

# Facility Requirements - Airfield

## Non-Standard Fillet Geometry

- Can cause pilot confusion (wide expanse of pavement)

## Direct Access

- Direct access from ramp to runway increases risk of runway incursions

## Non-Standard Separation

- Taxiway centerline is too close to Runway centerline

## Insufficient Runway Length

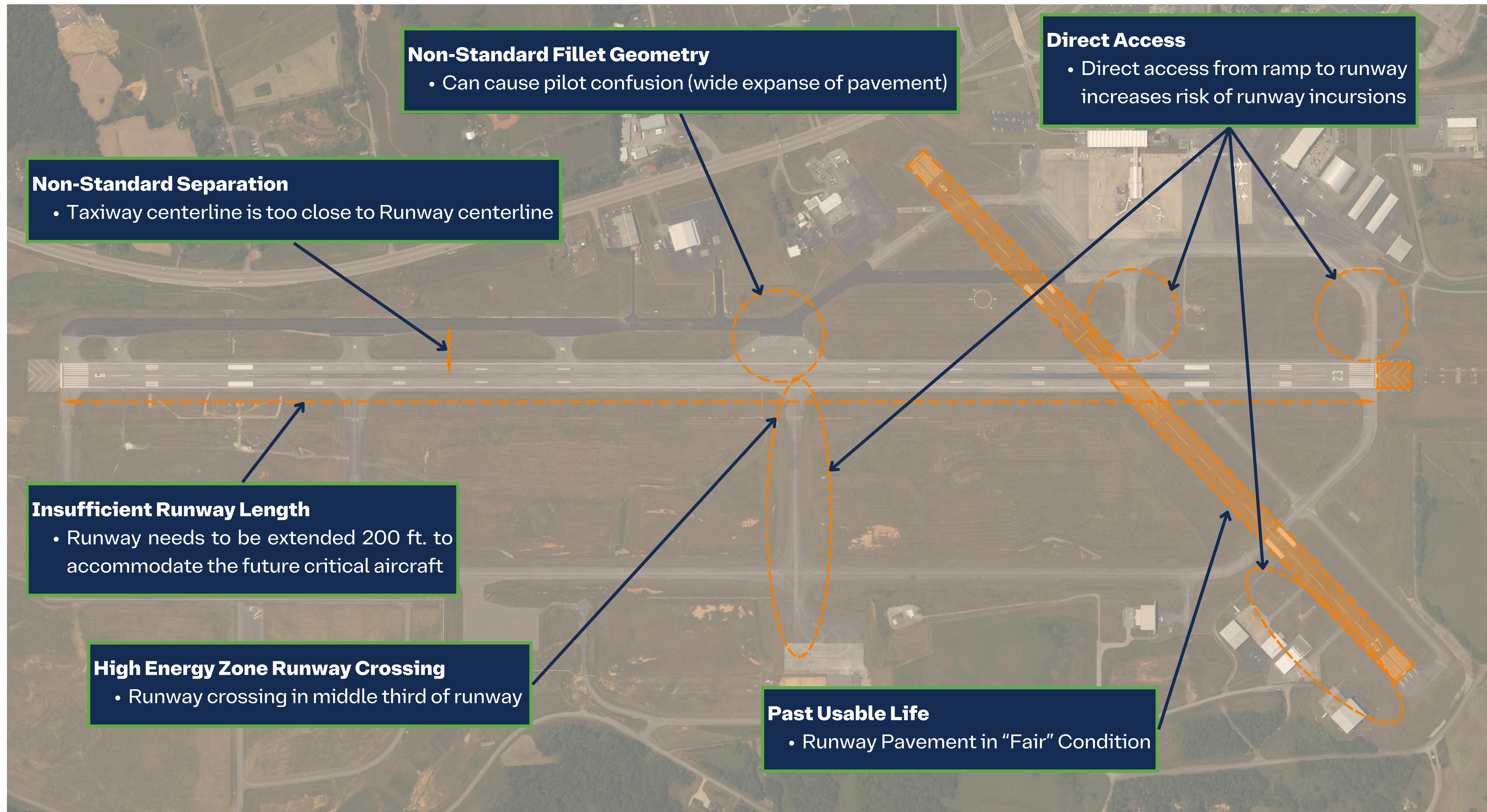
- Runway needs to be extended 200 ft. to accommodate the future critical aircraft

## High Energy Zone Runway Crossing

- Runway crossing in middle third of runway

## Past Usable Life

- Runway Pavement in "Fair" Condition





# Facility Requirements - NAVAIDs

## Medium Intensity Taxiway Lights (MITLs)

- Taxiway lights (shown in blue) were installed in 1993 and need to be replaced

## Runway Edge Lights Approaching End of Usable Life

- Lights are in "Fair" condition

## Localizer Past Useful Life (Outside View)

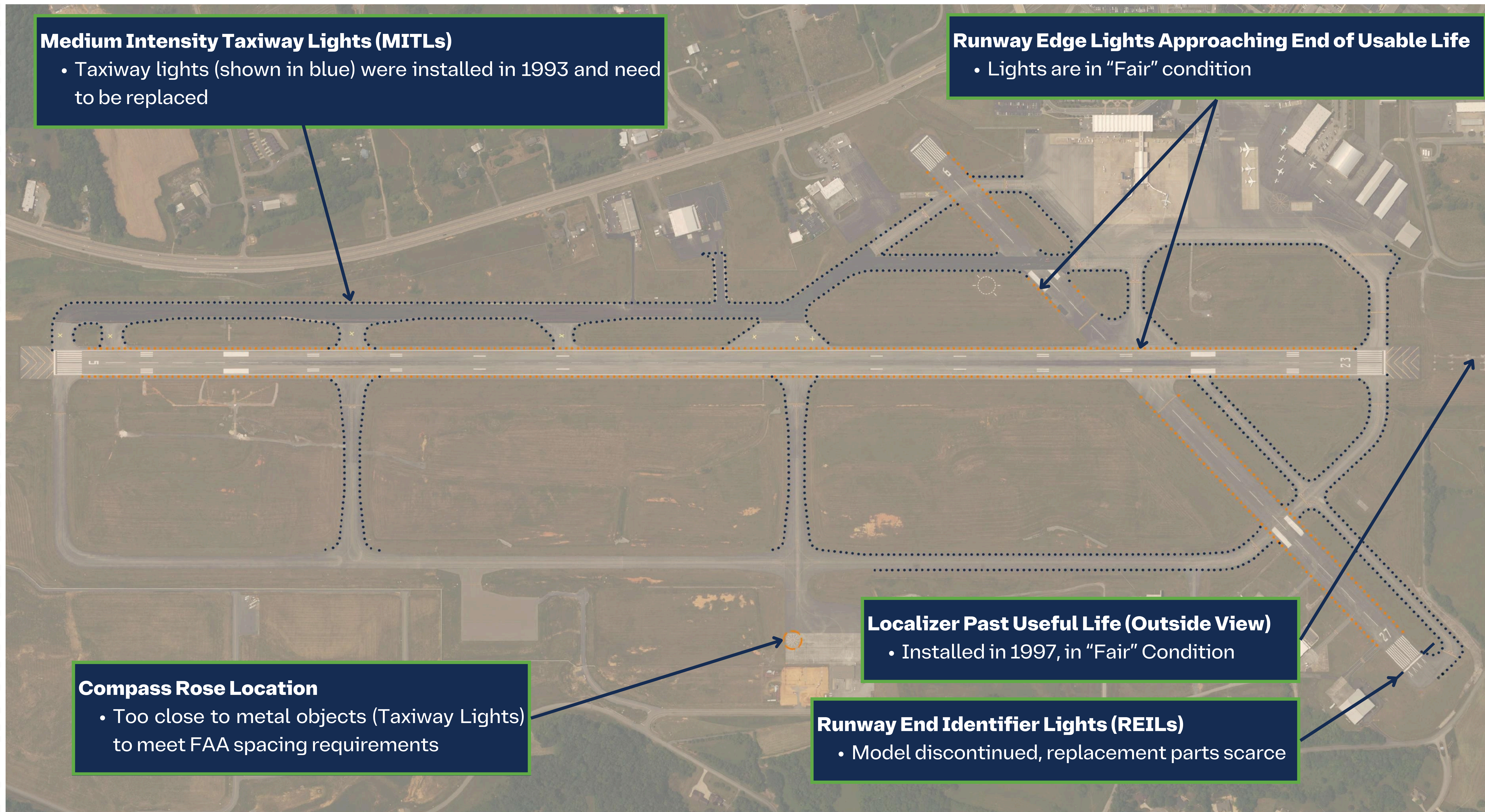
- Installed in 1997, in "Fair" Condition

## Runway End Identifier Lights (REILs)

- Model discontinued, replacement parts scarce

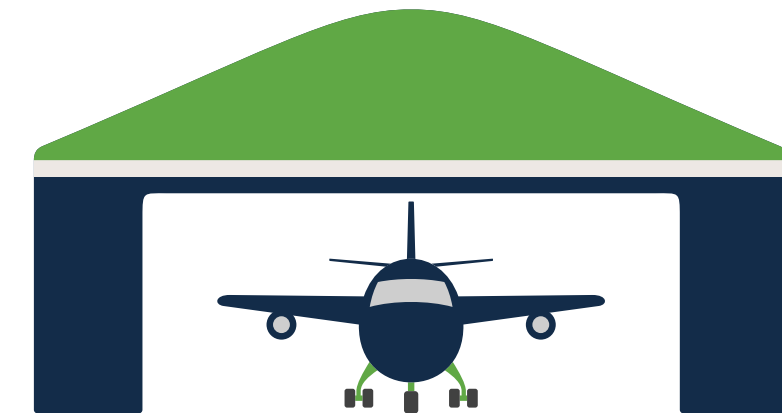
## Compass Rose Location

- Too close to metal objects (Taxiway Lights) to meet FAA spacing requirements





# Facility Requirements - Landside



**Aircraft Hangar Storage**  
Currently: Sufficient ✓  
Future: Deficient ✗



**General Aviation Terminal**  
Currently: Sufficient ✓  
Future: Sufficient ✓



**Aircraft Apron Parking**  
Currently: Sufficient ✓  
Future: Sufficient ✓



**Automobile Parking**  
Currently: Sufficient ✓  
Future: Deficient ✗



**Rental Car Parking**  
Currently: Sufficient ✓  
Future: Deficient ✗



# Facility Requirements - Terminal & Concourse



**Ticket Counters**  
Currently: Sufficient ✓  
Future: Sufficient ✓



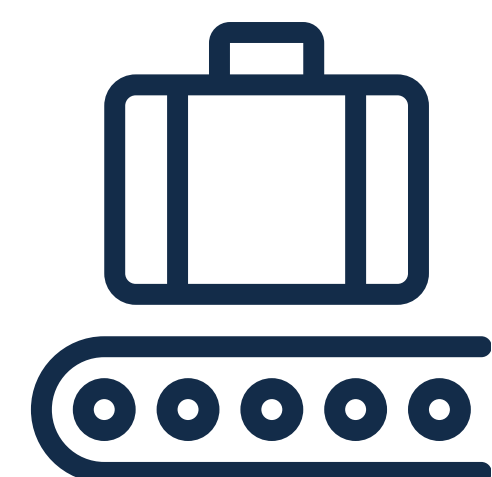
**Checked Bag Screening**  
Currently: Sufficient ✓  
Future: Deficient ✗



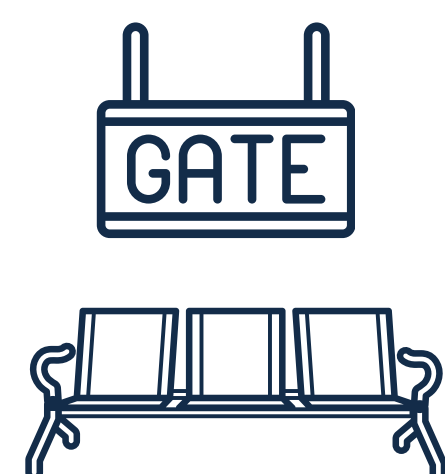
**TSA**  
Expansion in Progress ✓



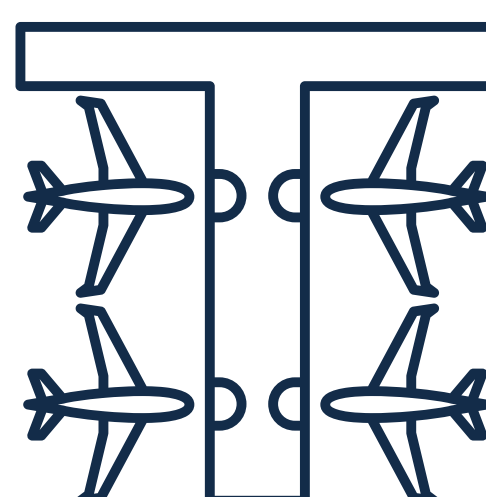
**Ticket Lobby**  
Currently: Deficient ✗  
Future: Deficient ✗



**Bag Claim**  
Currently: Sufficient ✓  
Future: Deficient ✗



**Holdrooms**  
Currently: Deficient ✗  
Future: Deficient ✗



**Aircraft Parking Gates**  
Currently: Sufficient ✓  
Future: Sufficient ✓



**Concessions**  
Currently: Sufficient ✓  
Future: Sufficient ✓



**Restrooms**  
Currently: Sufficient ✓  
Future: Deficient ✗



# NEPA Categories for Areas of Impact

Air Quality

Biological Resources

Climate

Coastal Resources

DOT, Section 4(f)

Farmlands

Land Use

Visual Effects

Water Resources

Noise and Noise Compatible Land Use

Natural Resources and Energy Supply

Hazardous Materials, Solid Waste, and Pollution Prevention

Historical, Architectural, Archeological, and Cultural Resources

Socioeconomics, Environmental Justice, and Children's  
Environmental Health and Safety Risks





# Water Resources





# Planning Activity Levels (PALs)

## PALs: Demand-Driven Airport Development

PAL's link airport development to actual traffic demand instead of arbitrary calendar years. These flexible benchmarks are based on key metrics like passenger enplanements and operations. By using PALs, airports can adapt their development to real-world needs, ensuring that infrastructure development aligns with passenger and operational growth. PALs also allow for more efficient resource allocation and helps airports avoid over- or under-building, ultimately leading to smarter, more responsive airport planning.

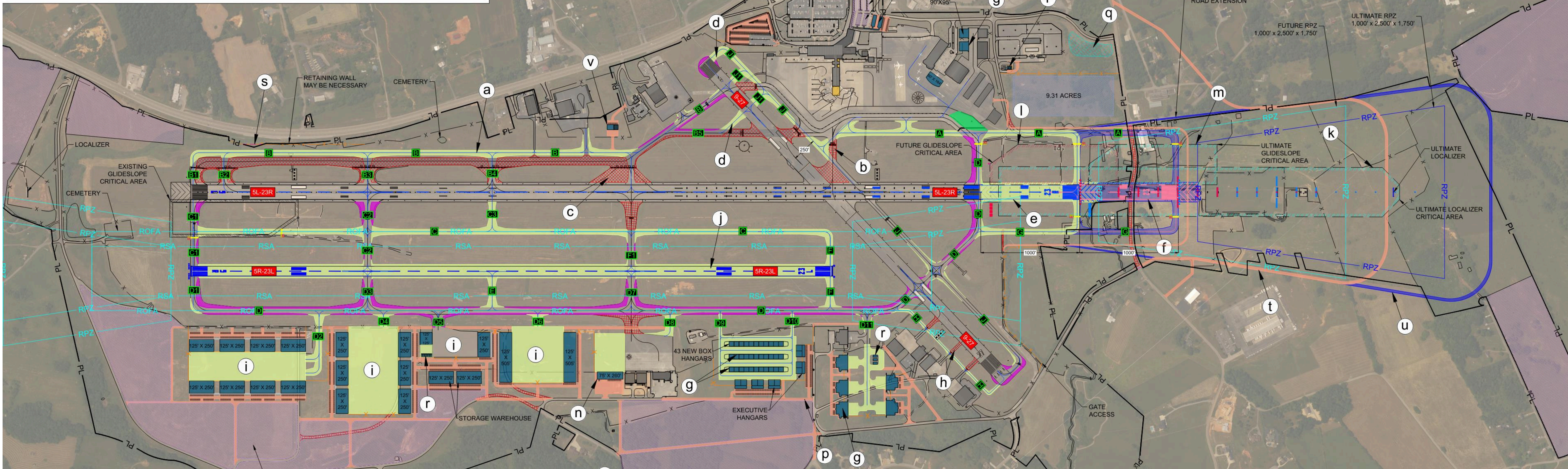




# Development Alternative 1

LEGEND					
DESCRIPTION	EXISTING	PROPOSED	DESCRIPTION	EXISTING	PROPOSED
RUNWAY IDENTIFIER <sup>1</sup>	9-27	5R-23L	NON-AERONAUTICAL DEVELOPMENT	N/A	
TAXIWAY IDENTIFIER	A	B	AERONAUTICAL DEVELOPMENT	N/A	
AIRFIELD PAVEMENT	N/A		ULTIMATE ROADWAY	N/A	
PAVEMENT DEMOLITION	N/A		INELIGIBLE EXCESSIVE PAVEMENT <sup>2</sup>	N/A	
AIRPORT BUILDING			RUNWAY MARKINGS		23
TAXIWAY/LANE CENTERLINE			ULTIMATE RWY EXTENSION MARKINGS	N/A	23
FENCELINE	x x	x x	ULTIMATE RWY EXTENSION	N/A	
IMAGINARY EDGE OF PAVEMENT	N/A		ROADWAY/PARKING	N/A	
PRECISION APPROACH PATH INDICATOR (PAPI)			NAVAID CRITICAL AREA		
ULTIMATE PAPI	N/A		ULTIMATE NAVAID CRITICAL AREA	N/A	
APPROACH LIGHTING SYSTEM			AIRPORT PROPERTY LINE	PL	
ULTIMATE APPROACH LIGHTING SYSTEM	N/A		DRAINAGE POND	N/A	
ILS HOLDING POSITION MARKING			LOCALIZER ANTENNA (LOC)		
ILS CRITICAL AREA HOLDING POSITION SIGN	N/A	ILS	TERMINAL EXPANSION	N/A	
ILS CRITICAL AREA BOUNDARY SIGN	N/A		NO TAXI ISLAND	N/A	
RUNWAY PROTECTION ZONE (RPZ)	N/A	RPZ	LEGEND NOTES: 1/NON-STANDARD WIDTH, LIGHTING & MARKINGS ON RUNWAY 9/27. 2/ INELIGIBLE EXCESSIVE PAVEMENT PER TAXIWAY DESIGN STANDARDS, A/C 150/5300-13B.		
ULTIMATE RUNWAY PROTECTION ZONE (RPZ)	N/A	RPZ			
GATE ACCESS					
GLIDESLOPE SHELTER					

- SUMMARY OF CHANGES
- I. AIRSIDE
- a. Realignment of existing Taxiway Alpha to meet runway separation standards per AC 150/5300 13-B.
- b. Removal of existing Taxiway Charlie at the intersection of Runways 9/27 and 5/23.
- c. Removal of a portion of existing Taxiway Yankee connector west of Runway 5/23.
- d. Realignment of existing portions of Taxiway Alpha and Bravo at Runway 9 end.
- e. Addition of future 1,000-foot runway extension at Runway 23 end.
- f. Addition of ultimate 1,000-foot runway extension at Runway 23R end.
- g. Addition of GA development.
- h. Removal of direct ramp to runway connectors at Runway 27 end.
- i. Addition of MRO/Industrial/Commercial areas.
- j. Addition of future 6,500 ft. parallel Runway 5R/23L and associated taxiway infrastructure.
- k. Addition of ultimate Localizer Critical Area.
- l. Addition of future Glide Slope Critical Area.
- m. Addition of Glide Slope for Runway 23R approach.
- n. Expansion of Air Cargo Logistics Center.
- II. LANDSIDE
- o. Addition of Non-Aeronautical development.
- p. Addition of landside access and parking areas.
- q. Addition of drainage pond.
- r. Addition of fuel storage, ten additional tanks (18,000 gallons ea.).
- s. Future property acquisition (to include TOFA).
- t. Realignment of Muddy Creek Road.
- u. Ultimate realignment of Muddy Creek Road.
- v. New ARFF facility (Index B).





# Development Alternative 2







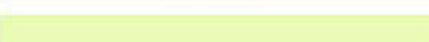























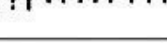







## SUMMARY OF CHANGES

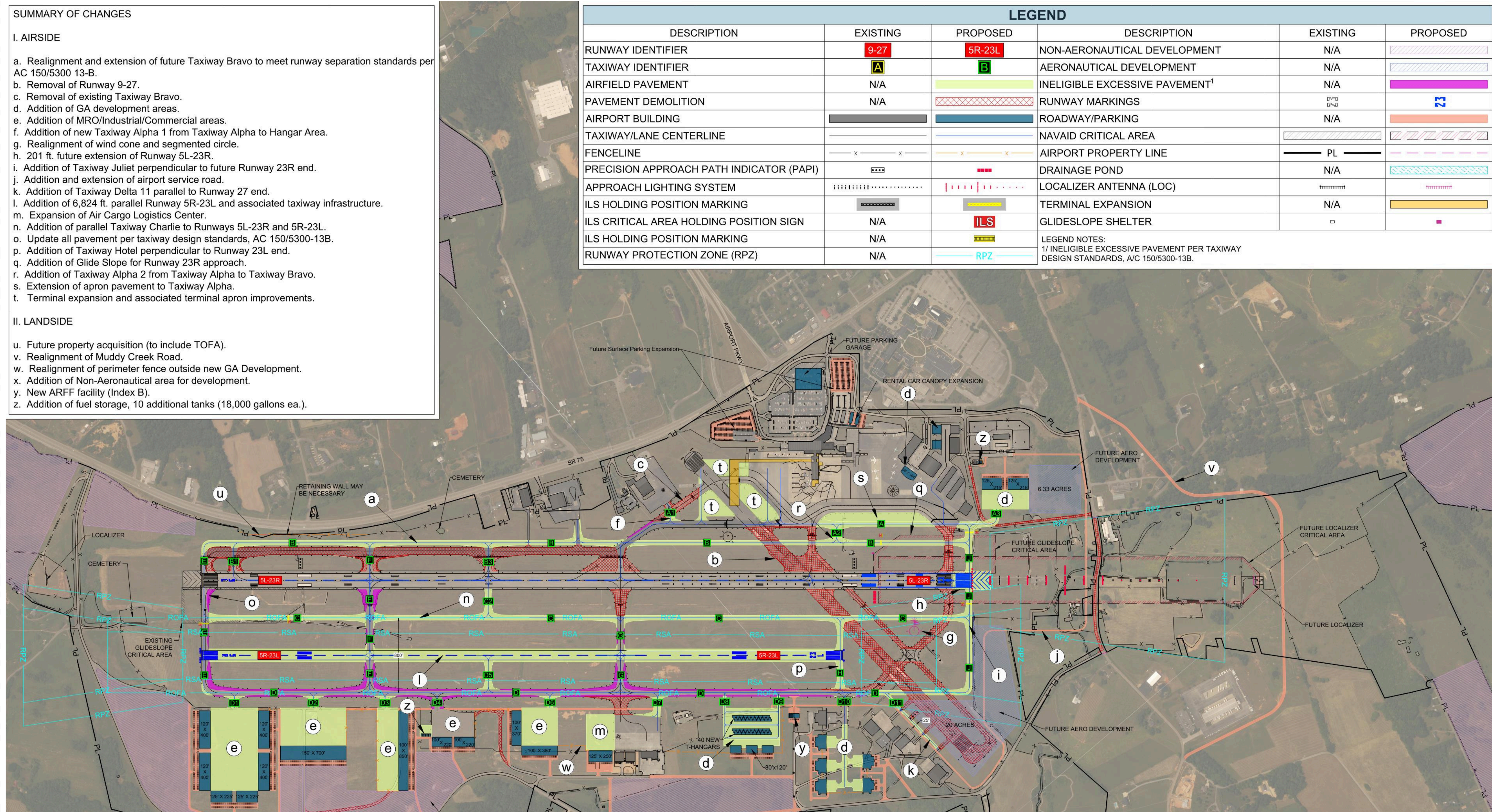
## I. AIRSIDE

- a. Realignment and extension of future Taxiway Bravo to meet runway separation standards per AC 150/5300 13-B.
- b. Removal of Runway 9-27.
- c. Removal of existing Taxiway Bravo.
- d. Addition of GA development areas.
- e. Addition of MRO/Industrial/Commercial areas.
- f. Addition of new Taxiway Alpha 1 from Taxiway Alpha to Hangar Area.
- g. Realignment of wind cone and segmented circle.
- h. 201 ft. future extension of Runway 5L-23R.
- i. Addition of Taxiway Juliet perpendicular to future Runway 23R end.
- j. Addition and extension of airport service road.
- k. Addition of Taxiway Delta 11 parallel to Runway 27 end.
- l. Addition of 6,824 ft. parallel Runway 5R-23L and associated taxiway infrastructure.
- m. Expansion of Air Cargo Logistics Center.
- n. Addition of parallel Taxiway Charlie to Runways 5L-23R and 5R-23L.
- o. Update all pavement per taxiway design standards, AC 150/5300-13B.
- p. Addition of Taxiway Hotel perpendicular to Runway 23L end.
- q. Addition of Glide Slope for Runway 23R approach.
- r. Addition of Taxiway Alpha 2 from Taxiway Alpha to Taxiway Bravo.
- s. Extension of apron pavement to Taxiway Alpha.
- t. Terminal expansion and associated terminal apron improvements.

## II. LANDSIDE







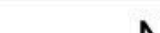






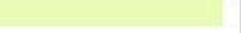




















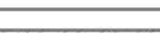

















- u. Future property acquisition (to include TOFA).
- v. Realignment of Muddy Creek Road.
- w. Realignment of perimeter fence outside new GA Development.
- x. Addition of Non-Aeronautical area for development.
- y. New ARFF facility (Index B).
- z. Addition of fuel storage, 10 additional tanks (18,000 gallons ea.).

LEGEND					
DESCRIPTION	EXISTING	PROPOSED	DESCRIPTION	EXISTING	PROPOSED
RUNWAY IDENTIFIER			NON-AERONAUTICAL DEVELOPMENT	N/A	
TAXIWAY IDENTIFIER			AERONAUTICAL DEVELOPMENT	N/A	
AIRFIELD PAVEMENT	N/A		INELIGIBLE EXCESSIVE PAVEMENT <sup>1</sup>	N/A	
PAVEMENT DEMOLITION	N/A		RUNWAY MARKINGS		
AIRPORT BUILDING			ROADWAY/PARKING	N/A	
TAXIWAY/LANE CENTERLINE			NAVAID CRITICAL AREA		
FENCELINE			AIRPORT PROPERTY LINE	 PL 	
PRECISION APPROACH PATH INDICATOR (PAPI)			DRAINAGE POND	N/A	
APPROACH LIGHTING SYSTEM			LOCALIZER ANTENNA (LOC)		
ILS HOLDING POSITION MARKING			TERMINAL EXPANSION	N/A	
ILS CRITICAL AREA HOLDING POSITION SIGN	N/A		GLIDESLOPE SHELTER		
ILS HOLDING POSITION MARKING	N/A		LEGEND NOTES: 1/ INELIGIBLE EXCESSIVE PAVEMENT PER TAXIWAY DESIGN STANDARDS, A/C 150/5300-13B.		
RUNWAY PROTECTION ZONE (RPZ)	N/A				



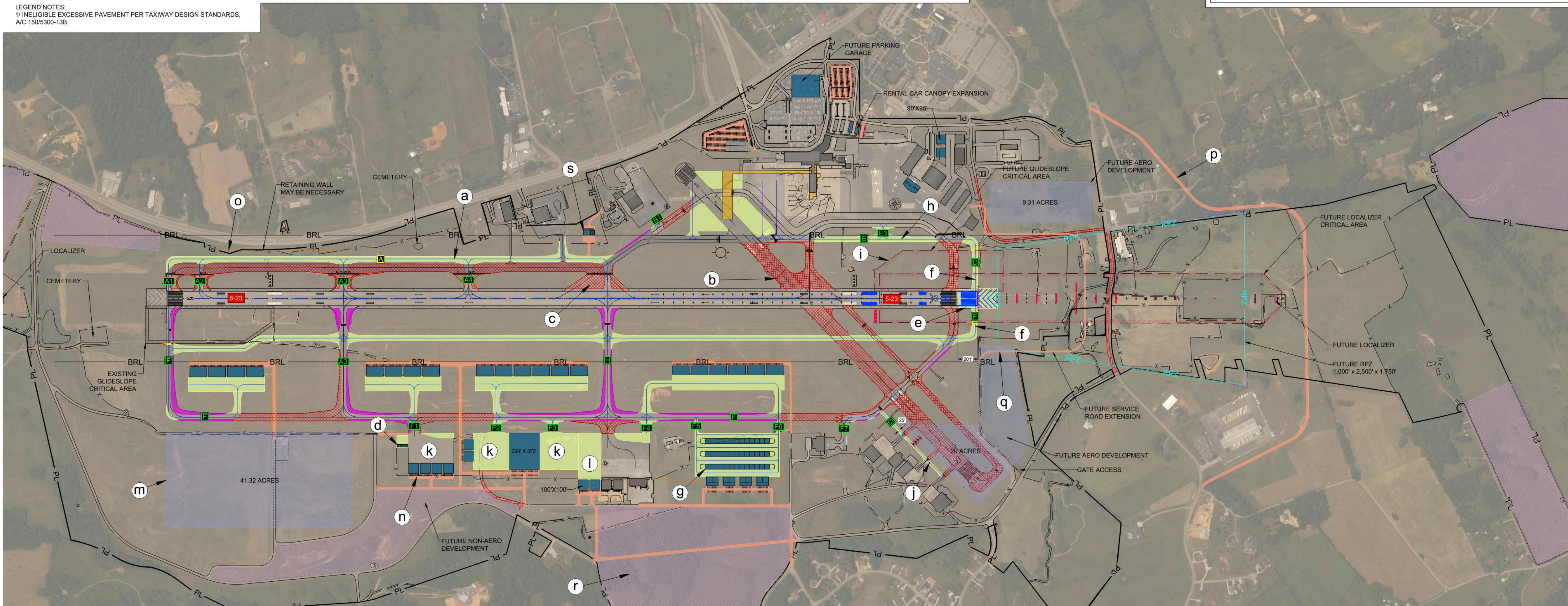


# Development Alternative 3

DESCRIPTION	EXISTING	PROPOSED	DESCRIPTION	EXISTING	PROPOSED
RUNWAY IDENTIFIER			NON-AERONAUTICAL DEVELOPMENT		
TAXIWAY IDENTIFIER			AERONAUTICAL DEVELOPMENT		
AIRFIELD PAVEMENT			NO TAXI ISLAND		
PAVEMENT DEMOLITION			INELIGIBLE EXCESSIVE PAVEMENT <sup>1</sup>		
AIRPORT BUILDING			RUNWAY MARKINGS		
TAXIWAY/LANE CENTERLINE			ROADWAY/PARKING		
FENCELINE			NAVAID CRITICAL AREA		
IMAGINARY EDGE OF PAVEMENT			AIRPORT PROPERTY LINE		
PRECISION APPROACH PATH INDICATOR (PAPI)			DRAINAGE POND		
APPROACH LIGHTING SYSTEM			LOCALIZER ANTENNA (LOC)		
ILS HOLDING POSITION MARKING			TERMINAL EXPANSION		
ILS CRITICAL AREA HOLDING POSITION SIGN			GATE ACCESS		
ILS CRITICAL AREA BOUNDARY SIGN			GLIDESLOPE SHELTER		

LEGEND NOTES:  
1/ INELIGIBLE EXCESSIVE PAVEMENT PER TAXIWAY DESIGN STANDARDS,  
A/C 150/5300-13B.

- I. AIRSIDE
  - a. Realignment of Taxiway Alpha to meet runway separation standards per AC 150/5300 13-B.
  - b. Removal of Taxiway Charlie at the intersection of Runways 9/27 and 5/23.
  - c. Removal of a portion of pavement at existing Taxiway Yankee north of Runway 5/23.
  - d. Addition of fuel storage, seven additional tanks (18,000 gallons ea.).
  - e. Addition of future 201-foot runway extension at Runway 23 end.
  - f. Realignment of Taxiway Delta and Foxtrot at Runway 23 end.
  - g. Addition of GA development south of future Taxiway Foxtrot (47 box hangars).
  - h. Addition of parallel Taxiway Echo.
  - i. Addition of Glide Slope for 23R approach.
  - j. Removal of direct ramp to runway connectors at Runway 27 end.
  - k. Addition of MRO/Industrial/Commercial areas.
  - l. Expansion of Air Cargo Logistics Center.
- II. LANDSIDE
  - m. Addition of Aeronautical area for development.
  - n. Addition of landside access and parking areas.
  - o. Future property acquisition (to include TOFA).
  - p. Realignment of Muddy Creek Road.
  - q. Addition of vehicle service road.
  - r. Addition of Non-Aeronautical area for development.
  - s. New ARFF facility (Index B).





# Preferred Development Alternative

## SUMMARY OF CHANGES

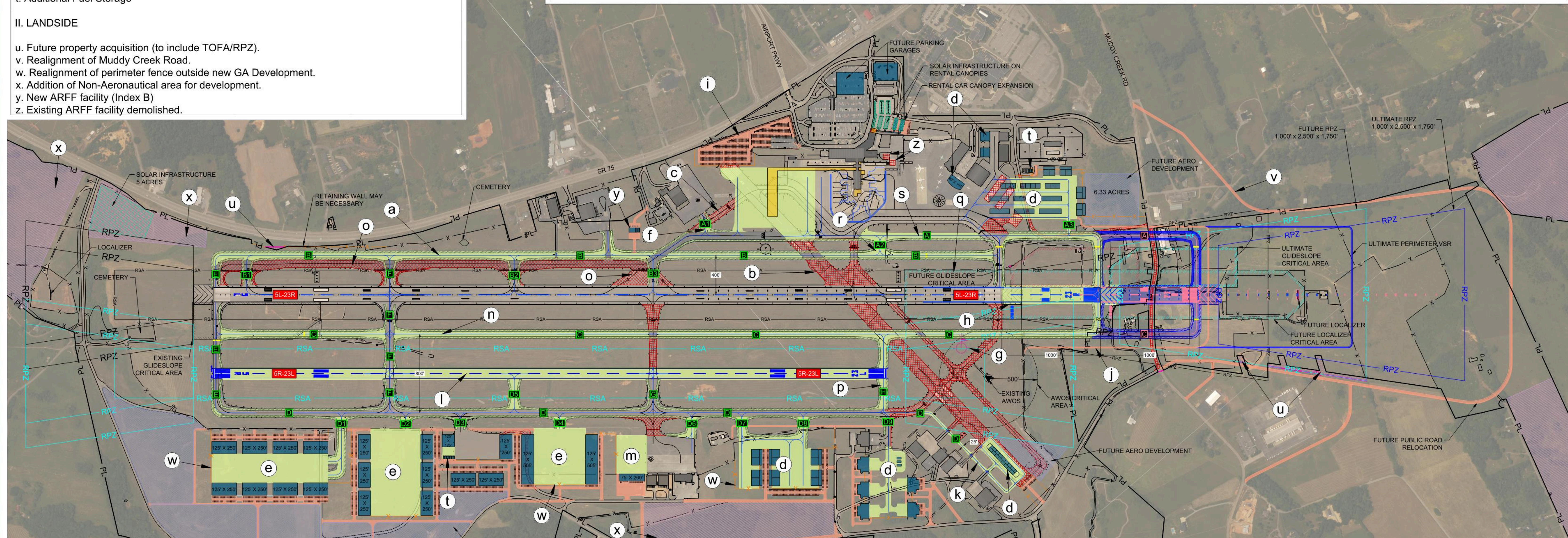
## I. AIRSIDE

- a. Realignment and extension of future Taxiway Bravo to meet runway separation standards per FAA AC 150/5300 13-B.
- b. Removal of Runway 9-27.
- c. Removal of existing Taxiway Bravo.
- d. Addition of GA development areas.
- e. Addition of MRO/Industrial/Commercial areas.
- f. Addition of new Taxiway Alpha 1 from Taxiway Alpha to hangar area.
- g. Relocation of wind cone and segmented circle.
- h. 1,000 ft. future extension / Additional 1,000 ft. ultimate extension of Runway 5L-23R.
- i. Proposed employee lot expansion.
- j. Addition and extension of airport service road.
- k. Addition of Taxiway Delta parallel to Runway 27 end.
- l. Addition of 6,824 ft. parallel Runway 5R-23L and associated taxiway infrastructure.
- m. Expansion of Air Cargo Logistics Center.
- n. Addition of parallel Taxiway Charlie to Runways 5L-23R and 5R-23L.
- o. Update all pavement per Taxiway Design Standards, AC 150/5300-13B.
- p. Addition of Taxiway Hotel perpendicular to Runway 23L end.
- q. Addition of Glide Slope for Runway 23R approach.
- r. Addition of Taxiway Alpha 2 from Taxiway Alpha to Taxiway Bravo.
- s. Extension of Taxiway Alpha.
- t. Additional Fuel Storage

## II. LANDSIDE

- u. Future property acquisition (to include TOFA/RPZ).
- v. Realignment of Muddy Creek Road.
- w. Realignment of perimeter fence outside new GA Development.
- x. Addition of Non-Aeronautical area for development.
- y. New ARFF facility (Index B)
- z. Existing ARFF facility demolished.

LEGEND							
DESCRIPTION	EXISTING	PROPOSED	ULTIMATE	DESCRIPTION	EXISTING	PROPOSED	ULTIMATE
RUNWAY IDENTIFIER				NON-AERONAUTICAL DEVELOPMENT			
TAXIWAY IDENTIFIER				AERONAUTICAL DEVELOPMENT			
AIRFIELD PAVEMENT				INELIGIBLE EXCESSIVE PAVEMENT <sup>1</sup>			
TAXIWAY SHOULDER PAVEMENT				RUNWAY MARKINGS			
DEMOLITION				ROADWAY/PARKING			
AIRPORT BUILDING				NAVAID CRITICAL AREA			
TAXIWAY/LANE CENTERLINE & PVMT MARKINGS				AIRPORT PROPERTY LINE			
FENCELINE				DRAINAGE POND			
PRECISION APPROACH PATH INDICATOR (PAPI)				LOCALIZER ANTENNA (LOC)			
APPROACH LIGHTING SYSTEM				TERMINAL EXPANSION			
ILS HOLDING POSITION MARKING				GLIDESLOPE SHELTER			
LIGHTED WIND CONE				COMPASS CALIBRATION PAD			
SEGMENTED CIRCLE				LAND ACQUISITION			
RUNWAY PROTECTION ZONE (RPZ)				SOLAR FARM/INFRASTRUCTURE			
AWOS/AWOS CRITICAL AREA				LEGEND NOTES: 1/ INELIGIBLE EXCESSIVE PAVEMENT PER TAXIWAY DESIGN STANDARDS, A/C 150/5300-13B.			



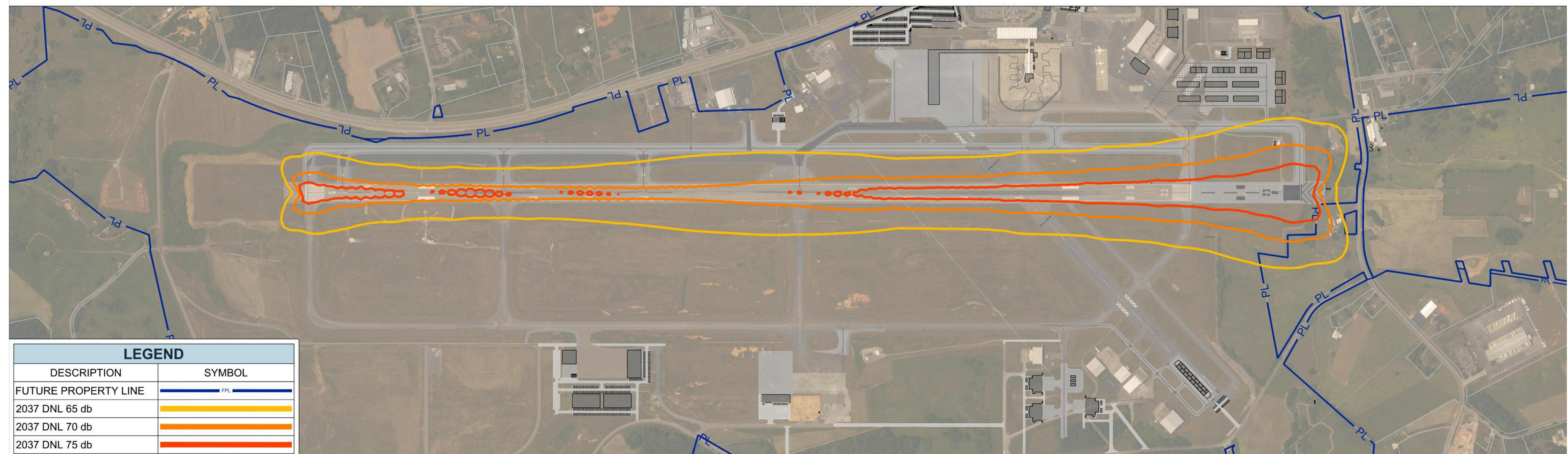
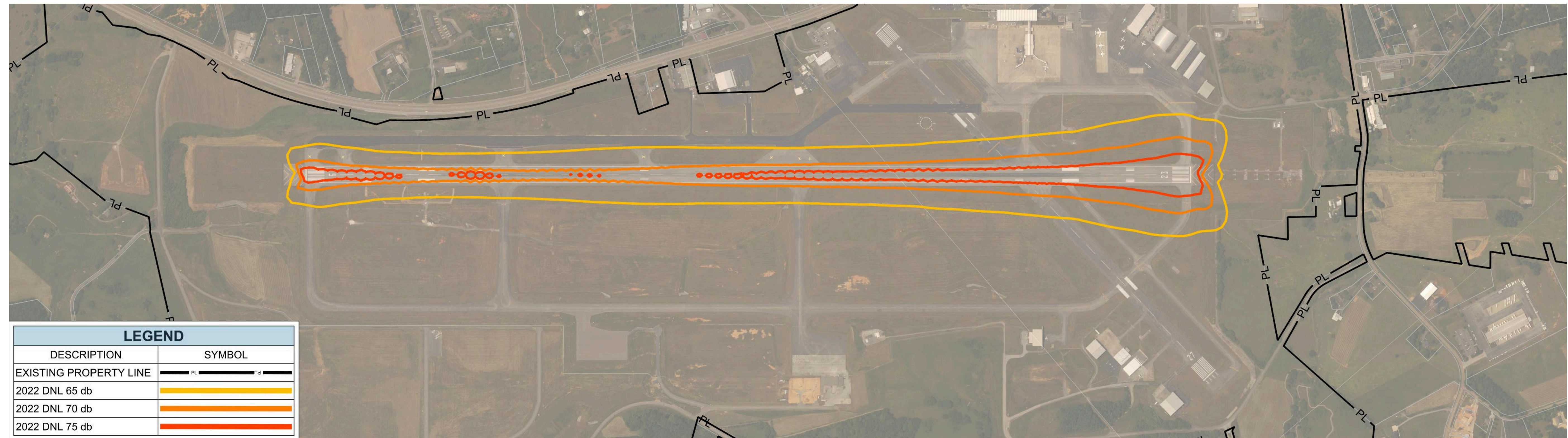


# Alternatives Evaluation

	ALTERNATIVE 1	ALTERNATIVE 2	ALTERNATIVE 3	PREFERRED ALTERNATIVE
<b>Operational Performance</b> 				
Capacity	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>
Capability	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>
Efficiency	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>
<b>Best Planning Tenets</b> 				
Political Viability	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>
Land Use	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>
Growth	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>
Flexibility	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>
Technical Feasibility	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>
Phasing/Ease of Implementation	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>
<b>Fiscal Factors</b> 				
Cost	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>
<b>Environmental</b> 				
Mitigation of Environmental Impacts	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>
TOTALS	33	38	35	43

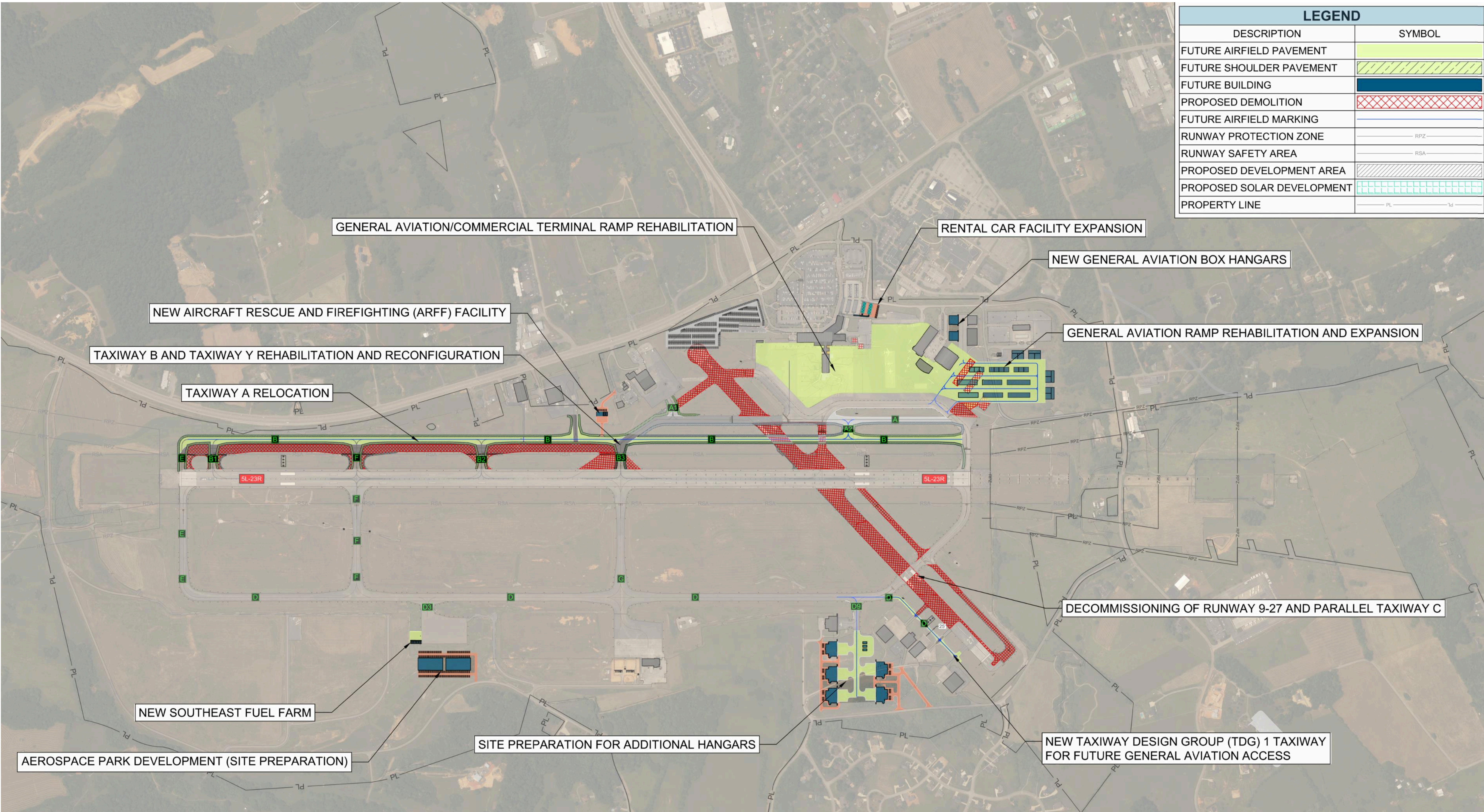


# Noise Contours



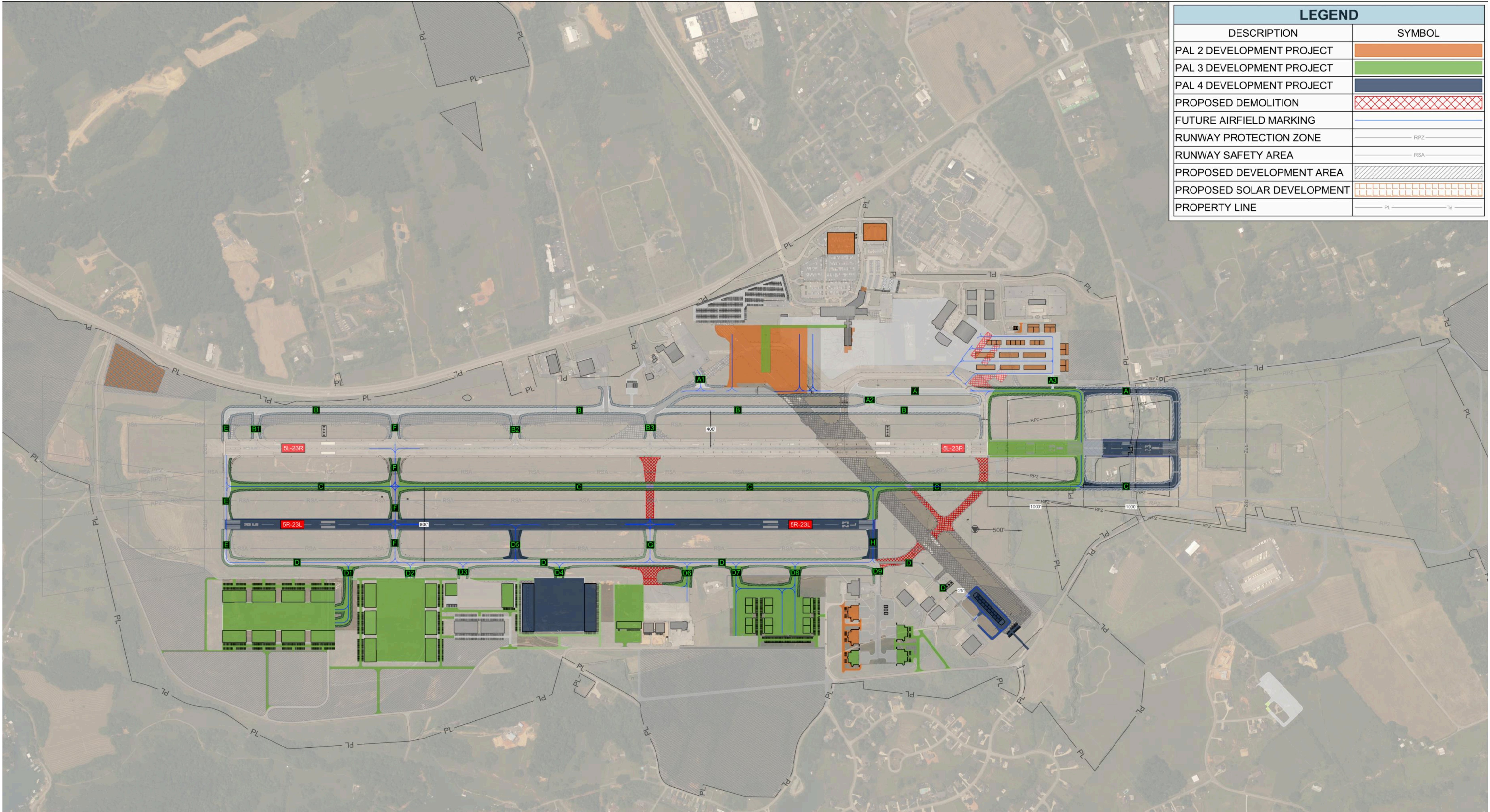


# Capital Improvement Plan: PAL 1





# Capital Improvement Plan: PAL 2, 3 & 4





# Business Plan & Financial Trends

## Business Plan Purpose:

Examine industry best practices that TRI could implement or enhance to assist in maximizing airport revenue.



## Financial Trends:

### Operating Revenues:

- Increased from \$7.27M in FY 2019 to \$8.76M in FY 2024

### Operating Expenses:

- Increased from \$6.63M in FY 2019 to \$8.49M in FY 2024

### Net Position:

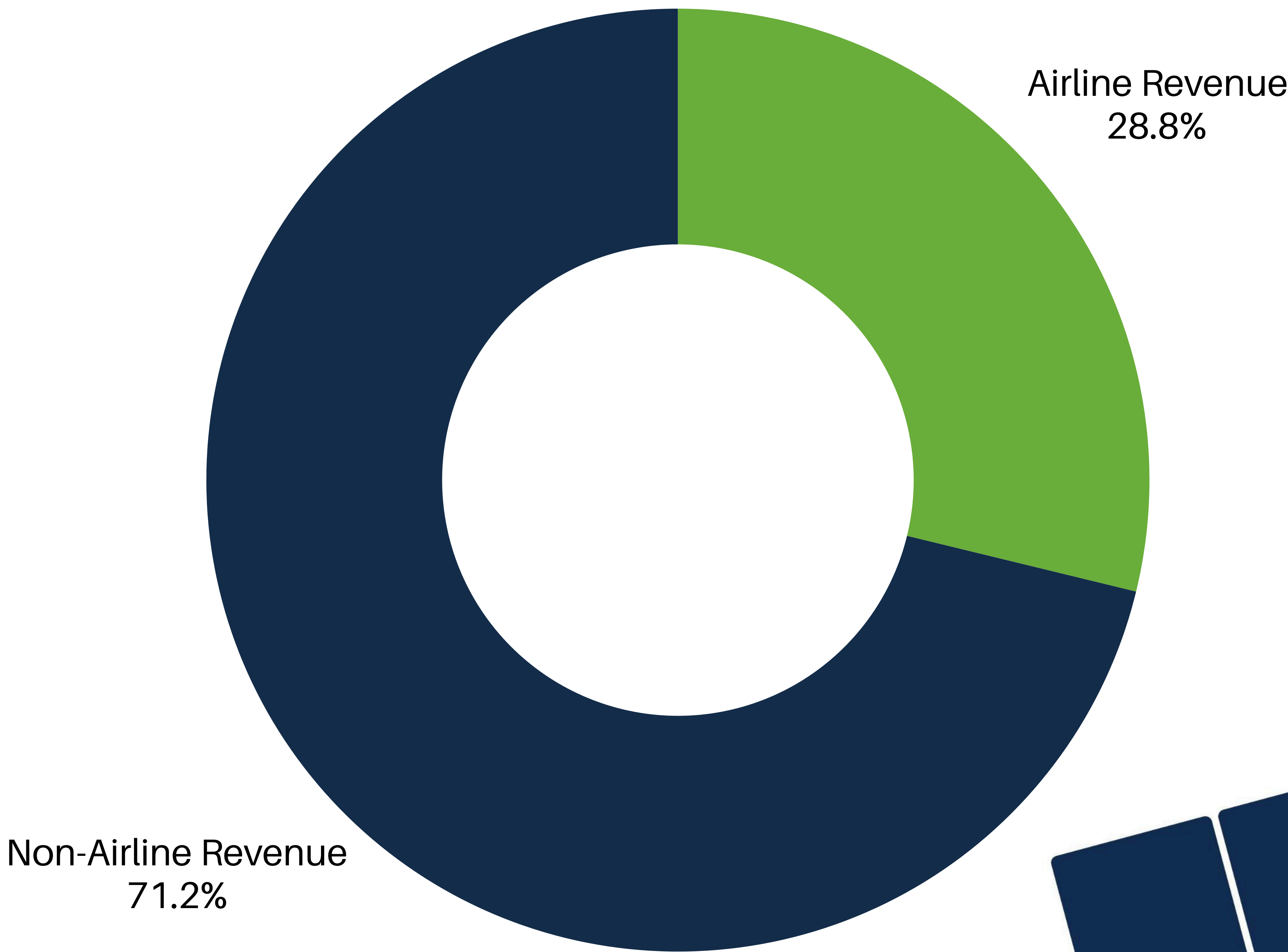
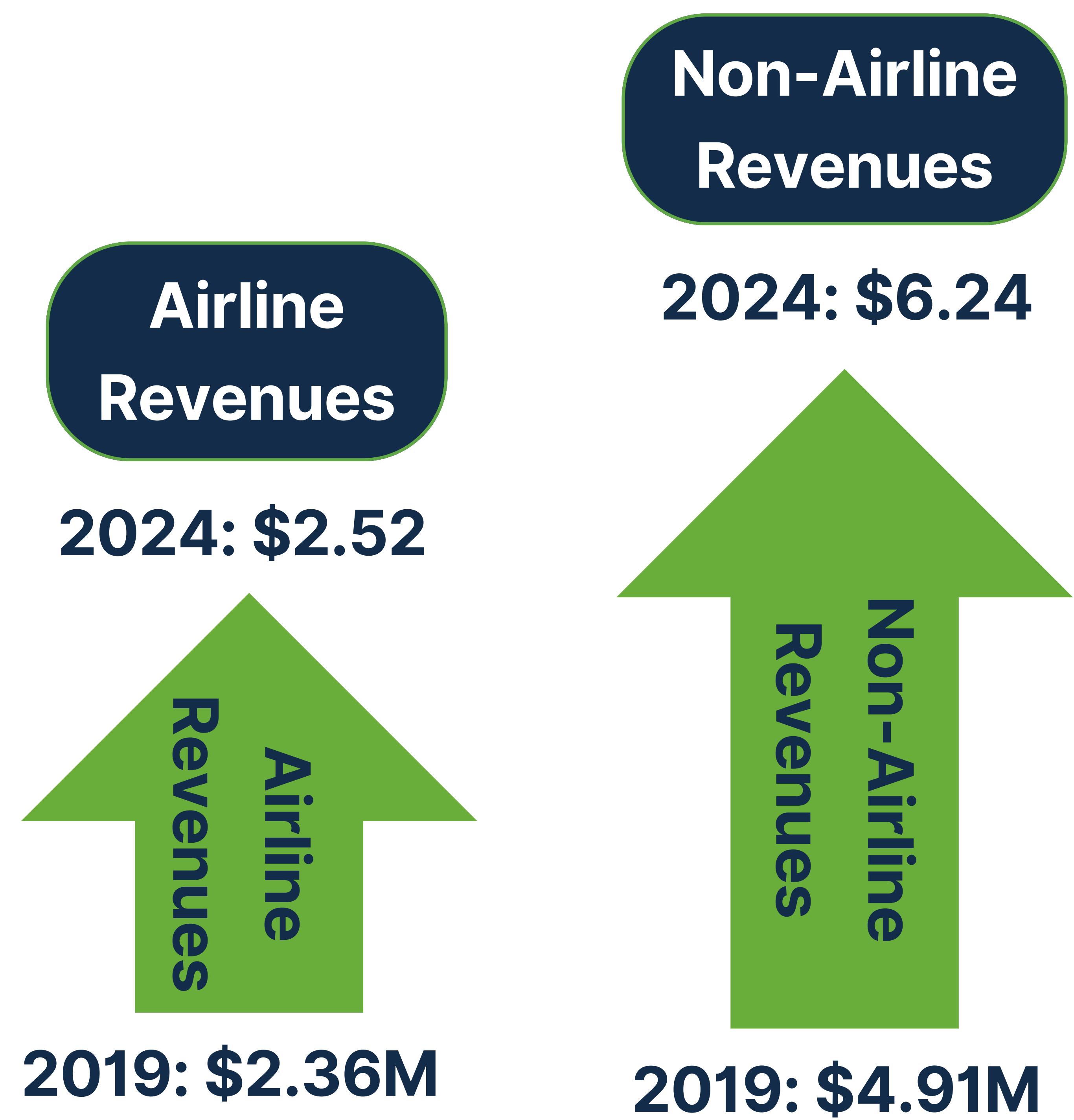
- Decreased in FY 2024 compared to FY 2022-23 due to higher expenses and reduced federal support

### Impact of COVID-19:

- Revenues decreased in FY 2020-21 but recovered in FY 2022-23

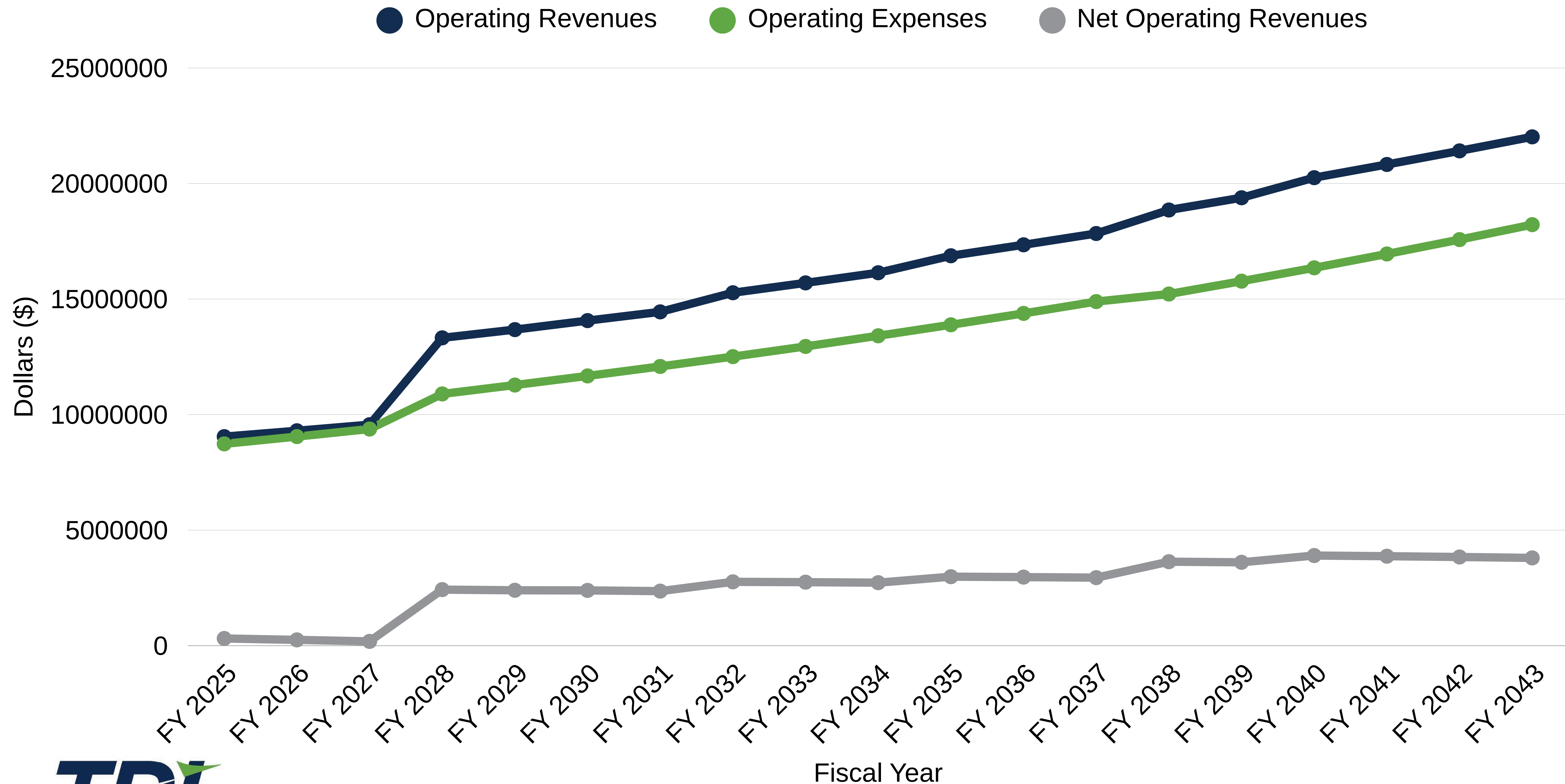


# Airport Revenue Trends





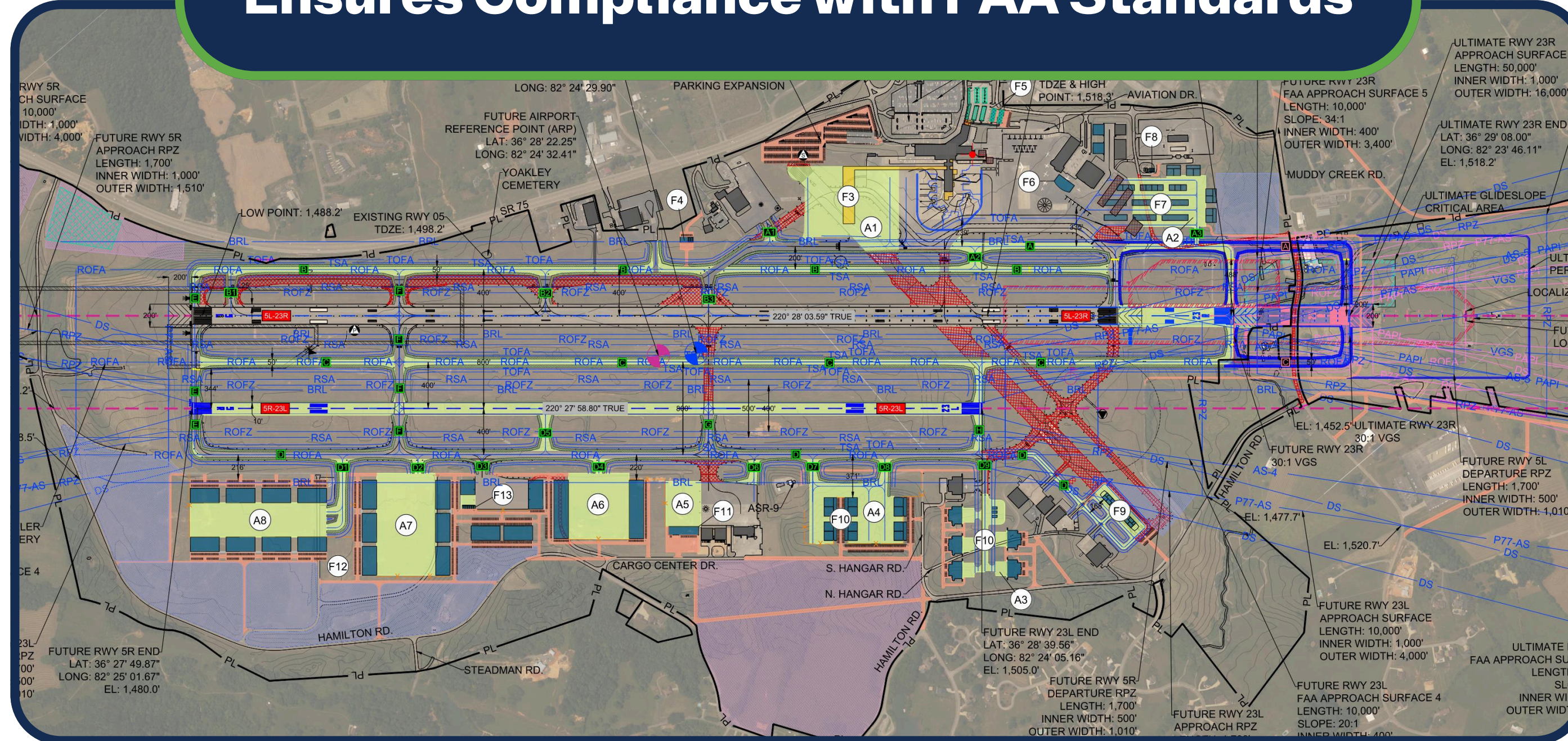
# Projected Growth in Revenue & Expenses



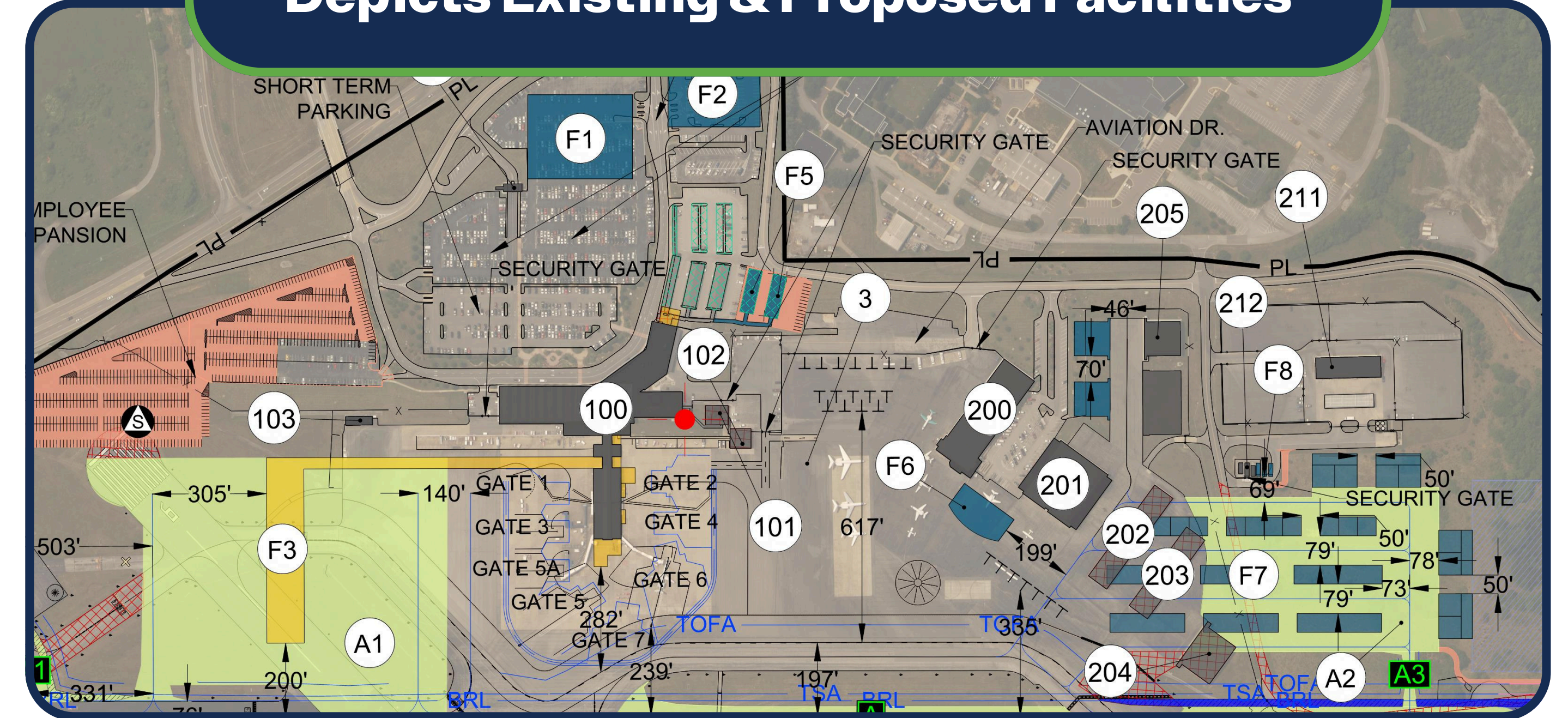


# Airport Layout Plan Set

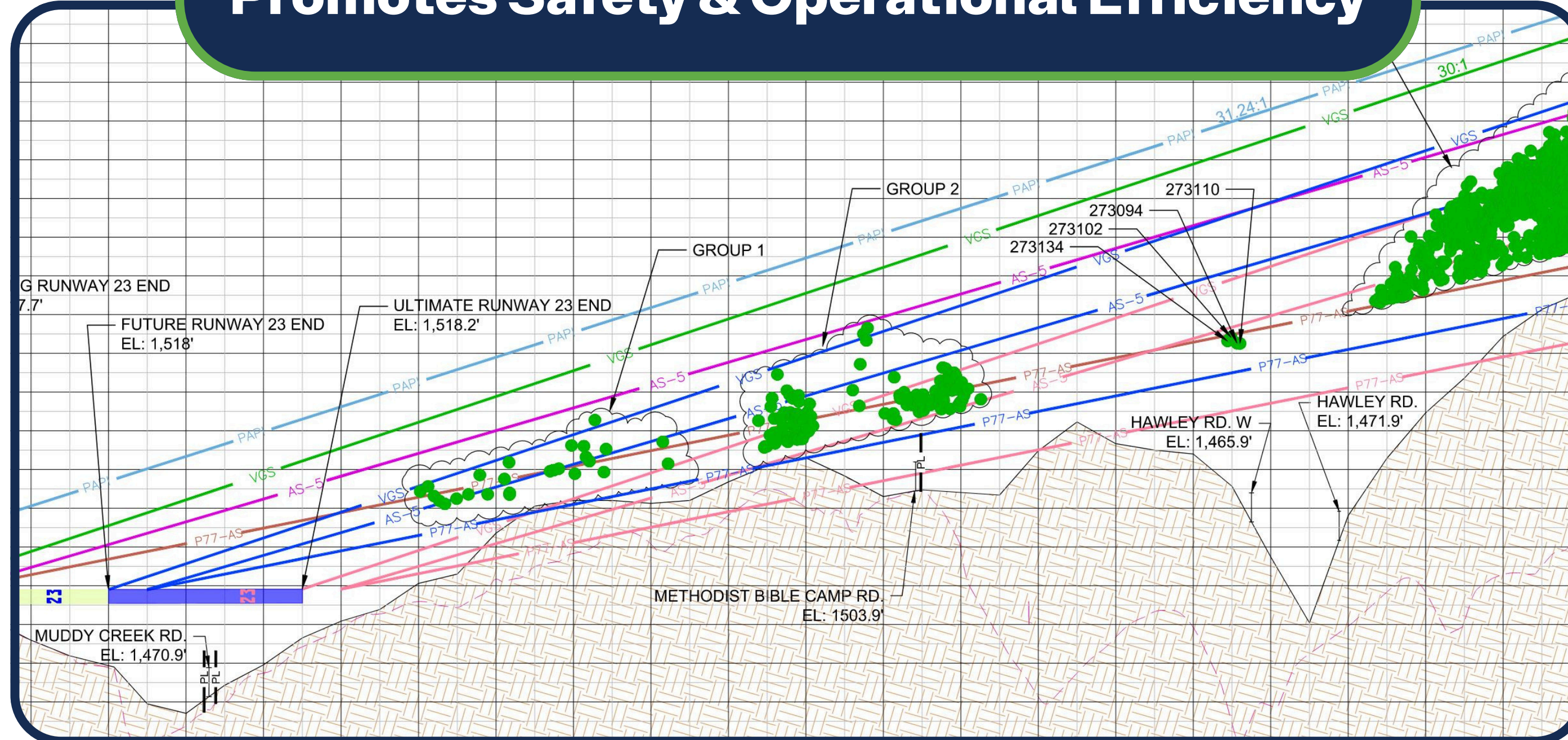
## Ensures Compliance with FAA Standards



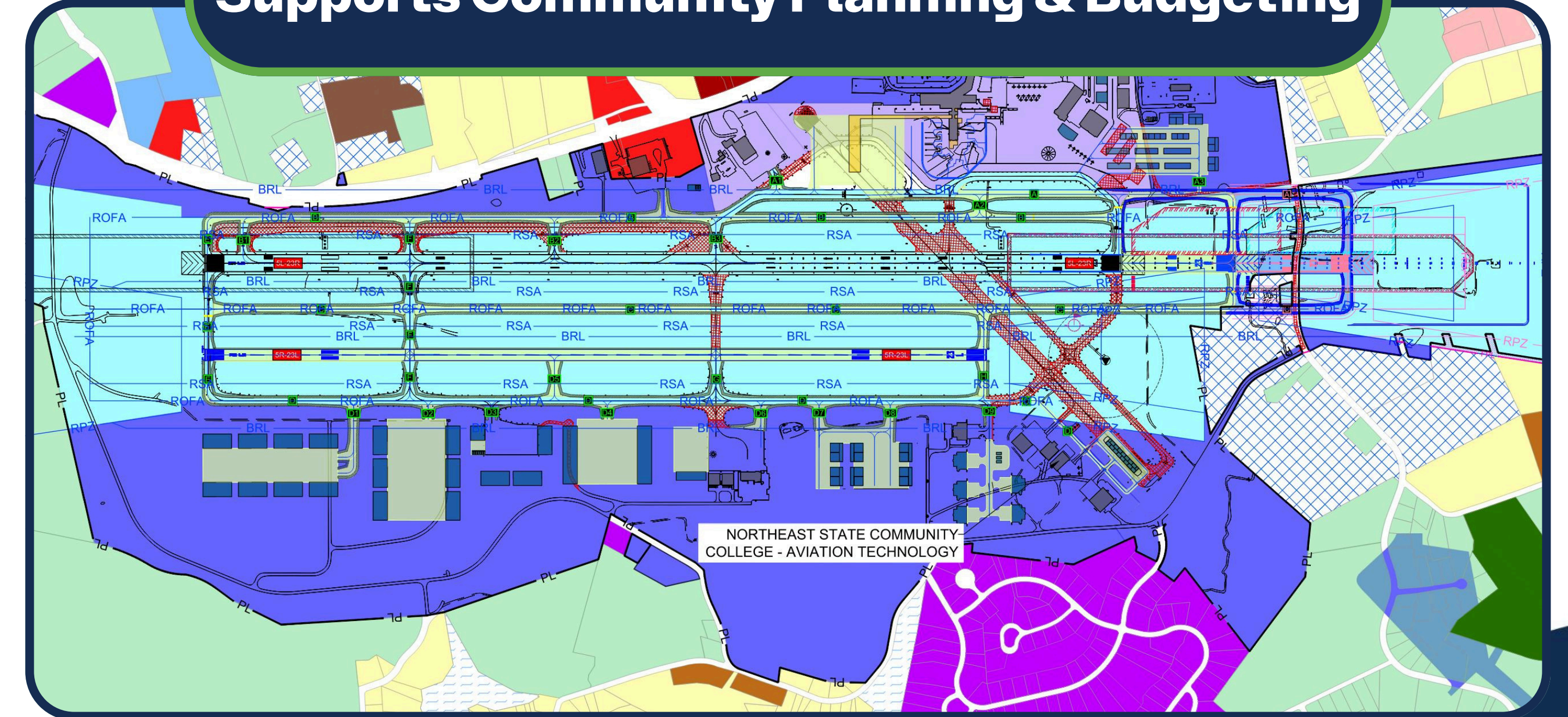
## Depicts Existing & Proposed Facilities



## Promotes Safety & Operational Efficiency



## Supports Community Planning & Budgeting



## An ALP sheet is required for Federal Funding

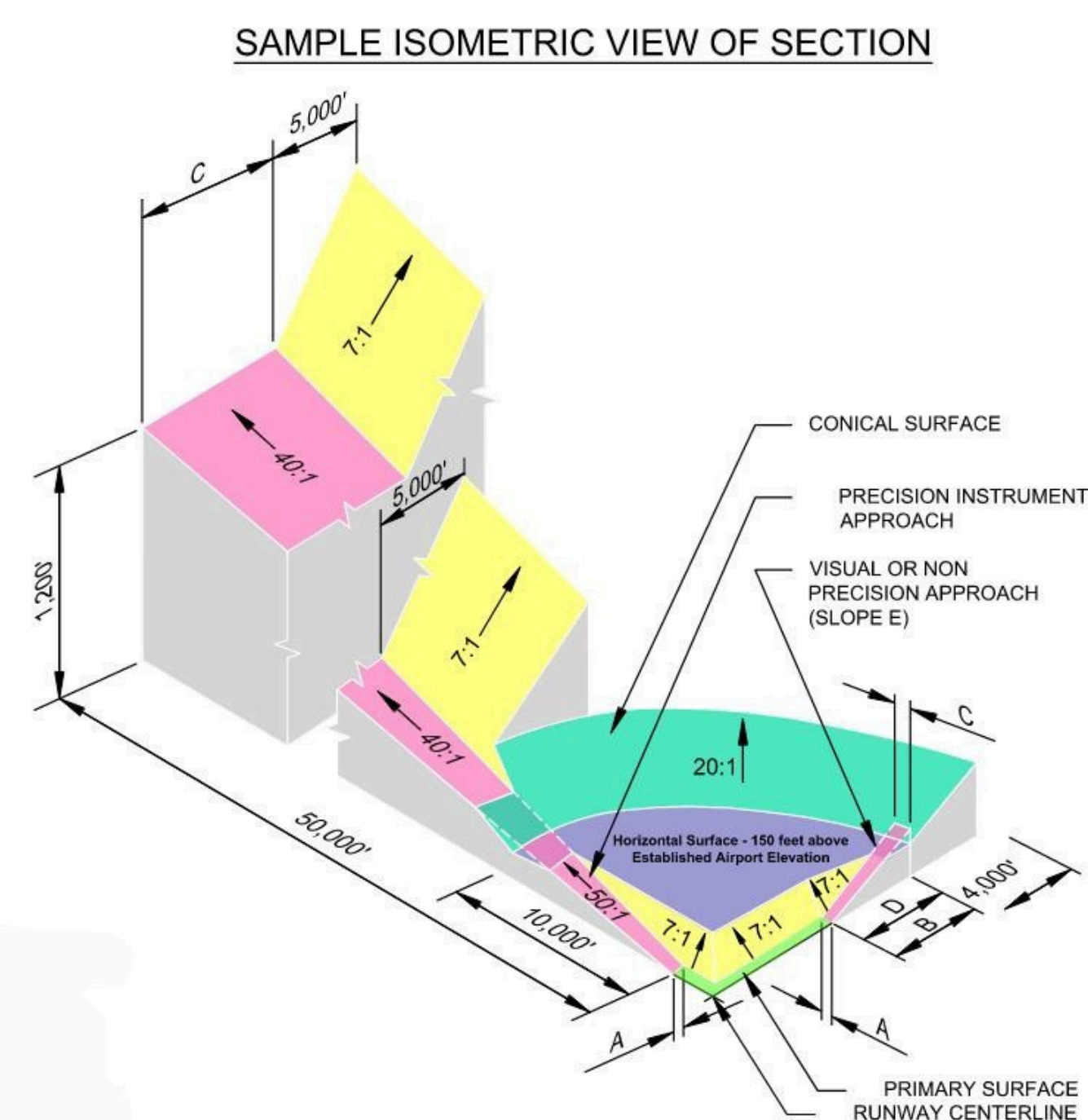









# Part 77 Imaginary Surfaces

# Safeguarding Airspace with Imaginary Surfaces

Part 77 Imaginary Surfaces are invisible airspace areas established around airports to protect navigable airspace and ensure safe aircraft operations. These surfaces are designed to protect aircraft from potential hazards during take-off, landing, and approach phases by ensuring that structures and natural features do not encroach into the airspace used by aircraft.



## 14 CFR PART 77 SURFACES

- |   |                      |
|---|----------------------|
|  | Primary Surface      |
|  | Approach Surface     |
|  | Transitional Surface |
|  | Horizontal Surface   |
|  | Conical Surface      |

