

# High Growth Scenario Aviation Activity Forecast

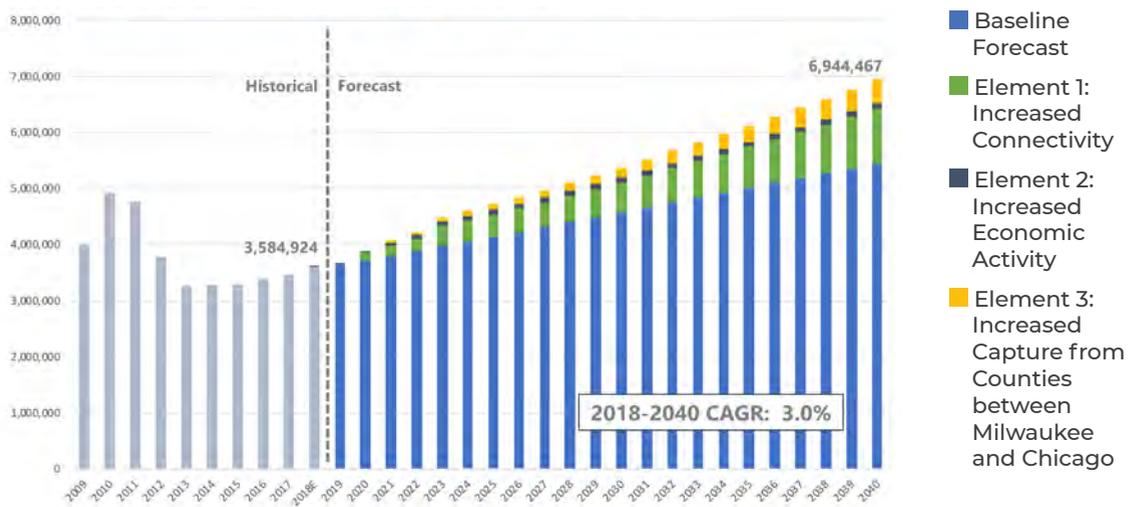
## Passenger Component

- Three Enplaned Passenger High Scenario Forecast elements (modeled independently)
  - Increased connecting activity
  - Increased economic activity in Southeastern Wisconsin
  - Greater capture of passengers residing in counties between Milwaukee and Chicago (Kenosha and Racine Counties, Wisconsin; Lake and McHenry Counties, Illinois)

## Cargo Component

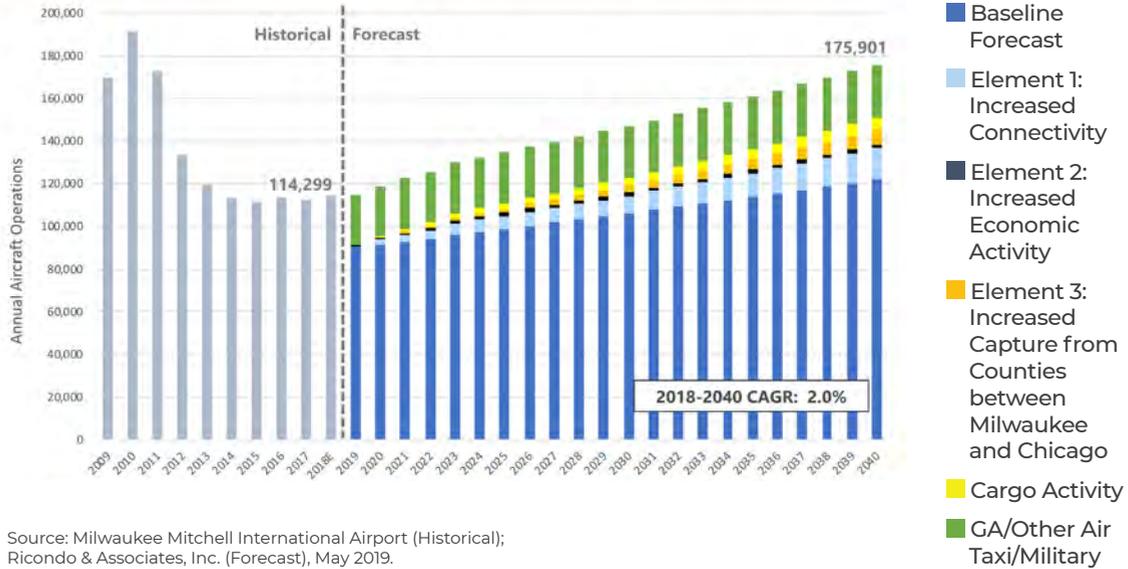
- Three Cargo High Scenario Forecast elements
  - New bidirectional demand to accommodate regional manufacturing
  - Additional DHL activity to accommodate e-commerce and recent Amazon demand patterns, and to support new Amazon Oak Creek fulfillment center
  - Additional FedEx/UPS activity to support expanding e-commerce

## High Growth Scenario Passenger Forecast



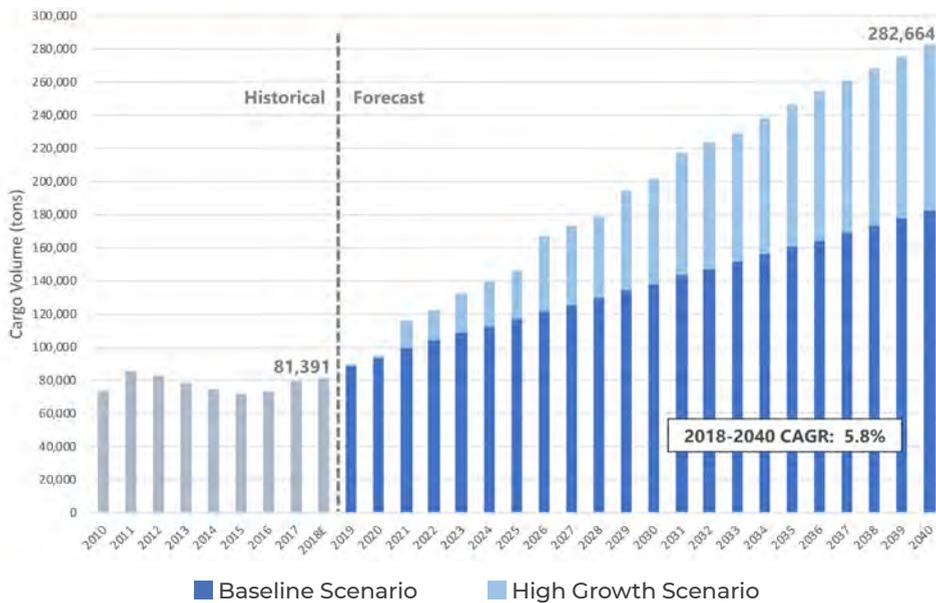
Source: Milwaukee Mitchell International Airport (Historical); Ricondo & Associates, Inc. (Forecast), May 2019.

# High Growth Scenario Aircraft Operations Forecast



Source: Milwaukee Mitchell International Airport (Historical); Ricondo & Associates, Inc. (Forecast), May 2019.

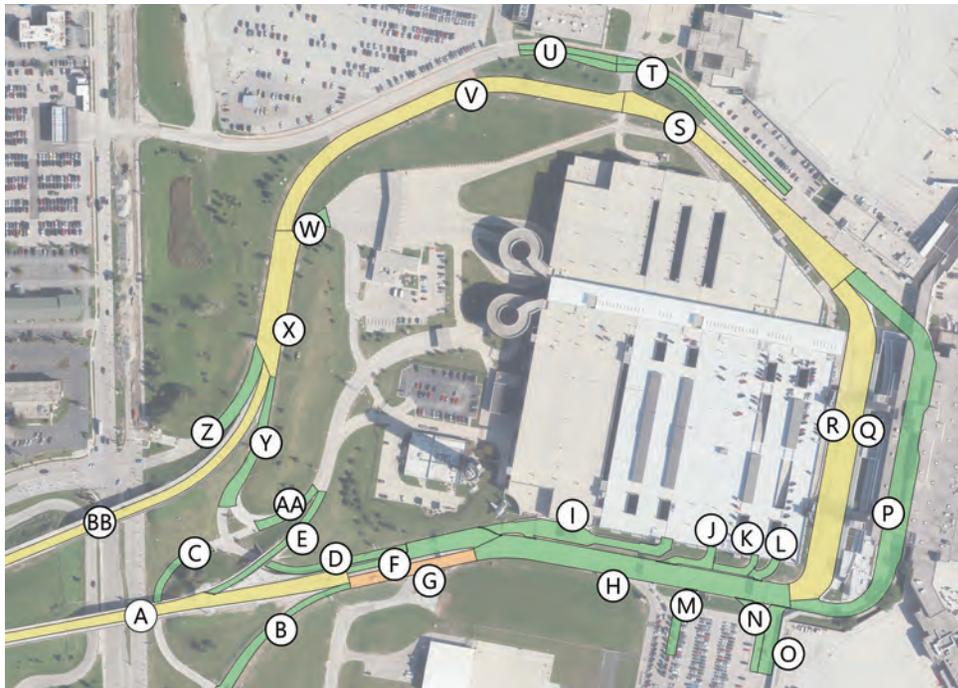
# High Growth Scenario Cargo Volume Forecast



Source: Milwaukee Mitchell International Airport (Historical); Ricondo & Associates, Inc. (Forecast), May 2019.

# Terminal Roadway Requirements

## High Growth Scenario



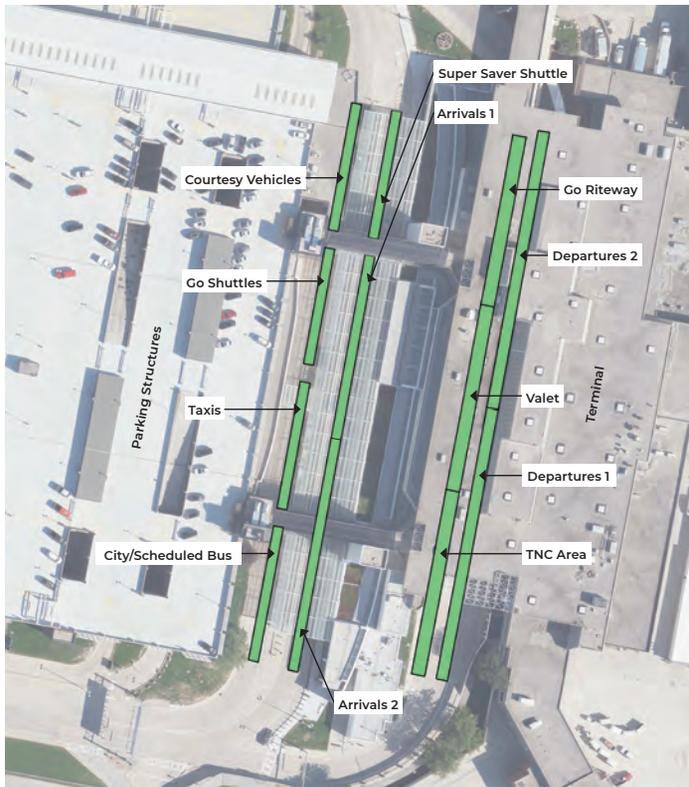
Level of Service (LOS): Operating performance of a roadway or curbside, measured quantitatively.

## Summary

- Morning Traffic Peak: All links operate at LOS C or better
- Afternoon Traffic Peak: All links operate at LOS C or better (except where noted)

Link	Roadway Segment	PM 2023	PM 2028	PM 2040
(A)	Airport Spur EB inbound	C	C	D
(G)	Inbound Roadway to Terminal after ramp from Howell Road	C	D	E
(Q)	Arrivals Inner Curb	C	C	D
(S)	Outbound Roadway Leaving Curb	C	C	D
(V)	Outbound Roadway after IAB Enter/Exit	C	C	D
(X)	Outbound Roadway after Parking Exit	C	C	D
(BB)	Airport Spur Outbound Split Towards I-94	C	C	D

# Terminal Curbfront Requirements



- LOS A 0-90% curbside utilization
- LOS B 91-110% curbside utilization
- LOS C 111-130% curbside utilization
- LOS D 131-170% curbside utilization
- LOS E 171-200% curbside utilization
- LOS F >201% curbside utilization

Level of Service (LOS): Operating performance of a roadway or curbside, measured quantitatively.

Arrivals 1					Courtesy Vehicles					City/Scheduled Bus				
	Baseline		High			Baseline		High			Baseline		High	
	AM	PM	AM	PM		AM	PM	AM	PM		AM	PM	AM	PM
Existing	Green	Green	Green	Green	Existing	Green	Green	Green	Green	Existing	Green	Green	Green	Green
2023	Green	Green	Green	Green	2023	Green	Green	Green	Green	2023	Green	Green	Green	Green
2028	Green	Green	Green	Green	2028	Green	Green	Green	Green	2028	Green	Green	Green	Green
2040	Green	Green	Green	Green	2040	Green	Green	Green	Green	2040	Green	Green	Yellow	Green

Arrivals 2					Go Shuttles					Go Riteway				
	Baseline		High			Baseline		High			Baseline		High	
	AM	PM	AM	PM		AM	PM	AM	PM		AM	PM	AM	PM
Existing	Green	Green	Green	Green	Existing	Green	Green	Green	Green	Existing	Green	Green	Green	Green
2023	Green	Green	Green	Green	2023	Green	Green	Green	Green	2023	Green	Green	Green	Green
2028	Green	Green	Green	Green	2028	Green	Green	Green	Green	2028	Green	Green	Green	Green
2040	Green	Green	Green	Green	2040	Green	Green	Green	Green	2040	Green	Green	Green	Green

Departures 1					Taxis					TNC Area				
	Baseline		High			Baseline		High			Baseline		High	
	AM	PM	AM	PM		AM	PM	AM	PM		AM	PM	AM	PM
Existing	Green	Green	Green	Green	Existing	Green	Green	Green	Green	Existing	Green	Green	Green	Green
2023	Green	Green	Green	Green	2023	Green	Green	Green	Green	2023	Green	Green	Green	Green
2028	Green	Green	Green	Green	2028	Green	Green	Green	Green	2028	Green	Green	Green	Green
2040	Green	Green	Green	Green	2040	Green	Green	Green	Green	2040	Green	Green	Green	Green

Departures 2					Valet					Super Saver Shuttles				
	Baseline		High			Baseline		High			Baseline		High	
	AM	PM	AM	PM		AM	PM	AM	PM		AM	PM	AM	PM
Existing	Green	Green	Green	Green	Existing	Green	Green	Green	Green	Existing	Green	Green	Green	Green
2023	Green	Green	Green	Green	2023	Green	Green	Green	Green	2023	Green	Green	Green	Green
2028	Green	Green	Green	Green	2028	Green	Green	Green	Green	2028	Green	Green	Green	Green
2040	Green	Green	Green	Green	2040	Green	Green	Green	Green	2040	Green	Green	Green	Green

# Gate Requirements Summary

- Gate requirements presented as a range reflecting the needs under various operating scenarios

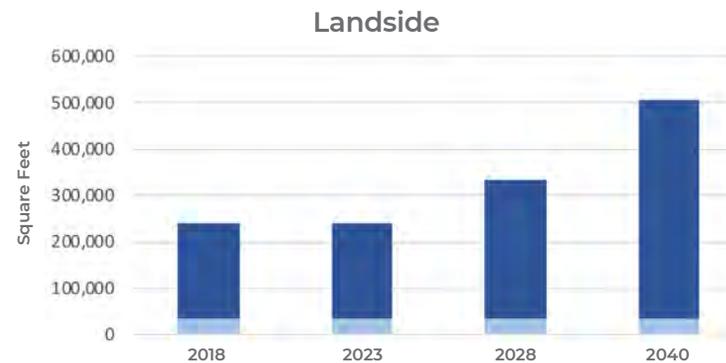
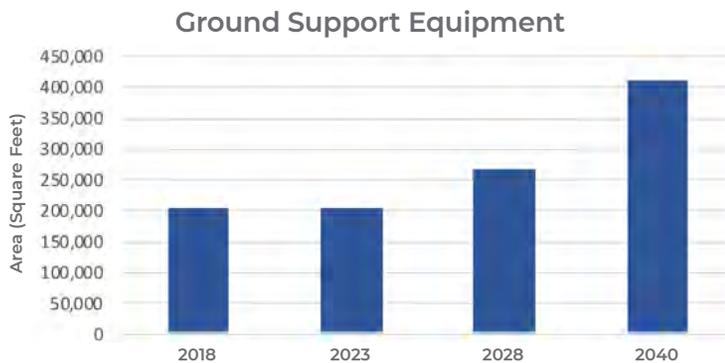
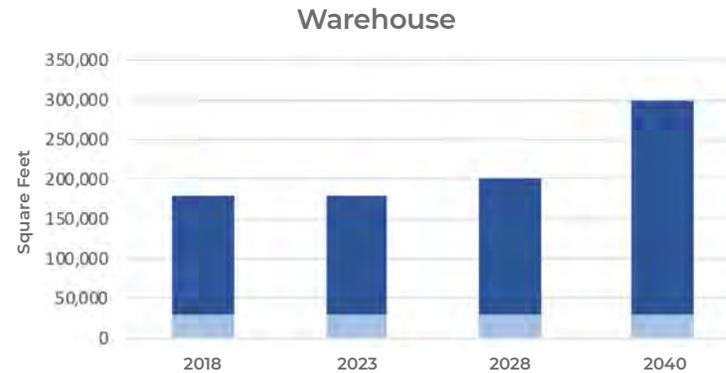
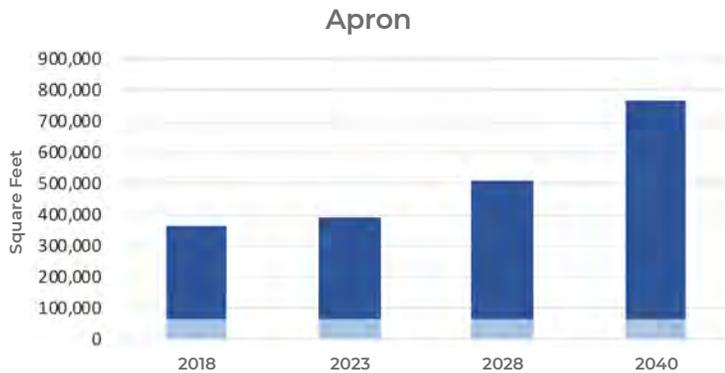
REQUIREMENT	GATING SCENARIO 1		GATING SCENARIO 2		GATING SCENARIO 3	
	Baseline Forecast	High Growth	Baseline Forecast	High Growth	Baseline Forecast	High Growth
2023	35	35	33	33	35	35
2028	36	37	35	35	36	36
2040	39	42	35	35	36	36
<b>TOTAL NEW GATES REQUIRED</b>	<b>+7</b>	<b>+10</b>	<b>+4</b>	<b>+4</b>	<b>+4</b>	<b>+4</b>

## Summary 2040 Gate Requirements

- Baseline: 4 to 7 additional gates over existing
- High Scenario: 4 to 10 additional gates over existing
- Concourse E Redevelopment will meet a portion of this gate need

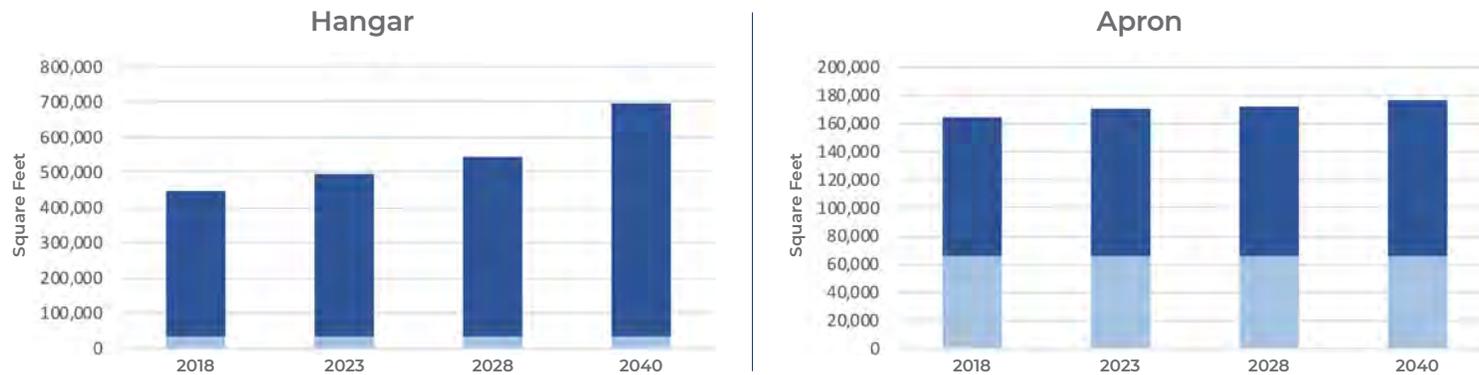
Note: Gating scenarios defined to reflect varying operational and gate allocation assumptions

# Cargo Facilities - High Growth Scenario



■ 2018 Space Demand
 ■ Total Requirements

# General Aviation Requirements

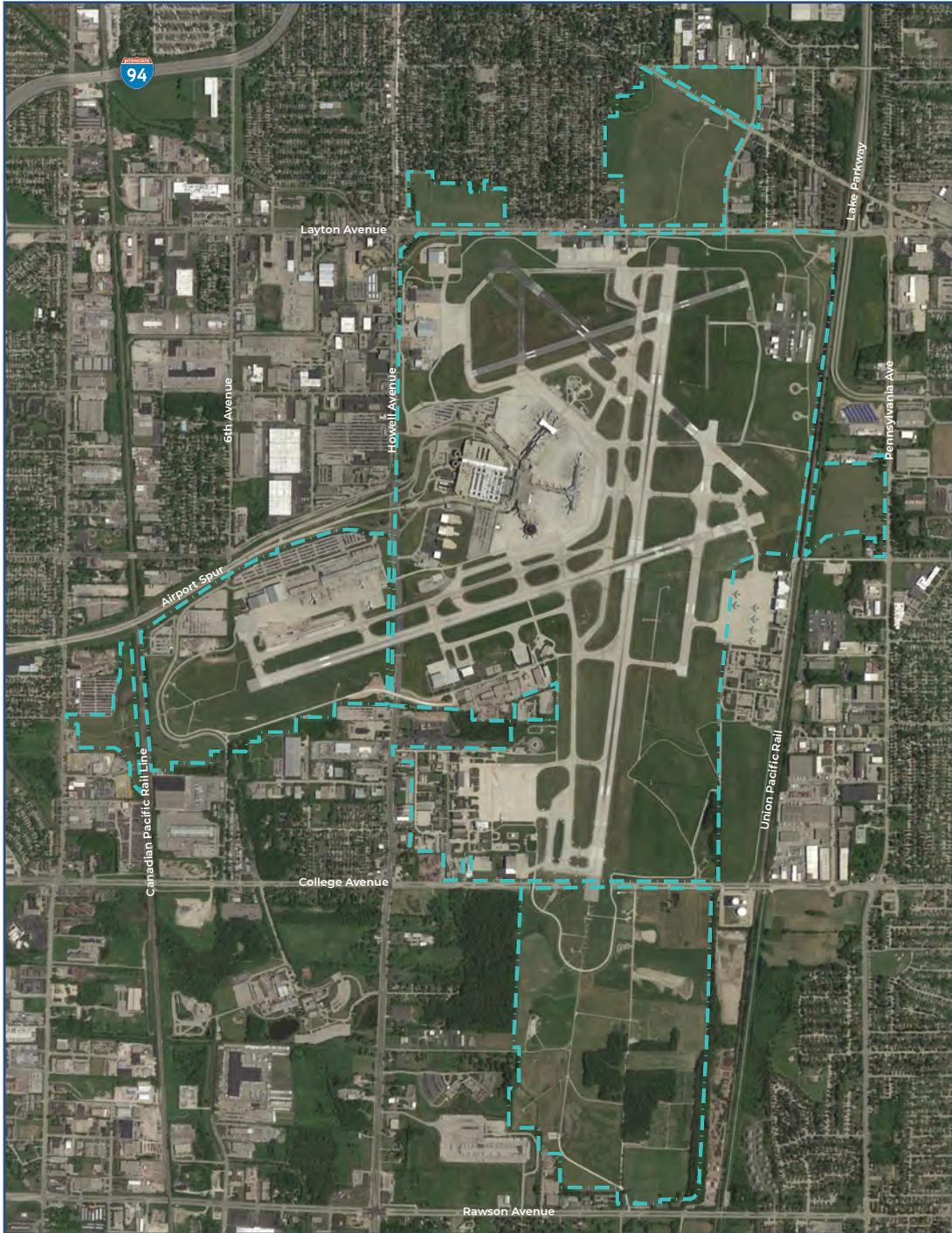


■ 2018 Space Demand

■ Total Requirements

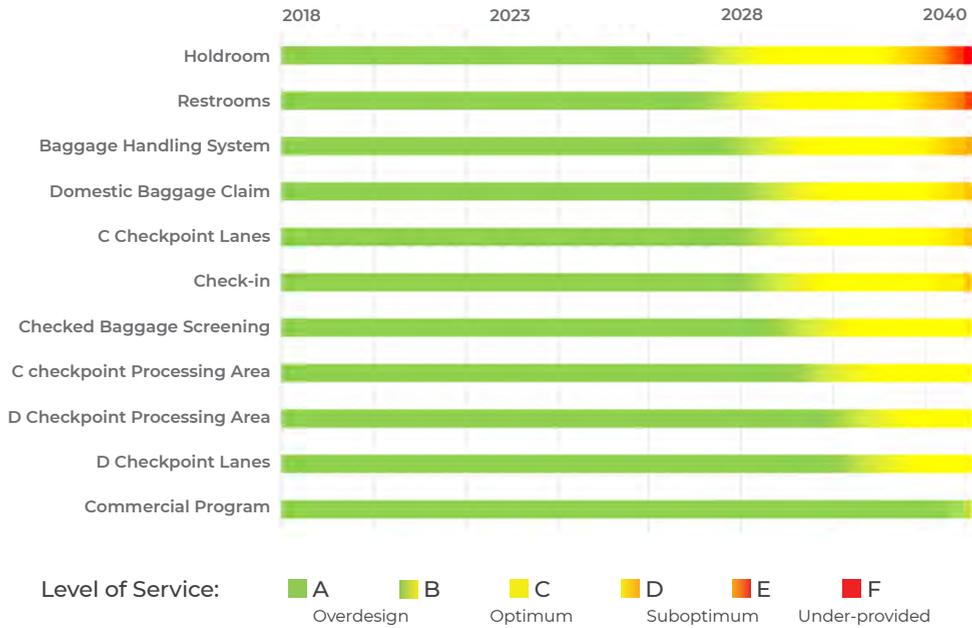
Note: General aviation activity does not change in the High Scenario Forecast.

# Milwaukee Mitchell International Airport



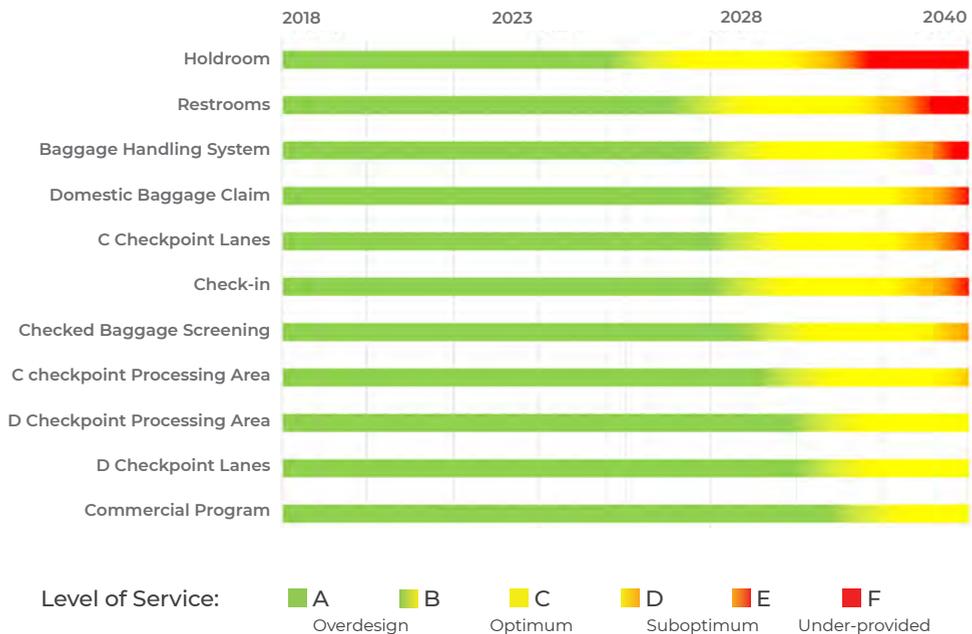
-- Airport Property Line

# Baseline Terminal Level of Service



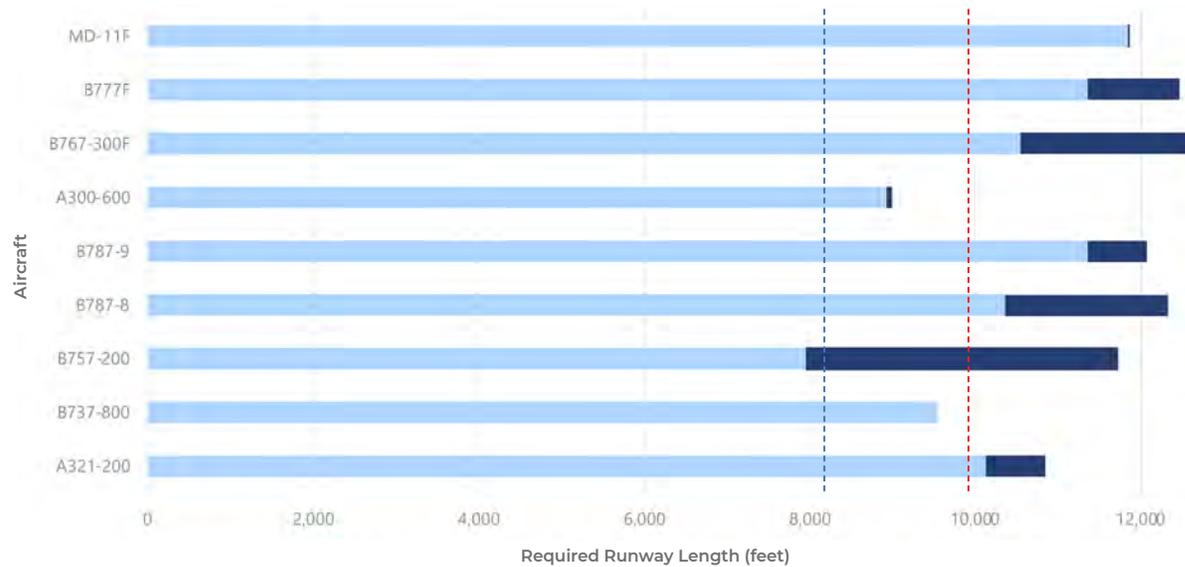
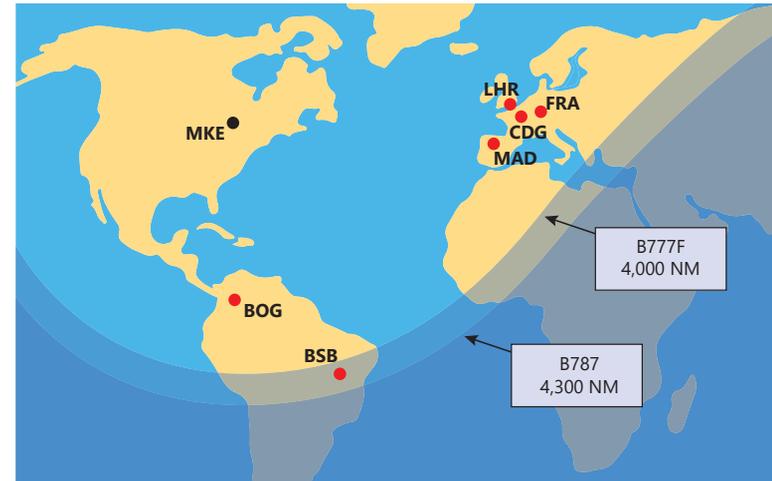
# High Growth Terminal Level of Service

[Required Capacity relative to Existing Capacity]



# Airfield Requirements

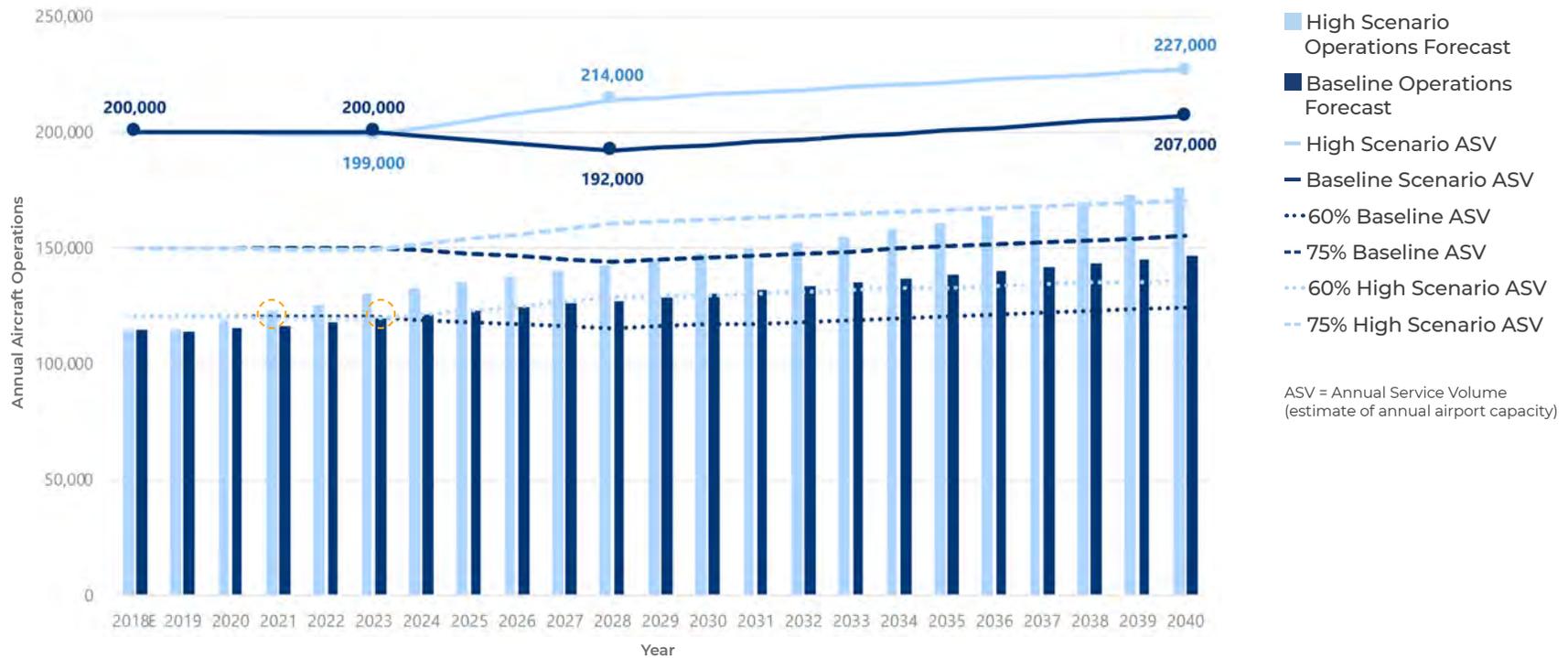
- Maximum range based on available runway length of 10,000 feet (Runway 1L-19R).
- Takeoff Distance Requirements at Maximum Certified Takeoff Weight - Hot Day



BOG – El Dorado International Airport  
 BSB – International Airport of Brasilia  
 CDG – Charles de Gaulle Airport  
 FRA – Frankfurt Airport  
 MAD – Madrid-Barajas International Airport  
 LHR – London Heathrow Airport

Light Blue: Takeoff Distance Required at MTOW  
 Dark Blue: Takeoff Distance Variation Based on Engine Type  
 - - Runway 7R-25L 8,300 ft  
 - - Runway 1L-19R 9,990 ft  
 MTOW: Maximum Take Off Weight

# Annual Airfield Capacity



- The FAA recommends capacity development when activity approaches 60 to 75 percent of annual capacity. Capacity development could be in the form of a new runway, runway extension, additional exit taxiways, aircraft parking aprons.