

**ST. PAUL
DOWNTOWN AIRPORT**

Long-Term Plan 2045

2045 Long-Term Plan Update

June 23, 2025



ST. PAUL DOWNTOWN AIRPORT

Long-Term Plan 2045

WELCOME REMARKS

Discover STP
Meeting #1

Joe Harris

Vice President, Maintenance
and Operations

Metropolitan Airports Commission





AGENDA



Introductions



Stakeholder Engagement Program



Long-Term Plan Overview



Existing Conditions



Preliminary Forecasting / Facility Requirements



Next Steps

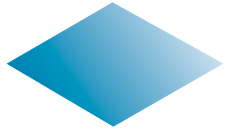


**ST. PAUL
DOWNTOWN AIRPORT**

Long-Term Plan 2045

INTRODUCTIONS





METROPOLITAN AIRPORTS COMMISSION (MAC)



Eric Gilles

Director, Airport Planning, LTP Project Manager



Blaine Peterson

STP Airport Manager



Michele Ross

Director, Stakeholder Engagement





CONSULTANT TEAM | KIMLEY-HORN

Kimley»Horn

Colin Wheeler

Senior Aviation Planner, Consultant Project Manager



John Coliton

Aviation Planner, Deputy Project Manager



Zach Simons

Aviation Planner, Production Lead





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STAKEHOLDER ENGAGEMENT PROGRAM





STAKEHOLDER ENGAGEMENT PROGRAM

- Fulfill the MAC's legislative purpose:
 - Promote air navigation in and through the State
 - Promote the efficient, safe and economical handling of air commerce.
 - Assure minimum environmental impact from air navigation.
- Conduct responsible and transparent planning
- Support a thorough public involvement process





STAKEHOLDER ENGAGEMENT PROGRAM



- Stakeholder Advisory Panel
- Discover Saint Paul Events
- Project Website
 - <https://metroairports.org/stp-long-term-plan>
 - E-News Project Updates
- Updates to MAC's PD&E Committee
- Email Contact
 - LTP@mspmac.org



STAKEHOLDER ADVISORY PANEL (SAP)

**Airport
Tenants**

**Local
Communities**

**Regional
Businesses**

**Tourism
Associations**

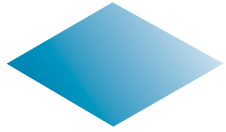


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Long-Term Plan 2045

LONG-TERM PLAN OVERVIEW





WHAT IS A LONG-TERM PLAN (LTP)

- A planning document that records current and future needs of an airport
- Focuses on a 20-year horizon, with intermediate steps at 5- and 10-years
- FAA typically requires updates every 7-10 years
- The last LTP update for STP was completed in 2010
- Does not authorize actual construction
- Limited to immediate airport environment (on-airport property)



GOALS & OBJECTIVES



Enhance airport safety



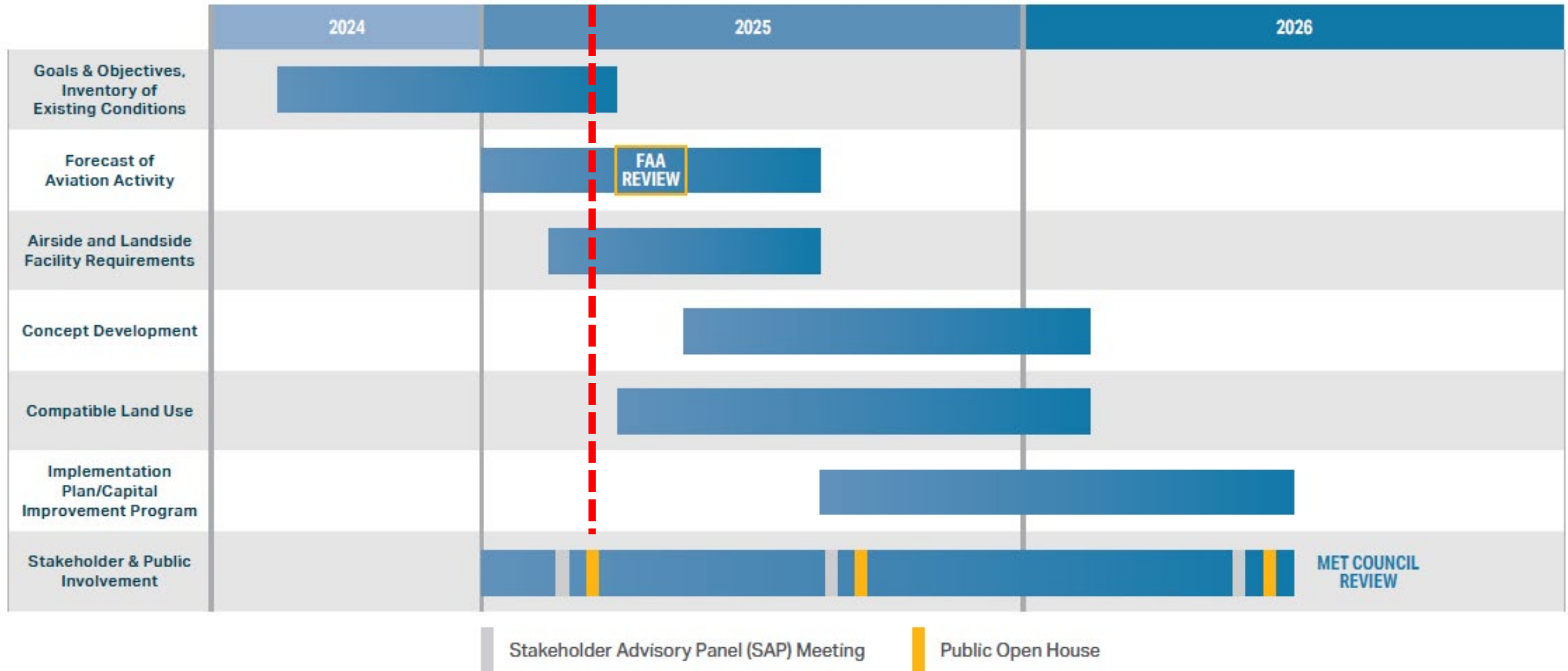
Preserve and, if possible, improve operational capabilities for the current family of aircraft using the airport



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



PROJECT SCHEDULE / TIMELINE





**ST. PAUL
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Long-Term Plan 2045

LONG-TERM PLAN UPDATES

Existing Conditions





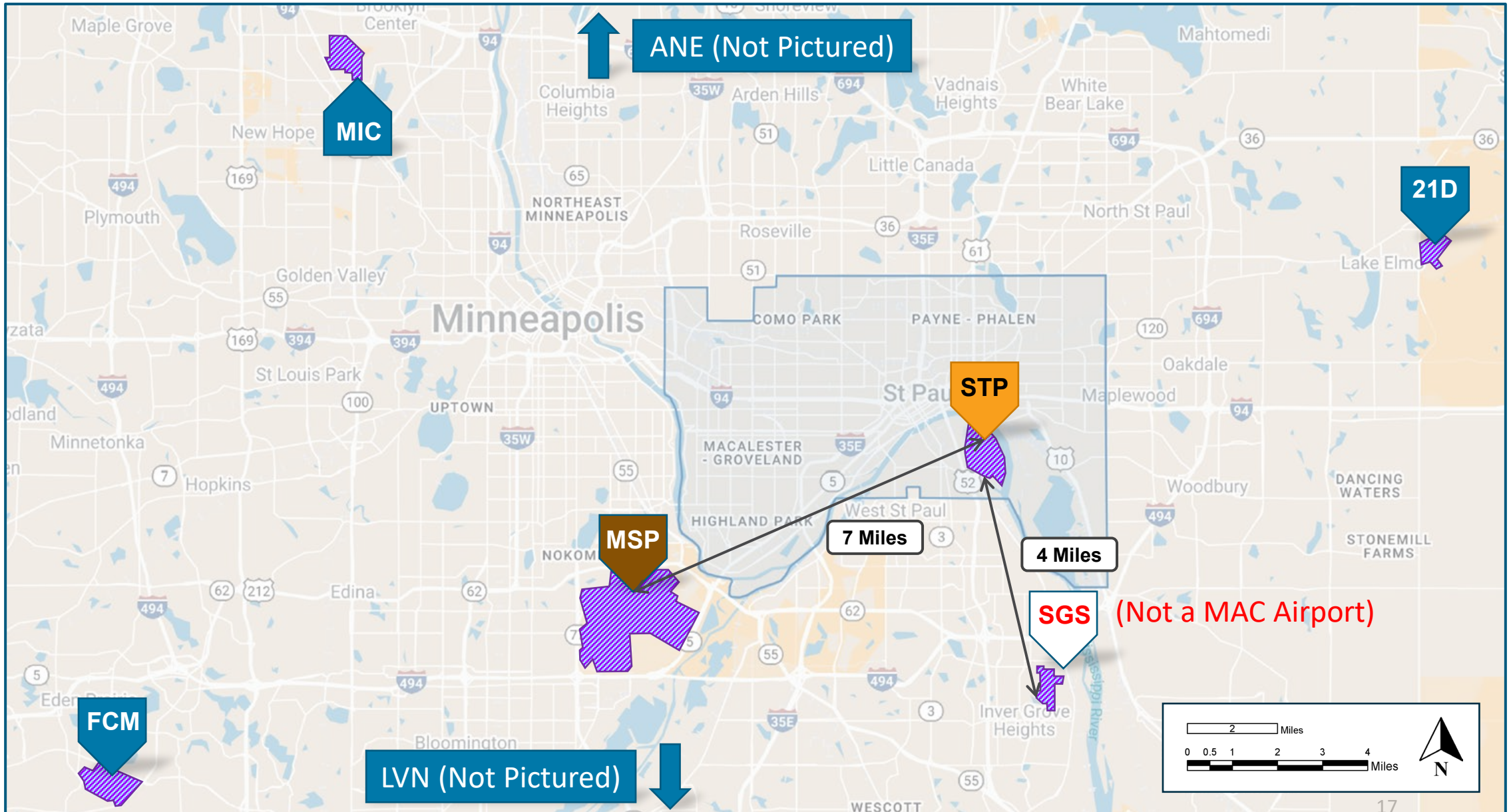
INVENTORY OF EXISTING CONDITIONS

- Assembling of information, data, and mapping related to the Airport
- Interviews and desktop research
- Information collected includes:
 - History and background information
 - Regional setting and surrounding land uses
 - Physical facilities
 - Historical aviation activity
 - Design standards conformance

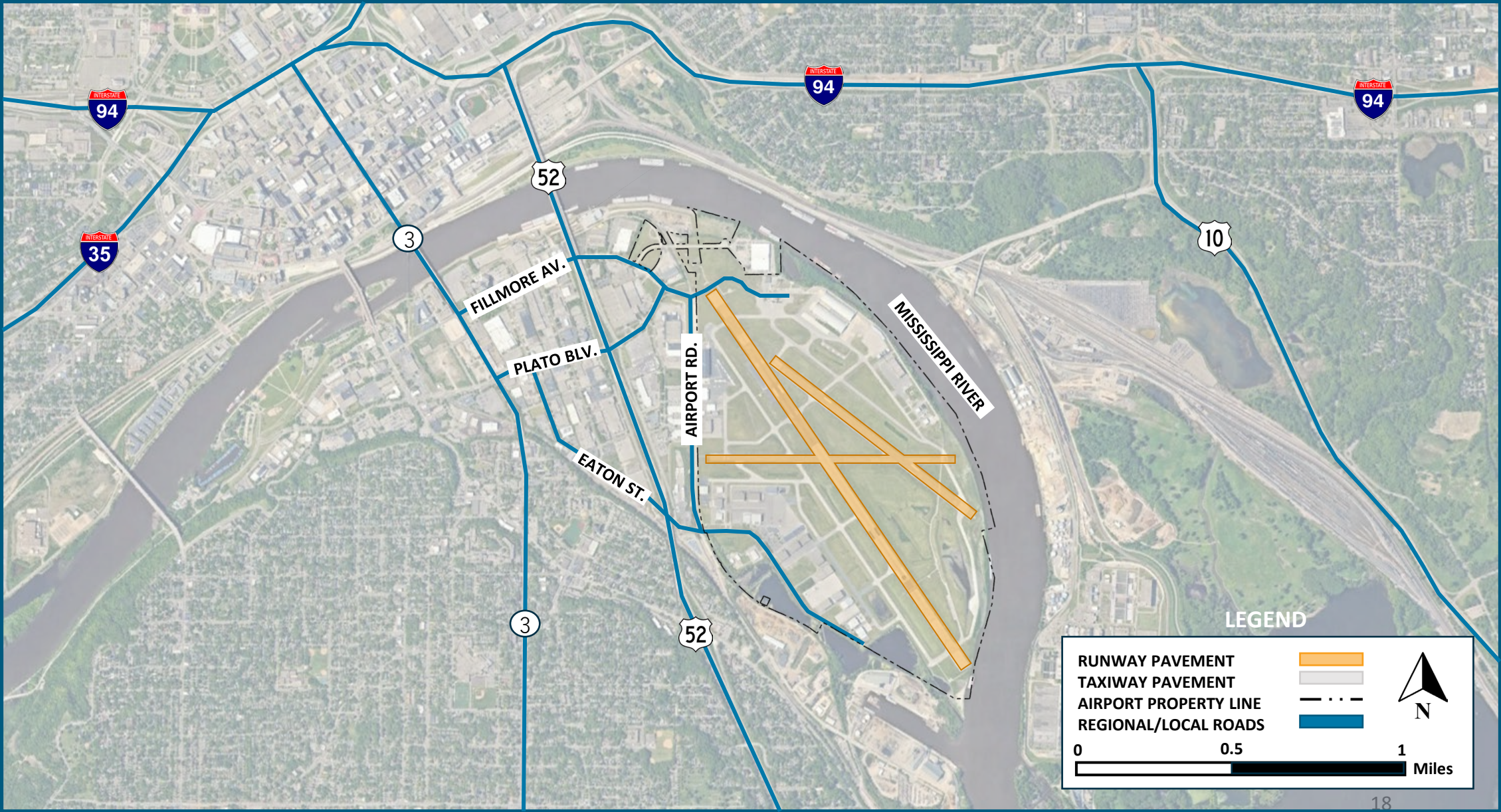


Source: Metropolitan Airports Commission

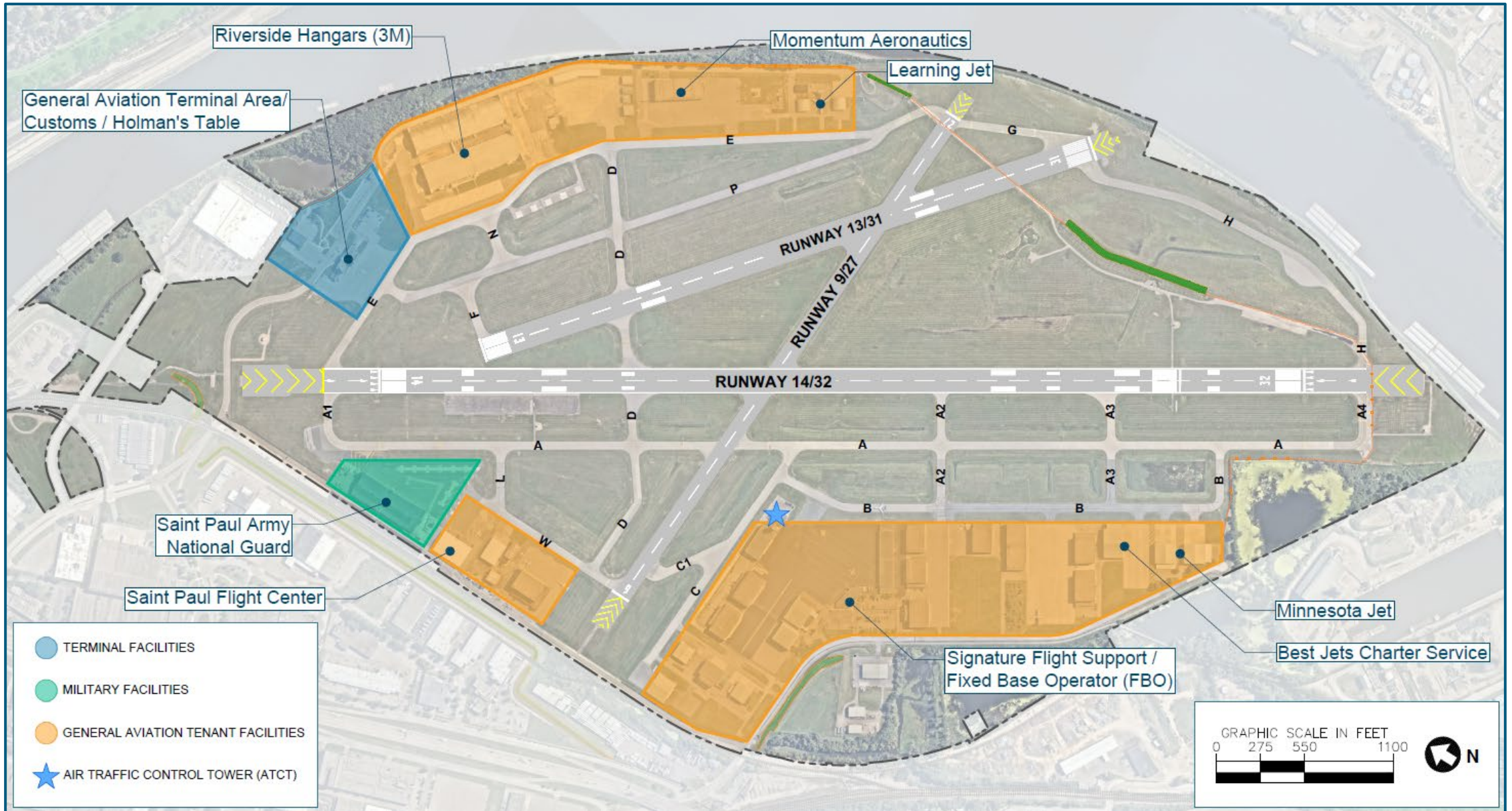
AIRPORT VICINITY MAP



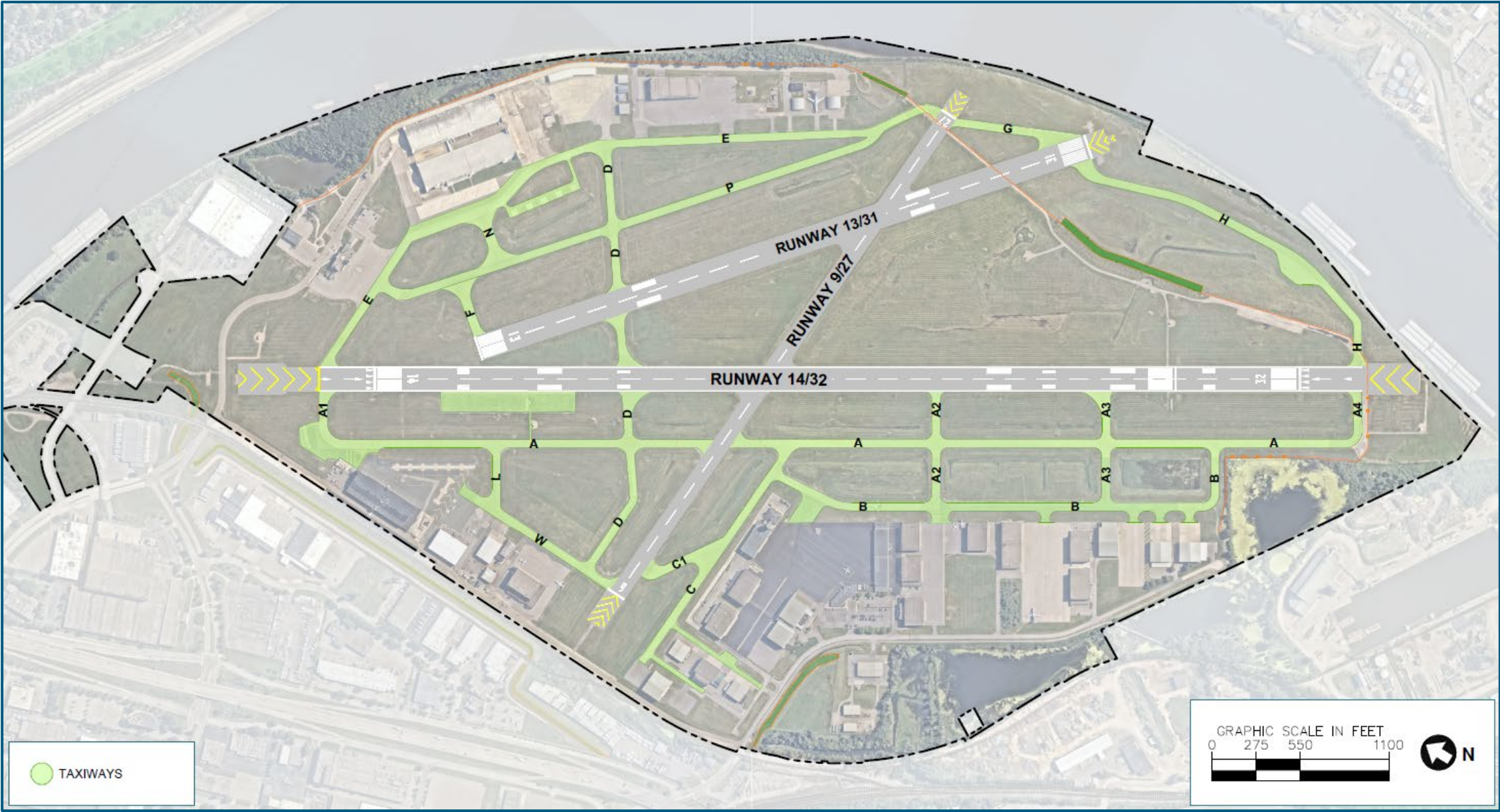
LOCAL ROAD ACCESS



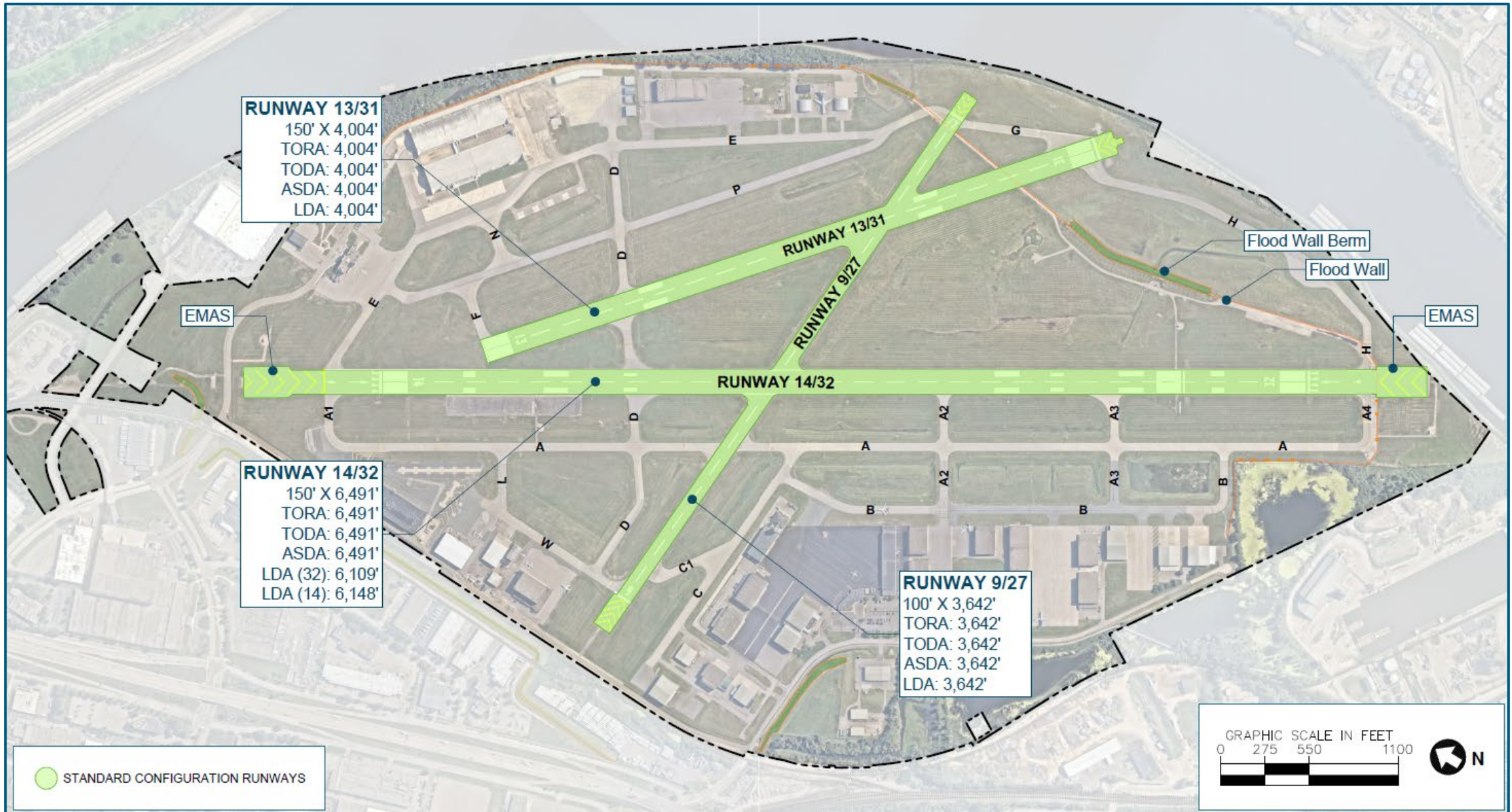
INVENTORY OF EXISTING CONDITIONS: TENANTS



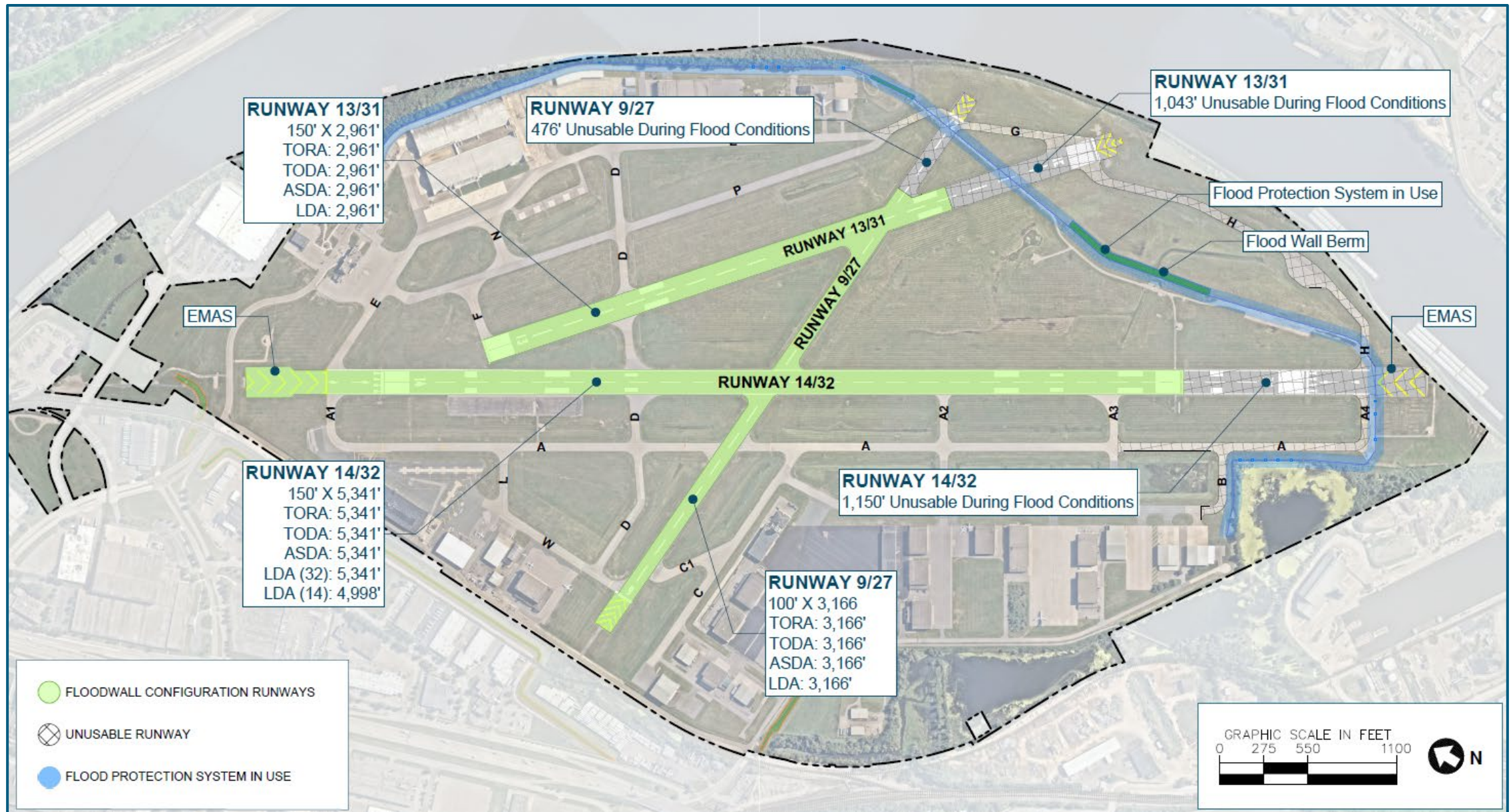
INVENTORY OF EXISTING CONDITIONS: TAXIWAYS



INVENTORY OF EXISTING CONDITIONS: RUNWAYS



INVENTORY OF EXISTING CONDITIONS: FLOODWALL DEPLOYED





**ST. PAUL
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LONG-TERM PLAN UPDATES

Preliminary Forecast





FORECASTS OF AVIATION DEMAND

What are Aviation Demand Forecasts?

- Projections of future air traffic and related activities
- Based Aircraft, Aircraft Operations, Fleet Mix, Critical Aircraft

How are Forecasts Used?

- Aid in determining future needs and timing of new/expanded facilities
- Help justify financial investments for improvements
- Factor into many other types of airport plans and projections



FORECASTS OF AVIATION DEMAND

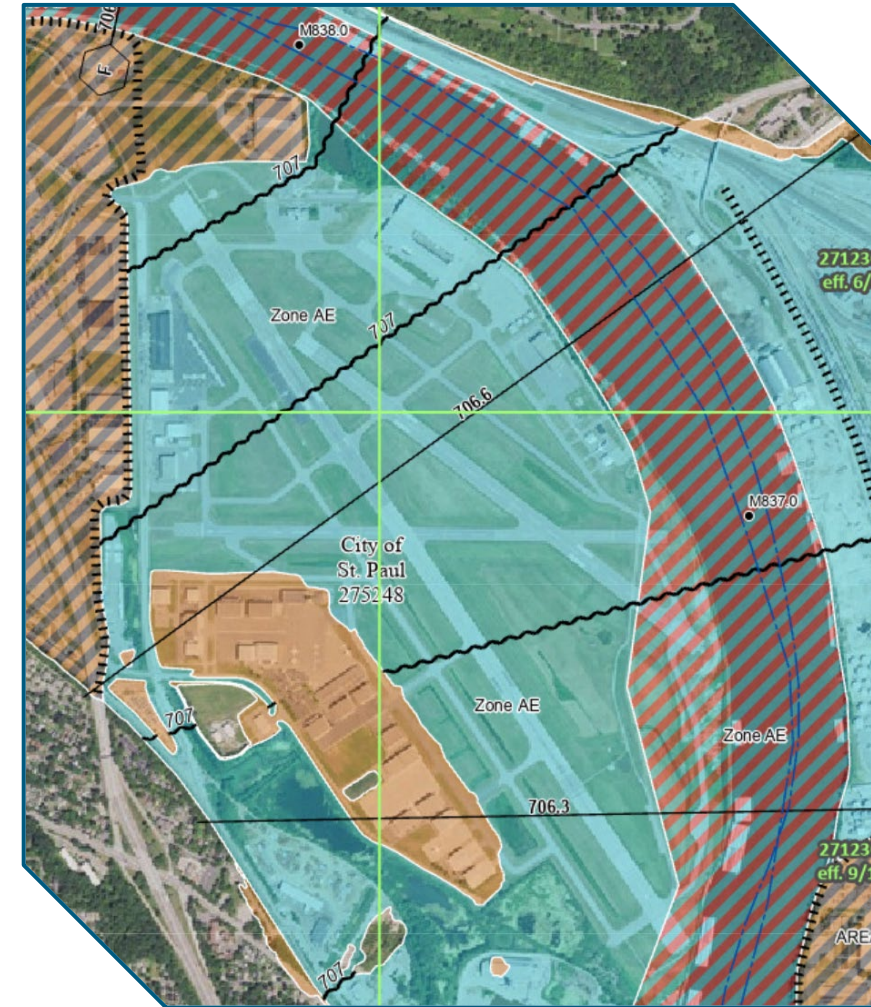
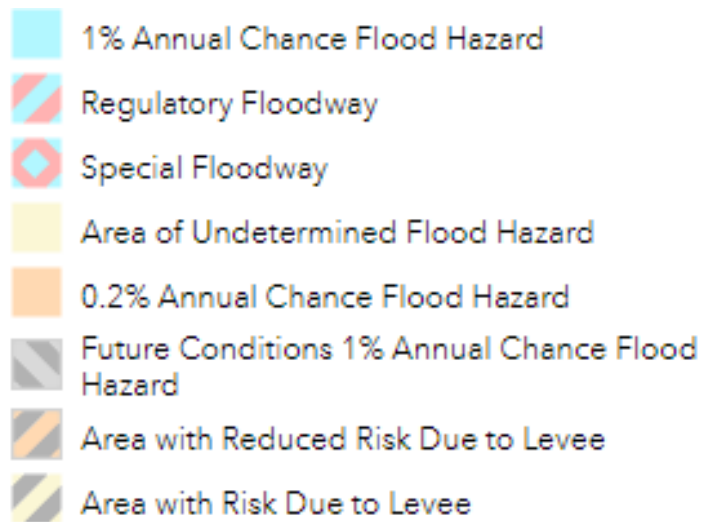
Approach

- 2023 base year with short-term (0-5 years), medium-term (5-10 years), and long-term (10-20 years) planning horizons
- Key inputs:
 - Historical aviation activity at STP
 - Federal and state forecasts (TAF, FAA Aerospace Forecast, MnSASP)
 - Socioeconomic trends
 - Historical market share statistics
 - Existing airport environment and constraints (Floodwall)



FLOODWALL FEASIBILITY STUDY

- Airport currently located completely within Zone AE Flood Fringe
- Current floodwall generally follows floodway boundary



Source: FEMA Flood Map Service Center, 2024



FLOODWALL FEASIBILITY STUDY

- Develop long-term strategy for Airport development
- Incorporate Feasibility Study into LTP
- Study focus:
 - Ordinances and Restrictions
 - Impacts of Floodwall Configuration
 - Alternatives Analysis
 - Rough Order of Magnitude (ROM) costs



Source: Kimley-Horn, 2024



FLOODWALL FEASIBILITY STUDY

Constrained Development

- No change to FEMA Flood Zones onsite
- Remain as a Zone AE (within base flood plain)
- Redevelopments would comply with regulations associated with development in a floodplain for City of St. Paul and FEMA

Unconstrained Development

- Development would require levee accreditation to change the flood zone to FEMA Zone X (area with reduced flood risk due to levee)
- Any future redevelopment would be able to take place unconstrained by floodplain zoning regulations



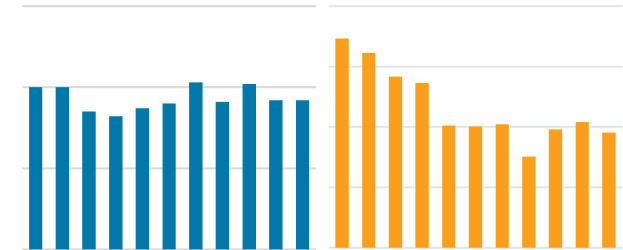
Source: Kimley-Horn, 2024



FORECASTS OF AVIATION DEMAND

Trends and Assumptions

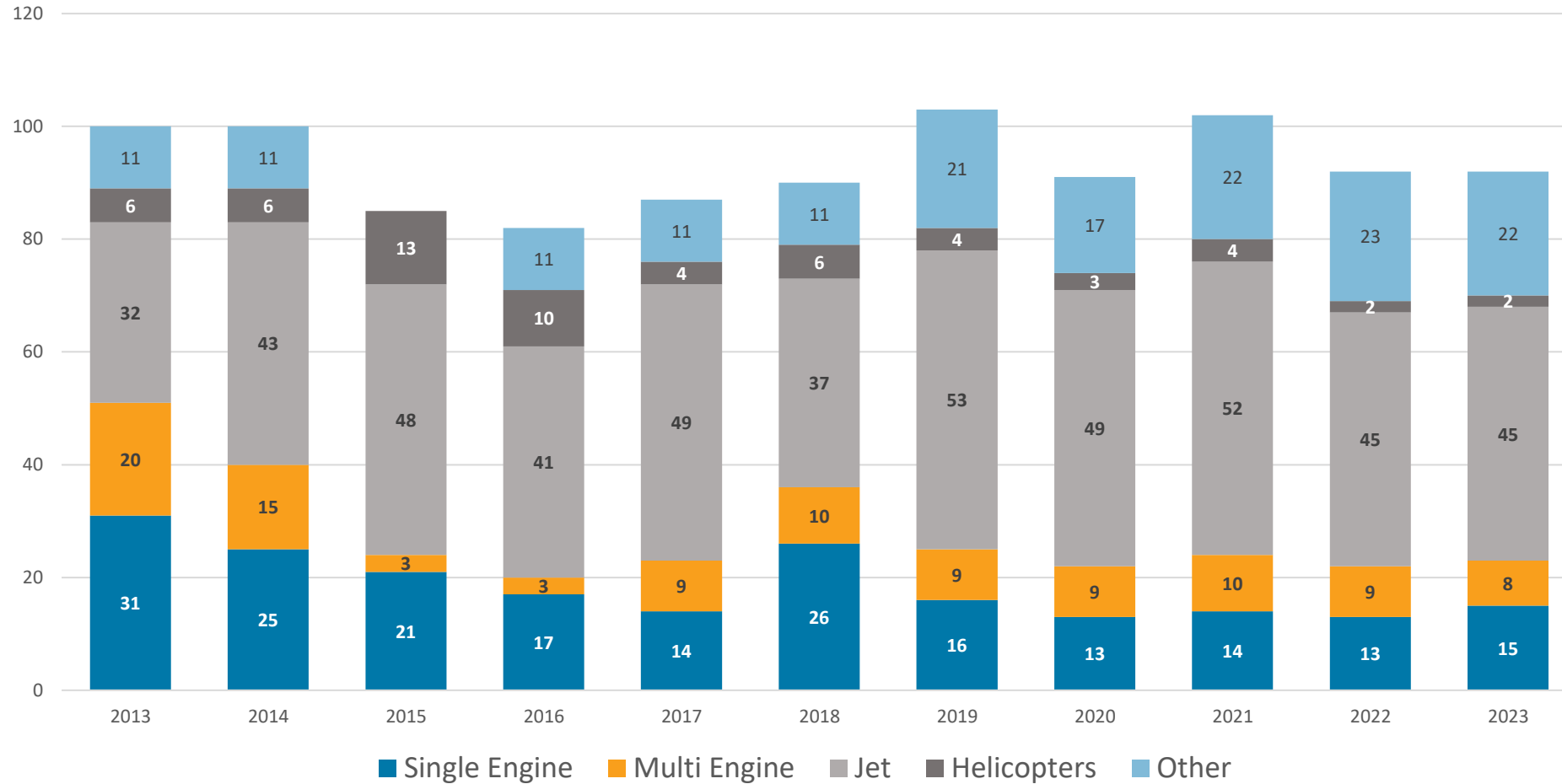
- Decline in aviation activity at STP over the past 10 years
 - Based Aircraft (-0.83% CAGR)
 - Operations (-5.79% CAGR)
- COVID-19 negatively affected activity at STP and had a 1–2-year recovery period
- Minneapolis-St. Paul Metro Statistical Area projecting growth in all key socioeconomic forecast categories
- FAA's STP Terminal Area Forecast (TAF) and nationwide Aerospace forecast both projecting modest growth



Year	Based Aircraft	Operations
2013	100	69,277
2014	100	64,539
2015	85	56,676
2016	82	54,548
2017	87	40,489
2018	90	40,116
2019	103	40,934
2020	91	30,188
2021	102	39,196
2022	92	41,592
2023	92	38,167



HISTORICAL BASED AIRCRAFT BY TYPE



Source: FAA 2023 Terminal Area Forecast (TAF)



FORECASTING CONSIDERATIONS

Baseline Forecasts

- Most realistic and likely scenario for the future of an airport
- Assumes no major changes or constraints

Scenario Forecasts

- Constrained scenario forecasts (e.g., Deployed Floodwall)
- Conceptual scenario forecasts (“What if” scenarios such as new air service or business tenants)

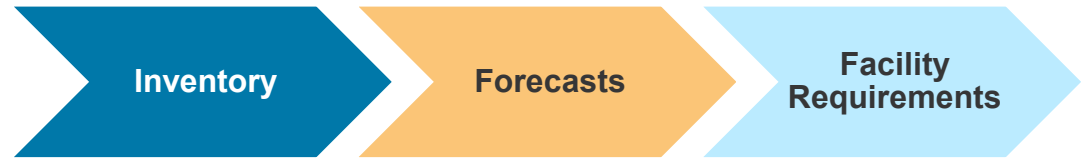
FAA Reviews of Forecasts

- Evaluate methodologies used
- Ensure forecasts are reasonable and realistic
- Evaluate consistency with the FAA’s Terminal Area Forecast (TAF)



FACILITY REQUIREMENTS

- Assessment and determination of what facilities are needed to meet FAA design standards and accommodate forecasted aviation activity
- Elements include:
 - Airfield capacity analysis
 - Airfield design standards assessment
 - Runway length
 - Apron and hangar space
 - Support facilities
 - Airspace and obstructions analysis



Source: Metropolitan Airports Commission (MAC)



CRITICAL AIRCRAFT

What is a Critical Aircraft?

- The most demanding aircraft that operates at least 500 times per year at the Airport, excluding touch-and-go activities.
- Determines design standards as well as physical requirements such as size of safety areas.

Airport Reference Code (ARC)

ARC = Aircraft Approach Category (**AAC**) + Airplane Design Group (**ADG**)

Aircraft Approach Category (AAC)

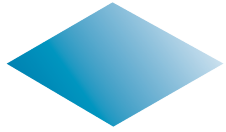
AAC	Approach Speed
A	Approach speed less than 91 knots
B	Approach speed 91 knots or more but less than 121 knots
C	Approach speed 121 knots or more but less than 141 knots
D	Approach speed 141 knots or more but less than 166 knots
E	Approach speed 166 knots or more

Source: FAA Advisory Circular 150/5300-13B, Change 1, Airport Design, 2024.

Airplane Design Group (ADG)

ADG	Tail Height (feet)	Wingspan (feet)
I	< 20	< 49'
II	20' - < 30'	49' - < 79'
III	30' - < 45'	79' - < 118'
IV	45' - < 60'	118' - < 171'
V	60' - < 66'	171' - < 214'
VI	66' - < 80'	214' - < 262'

Source: FAA Advisory Circular 150/5300-13B, Change 1, Airport Design, 2024.



CRITICAL AIRCRAFT

14/32

ARC: D-III



Design Aircraft: **Gulfstream V**

13/31

ARC: A-I Small



Design Aircraft: **Cessna 172**

9/27

ARC: A-I Small



Design Aircraft: **Cessna 172**

2023 ARC Summary By Runway													
RWY	UKN	HELO	A-I Ops	A-II Ops	B-I Ops	B-II Ops	B-III Ops	C-I Ops	C-II Ops	C-III Ops	D-II Ops	D-III Ops	Design Aircraft
14/32	628	1379	13842	943	1450	7611	145	466	3321	586	200	982	GLF5
13/31	134	369	283	12	7	33		3	3	1	1	1	C172
9/27	110	238	266	8	2	16						1	C173
Total	872	1986	14391	963	1459	7660	145	469	3324	587	201	984	

Data Source: MAC Noise and Operations Monitoring System (MACNOMS)



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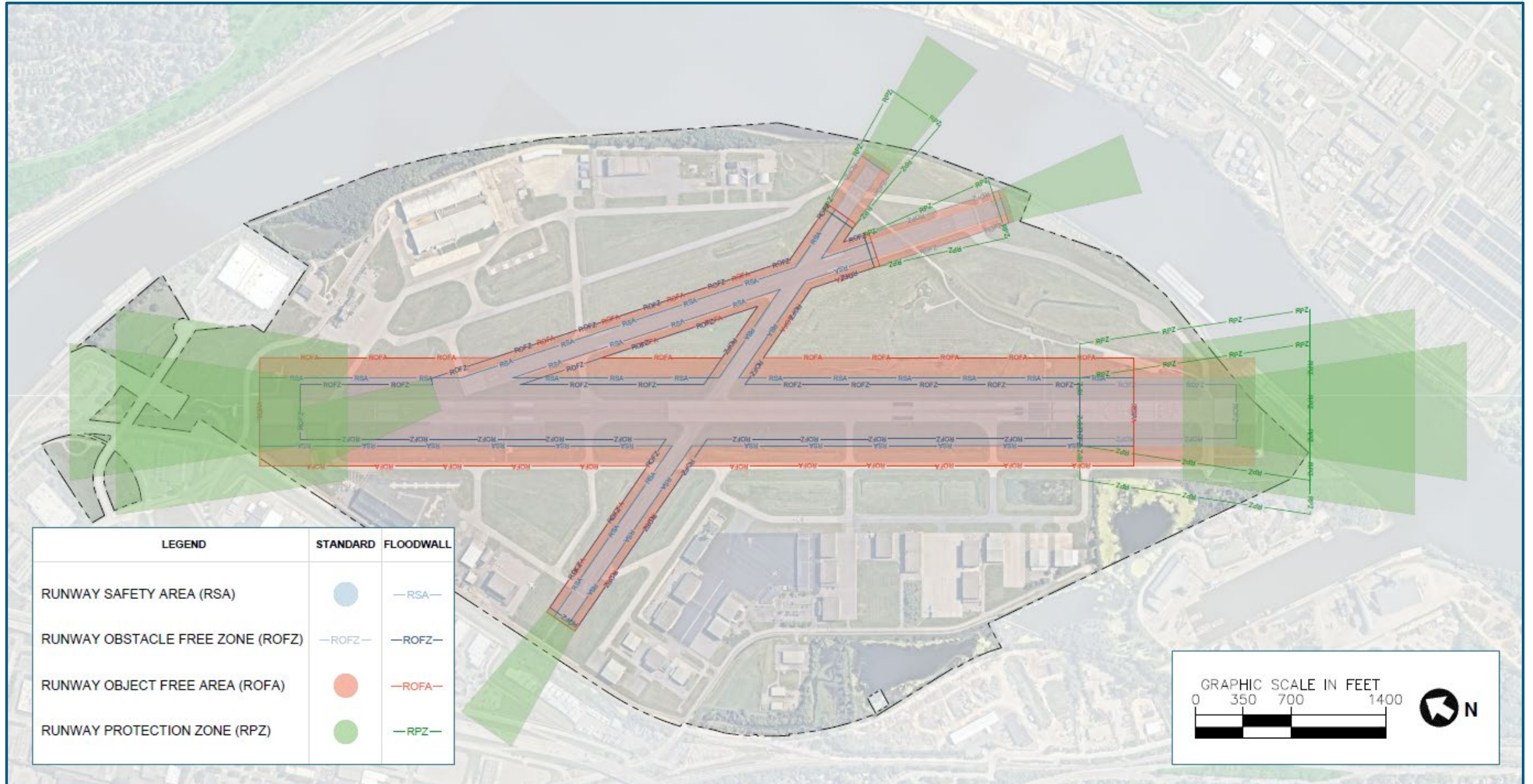
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LONG-TERM PLAN UPDATES

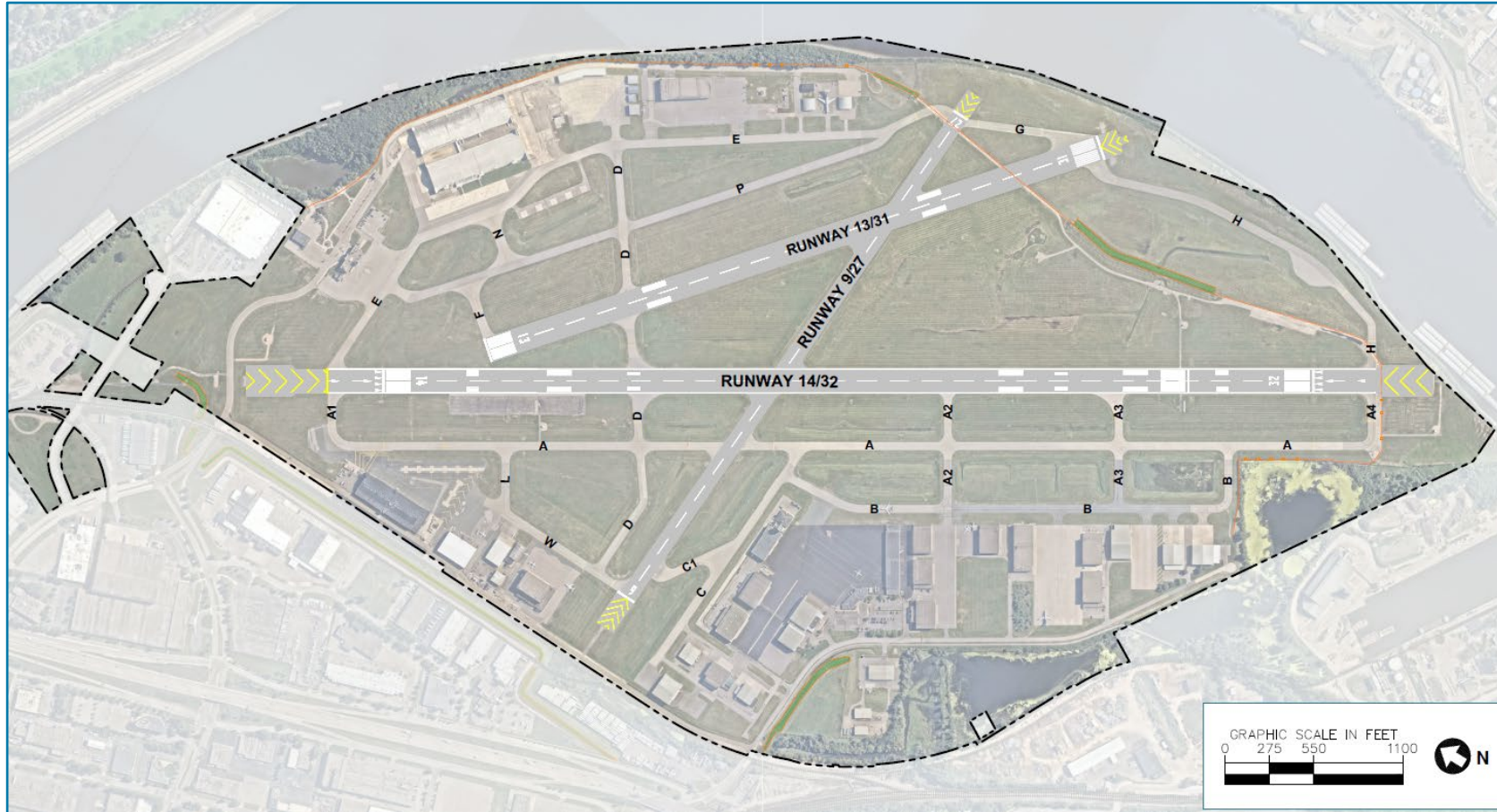
Facility Requirements Overview



RUNWAY PROTECTION AREAS BASED ON DESIGN AIRCRAFT



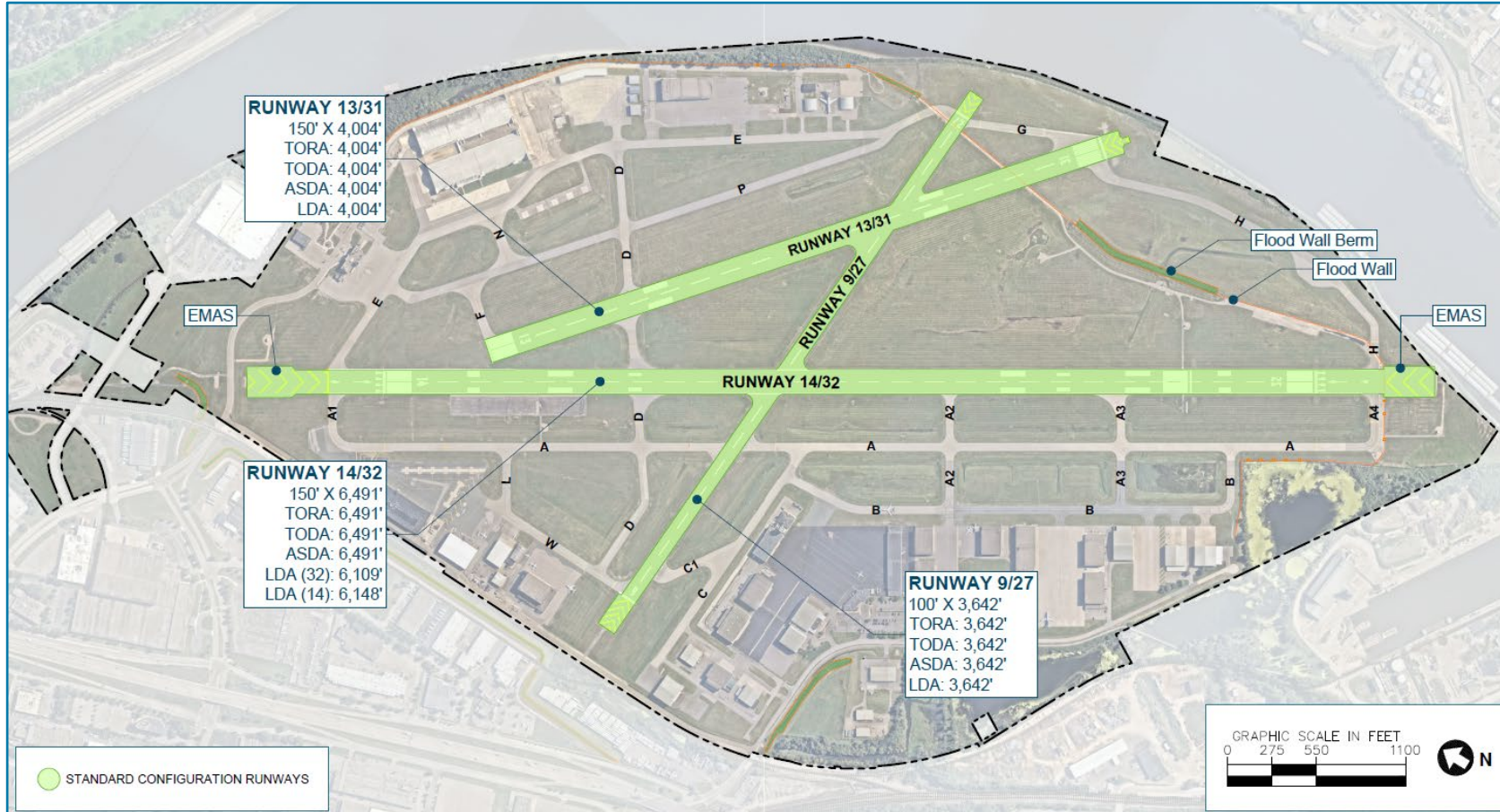
FACILITY REQUIREMENTS



Focus Areas (FA)

- Runway Environment
- Taxiways
- Tenant Needs
- Advanced Air Mobility (AAM)

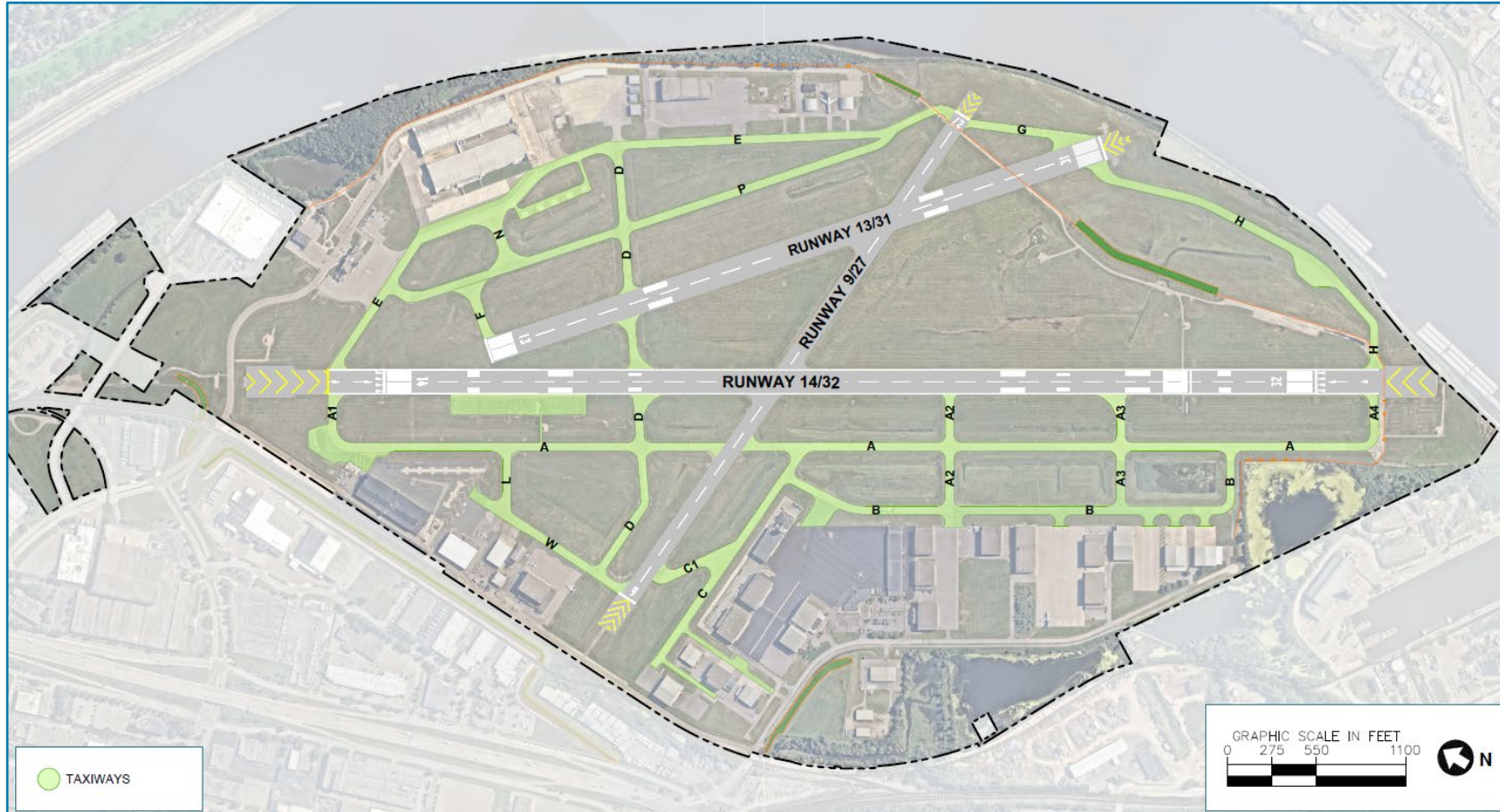
FACILITY REQUIREMENTS



FA #1: Runway Environment

- Runway 14-32
 - Two existing conditions
 - Does current length meet existing/future demand?
- Crosswind runway viability
 - Are both needed?
 - Are both eligible?
- Runway 14-32 / 13-31 alignment
 - Does the close alignment cause pilot confusion?

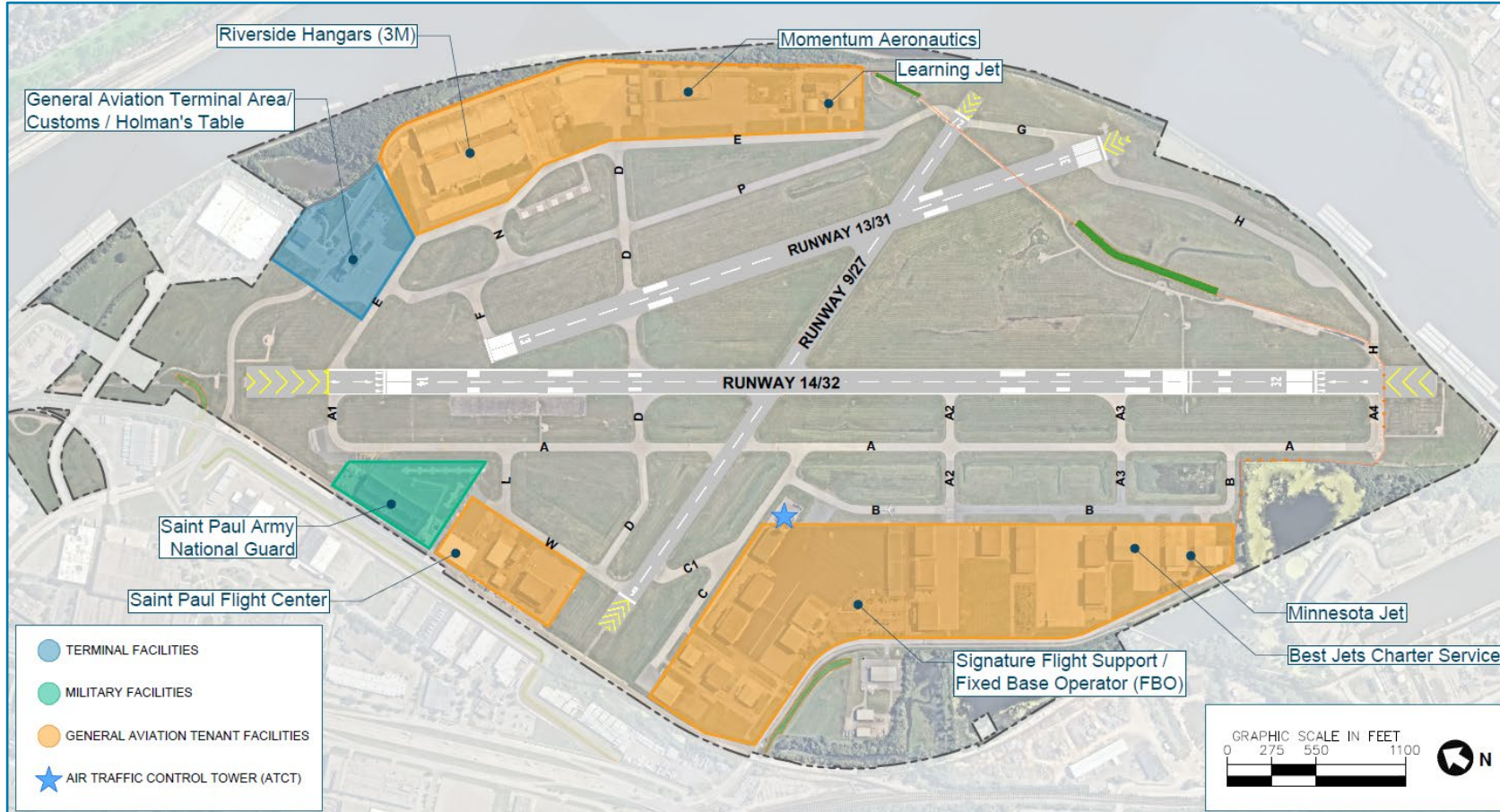
FACILITY REQUIREMENTS



FA #2: Taxiways

- Does the current layout meet standards?
- Can the efficiency of aircraft movements be improved?

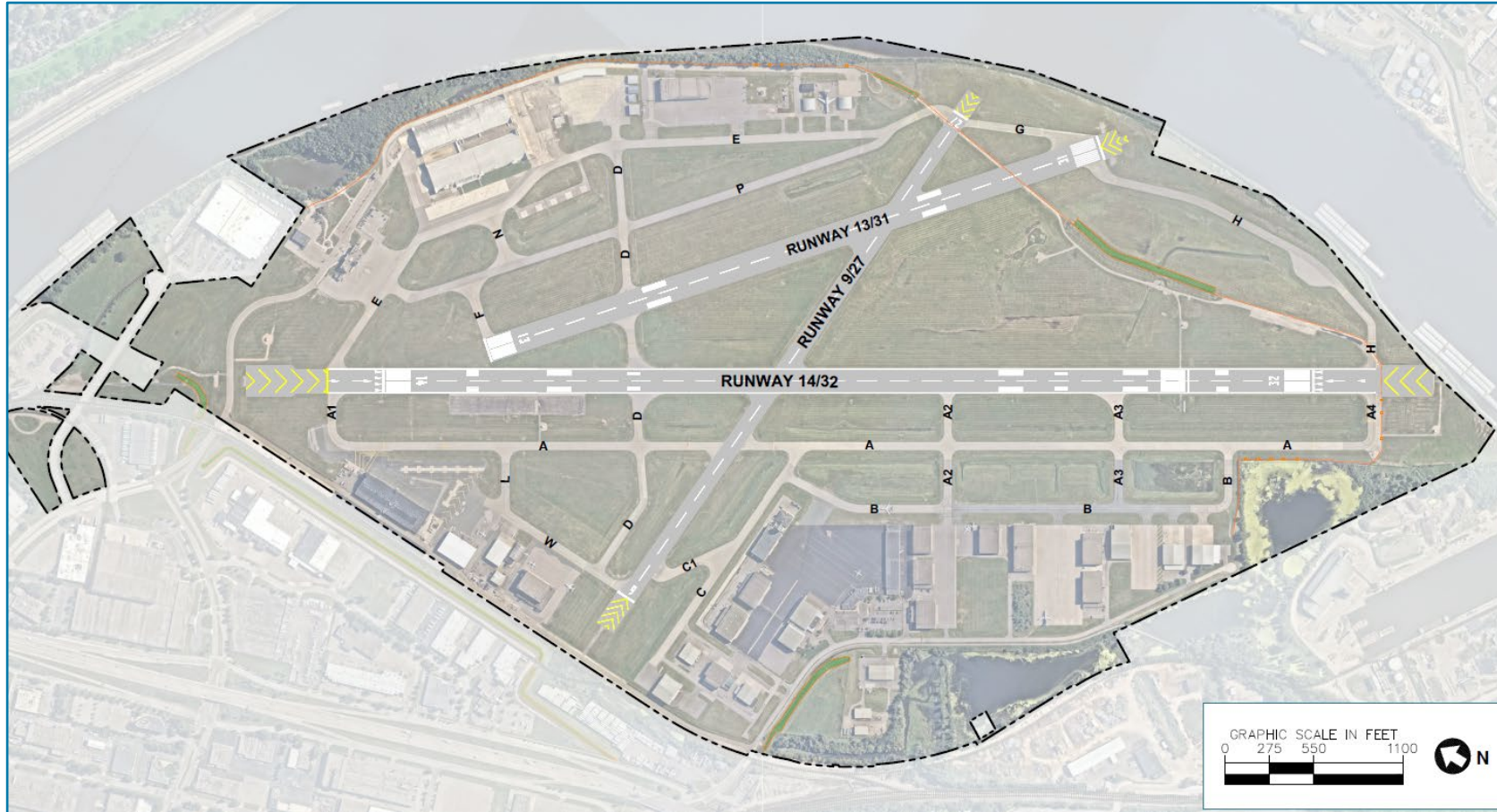
FACILITY REQUIREMENTS



FA #3: Tenant Needs

- Apron space / availability and transient aircraft parking requirements
- Based aircraft or future based aircraft hangar needs

FACILITY REQUIREMENTS



FA #4: Advanced Air Mobility

- Define needs
- Understand environment
- Barriers to entry
- Highest and best use of land



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NEXT STEPS





NEXT STEPS

LTP Development



- Forecasts: *in development*
- Facility Requirements
- Alternatives Analysis
- ALP Development

Stakeholder Engagement



- SAP and Discover STP Meetings: *Aug./Sept. 2025*
- SAP and Discover STP Meetings: *Jan./Feb. 2026*

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Questions?



FCM FLYING CLOUD LONG-TERM PLAN 2022

