# Thank you for your participation.

The meeting will begin shortly.

- During this meeting, your camera will be off and your microphone muted.
- The presenters and presentations will be featured on your screens for the duration of the meeting.
- Please submit questions and comments using the Chat function. These will be addressed during the Questions/Comments portion of the agenda.
  - Turn on the "Chat" to submit.
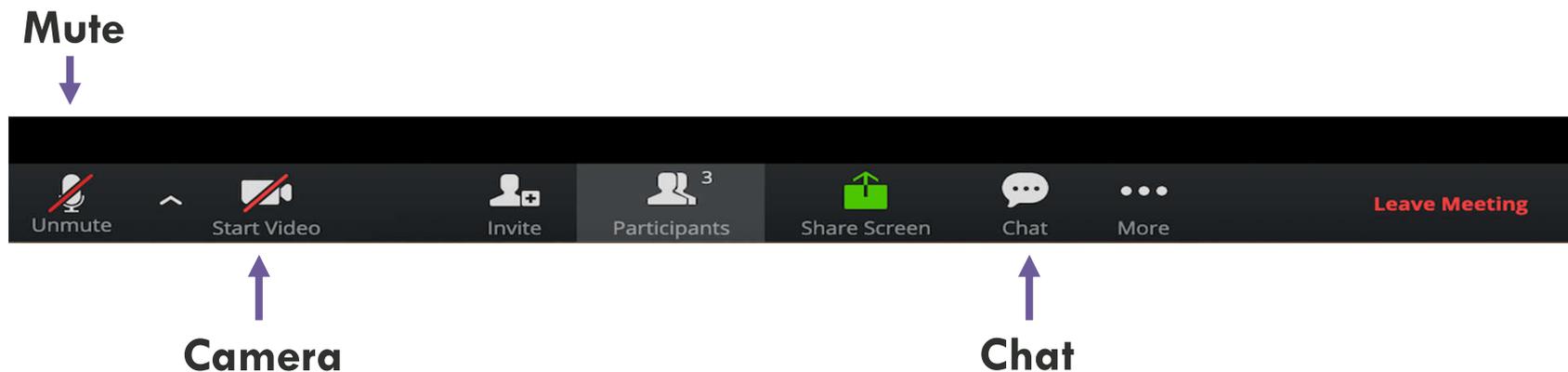
Mute

Camera

Chat

Agenda

Welcome/Opening Remarks

State of TPA

Master Plan Update

- **2022 Master Plan Update – Overview**
- **Aircraft Gate Requirements**
- **Airside D**
- **Terminal Area Capabilities for Serving 35 Million Annual Passengers**
- **Airfield Capacity**
- **Next Steps**

State of TPA

Tampa International Airport Update

2022 Master Plan Update Public Outreach

Generates **$14.4B** in economic activity each year

28th Busiest Airport in the U.S.

121,159 jobs supported

10,500 people employed by airport and its tenants
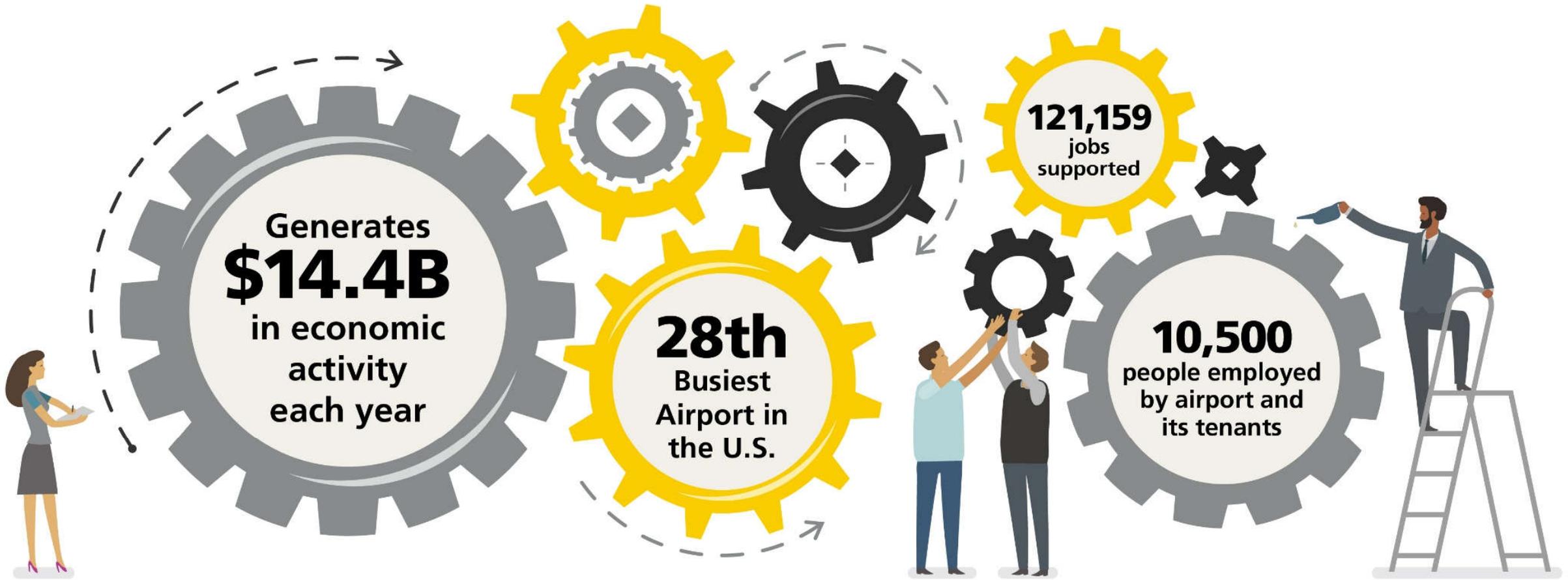
Source: FDOT Aviation Economic Impact Study 2019

Tampa International Airport

Top 3 Largest Airline Market Share
by percentage

Southwest 28.2%

Delta 17.7%

American 17.3%

587
Daily Flight Operations

80* Nonstop Destinations (*estimated)

17 International Destinations

Top 10 Markets
for Tampa

1. New York
2. Chicago
3. Detroit
4. Atlanta
5. Philadelphia
6. Denver
7. Boston
8. Dallas
9. Minneapolis
10. Baltimore

Hillsborough County Aviation Authority
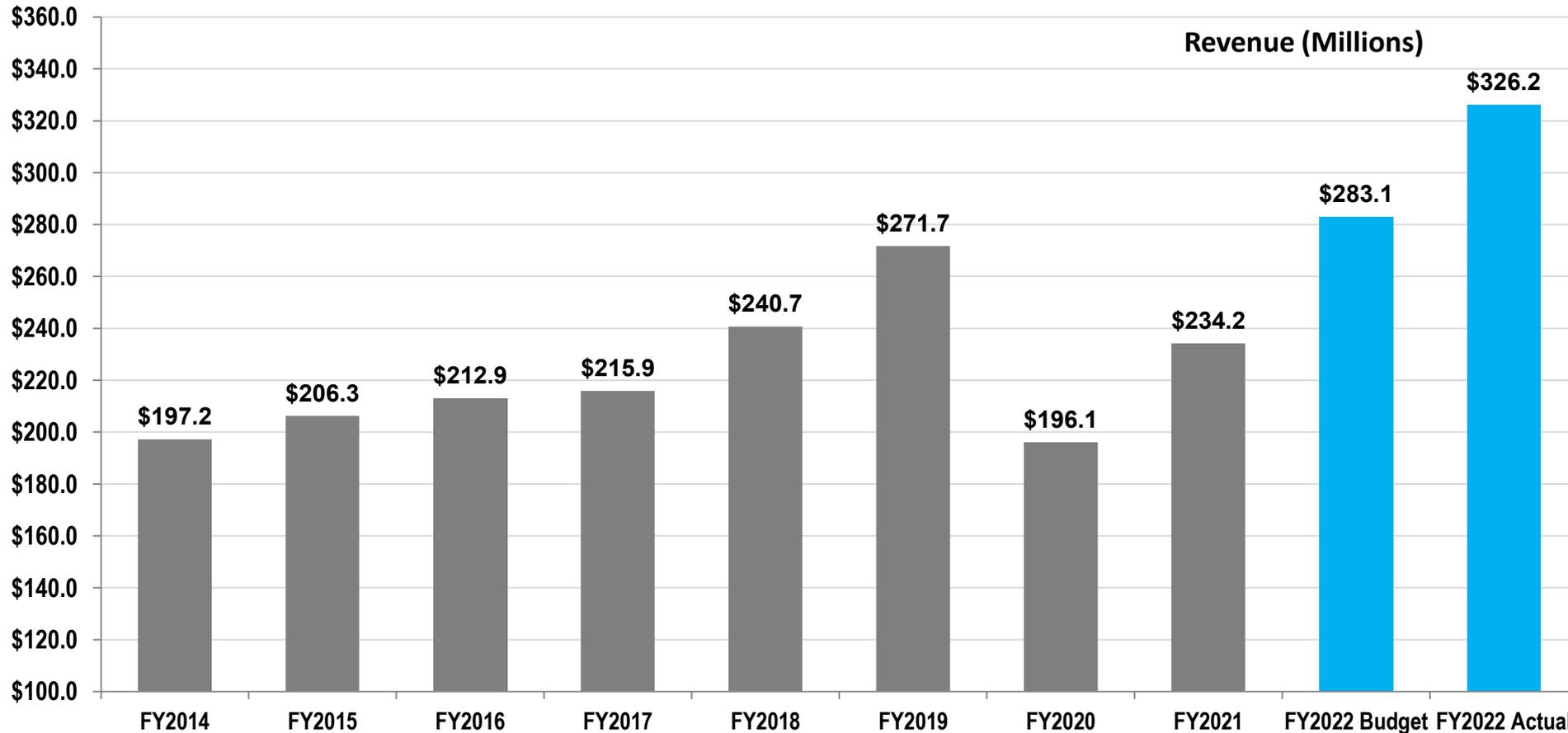
Tampa International Airport

Fundamentals of Our Business

- Unique independent special district
  - Single business purpose government
  - Own, operate all public airports in the County

- Federally regulated
  - Must be self-sustaining
  - Our revenues can only be used at the airport and must be tied to airport purposes; cannot go to other community projects
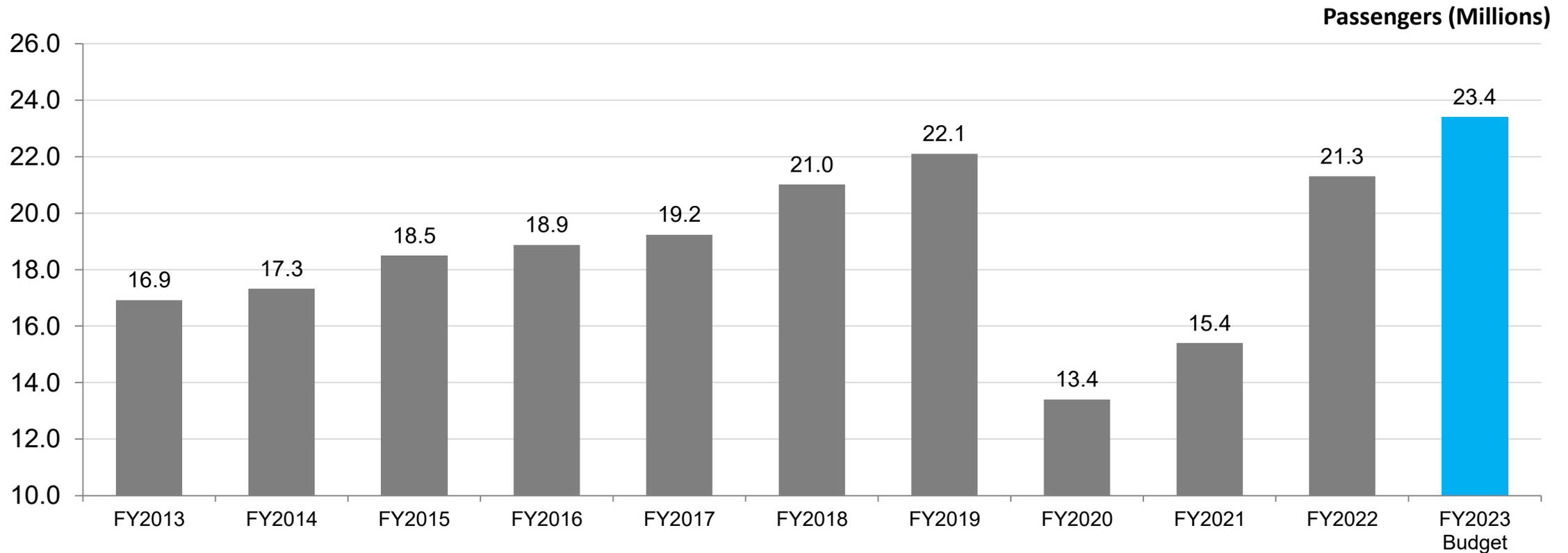
Tampa International Airport

FY2022 – Gross Operating Revenues

Tampa International Airport generated $326,242,147 in operating revenues during FY2022, $92 million higher than FY2021

Revenue (Millions)

Fiscal Year	Revenue
FY2014	$197.2
FY2015	$206.3
FY2016	$212.9
FY2017	$215.9
FY2018	$240.7
FY2019	$271.7
FY2020	$196.1
FY2021	$234.2
FY2022 Budget	$283.1
FY2022 Actual	$326.2

Hillsborough County Aviation Authority
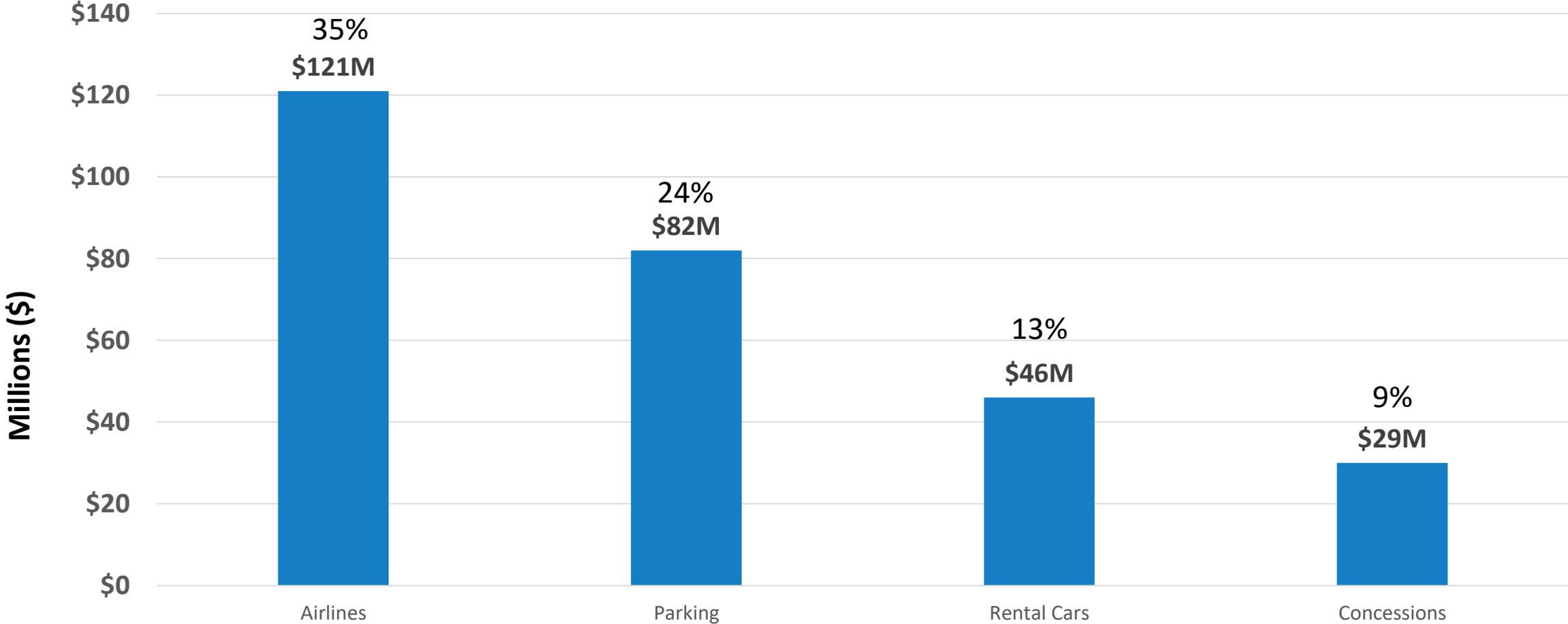
Tampa International Airport

FY2023 Passenger Projection

Tampa International Airport is projected to handle 23,448,336 passengers during FY2023, an 9.7% increase versus FY2022 and 5.2% ahead of FY2019 pre-pandemic levels

Passengers (Millions)

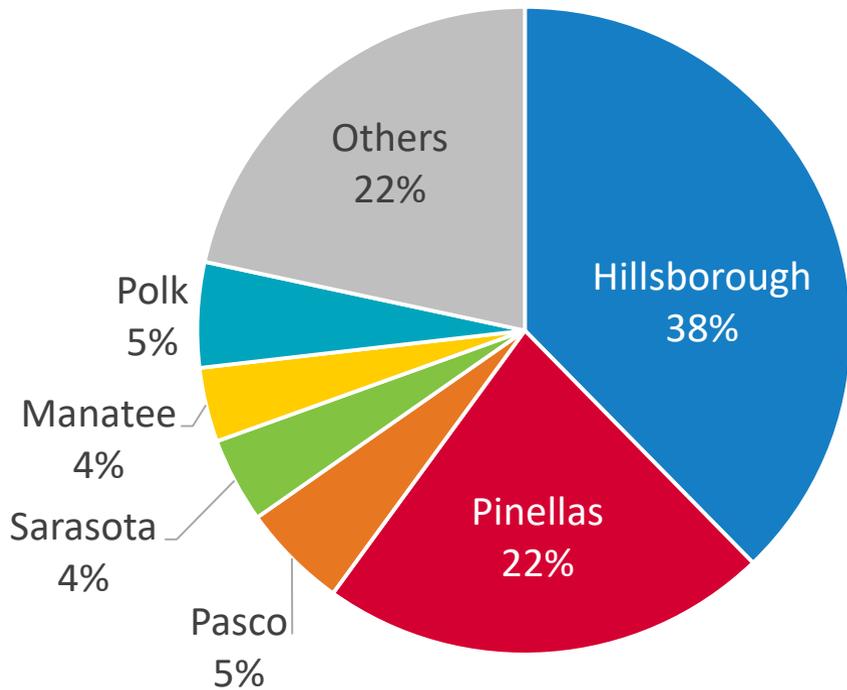| Year	Passengers
FY2013	16.9
FY2014	17.3
FY2015	18.5
FY2016	18.9
FY2017	19.2
FY2018	21.0
FY2019	22.1
FY2020	13.4
FY2021	15.4
FY2022	21.3
FY2023 Budget	23.4

Tampa International Airport

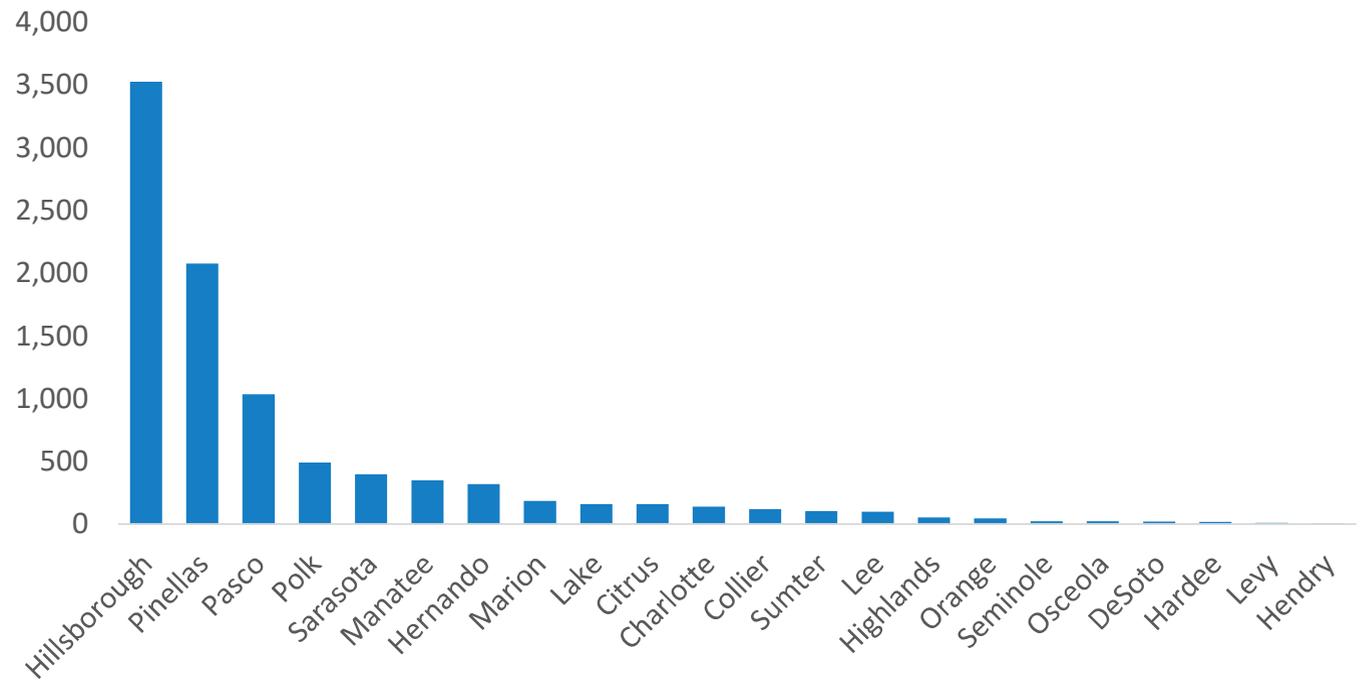FY2023 Top Operating Revenue Sources *(budgeted)*

Hillsborough & Pinellas Contribute 60% of Originating Traffic
Over 3,700 daily originating passengers come from other area counties

TPA Domestic Traffic by County

Pie chart:
- Hillsborough 38%
- Pinellas 22%
- Pasco 5%
- Sarasota 4%
- Manatee 4%
- Polk 5%
- Others 22%

TPA Daily Domestic Traffic by O&D County (PDEW)

Bar chart counties: Hillsborough, Pinellas, Pasco, Polk, Sarasota, Manatee, Hernando, Marion, Lake, Citrus, Charlotte, Collier, Sumter, Lee, Highlands, Orange, Seminole, Osceola, DeSoto, Hardee, Levy, Hendry

Source: ADI Airport Catchment Analytics (YE June 2022) – TPA Primary and Secondary Catchments

Tampa International Airport

New Airlines

2022

2021

TPA Largest Unserved

Domestic	
City	**2019 PDEW**
SAN	202.9
SMF	80.6
SNA	66.7
SJC	62.5
GSO	60.8
ABQ	56.3
MSN	46.1
AVL	42.8
OAK	42.6
RNO	40.0
DSM	39.2

International	
City	**2019 PDEW**
AMS	51.7
CDG	37.4
FCO	34.2
SJO	31.2
DUB	27.7
SDQ	25.9
PUJ	25.7
MEX	23.3

Source: Diio Mi YE Dec 2019, PDEW= Passengers Daily Each Way

Madison (MSN)
Sacramento (SMF)
Oakland (OAK)
Reno (RNO)
San Jose (SJC)
Orange County (SNA)
Des Moines (DSM)
Greensboro (GSO)
Asheville (AVL)
Albuquerque (ABQ)
San Diego (SAN)
Dublin (DUB)
Amsterdam (AMS)
Paris (CDG)
Rome (FCO)
Punta Cana (PUJ)
Santo Domingo (SDQ)
Mexico City (MEX)
San Jose (SJO)

Tampa International Airport

Air Service: Pitching TPA and Tampa Bay
October 2022 | Las Vegas

37 Airline Meetings Held

Team Introduction

Team Introduction

2022 Master Plan Update - Overview

What is an Airport Master Plan Update?

"An airport master plan is a comprehensive study of an airport and usually describes the short-, medium-, and long-term development plans to meet future aviation demand."

- FAA Advisory Circular 150/5070 – 6B – Airport Master Plans

Responds to the local and regional air transportation needs

Serves as a roadmap for achieving HCAA's vision and airport improvement strategies for TPA

Reflects new and emerging industry trends

Ensures compliance with ongoing changes in airport design criteria

Guides future airport development and enhancements

Why Prepare a Master Plan Update?

- ✈ Anticipate and prepare for future demand

- Remain proactive, given the economic value of TPA as a gateway to the West Coast of Florida

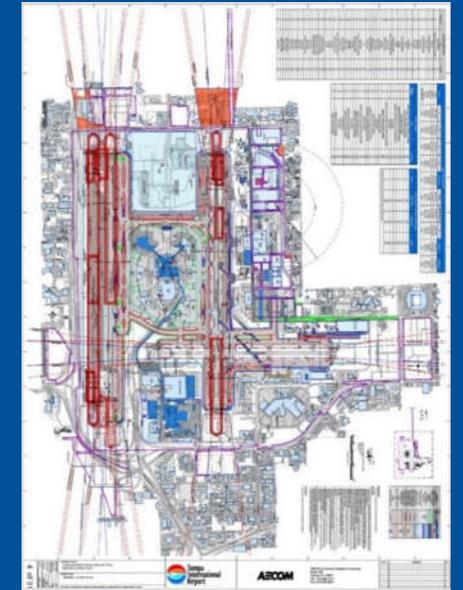- 📅 Prepare a strategy for the cohesive development of the Airport

- Maintain long-term financial sustainability

- 💲 Leverage state and federal funding sources

Culminates with an updated Airport Layout Plan

TAMPA INTERNATIONAL AIRPORT
AIRPORT LAYOUT PLAN
4100 GEORGE J BEAN PKWY
TAMPA, FL 33607
APRIL 2016

Federal Aviation Administration Airport Improvement Program (AIP)

💲

TPA's 2012 Master Plan Update History

Phase 1: Decongestion	→	Phase 2: Enabling	→	Phase 3: Expansion
COMPLETE		**COMPLETE**		**COMMENCING**

Phase 1: Decongestion — COMPLETE

Rental Car Center

Automated People Mover

Main Terminal Expansion and Concessions Redevelopment

Phase 2: Enabling — COMPLETE

SkyCenter Development

Curbside Expansion

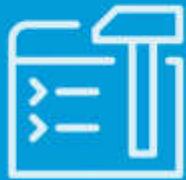

Phase 3: Expansion — COMMENCING

Airside D Design and Construction
(16 domestic/international swing-gates)

2022 Master Plan Update Goals

Formulate 20-year forecasts for the Airport ✓

Identify newer or emerging trends and technologies ✓

Assess TPA's existing airfield capacity ✓

Revalidate Airside D plan and assess timing for the initial buildout of the North Terminal ✓

Validate the Terminal, roadway and curbfront capabilities to serve 34-million annual passengers ✓
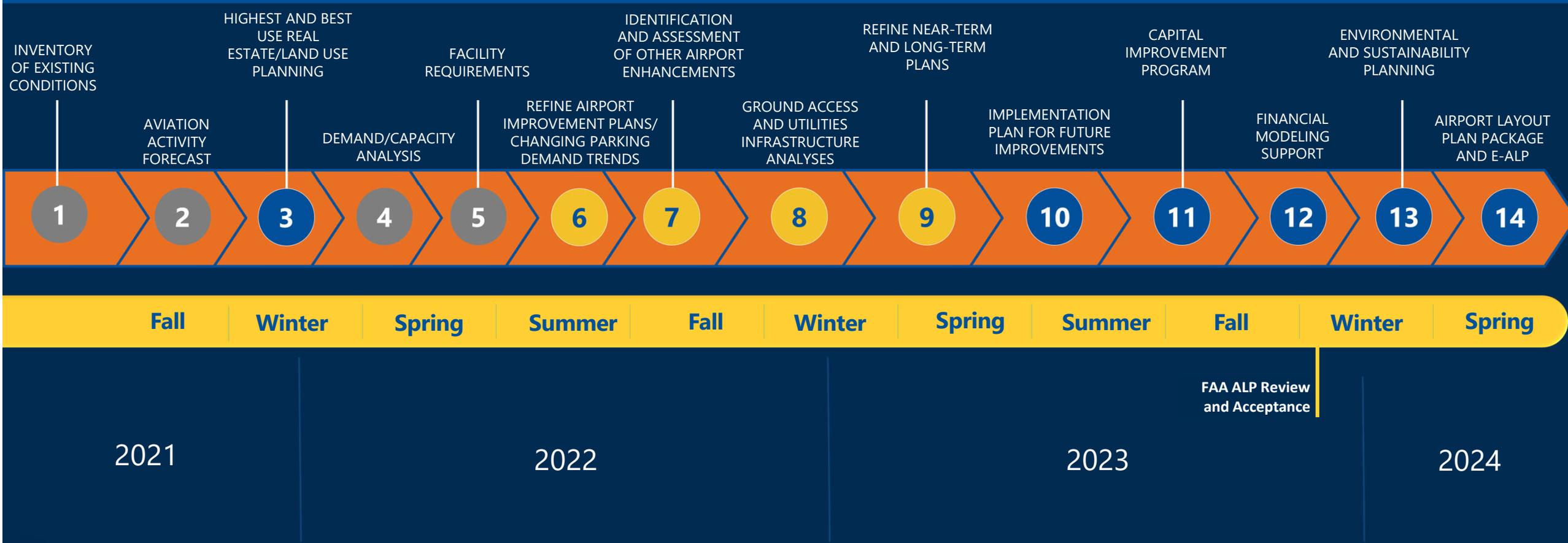
Assess needs and opportunities for additional capacity enhancements

In-Progress

2022 MPU Project Schedule

#	Phase
1	INVENTORY OF EXISTING CONDITIONS
2	AVIATION ACTIVITY FORECAST
3	HIGHEST AND BEST USE REAL ESTATE/LAND USE PLANNING
4	DEMAND/CAPACITY ANALYSIS
5	FACILITY REQUIREMENTS
6	REFINE AIRPORT IMPROVEMENT PLANS/ CHANGING PARKING DEMAND TRENDS
7	IDENTIFICATION AND ASSESSMENT OF OTHER AIRPORT ENHANCEMENTS
8	GROUND ACCESS AND UTILITIES INFRASTRUCTURE ANALYSES
9	REFINE NEAR-TERM AND LONG-TERM PLANS
10	IMPLEMENTATION PLAN FOR FUTURE IMPROVEMENTS
11	CAPITAL IMPROVEMENT PROGRAM
12	FINANCIAL MODELING SUPPORT
13	ENVIRONMENTAL AND SUSTAINABILITY PLANNING
14	AIRPORT LAYOUT PLAN PACKAGE AND E-ALP

Fall · Winter · Spring · Summer · Fall · Winter · Spring · Summer · Fall · Winter · Spring

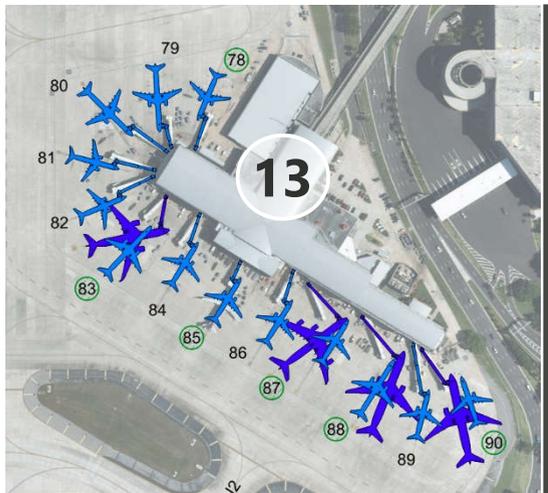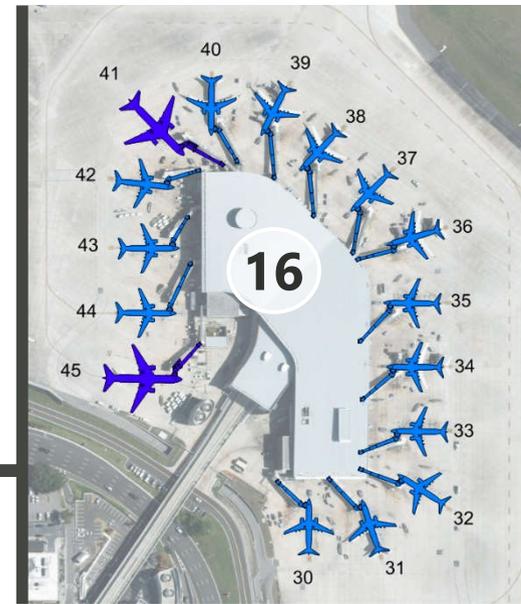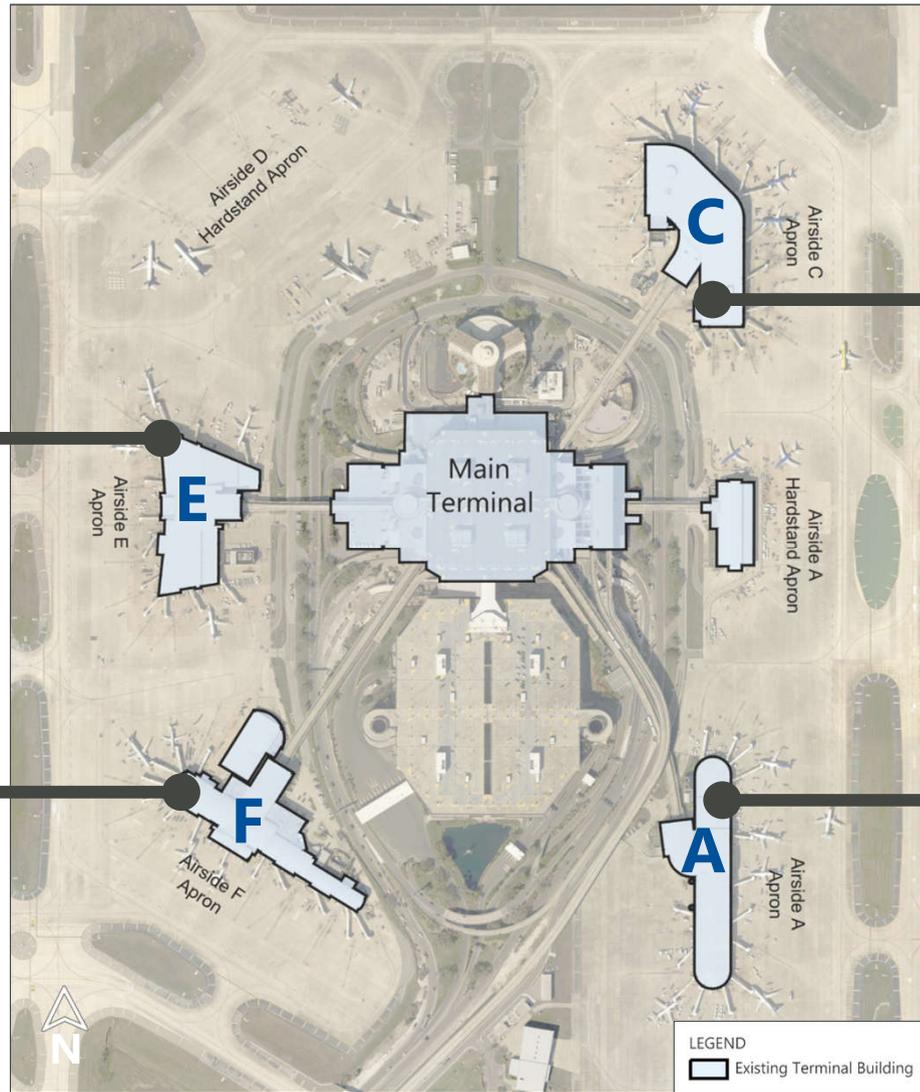FAA ALP Review and Acceptance

2021 · 2022 · 2023 · 2024

Aircraft Gate Requirements

Inventory of Aircraft Gates per Airside

GATES

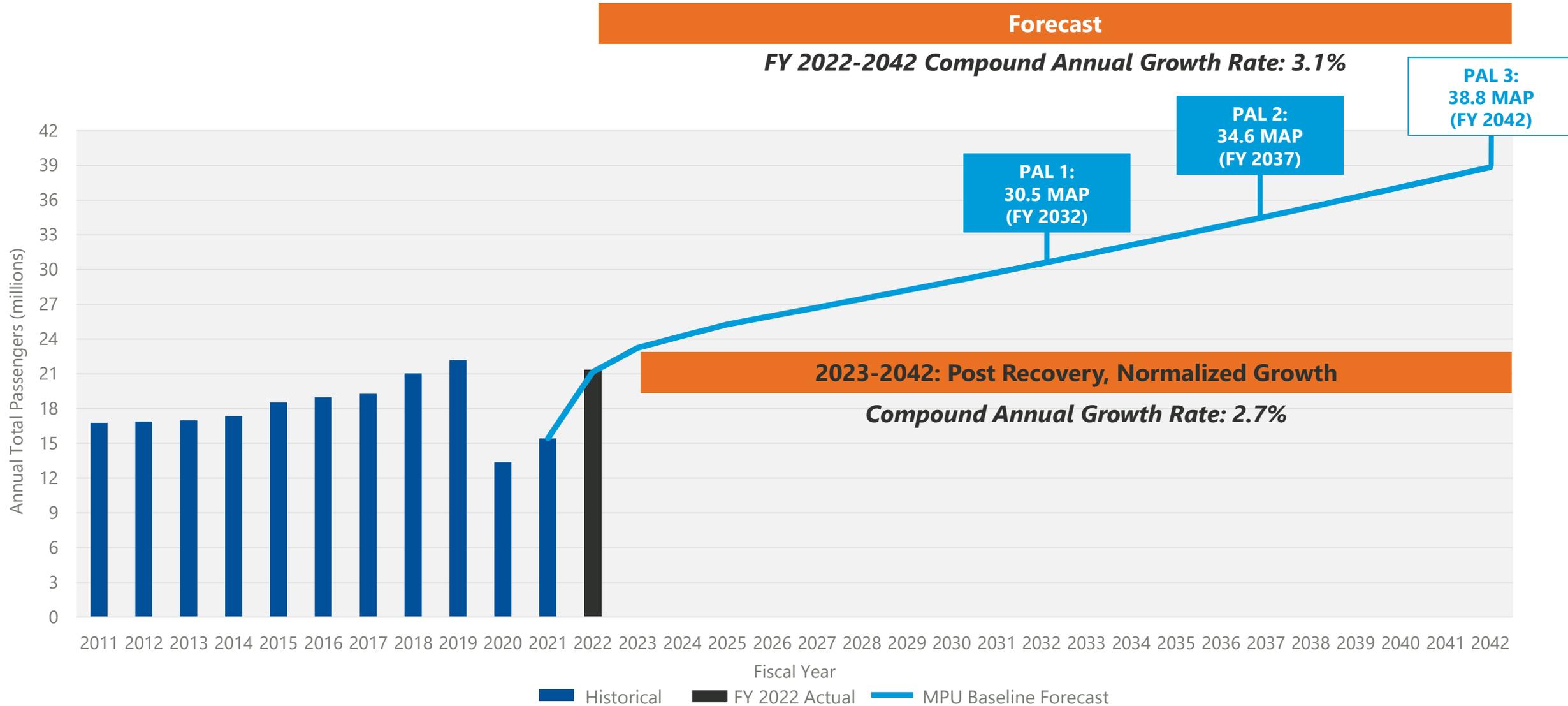| Domestic	International	Total
50[1]	6	56
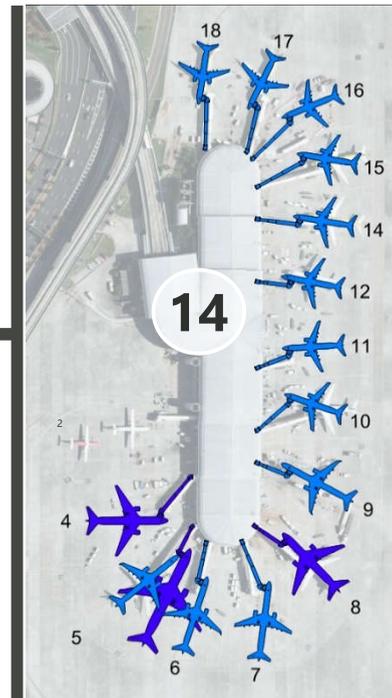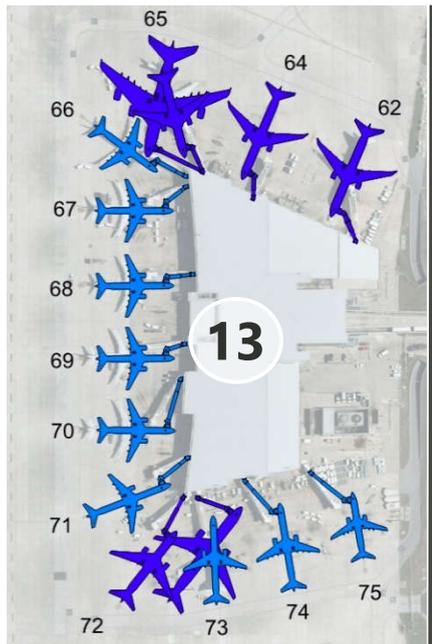
[1] Domestic Gates Only. Gates A1 and A3 are excluded from this inventory since they are used predominantly for commuter operations.

LEGEND
Existing Terminal Building

Narrowbody Aircraft — Widebody Aircraft — Domestic/International Gate (Swing Gate)

13 Number of Gates

2022 MPU Planning Activity Levels (PALs)

Forecast

FY 2022-2042 Compound Annual Growth Rate: 3.1%

PAL 3: 38.8 MAP (FY 2042)

PAL 2: 34.6 MAP (FY 2037)

PAL 1: 30.5 MAP (FY 2032)

2023-2042: Post Recovery, Normalized Growth

Compound Annual Growth Rate: 2.7%

Annual Total Passengers (millions)

Fiscal Year

Legend: Historical — FY 2022 Actual — MPU Baseline Forecast

Note: Full recovery will be achieved when the rolling average of the 12-month passenger enplanements will return to FY 2019 volumes, which is forecast to occur in FY 2023.
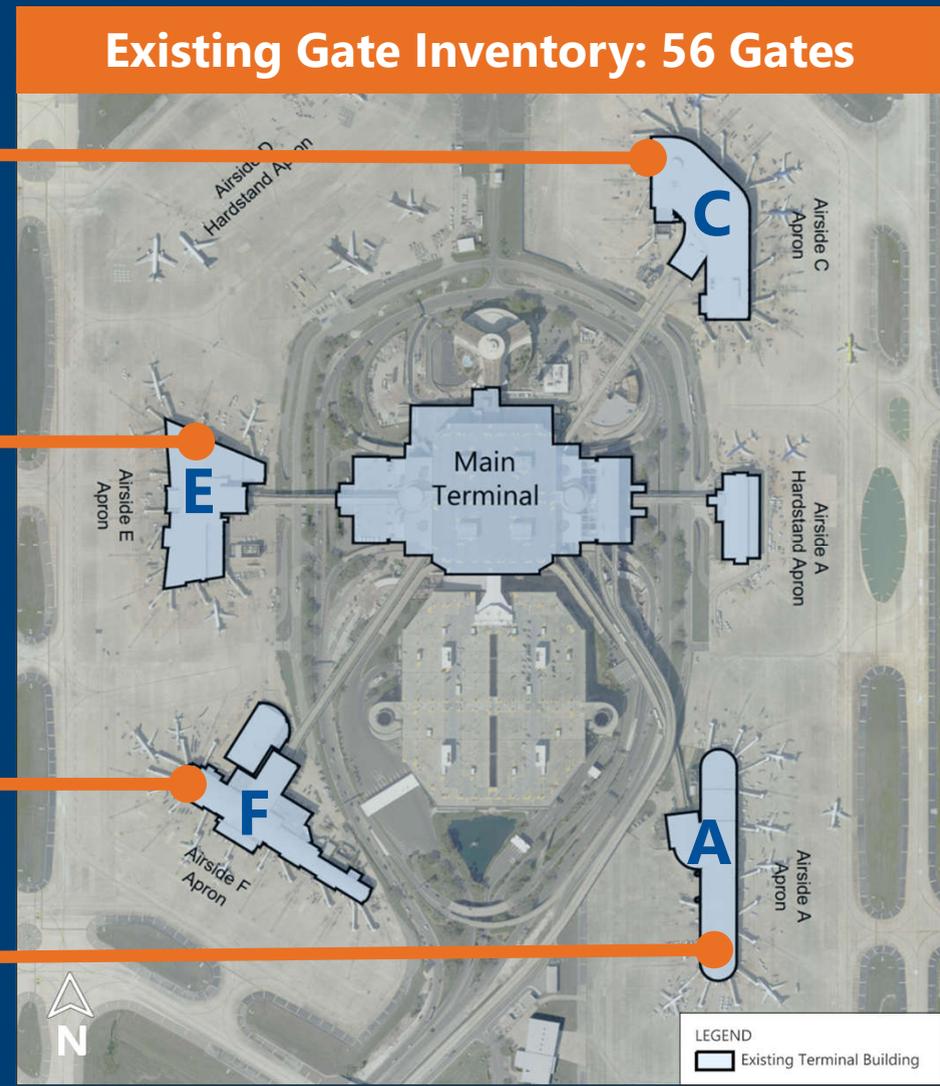
FY 2032 | PAL 1 (30.5 MAP)
Aircraft Gate Requirements

Airside C
Additional Gates Needed

Airside E
Additional Gates Needed

Airside F
Additional Gates Needed

Airside A
Additional Gates Needed

Existing Gate Inventory: 56 Gates

TOTAL GATES NEEDED

69
(Deficit of 13)

Notes: MAP – Million Annual Passengers ; Gate inventory and future needs based on the maximum number of (narrowbody equivalent) in-service gates. Excludes Gate A1 and A3.
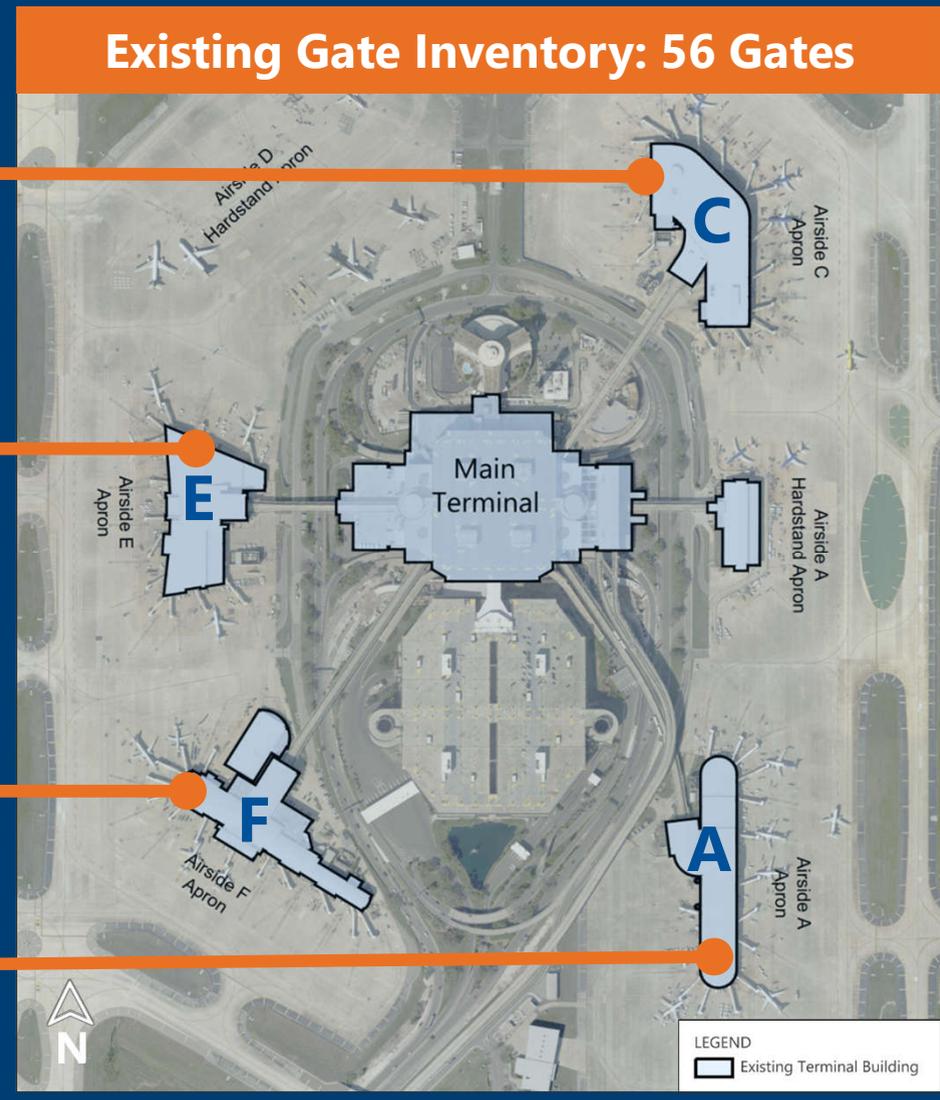
FY 2037 | PAL 2 (34.6 MAP)
Aircraft Gate Requirements

Airside C
Additional Gates Needed

Airside E
Additional Gates Needed

Airside F
Additional Gates Needed

Airside A
Additional Gates Needed

Existing Gate Inventory: 56 Gates

**TOTAL GATES NEEDED**

75
(Deficit of 19)

Notes: MAP – Million Annual Passengers ; Gate inventory and future needs based on the maximum number of (narrowbody equivalent) in-service gates. Excludes Gate A1 and A3.

Airside D Gate Capacity Contribution

Implementation of Airside D, combined with airline relocations, adequately meets the gate needs for PAL 1 (FY 2032) and PAL 2 (FY 2037), which is when the Airport is projected to reach approximately 35 Million Annual Passenger (MAP).

Resulting Gate Inventory: 72 Gates

D — 16
C — 16
E — 13
F — 13
A — 14
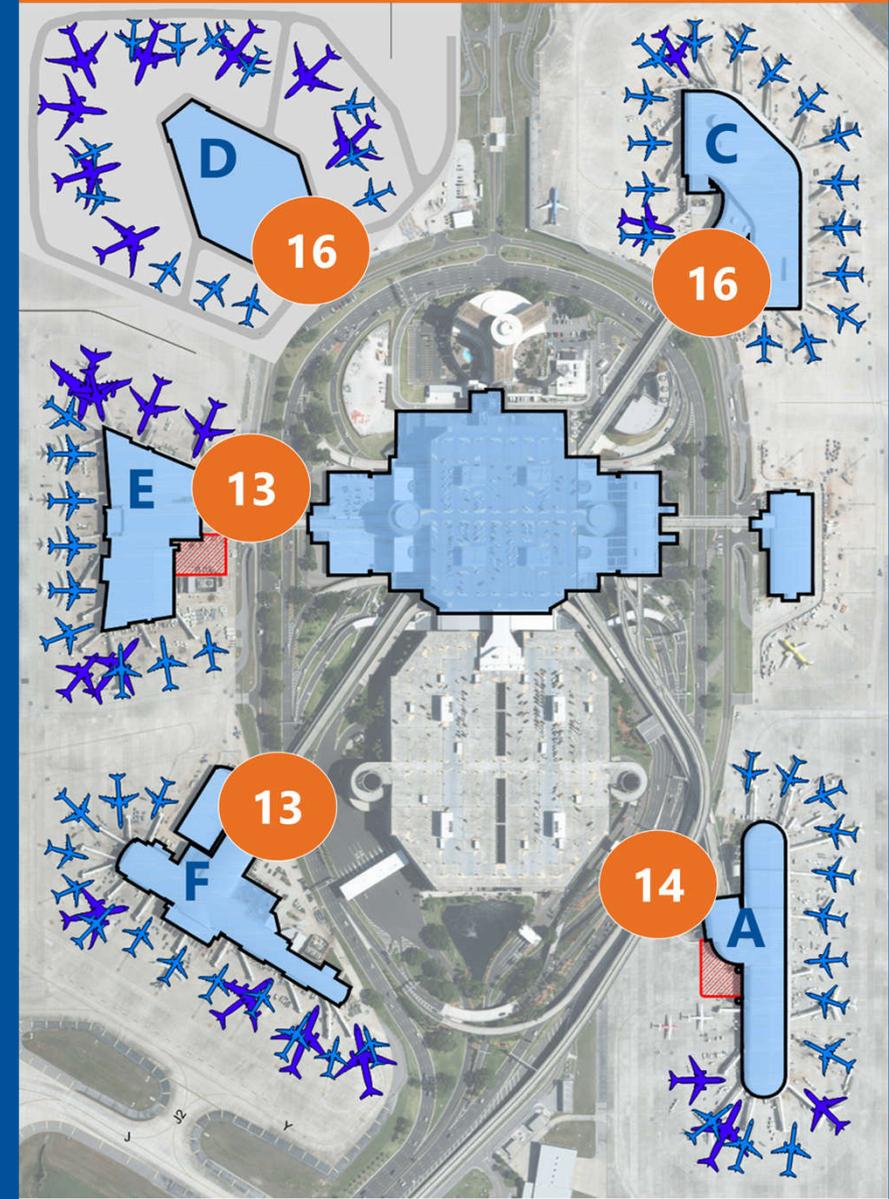
LEGEND

Narrowbody Aircraft

Widebody Aircraft

13 Number of Gates

Airside D Program and Implementation

Airside D Program

16 Aircraft Gates

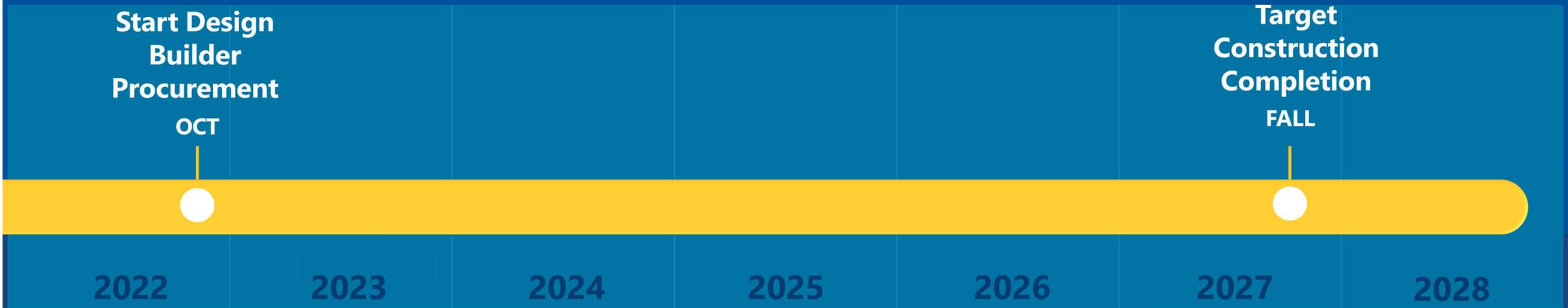3 level domestic and international airside terminal

560,000 square feet

Characteristics and Timeline

The three-level facility will include, at a minimum, the following:

- Airline functions on all levels
- Transportation Security Administration (TSA) Security Screening Checkpoint
- TSA Checked Baggage Inspection System (CBIS) and Checked Baggage Reconciliation Area (CBRA)
- U.S. Customs and Border Protection (CBP)
- Concessions and other commercial programs
- Common building spaces, restrooms and circulation corridors
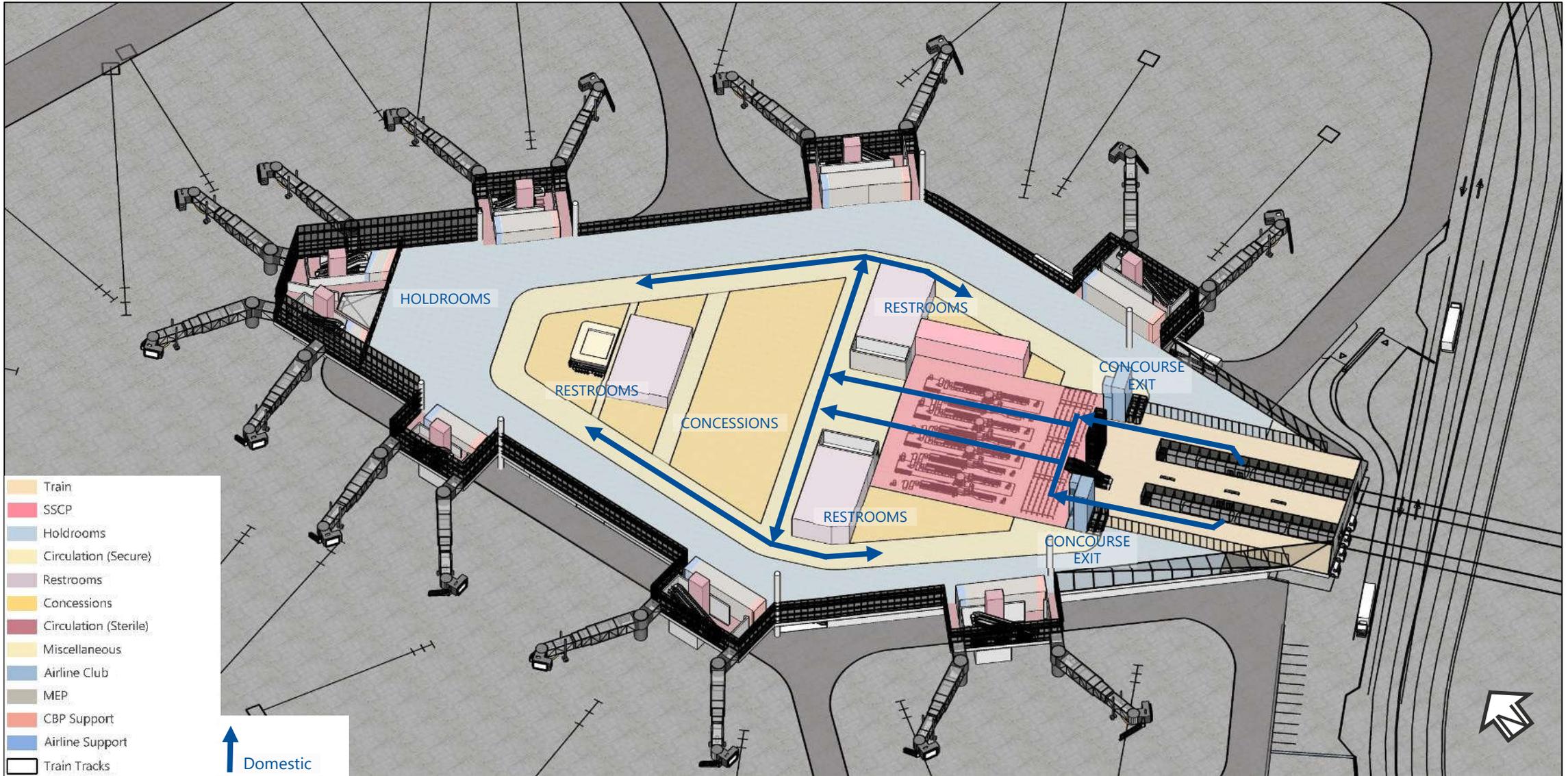- Shuttle Station for connectivity to the Main Terminal

Start Design Builder Procurement
OCT

Target Construction Completion
FALL

2022   2023   2024   2025   2026   2027   2028

Tampa International Airport

New Airside D

Concourse Level (Level 2) – Departing Passengers

Legend:
- Train
- SSCP
- Holdrooms
- Circulation (Secure)
- Restrooms
- Concessions
- Circulation (Sterile)
- Miscellaneous
- Airline Club
- MEP
- CBP Support
- Airline Support
- Train Tracks

Domestic

HOLDROOMS
RESTROOMS
RESTROOMS
CONCESSIONS
RESTROOMS
CONCOURSE EXIT
CONCOURSE EXIT

Concourse Level (Level 2) – Arriving Passengers

Legend:
- Train
- SSCP
- Holdrooms
- Circulation (Secure)
- Restrooms
- Concessions
- Circulation (Sterile)
- Miscellaneous
- Airline Club
- MEP
- CBP Support
- Airline Support
- Train Tracks

International
Domestic

HOLDROOMS
RESTROOMS
RESTROOMS
CONCESSIONS
RESTROOMS
CONCOURSE EXIT
CONCOURSE EXIT
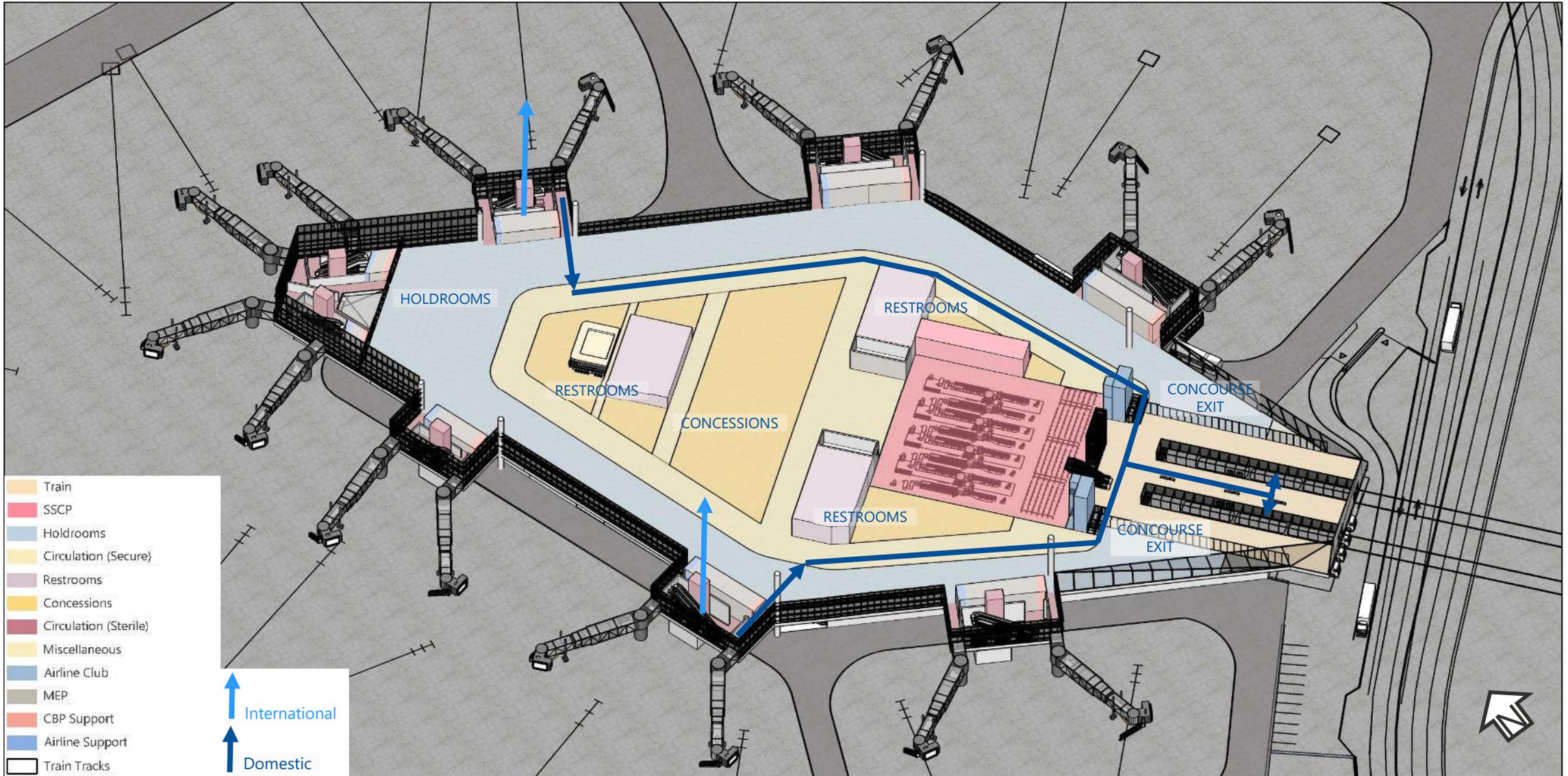
Passenger Flows

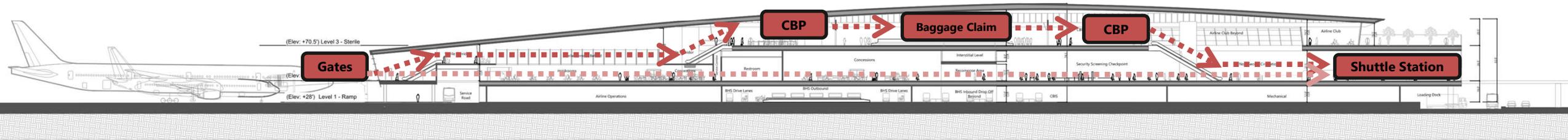**Airside and Aircraft Gates**

Landside and Ground Transportation
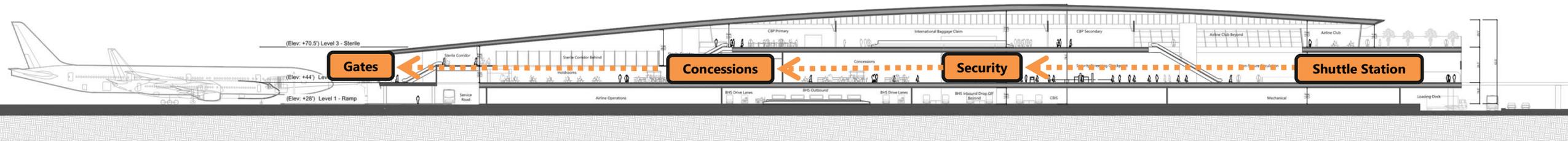
↑ **Departing Passengers**

Airside and Aircraft Gates```

Landside and Ground Transportation

↑ **Arriving International Passengers**

↑ **Arriving Domestic Passengers**

Airside D Funding Plan

- In September 2022 the Authority Board approved $787,384,000 for the Authority's Airside D Development program, commonly known as Master Plan Phase 3 as part of the $891 million FY2023 Capital Budget

- Master Plan Phase 3 will be funded by a combination of funding sources with approximately 49% of the total funded by either third-party grants or PFCs.

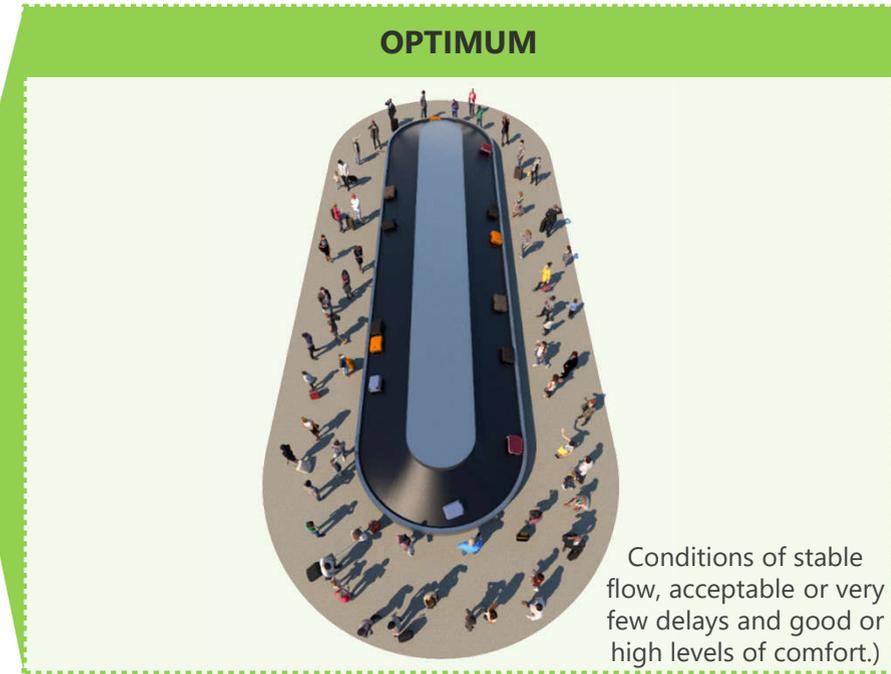| Project Title	Estimated Cost	Third-Party & PFC Funding			
		Federal Infrastructure Funds	FDOT Grants	PFC-Backed Bonds	Revenue-Backed Bonds
Airside D Development	$787,384,000	$38,710,317	$111,656,611	$232,000,000	$405,017,072

- More than $637 million of the Airside D Development project costs will be paid for via the issuances of two bond issuances during the fourth quarter of 2024; a $405 million issue of revenue backed senior lien bonds and a separate issue of $232 million of PFC-backed subordinate lien bonds

- The $38.7 million in Federal Infrastructure Funds planned for Master Plan Phase 3 was provided to the Authority as part of the $25 billion Bipartisan Infrastructure Law funding provided by Congress in 2021

Terminal Area Capabilities for Serving 35 Million Annual Passengers

Level of Services (LOS) Standards

OVERDESIGN

SUBOPTIMUM

OPTIMUM

Conditions of stable flow, acceptable or very few delays and good or high levels of comfort.)

ADRM 11TH EDITION	ADRM 9TH EDITION	FLOWS	DELAYS	COMFORT
Over Design	A - Excellent	Free	None	Excellent
Over Design	B - High	Stable	Very Few	High
Optimum	C - Good	Stable	Acceptable	Good
Suboptimum	D - Adequate	Unstable	Passable	Adequate
Suboptimum	E - Inadequate	Unstable	Unacceptable	Inadequate
Under-Provided	F - Failure	System Breakdown	System Breakdown	Unacceptable

Note: ADRM – Airport Development Reference Manual

Source: International Air Transport Association (IATA).

Facility Capacity Performance – Arrival Level
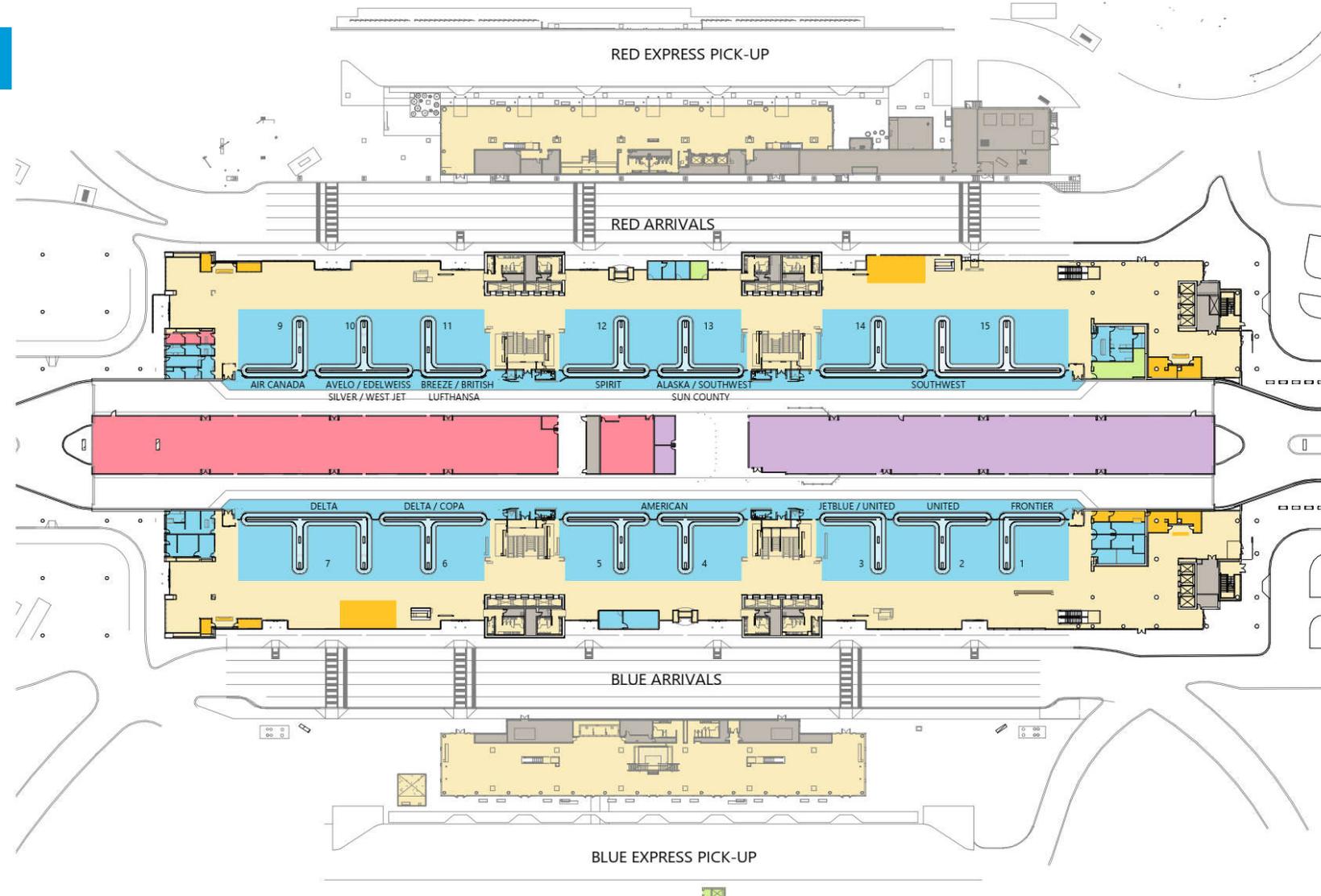
Arrival Level – Baggage Claims Device

Existing Units on Blue: 7
Existing Units on Red: 7

PAL 1	PAL 2
2032	2037
30.5 MAP	34.6 MAP

Optimum
Suboptimum
Under-Provided

LEGEND
- Airline Facilities
- Department of Homeland Security
- Commercial Programs
- Airport and Other Agencies
- Automated People Movers
- Building Services
- Other Common

RED EXPRESS PICK-UP

RED ARRIVALS

AIR CANADA | AVELO / EDELWEISS | BREEZE / BRITISH | SPIRIT | ALASKA / SOUTHWEST | SOUTHWEST
SILVER / WEST JET | LUFTHANSA | SUN COUNTY

DELTA | DELTA / COPA | AMERICAN | JETBLUE / UNITED | UNITED | FRONTIER

BLUE ARRIVALS

BLUE EXPRESS PICK-UP

Facility Capacity Performance – Departure Level

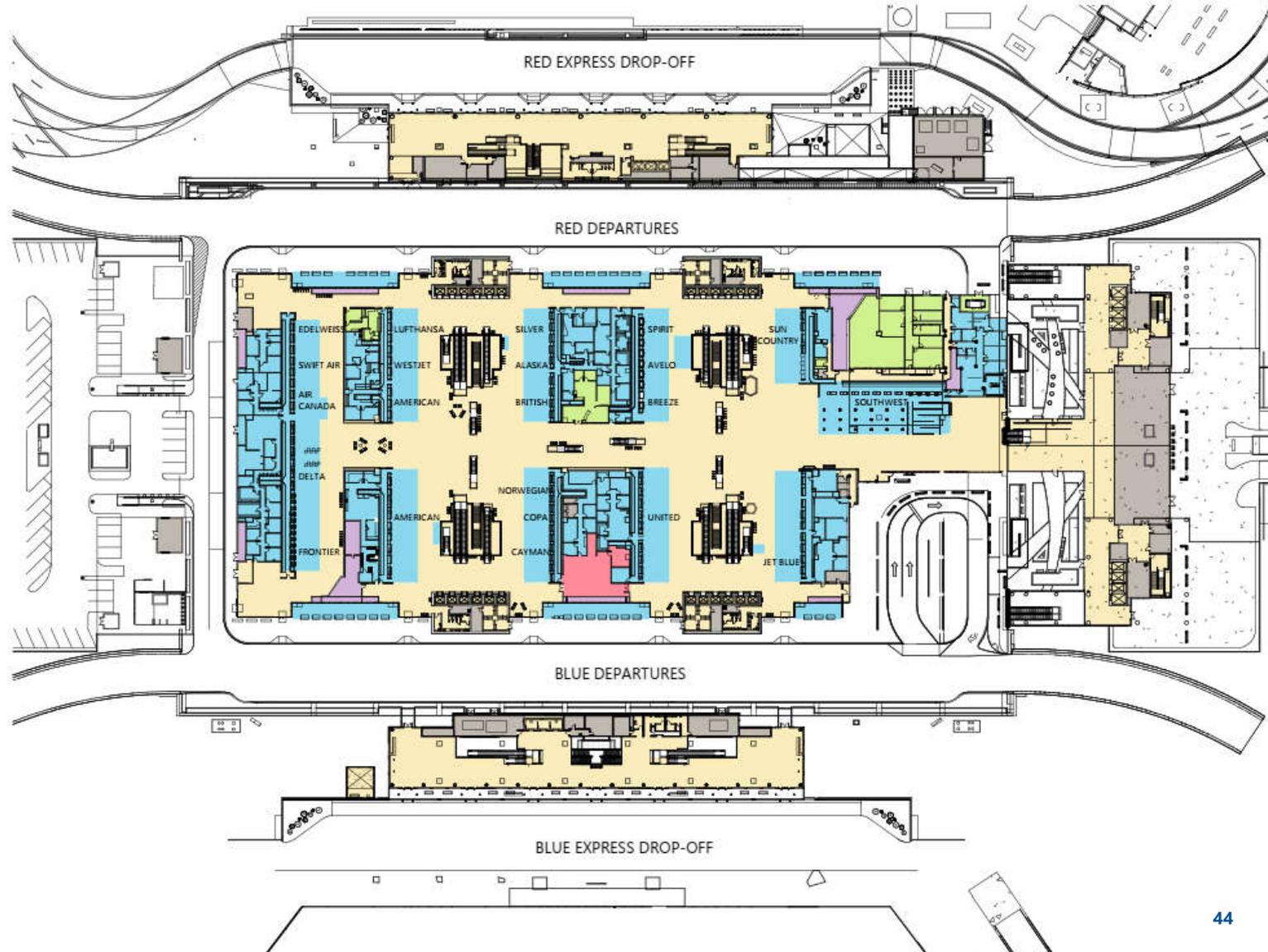## Departure Level - Check-in Counters

Existing Counters: 182

PAL 1 2032 30.5 MAP	PAL 2 2037 34.6 MAP

Optimum
Suboptimum
Under-Provided

LEGEND
- Airline Facilities
- Department of Homeland Security
- Commercial Programs
- Airport and Other Agencies
- Automated People Movers
- Building Services
- Other Common

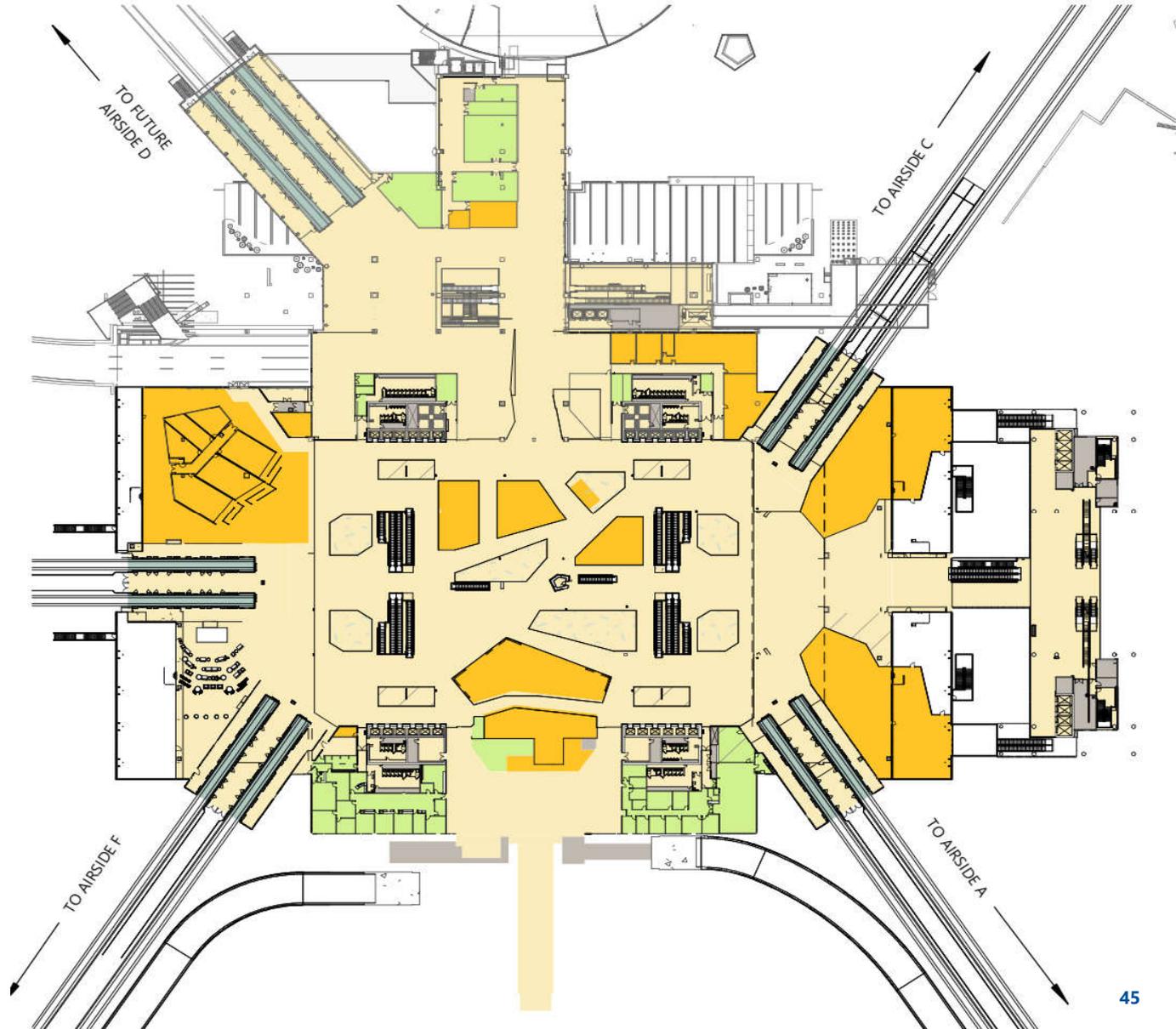# Facility Capacity Performance – Transfer Level

Transfer Level

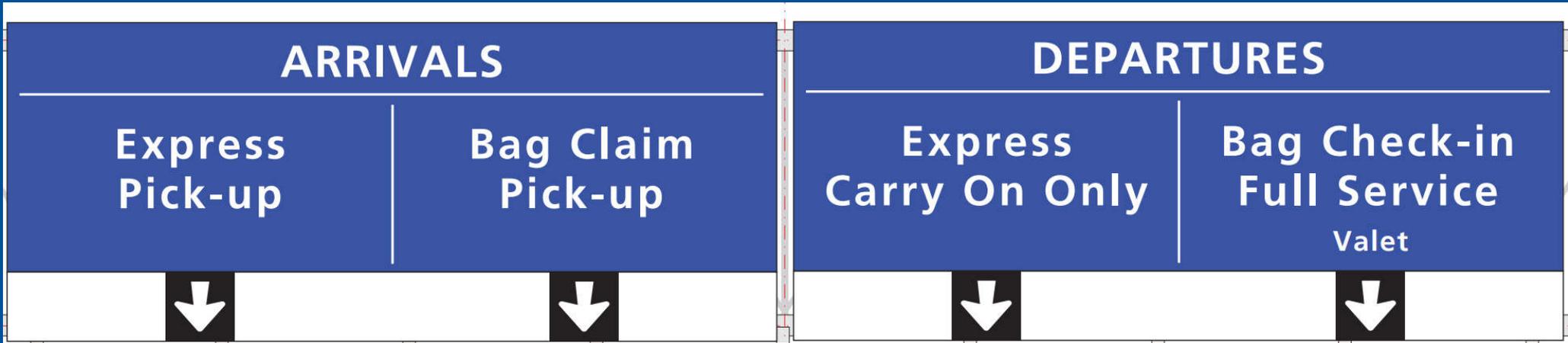| PAL 1 2032 30.5 MAP	PAL 2 2037 34.6 MAP

Optimum
Suboptimum
Under-Provided

LEGEND
- Airline Facilities
- Department of Homeland Security
- Commercial Programs
- Airport and Other Agencies
- Automated People Movers
- Building Services
- Other Common

Terminal Roadways and Curbs Capabilities for Serving 35 Million Annual Passengers

Tested Scenarios – Full Service vs. Express Curb Utilization

ARRIVALS		DEPARTURES	
Express Pick-up	Bag Claim Pick-up	Express Carry On Only	Bag Check-in Full Service Valet

Scenario	Full-Service Curb	Express Curb
Scenario 1	70%	30%
Scenario 2	62%	38%
Scenario 3	52%	48%

- Since opening in Nov. 2021, the Blue Express curbs have seen differing utilization rates:
  - Blue Express Departures traffic has continued to steadily increase and has reached approx. 28%
  - Blue Express Arrivals traffic had leveled off at approx. 19.5% in the summer but has grown slightly since, reaching 21% in Sept/Oct

Performance Requirements - Curbside

- Curbside LOS were defined based on the utilization ranges for curbsides.

- LOS D or better is generally a desirable condition during peak activity periods.

- The "point of failure" for this analysis was LOS E (curb utilization of 170 percent or through lane v/c of 0.9).

- Utilization at 170 percent signifies double parking in available areas and some vehicle maneuverability restrictions.

Point of Failure →

Level of Service and Utilization Ranges for Curbsides with Multiple-Lane Passenger Loading/Unloading

LOS	CURB LANE UTILIZATION RANGE	THROUGH LANE VOLUME/ CAPACITY	DESCRIPTION
A	0% - 90%	0.0-0.6	Excellent: Drivers experience no interference from pedestrians or other motorists
B	91% - 110%	0.6-0.7	Very Good: Relatively free-flow conditions with limited double parking
C	111% - 130%	0.7-0.8	Good: Double parking near doors is common with some intermittent triple parking
D	131% - 170%	0.8-0.9	Fair: Vehicle maneuverability is restricted due to frequent double/triple parking
E	171% - 200%	0.9-1.0	Poor: Significant delays and queues; double/triple parking throughout curbside
F	> 200%	1.0+	Failure: Motorists unable to access/depart curbside; significant queuing along entry road

Curbside LOS Summary Results

		Red (7:00 p.m. – 8:00 p.m.)						Blue (10:00 a.m. – 11:00 a.m.)					
		Scenario 1		Scenario 2		Scenario 3		Scenario 1		Scenario 2		Scenario 3	
		Full Service (70%)	Express (30%)	Full Service (62%)	Express (38%)	Full Service (52%)	Express (48%)	Full Service (70%)	Express (30%)	Full Service (62%)	Express (38%)	Full Service (52%)	Express (48%)
PAL 1 2032 30.5 MAP	Curbside Level of Service	D	A	C	A	C	B	D	A	C	A	C	B
	Thru Lane Level of Service	D	A	C	A	C	B	C	A	B	A	A	A
PAL 2 2037 34.6 MAP	Curbside Level of Service	D	A	D	B	C	C	D	A	D	B	C	C
	Thru Lane Level of Service	F	A	D	A	A	A	F	A	C	A	A	A

AIRSIDE D REACHES FULL UTILIZATION AT PAL 2 (34.6 MAP)

- More curb length/width is required when *either* curb LOS *or* thru lane LOS reaches LOS E/F
- PAL 2 (34.6 MAP, full utilization of Airside D) LOS is acceptable at 62/38 split

NOTES:
1 Individual Red/Blue Arrivals peaks shown.
2 Further lengthening of curb to meet LOS B/C can remove the added through lane requirement.
3 Assumes recirculation percentage decreases to 2018 levels as drivers/passengers become accustomed to the Express curbs.
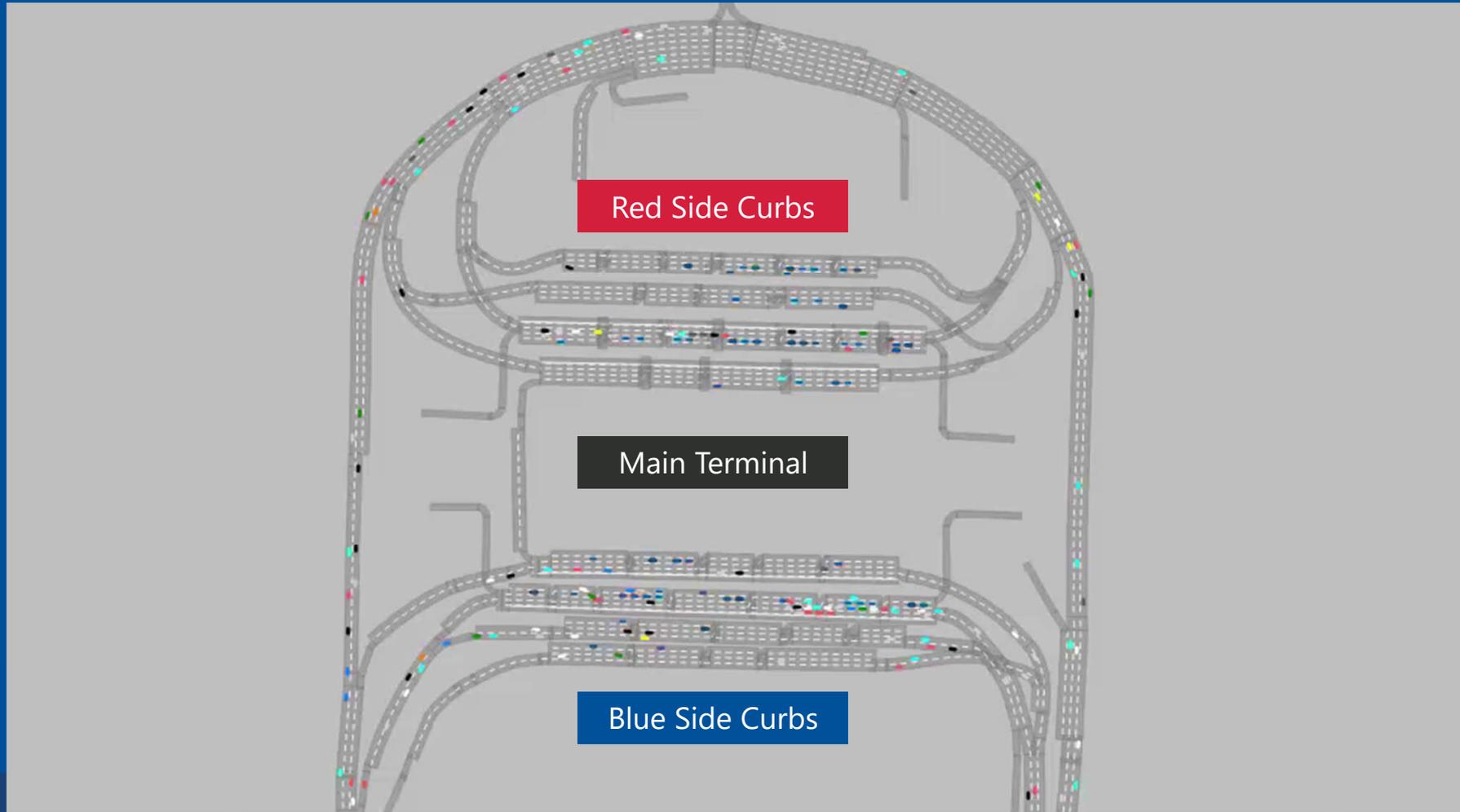SOURCES: Hillsborough County Aviation Authority, March 2022 (data), AECOM, April 2022 (data collection and analysis); Ricondo and Associates, Inc. (analysis), August 2022.

Landside Roadway Simulation
PAL 2 (34.6 MAP); Scenario 2 (Full Service: 62%, Express: 38%)

Red Side Curbs

Main Terminal

Blue Side Curbs

Demand/Capacity Results

	PAL 1 (2032, 30.5 MAP)		PAL 2 (2037, 34.6 MAP) Coincides with Airside D Full Utilization	
Full Service vs. Express Volume Split	**62% Full Service 38% Express**	**52% Full Service 48% Express**	**62% Full Service 38% Express**	**52% Full Service 48% Express**
Terminal Curb	✔	✔	✔	✔

Legend:

✔ LOS A, B, or C

✔ LOS D
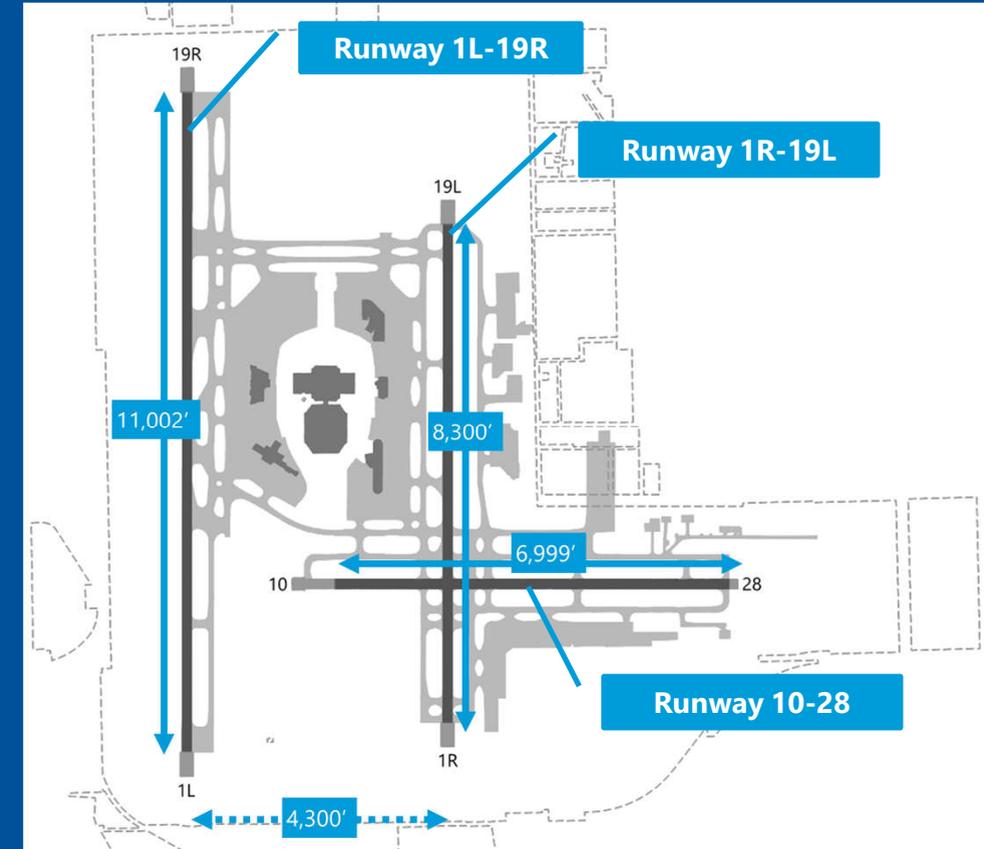
✘ LOS E or F

Airfield Capacity

Existing Airfield

- **Runway 1L-19R**
  - 11,002 feet
  - Visibility Min.: 1L: CAT III; 19R: CAT I
- **Runway 1R-19L**
  - 8,300 feet
  - Visibility Min.: 19L: CAT II
- **Runway 10-28**
  - 6,999 feet

Runway 1L-19R

Runway 1R-19L

Runway 10-28

11,002'
8,300'
6,999'
4,300'

19R
19L
10
28
1R
1L

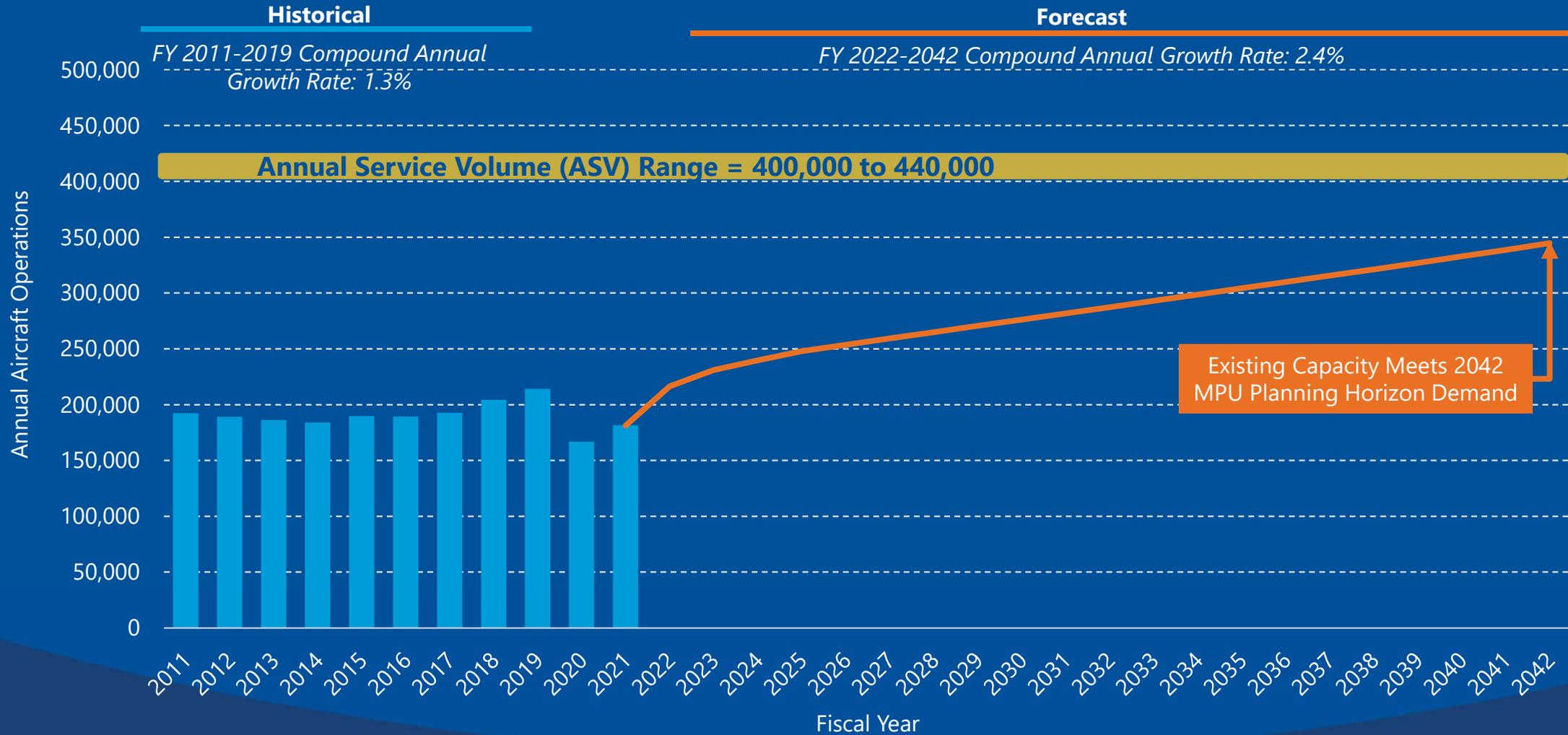| CAT I	CAT II	CAT III
Runways – 1L, 19L, & 19R	Runway – 19L	Runway – 1L

Instrumentation

Existing Airfield Capacity

Annual Service Volume (ASV) Definition:

- Estimate of annual capacity with consideration for seasonal and daily peaking characteristics of demand.
- ASV is not static (varies in accordance with seasonal/daily fluctuations in demand patterns).

Historical

FY 2011-2019 Compound Annual Growth Rate: 1.3%

Forecast

FY 2022-2042 Compound Annual Growth Rate: 2.4%

Annual Service Volume (ASV) Range = 400,000 to 440,000

Existing Capacity Meets 2042 MPU Planning Horizon Demand

Annual Aircraft Operations

Fiscal Year

Historical — MPU Baseline Forecast

Questions/Comments

Next Steps

Next Steps

- Next Stakeholder Meeting
  - Spring 2023

- Master Plan Tasks:
  - Finalize Alternatives (landside, airside, terminal)
  - Formulate Capital Improvement Program
  - Complete Environmental Review
  - Prepare Final Documentation

2022 TPA Master Plan Update Webpage/Comment Form

https://www.tampaairport.com/master-plan/2022-update