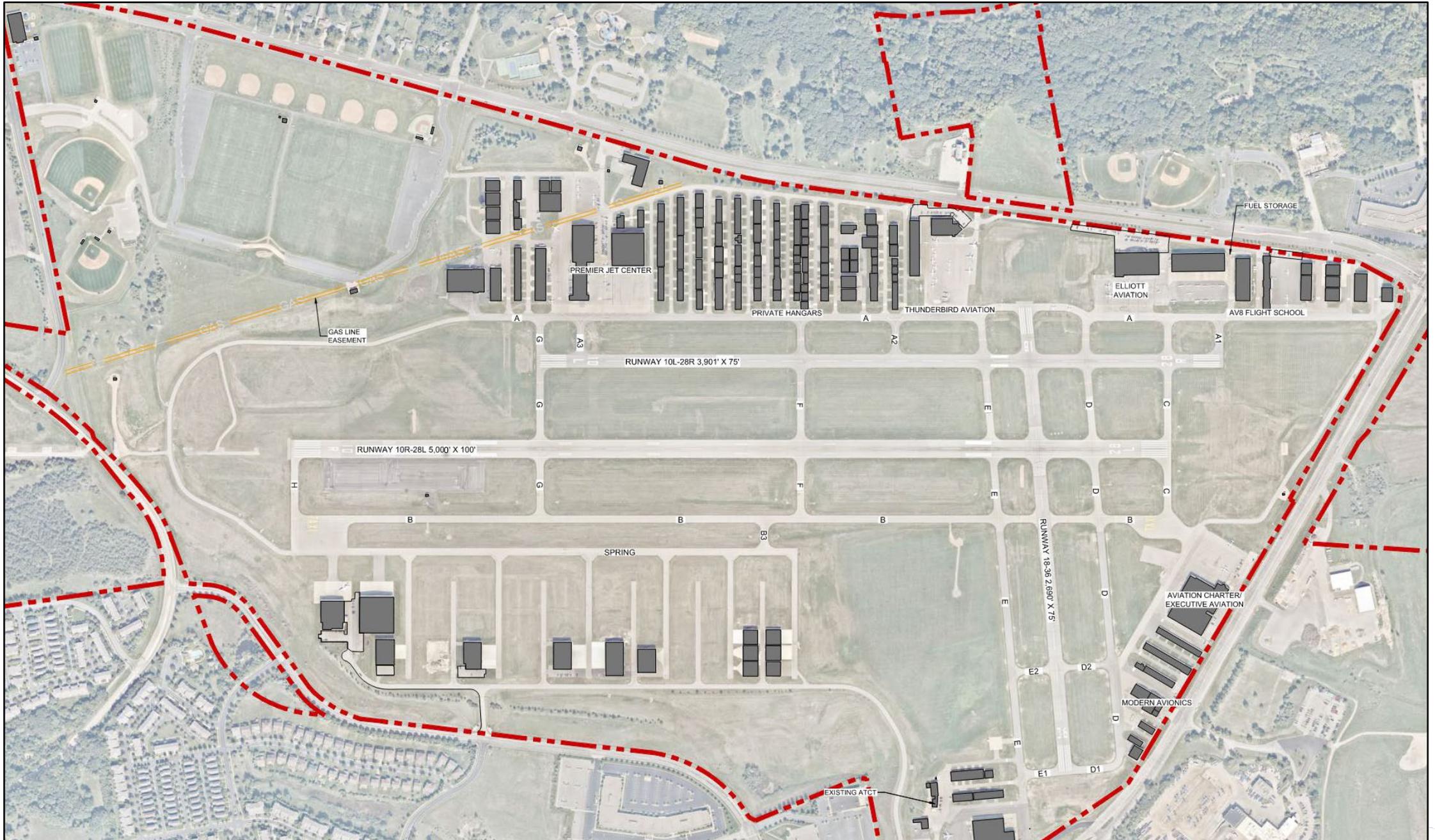
KEY ALTERNATIVE ATTRIBUTES

- SHIFT RUNWAY 10R-28L EAST BY 296.5' TO ALIGN EAST END OF RUNWAYS
- INSTALL EMAS ON RUNWAY 28L END
- REDUCTION OF RUNWAY 28L LDA TO 4,705' BY ADDITION OF DISPLACED THRESHOLD
- EXTENSION OF TAXIWAY A TO RUNWAY 10R END
- RELOCATE VSR OUTSIDE TAXIWAY A TO ROFA
- REMOVE TAXIWAY F SEGMENT BETWEEN RUNWAY 10R-28L AND 10L-28R
- REGRADING OF UNSUITABLE SLOPES IN THE RUNWAY 10R-28L RSA

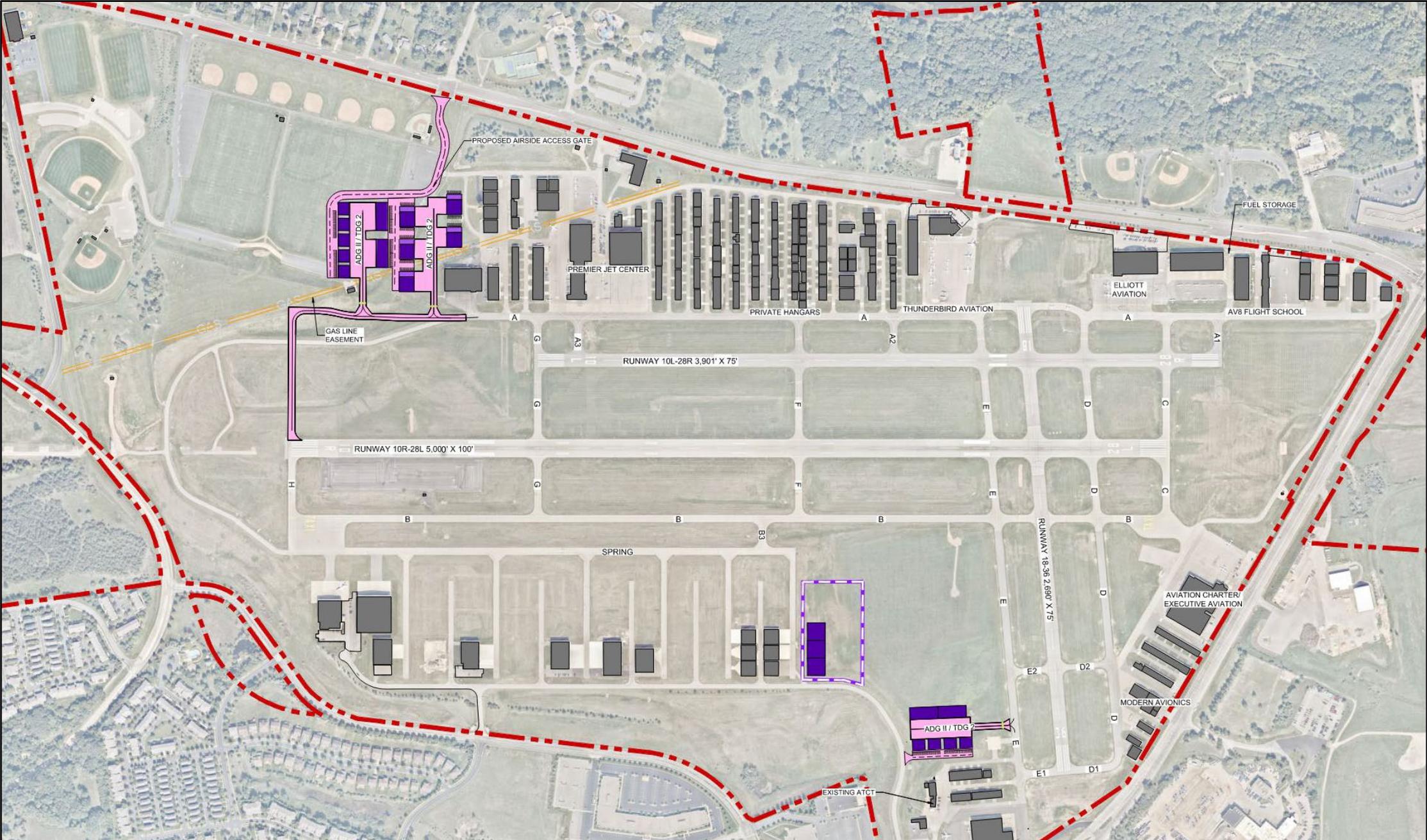
Hangar Development



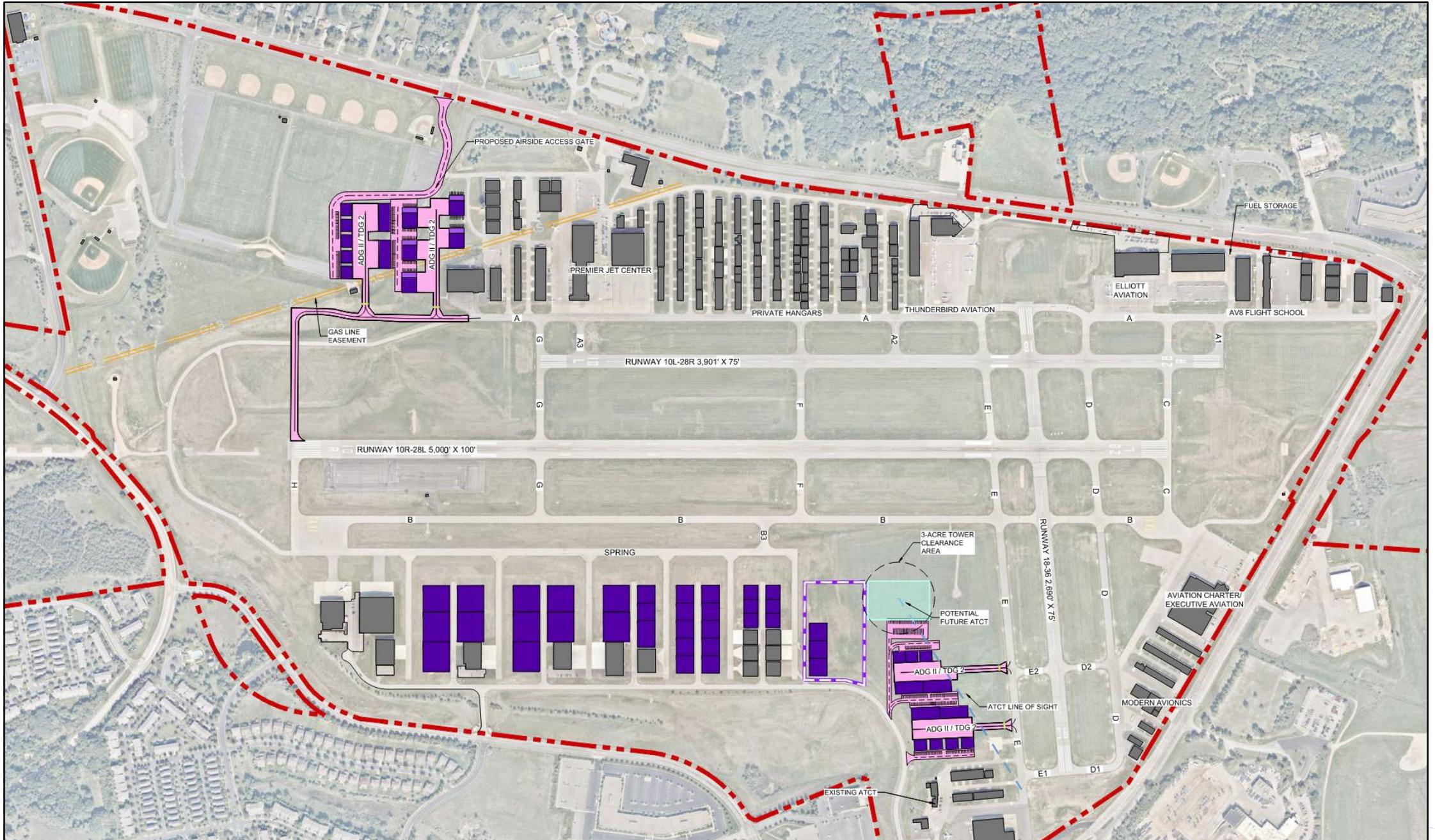
Existing Hangars



Hangar Development – Pre-Tower Relocation



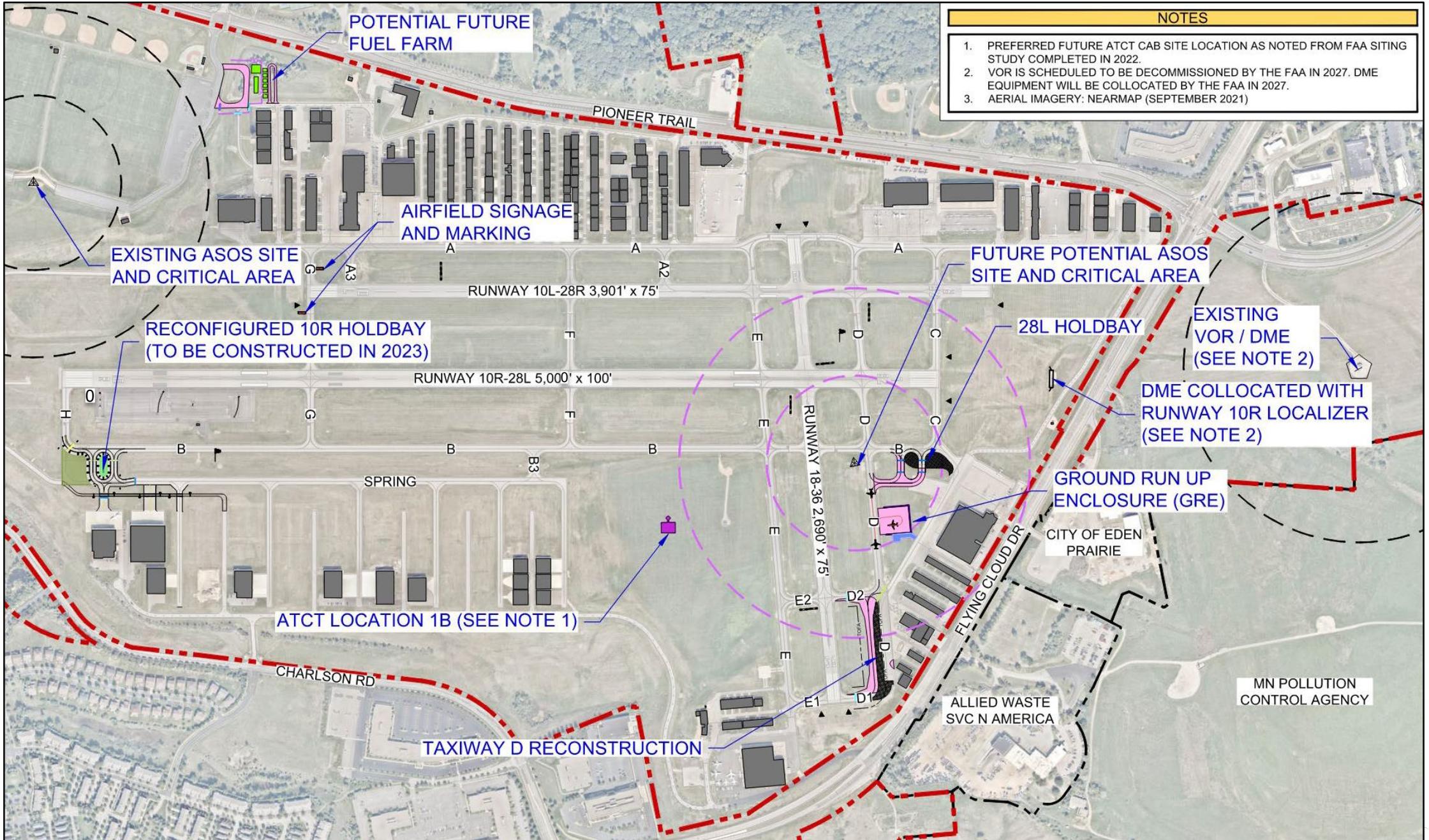
Hangar Development – Post-Tower Relocation



Preliminary Airfield Alternatives (Miscellaneous Facilities)



Proposed Miscellaneous Facilities



- | NOTES | |
|-------|--|
| 1. | PREFERRED FUTURE ATCT CAB SITE LOCATION AS NOTED FROM FAA SITING STUDY COMPLETED IN 2022. |
| 2. | VOR IS SCHEDULED TO BE DECOMMISSIONED BY THE FAA IN 2027. DME EQUIPMENT WILL BE COLLOCATED BY THE FAA IN 2027. |
| 3. | AERIAL IMAGERY: NEARMAP (SEPTEMBER 2021) |

EXISTING ASOS SITE AND CRITICAL AREA

RECONFIGURED 10R HOLDBAY (TO BE CONSTRUCTED IN 2023)

ATCT LOCATION 1B (SEE NOTE 1)

TAXIWAY D RECONSTRUCTION

POTENTIAL FUTURE FUEL FARM

AIRFIELD SIGNAGE AND MARKING

PIONEER TRAIL

RUNWAY 10L-28R 3,901' x 75'

RUNWAY 10R-28L 5,000' x 100'

SPRING

RUNWAY 18-36 2,690' x 75'

FUTURE POTENTIAL ASOS SITE AND CRITICAL AREA

28L HOLDBAY

EXISTING VOR / DME (SEE NOTE 2)

DME COLLOCATED WITH RUNWAY 10R LOCALIZER (SEE NOTE 2)

GROUND RUN UP ENCLOSURE (GRE)

CITY OF EDEN PRAIRIE

FLYING CLOUD DR

ALLIED WASTE SVC N AMERICA

MN POLLUTION CONTROL AGENCY

CHARLSON RD

Next Steps/Schedule

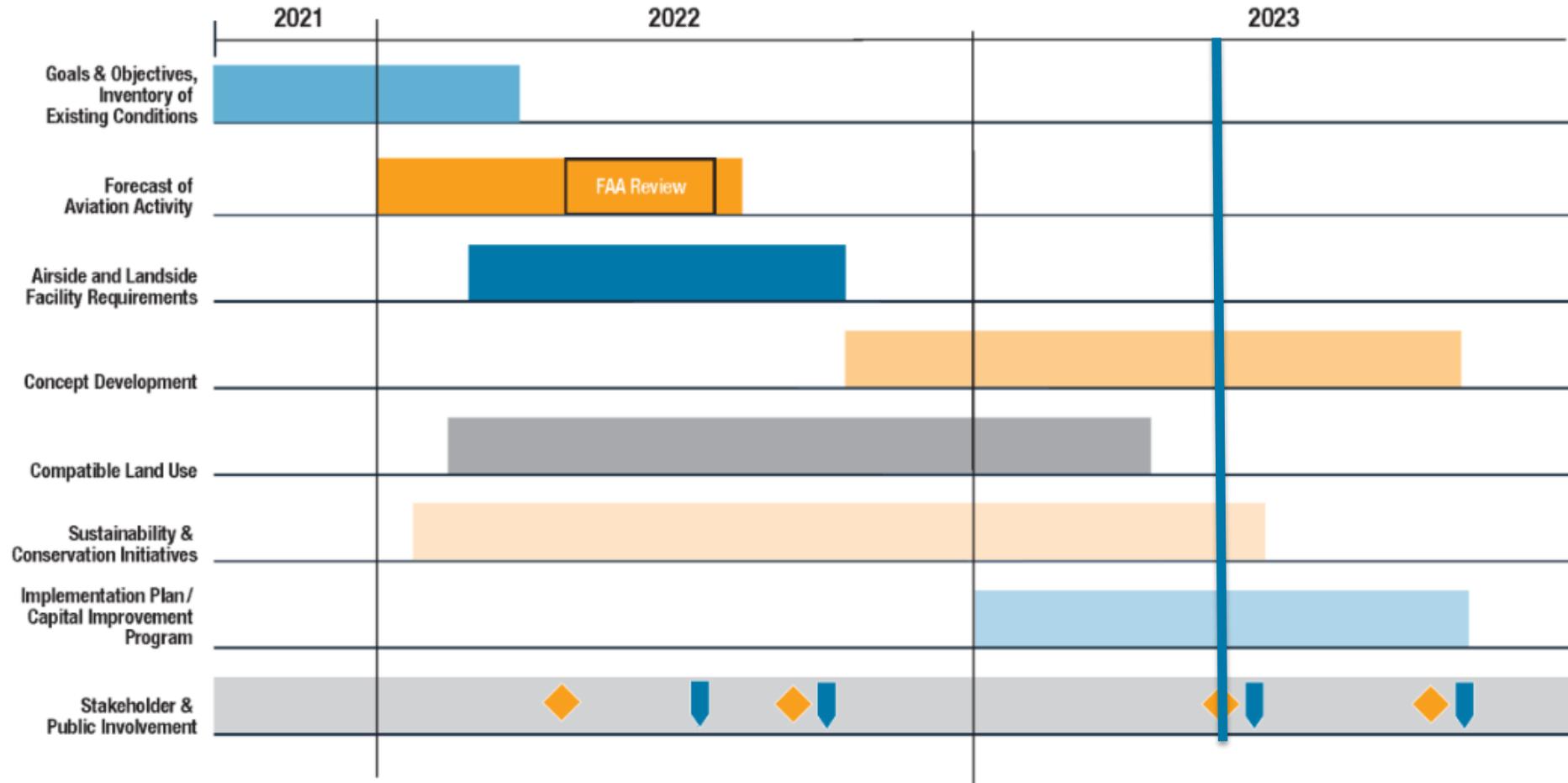


Next Steps - Tasks

- Discover Flying Cloud Meeting # 3 (May 24, 2023)
- Evaluate Alternatives
 - Cost Estimates (ACIP)
 - Potential Project Phasing
 - Environmental Considerations
- Preferred Alternative
 - Final SAP meeting (Preferred Alternative)
 - Discover Flying Cloud Meeting # 4



Next Steps - Schedule



◆ Stakeholder Advisory Panel (SAP) Meeting ▾ Public Open House

Updated: October 2022 - Timeline is subject to change.



You're Invited to
DISCOVER

Flying Cloud Airport



Join us for an open house and presentation to learn more about Flying Cloud Airport and how the Metropolitan Airports Commission (MAC) is planning for its future.

Also enjoy displays from airport partners.

WHEN: Wednesday, May 24, 2023 - 4:30 - 7:00 p.m.
Presentation begins at 5:30 p.m.

WHERE: Hennepin Technical College - Eden Prairie Campus
13100 College View Dr, Eden Prairie, MN 55347

Free parking available onsite.



Scan this QR code to learn more about the planning process and future public events.

Discover Flying Cloud Airport is a series of four events for the public to learn about the Flying Cloud Airport long-term planning process and to provide input into the process. The MAC welcomes your interest and input throughout.

Questions/Discussion

Please complete the [post-event survey](#)



May 2, 2023



Thank you for participating!

2040 Long-Term Plan (LTP) Update
Flying Cloud Airport (FCM)

Please complete the [post-event survey](#)



May 2, 2023

