

Willow Run Airport

Master Plan

Public Information Meeting



DETROIT METRO • WILLOW RUN
WAYNE COUNTY AIRPORT AUTHORITY

Welcome!

Please sign in and pick up handouts

Station

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What is a Master Plan?

- **20 year infrastructure development plan**
- **Assess and determine facility needs**
- **Provides development options to address needs**
- **Provides a timeline and financial schedule for implementation**
- **Conducted in combination with Airport Layout Plan (ALP) update**
 - *Graphical depiction of existing and future airport development*
 - *Facilities must be shown on the ALP to be eligible for FAA funding*



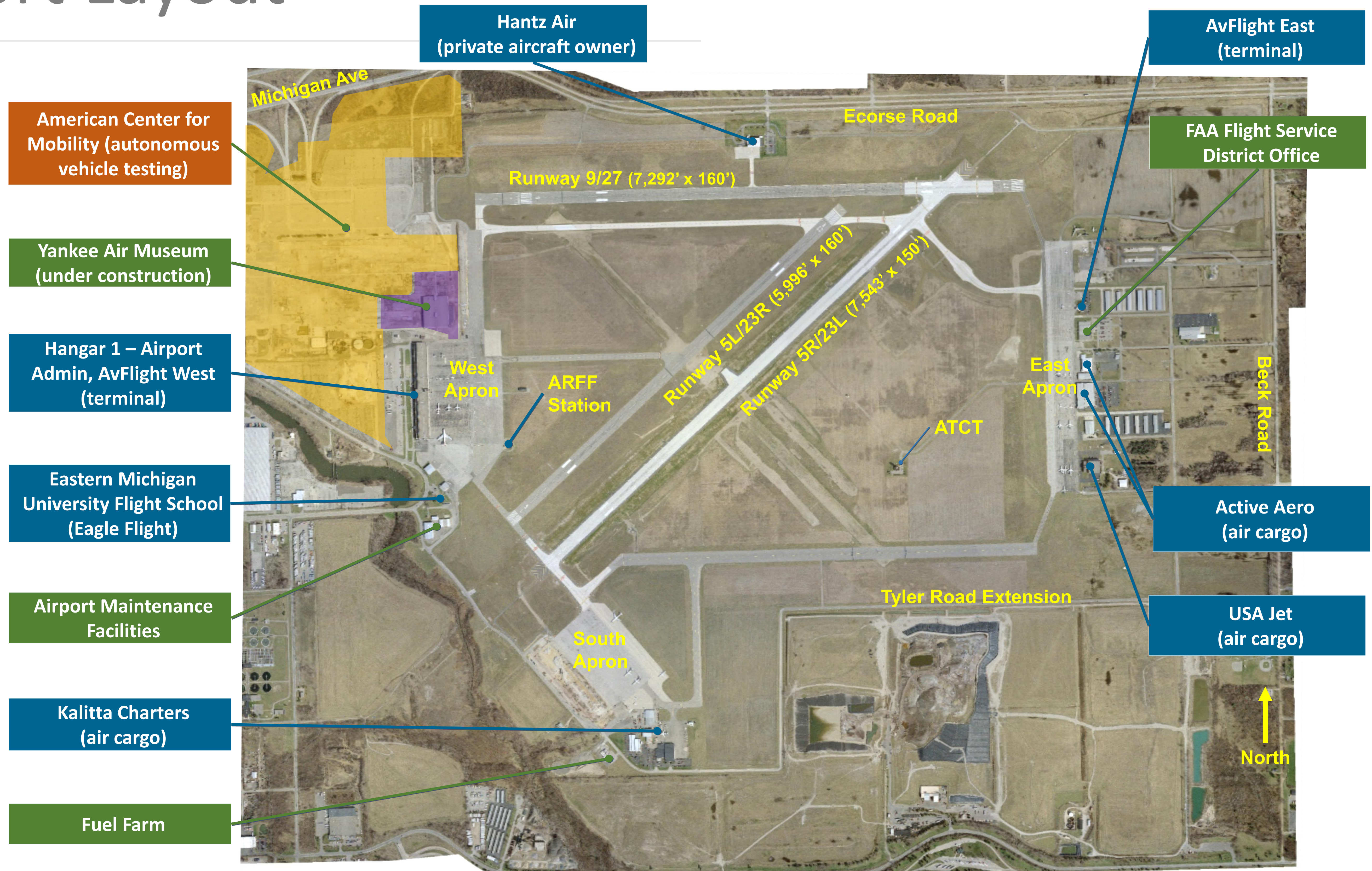
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Airport Layout

Key

- Airfield
- Landside
- Other



Evolving Roles of the Willow Run Airport

→ Willow Run Airport continues to evolve to serve the needs of Southeast Michigan

■ *Bomber Production for World War II (1940s)*

- Almost 8,700 B-24 Liberators built
- Bomber plant employed 42,000 people



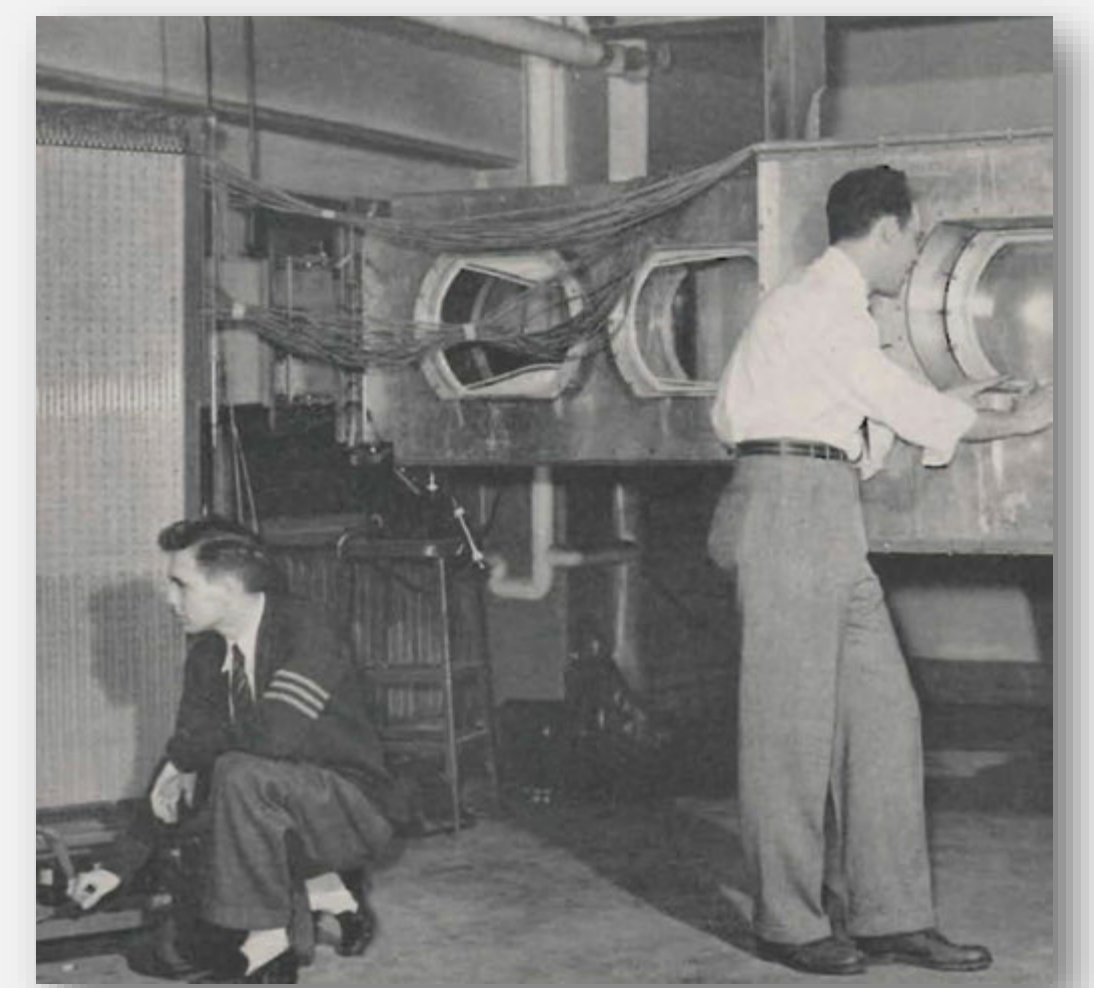
■ *Commercial Airline Service Airport (1947-1958)*

- Detroit's commercial airline service airport until 1958



■ *Aeronautical Research Center (1947-1970s)*

- Michigan Aeronautical Research Center (MARC), run by University of Michigan
- Rocket motor and propellant research for antiballistic missile defense systems



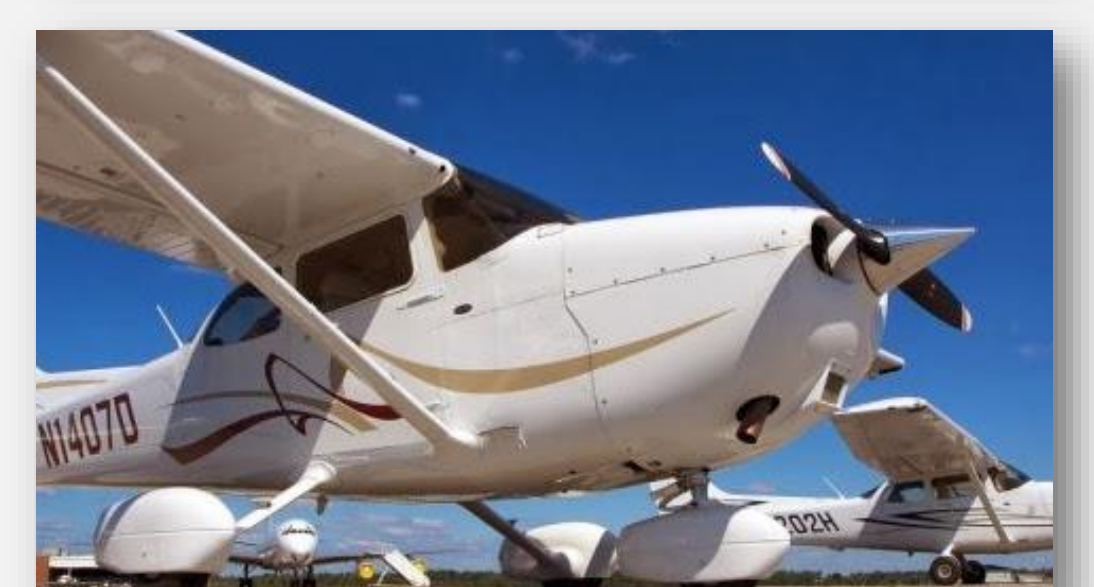
■ *Air Cargo Facility (1980s-1990s)*

- Became successful air cargo airport



■ *Today (2000s)*

- On-Demand Air Cargo
- Eastern Michigan University flight training
- Reliever to Detroit Metropolitan Wayne County Airport



Airport Roles

	Willow Run (YIP)	Detroit Metro (DTW)
Role	Reliever Airport	Commercial Airport
Users	 <ul style="list-style-type: none"> On-demand air cargo General aviation flight training Corporate and recreational general aviation Aircraft maintenance 	 <ul style="list-style-type: none"> Large hub passenger operations Integrated logistics carriers High-end corporate general aviation Aircraft maintenance
Actions	Preserve land areas for: <ol style="list-style-type: none"> (1) Maintenance, Repair, and Overhaul (MRO) operators (2) Commercial development (3) Alternative aviation-related markets not yet realized 	Seek opportunities to maximize revenue generation and allow DTW to serve as a catalyst for local and regional economic growth & development

Economic Impact of Willow Run Airport

- Generates both aeronautical and non-aeronautical related jobs
- Economic impact throughout Michigan
- Businesses are attracted to air cargo capabilities of Airport
- Continued capital improvements at Airport is vital to area economy
- Supports the \$10.2 billion economic impact of Detroit-Wayne County Metropolitan Airport

Activity	Direct Spending	Economic Impact	Income Impact	Jobs Impact
Cargo Transportation	\$22.3 million	\$44.4 million	\$14.4 million	306
Visitors	\$1.1 million	\$2.1 million	\$0.6 million	21
General Aviation	\$9.4 million	\$18.7 million	\$6.1 million	129
Education	\$1.4 million	\$3.1 million	\$1.1 million	37
Airport Enhancement (2014)*	\$25.0 million	\$54.9 million	\$18.2 million	457
TOTAL ANNUAL IMPACTS	\$59.4 million	\$123.1 million	\$40.5 million	950

Notes:

Due to rounding, stated numbers may not add to stated totals

* Airport Enhancement dollar amounts represent infrastructure investment made in 2014 and will vary by year

Source: *The Economic Impact of Willow Run Airport 2014*, The University of Michigan – Dearborn College of Business (2014)

→ Example of Economic Impact Spending

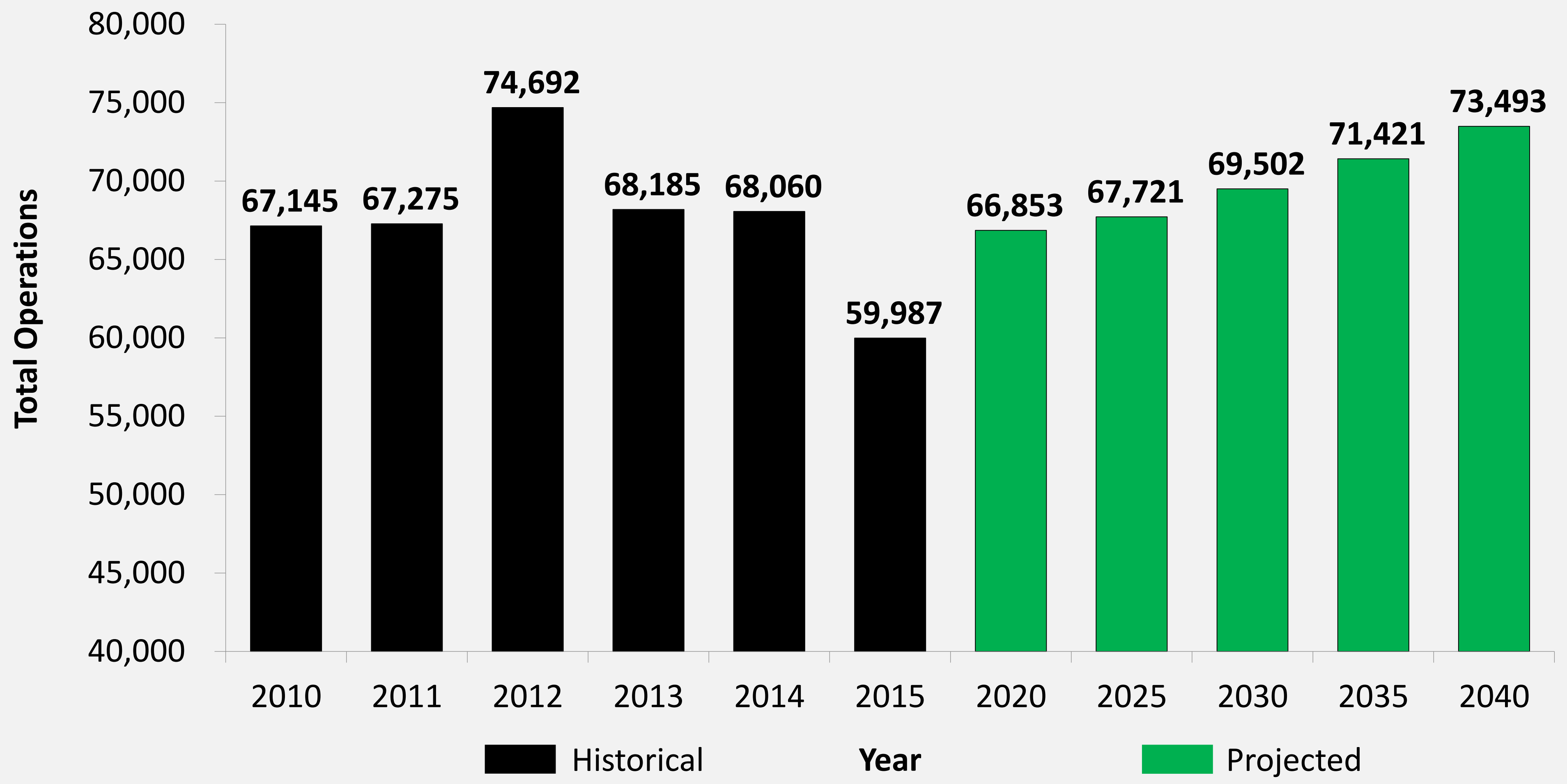


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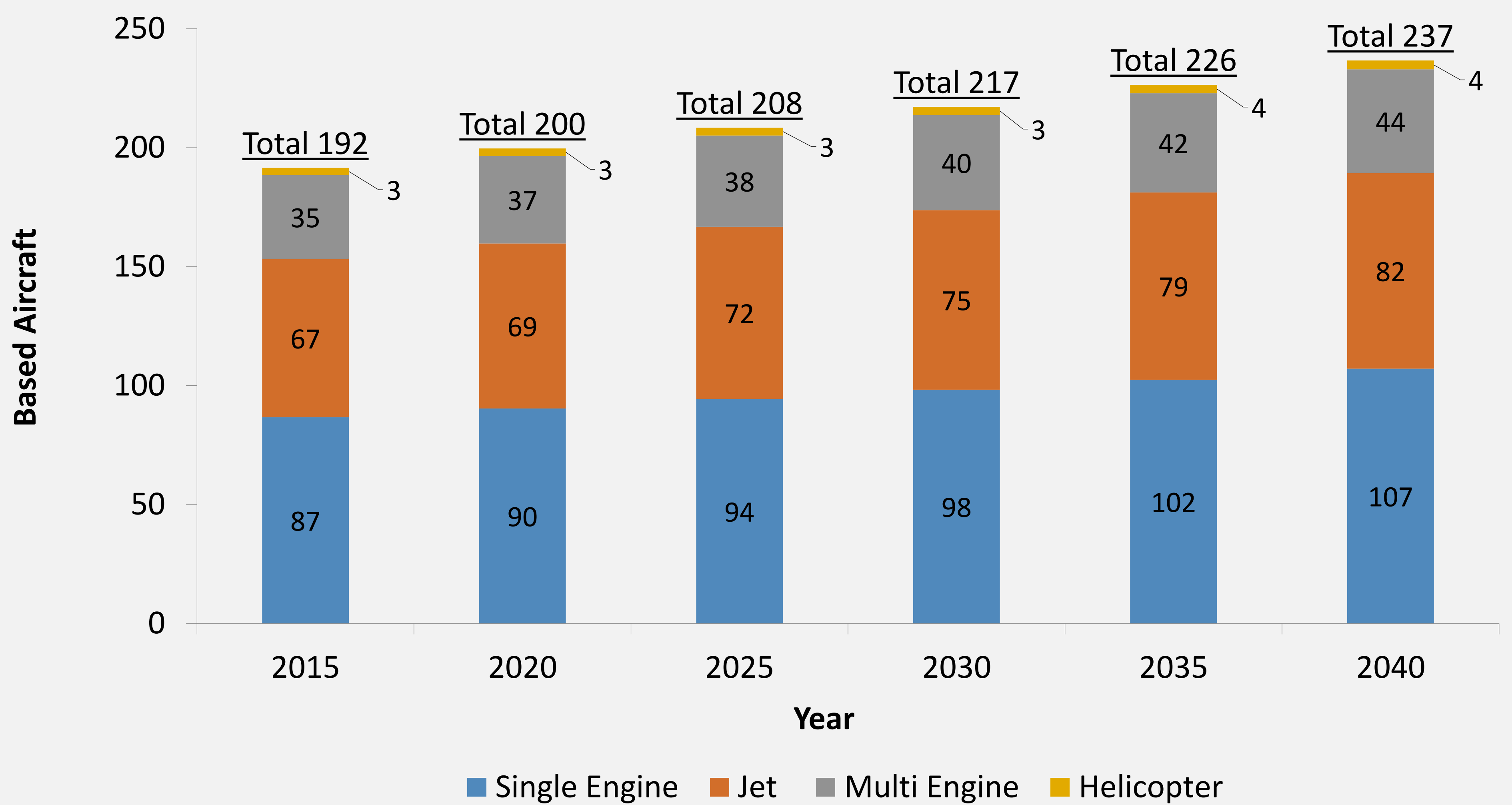
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Forecasts of Aviation Demand

✈ Aircraft Operations (total takeoffs and landings)



✈ Based Aircraft



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Goals of the Airport

→ **Maintain safety**

- *Eliminate design standard hot spots and resolve modification of standards*

→ **Improve the financial sustainability of the Willow Run Airport**

- *Reduce operating costs through right-sized facilities and prioritized capital investment*

→ **Optimize the airfield to accommodate the needs of existing and future users**

- *Maximize airfield efficiencies and capacity*
- *Rehabilitate and improve failing infrastructure*
- *Accommodate needs of existing and future users with appropriate runway length*

→ **Support the Airport's role and economic impact within the region**

- *Accommodate and support the local and regional demand for air freight; manufacturing, maintenance, repair, and overhaul (MMRO); corporate aviation; and general aviation*
- *Support opportunities for job creation and local development*

→ **Minimize impacts to quality of life on surrounding community**

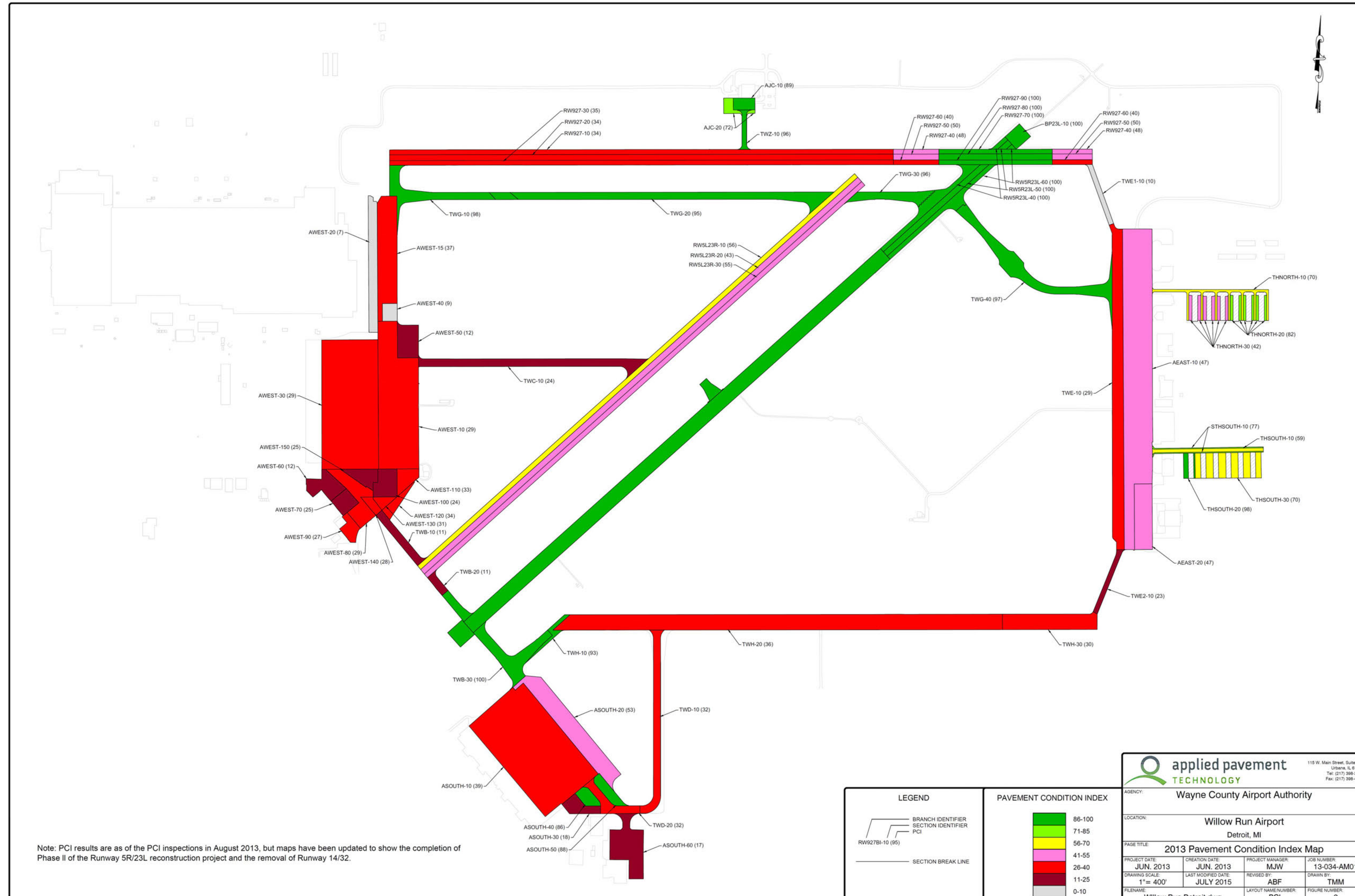
→ **Assure compliance with master planning requirements and regulations**

→ **Engage and collaborate with users and regional stakeholders**

Infrastructure Needs

Existing infrastructure in poor condition

- Airfield pavements
- Landside pavements
- Utilities



Summary of Facility Needs

Key

- Airfield
- Landside
- Other

Existing infrastructure in poor condition

- Runway
- Taxiways
- Aprons
- Buildings
- Roads
- Utilities

Crosswind runway recommended for light general aviation traffic

Possible plan for add'l runway length on either 5R/23L or 9/27

Improve or replace fire station

Improve maintenance facility

Parallel runway not needed for capacity, could be maintained for traffic separation

Improve approach minimums

Parallel taxiway to increase capacity and safety

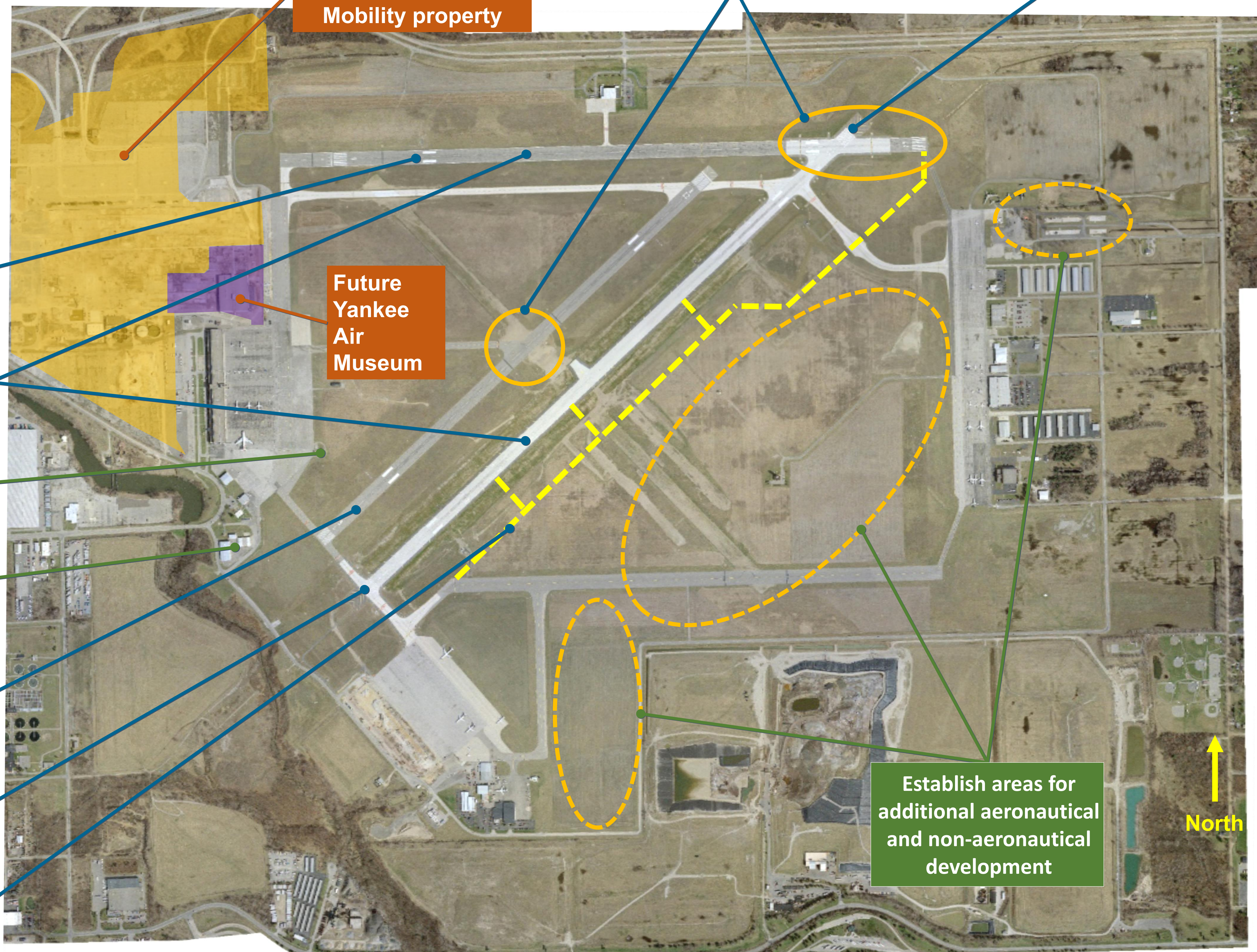
Development of the American Center for Mobility property

Future Yankee Air Museum

Correct airfield hot spots

Improve approach minimums

Establish areas for additional aeronautical and non-aeronautical development

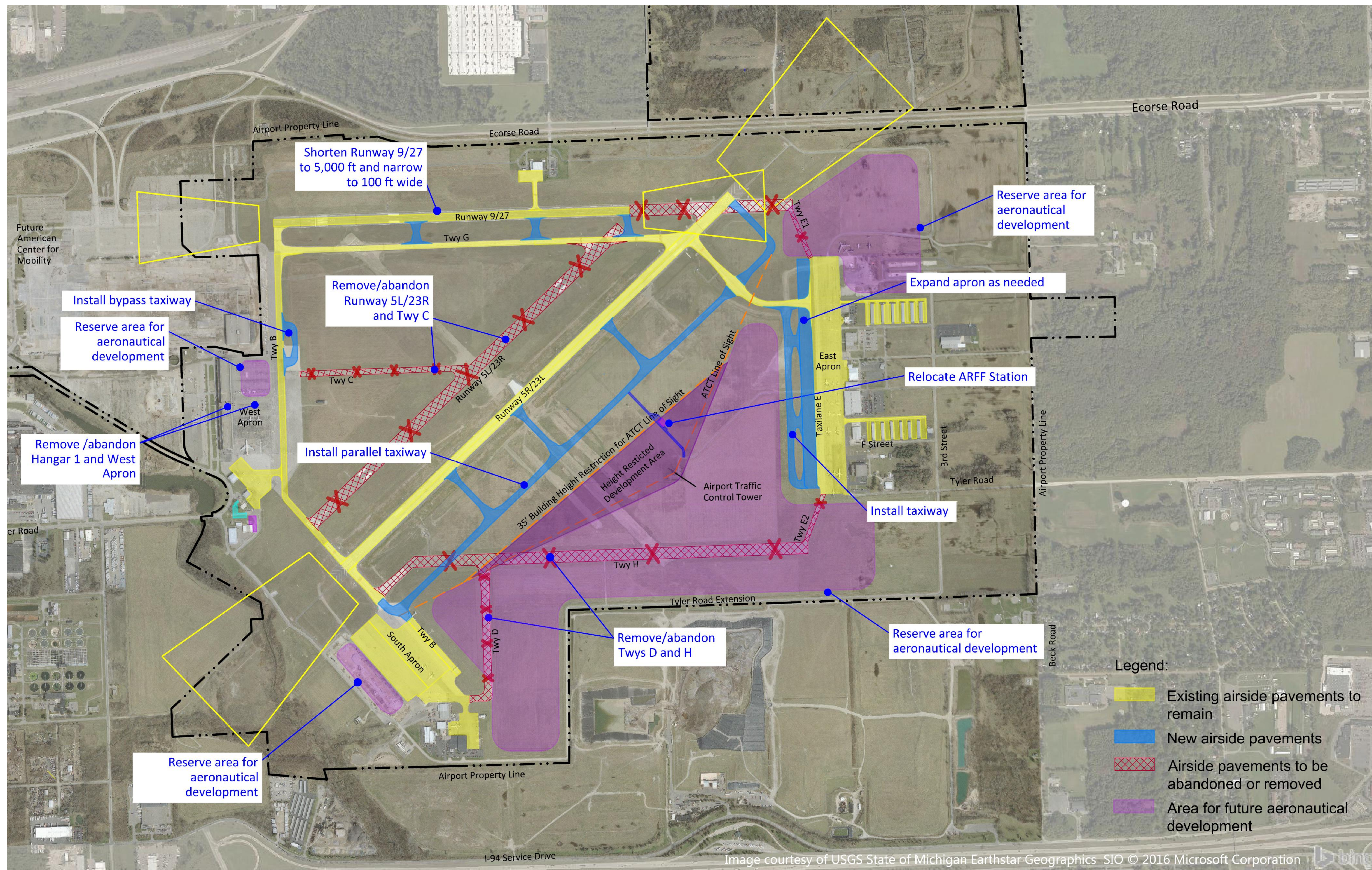


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Recommended Future Facilities

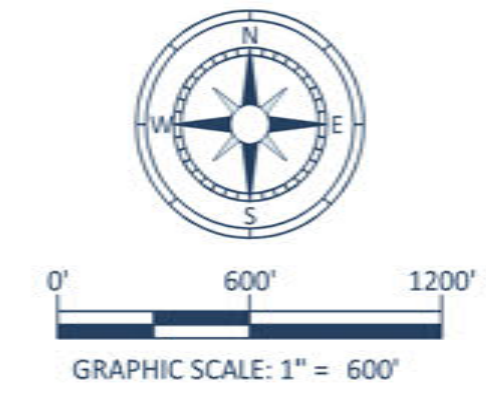
WILLOW RUN AIRPORT MASTER PLAN UPDATE



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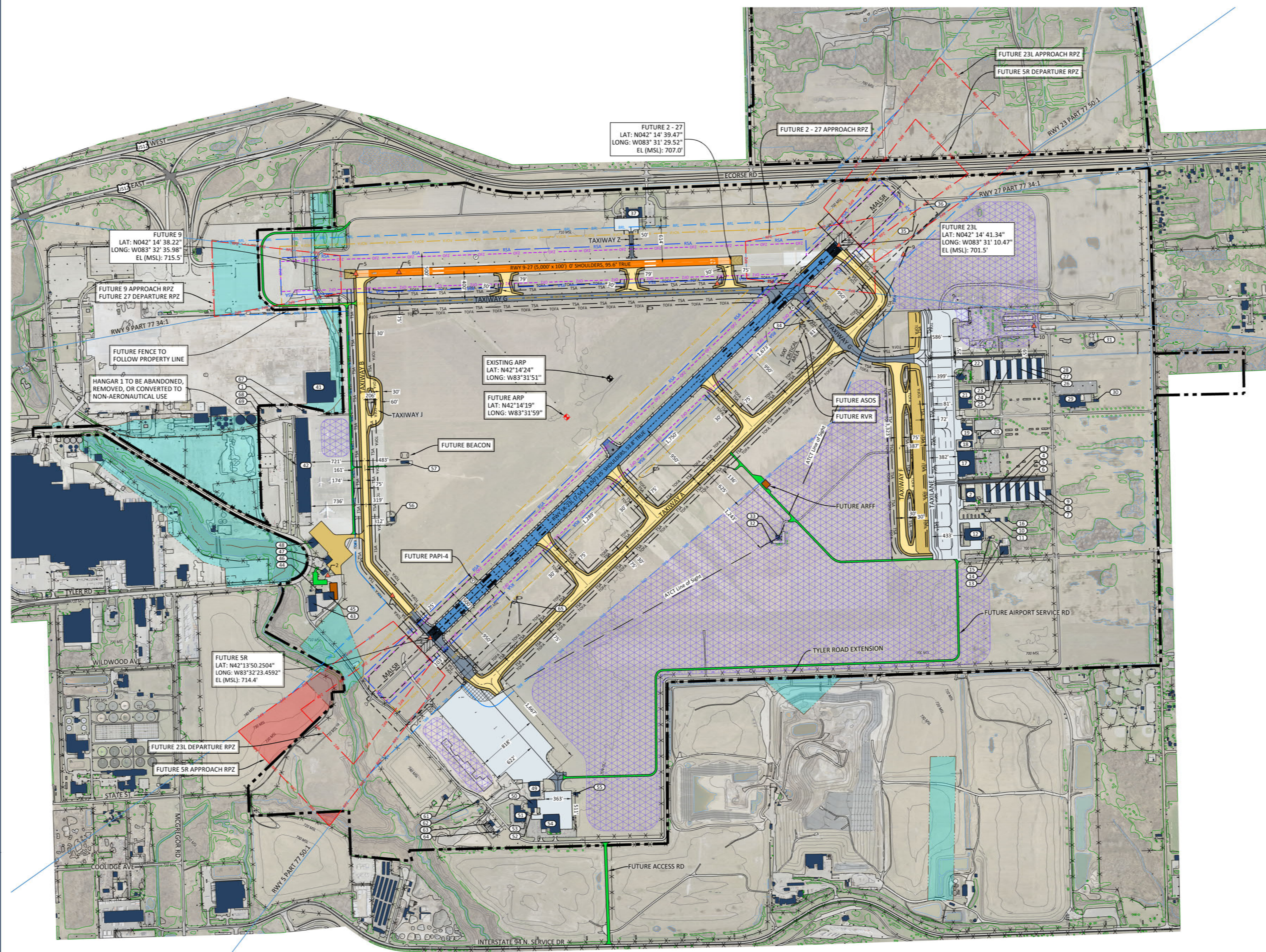
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FAA APPROVAL
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LEGEND

AIRPORT BOUNDARY	
EXISTING GROUND CONTOUR	
EXISTING EDGE OF WATER	
EXISTING TREE LINE	
EXISTING FENCE	
EXISTING BUILDING	
EXISTING RUNWAY	
EXISTING TAXIWAY	
EXISTING SHOULDER	
WETLANDS	
RVR	
ASOS	
ROTATING BEACON	
PAPI-4	
WINDSOCK	
EXISTING AIRPORT REFERENCE POINT (ARP)	
BUILDING RESTRICTION LINE	
NAVAID CRITICAL AREA	
FUTURE RUNWAY SAFETY AREA (RSA)	
FUTURE RUNWAY OBSTACLE FREE ZONE (OFZ)	
FUTURE RUNWAY PROTECTION ZONE (RPZ)	
FUTURE RUNWAY OBJECT FREE AREA (ROFA)	
FUTURE TAXIWAY OBJECT FREE AREA (TOFA)	
FUTURE TAXIWAY SAFETY AREA (TSA)	
FUTURE PRECISION OBSTACLE FREE ZONE (POFZ)	
FUTURE FENCE	
FUTURE SERVICE ROADWAY/PARKING	
FUTURE AIRPORT STRUCTURE	
FUTURE RUNWAY PAVEMENT & MARKINGS	
FUTURE TAXIWAY PAVEMENT	
FUTURE APRON PAVEMENT	
FUTURE SHOULDER PAVEMENT	
FUTURE DEMOLITION	
FUTURE AIRPORT DEVELOPMENT AREA	
FUTURE AIRPORT REFERENCE POINT (ARP)	
SURVEY MONUMENT	
EXISTING AVIGATION EASEMENT	
FUTURE AVIGATION EASEMENT	



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FAA'S APPROVAL OF THIS AIRPORT LAYOUT PLAN (ALP) REPRESENTS ACCEPTANCE OF THE GENERAL LOCATION OF FUTURE FACILITIES DEPICTED (SHEET 7144C04). DURING THE PRELIMINARY DESIGN PHASE, THE AIRPORT OWNER IS REQUIRED TO RESUBMIT FOR APPROVAL THE FINAL LOCATIONS, HEIGHTS, AND EXTERIOR FINISH OF STRUCTURES. FAA'S CONCERN IS OBSTRUCTIONS, IMPACT ON ELECTRONIC AIDS, OR ADVERSE EFFECTS ON CONTROLLER VIEW OF AIRCRAFT APPROACHES AND GROUND MOVEMENT AREAS WHICH COULD ADVERSELY AFFECT THE SAFETY, EFFICIENCY, OR UTILITY OF THE AIRPORT.

DATA SOURCES:
 1. AIRPORT PROPERTY BOUNDARY AND EASEMENTS OBTAINED FROM WILLOW RUN AIRPORT DRAFT EXHIBIT A, DATED 11-30-2016.

NOTES:
 1. SEE EXISTING AIRPORT LAYOUT DRAWING FOR THE EXISTING BUILDING TABLE AND THE SURVEY CONTROL POINTS TABLE.



By	Date	Revisions

WILLOW RUN AIRPORT

ULTIMATE FUTURE AIRPORT LAYOUT DRAWING

Drawn By: SRG Date: 3-31-17
 Approved By: MCJ Job No: 037-15-03

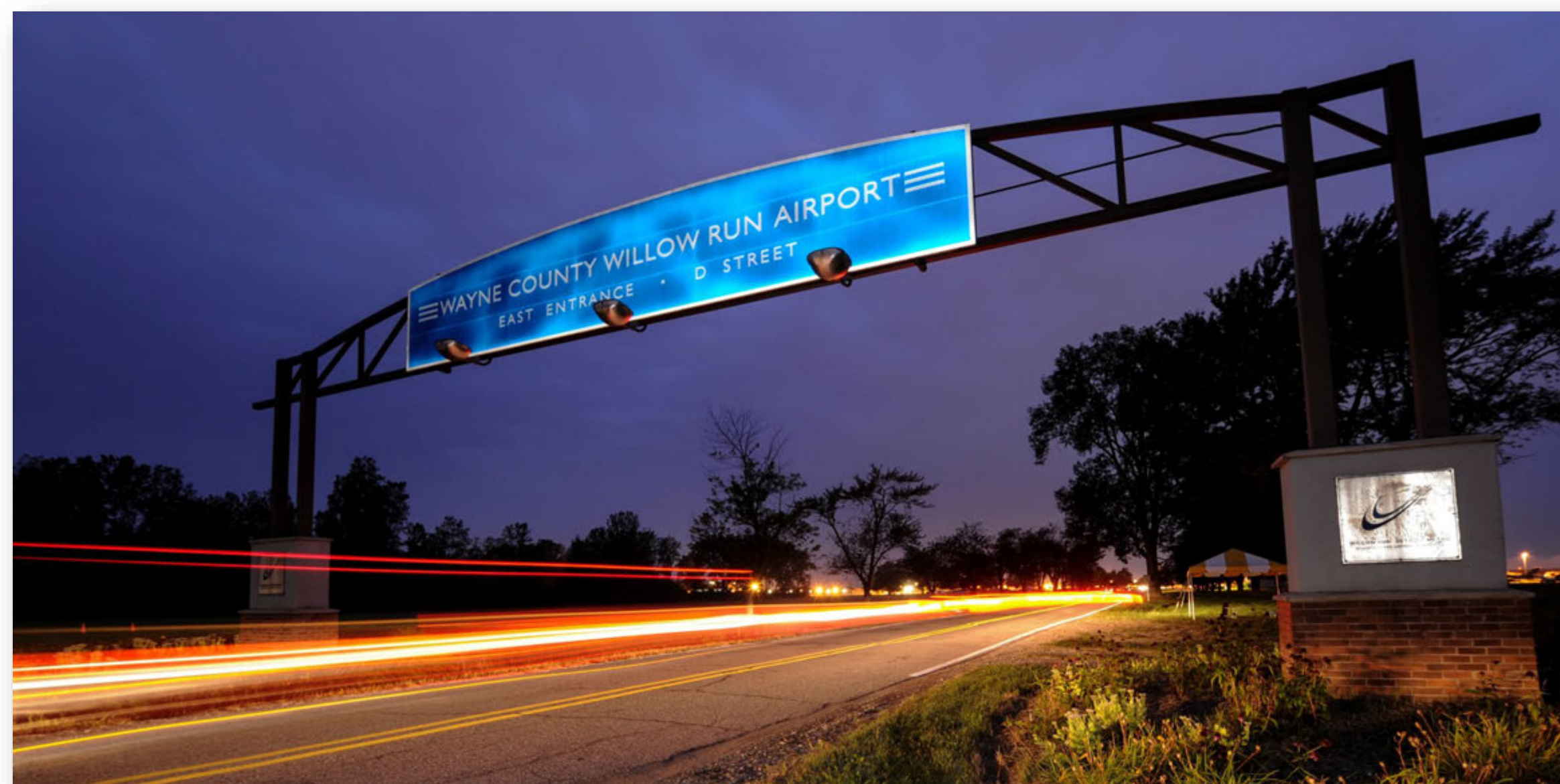
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Next Project Steps

- **Complete Airport Layout Plan**
- **Complete Exhibit A Property Map**
- **WCAA Preparation of Annual Capital Improvement Plan**
- **Publish Airport Master Plan**



Comments?

Please share with us your thoughts,
comments, ideas, or other suggestions
about the Willow Run Airport

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- Other

