

LAN AIRPORT MASTER PLAN



LAN AIRPORT MASTER PLAN



Welcome to the Airport Master Plan Public Open House

Please sign in at front

Thank you
for attending.

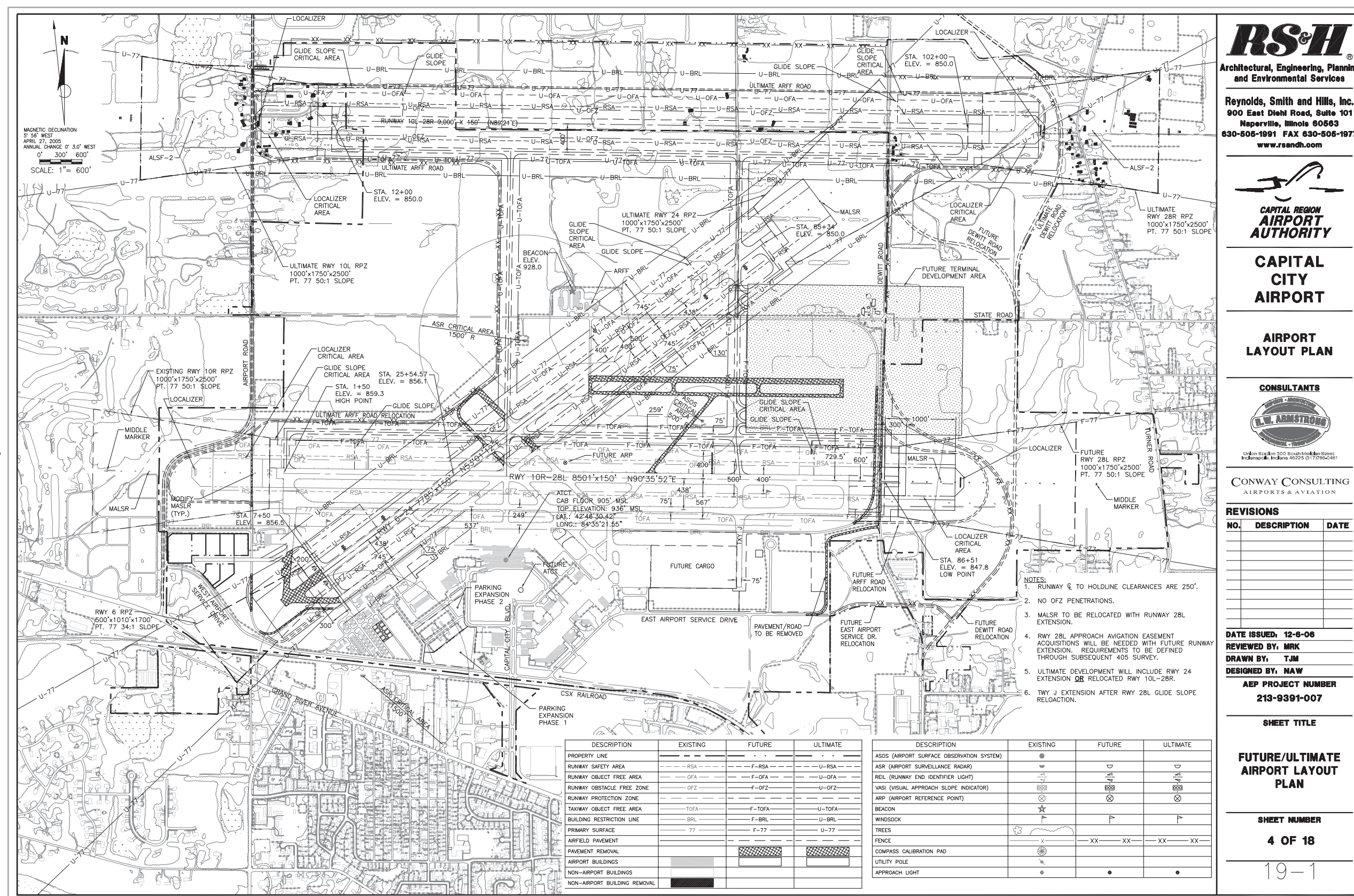
We appreciate your
interest and input.

WHAT IS A MASTER PLAN?

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.

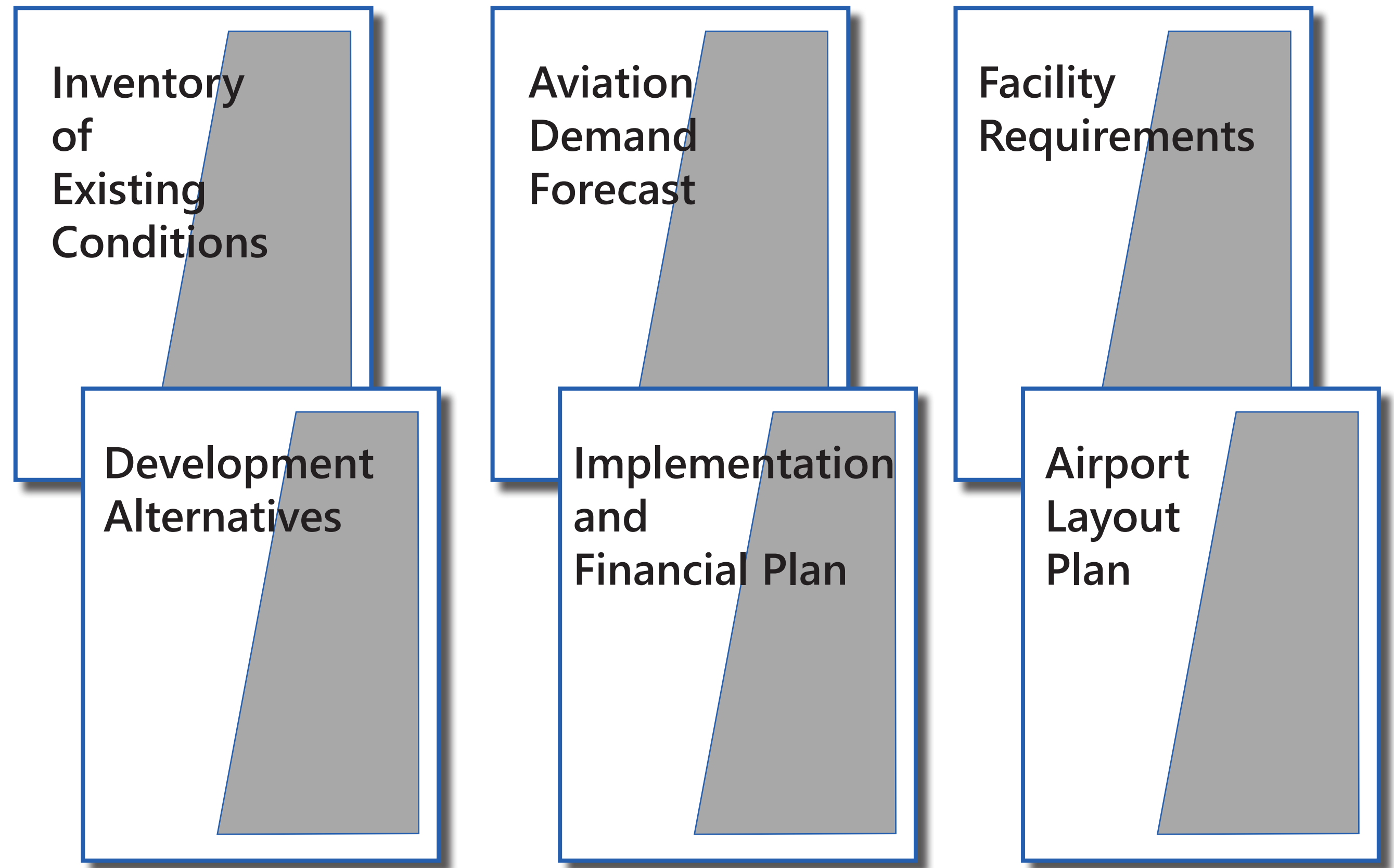
- FAA Advisory Circular 150/5070-6B, *Airport Master Plans*

Airport Layout Plan *(illustrates the plan)*

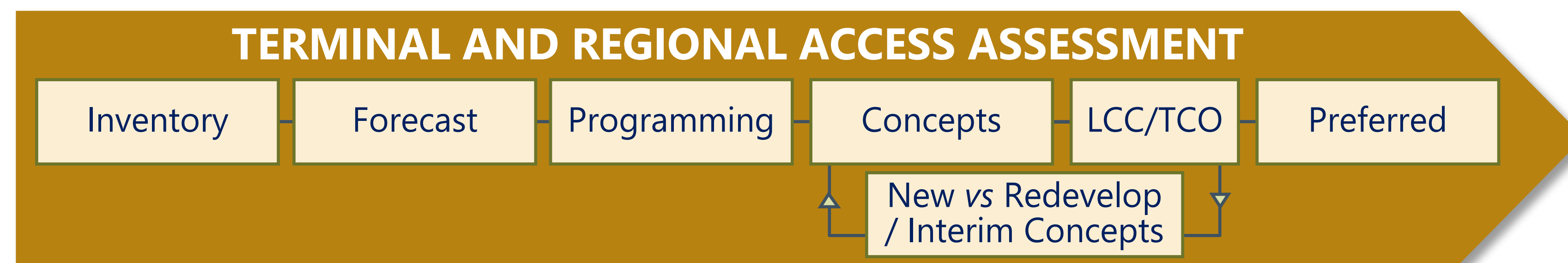
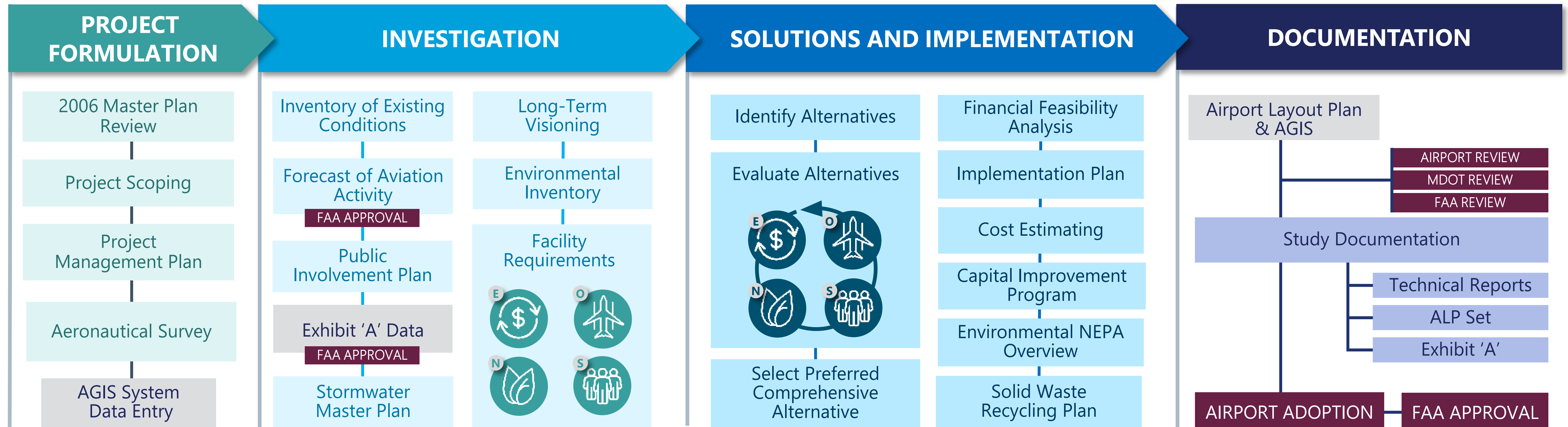


2006 LAN Future/Ulimate ALP

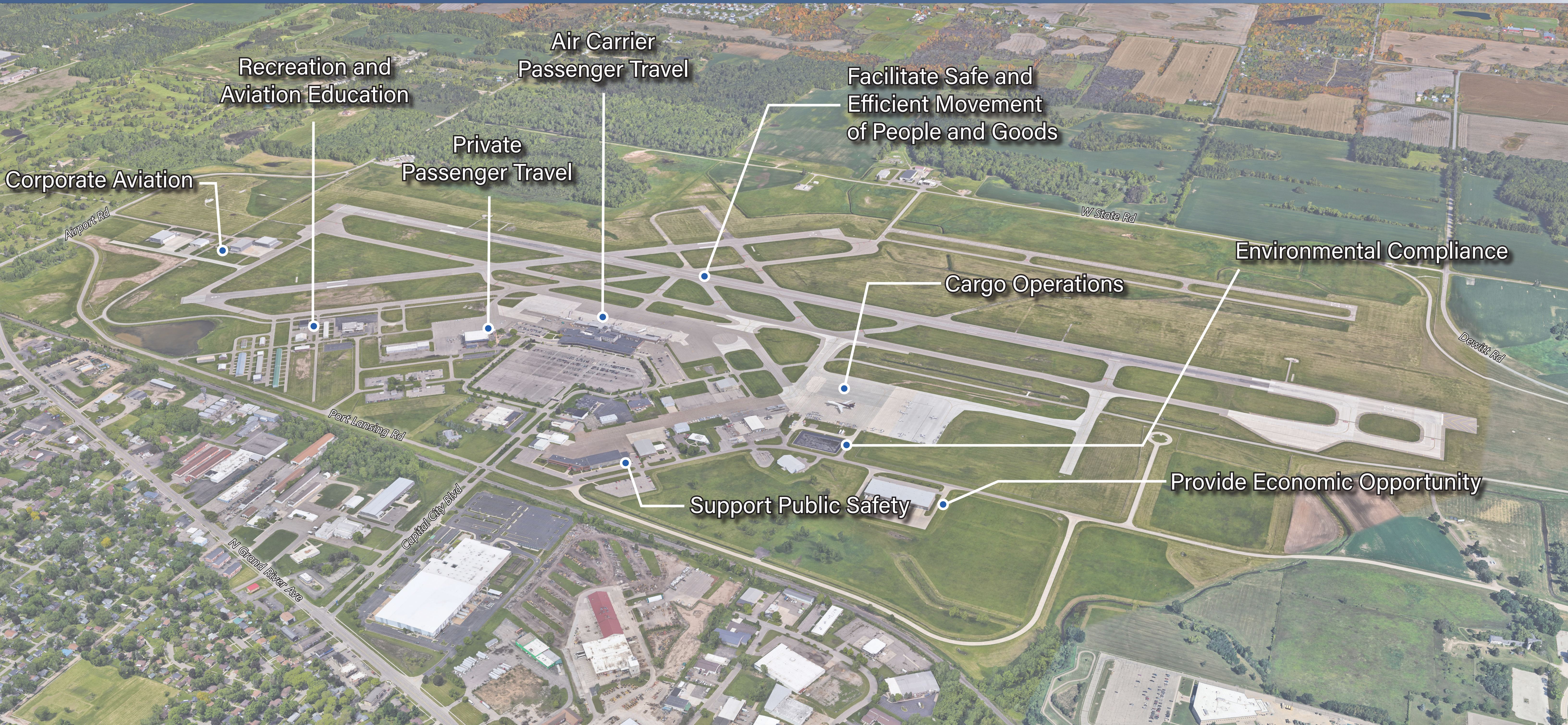
Technical Report *(Documents the "how" and "why")*



MASTER PLAN PROCESS

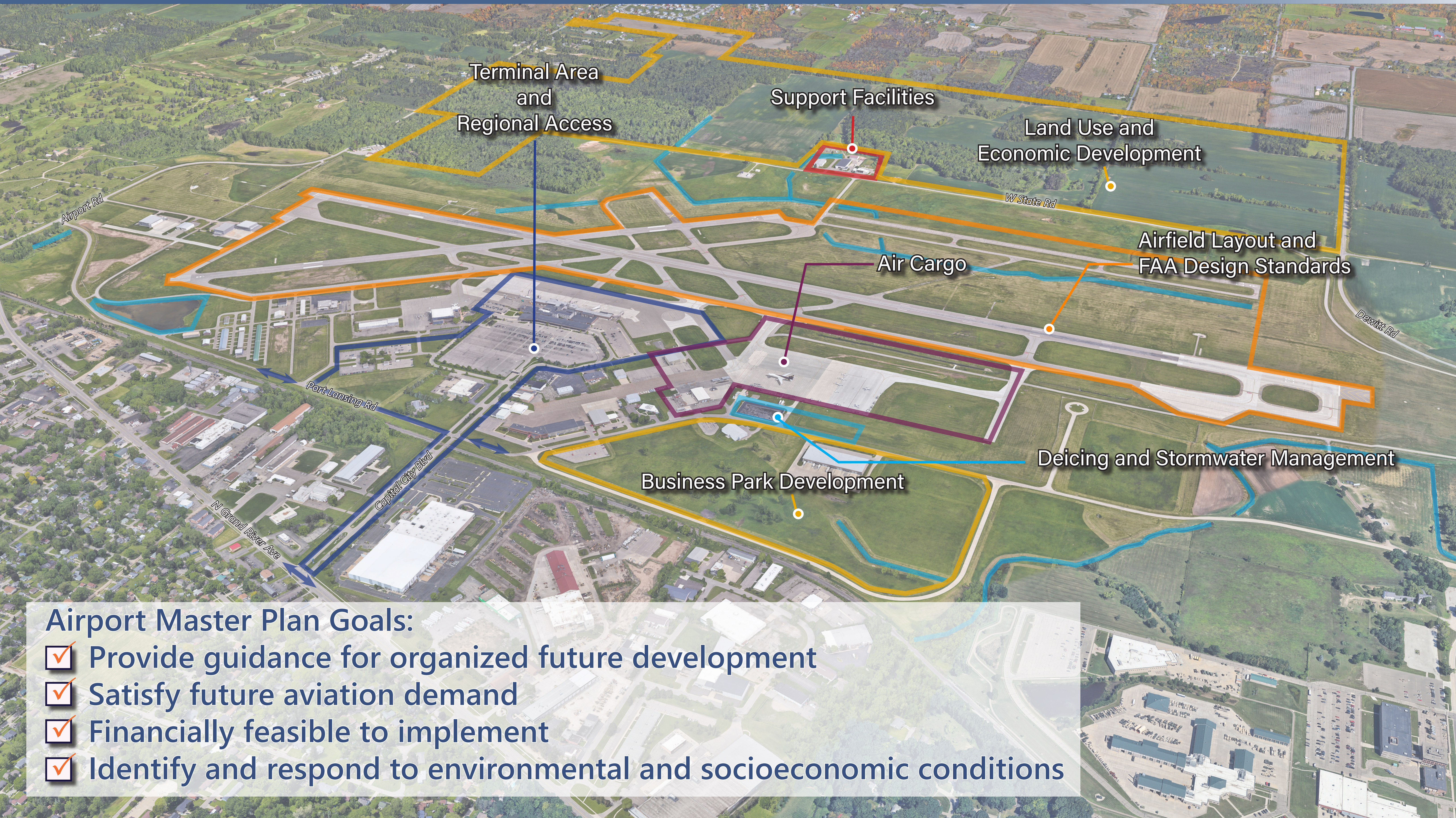


LAN AIRPORT ROLES



When you fly Lansing, you're directly supporting Greater Lansing by putting dollars back into the local economy. With a \$1 billion annual economic impact and nearly 700 people employed at the airport, supporting LAN means supporting the community. Community support allows us to continue improving and expanding our operations, including adding new services and updating our facilities. You can support your local airport by telling your airline that LAN is your preferred airport, and most importantly, fly Lansing every time you travel!

STUDY FOCUS AREAS



Airport Master Plan Goals:

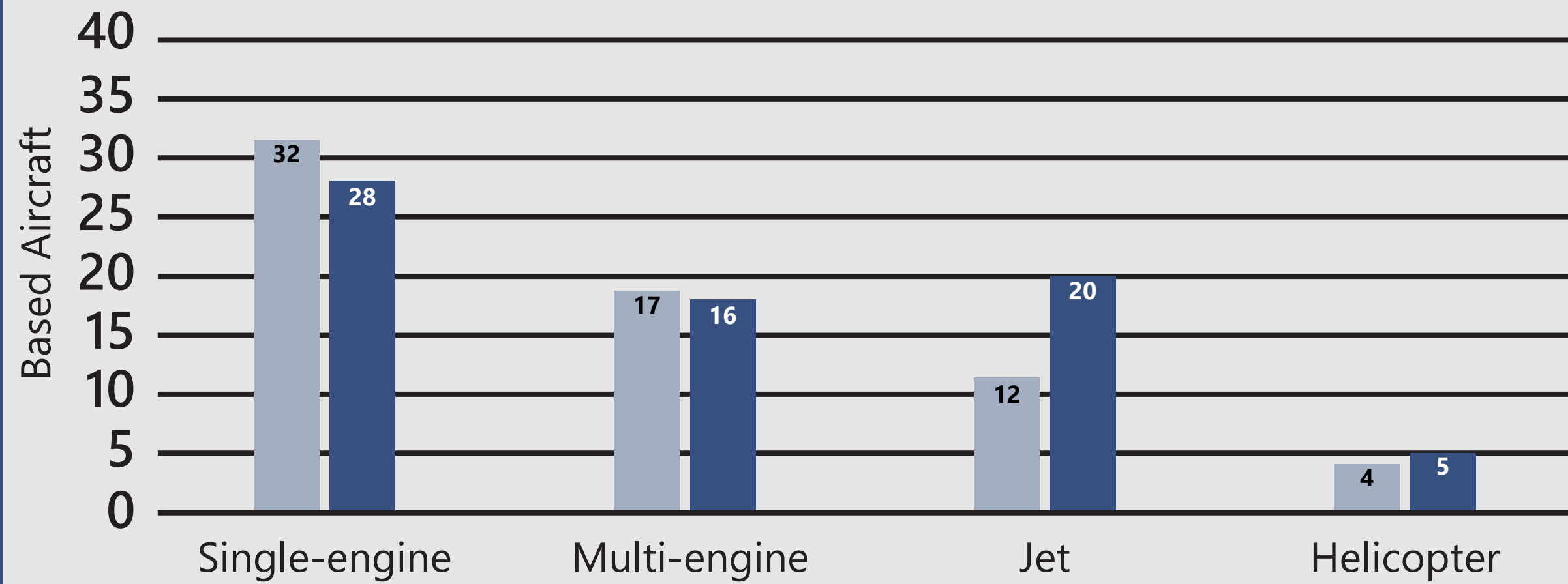
- ✓ Provide guidance for organized future development
- ✓ Satisfy future aviation demand
- ✓ Financially feasible to implement
- ✓ Identify and respond to environmental and socioeconomic conditions

AVIATION DEMAND FORECAST

DRAFT

Based Aircraft Forecast (20-Year)

Base Year 2023
20-year 2043

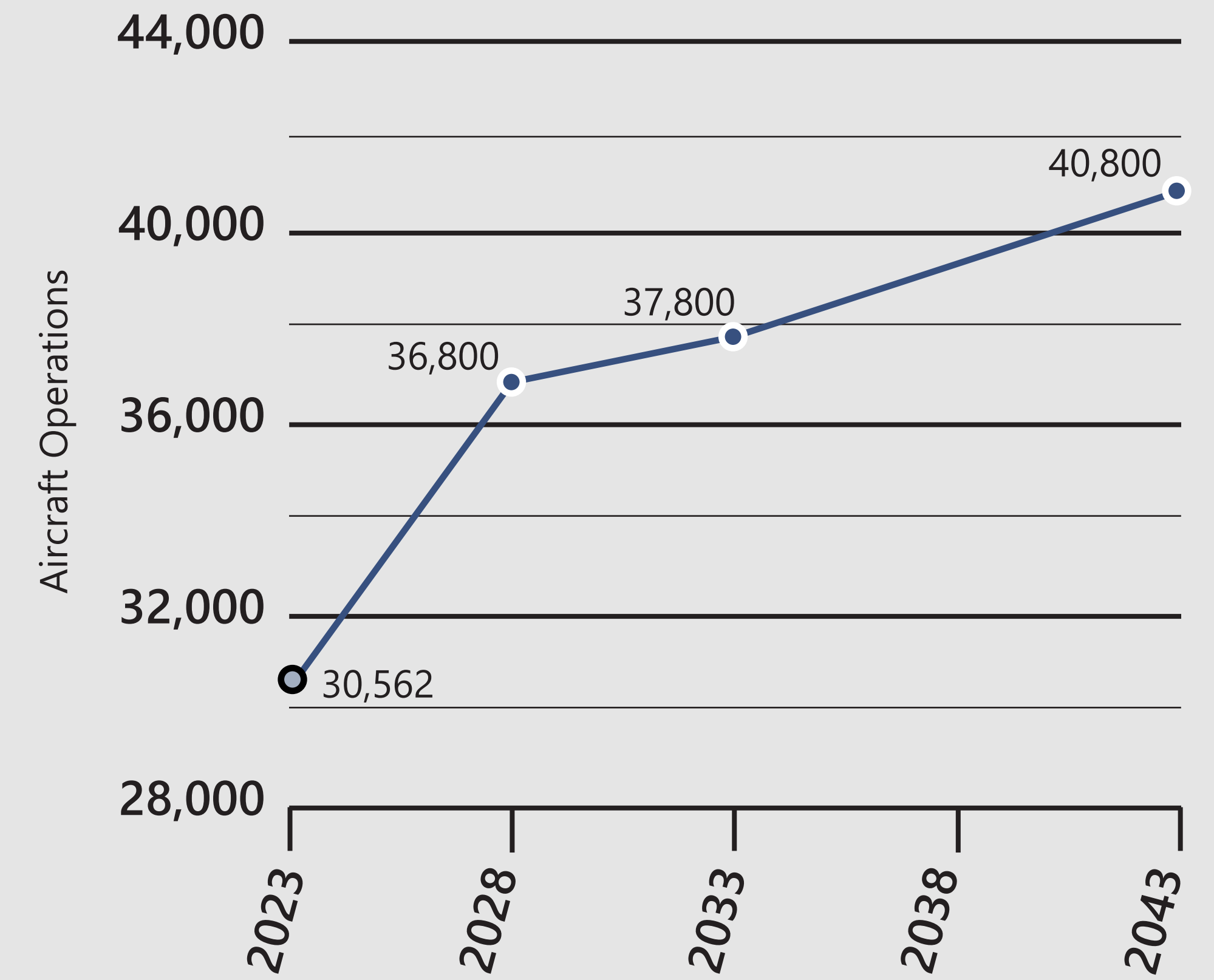


Aircraft Operations

FAA defines an aircraft operation as either a takeoff or a landing.

Operation Type	Base Year Level (2023)	Base Year +5 years (2028)	Base Year +10 years (2033)	Base Year +20 years (2043)
Passenger	3,994	6,600	6,800	8,400
Cargo	3,477	3,900	4,300	5,200
Air Taxi	6,449	8,600	8,800	9,000
General Aviation	16,136	17,100	17,300	17,600
Military	506	600	600	600
Total Operations	30,562	36,800	37,800	40,800

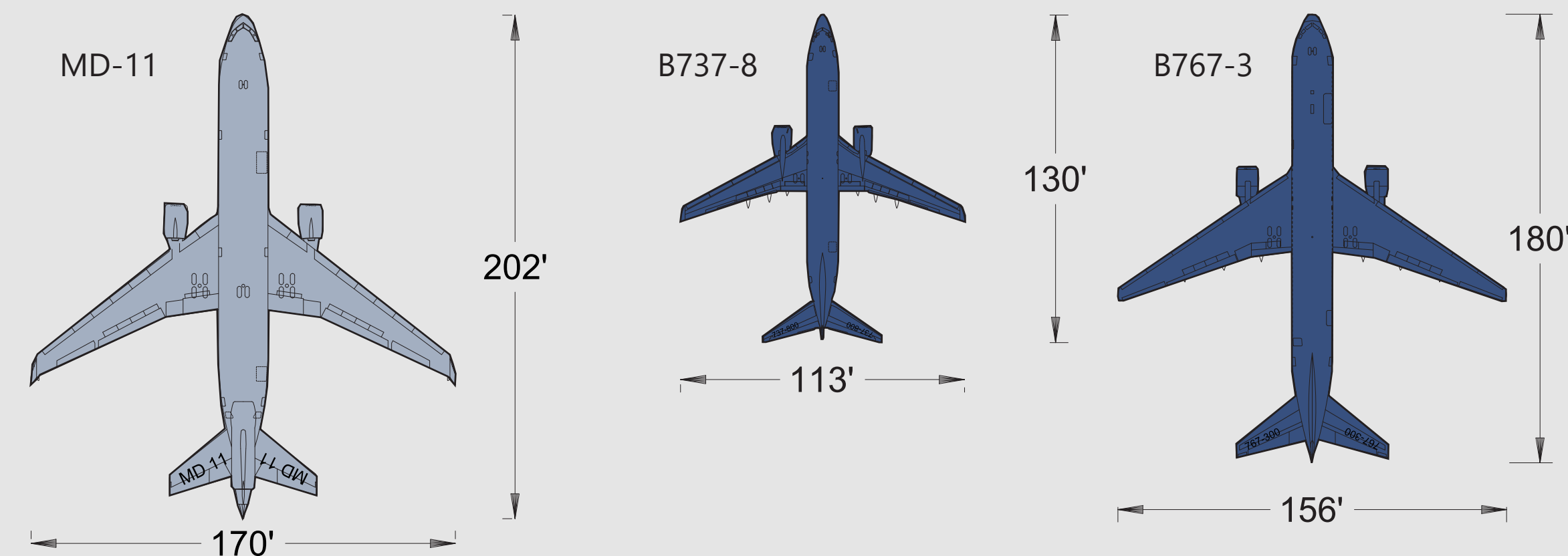
Note: Military operations forecast left constant per FAA guidance.



Critical Design Aircraft

McDonnell Douglas MD-11
(Previous Master Plan)

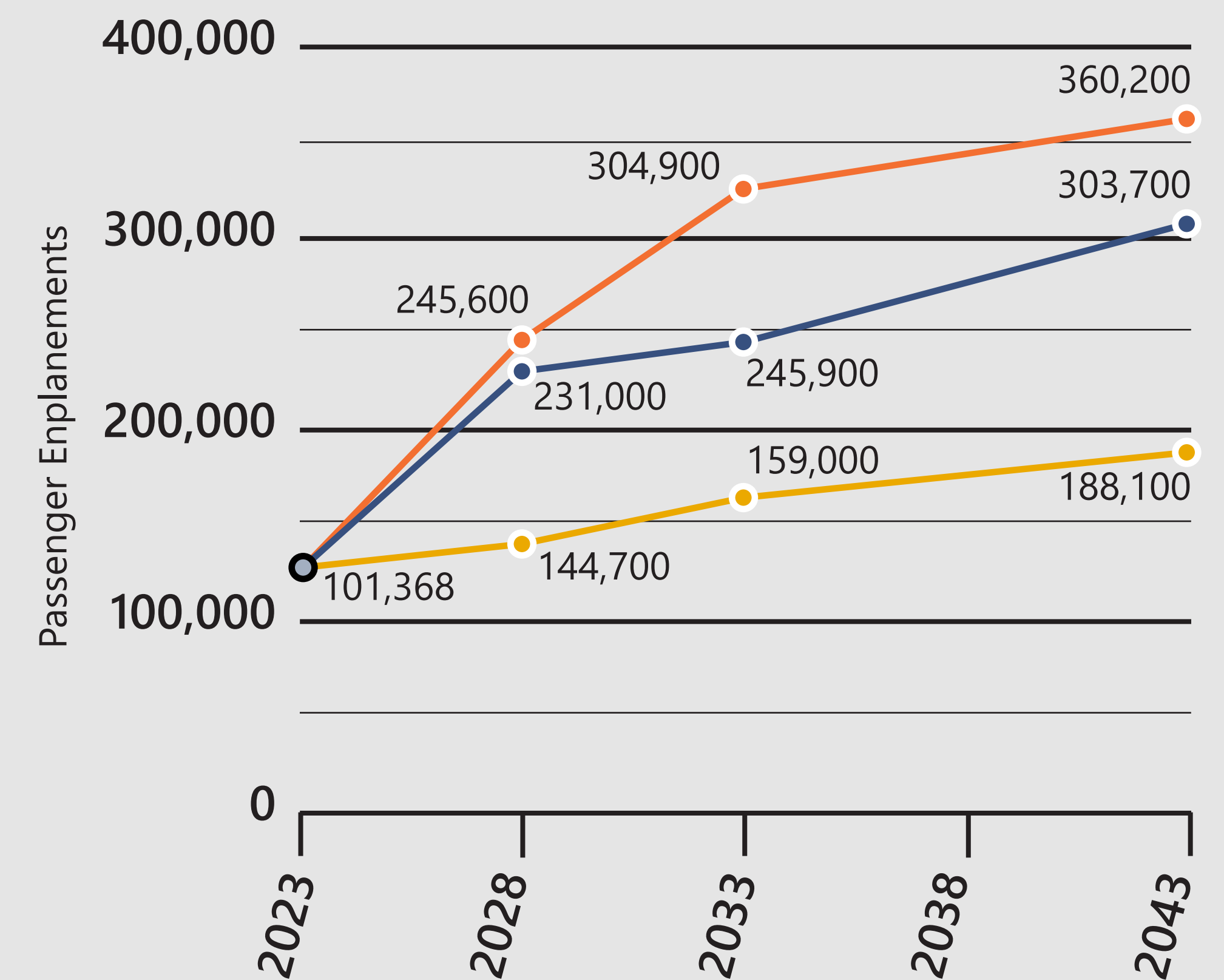
Combination
Boeing 737-800 and Boeing 767-300
(Updated Master Plan)



Passenger Enplanements

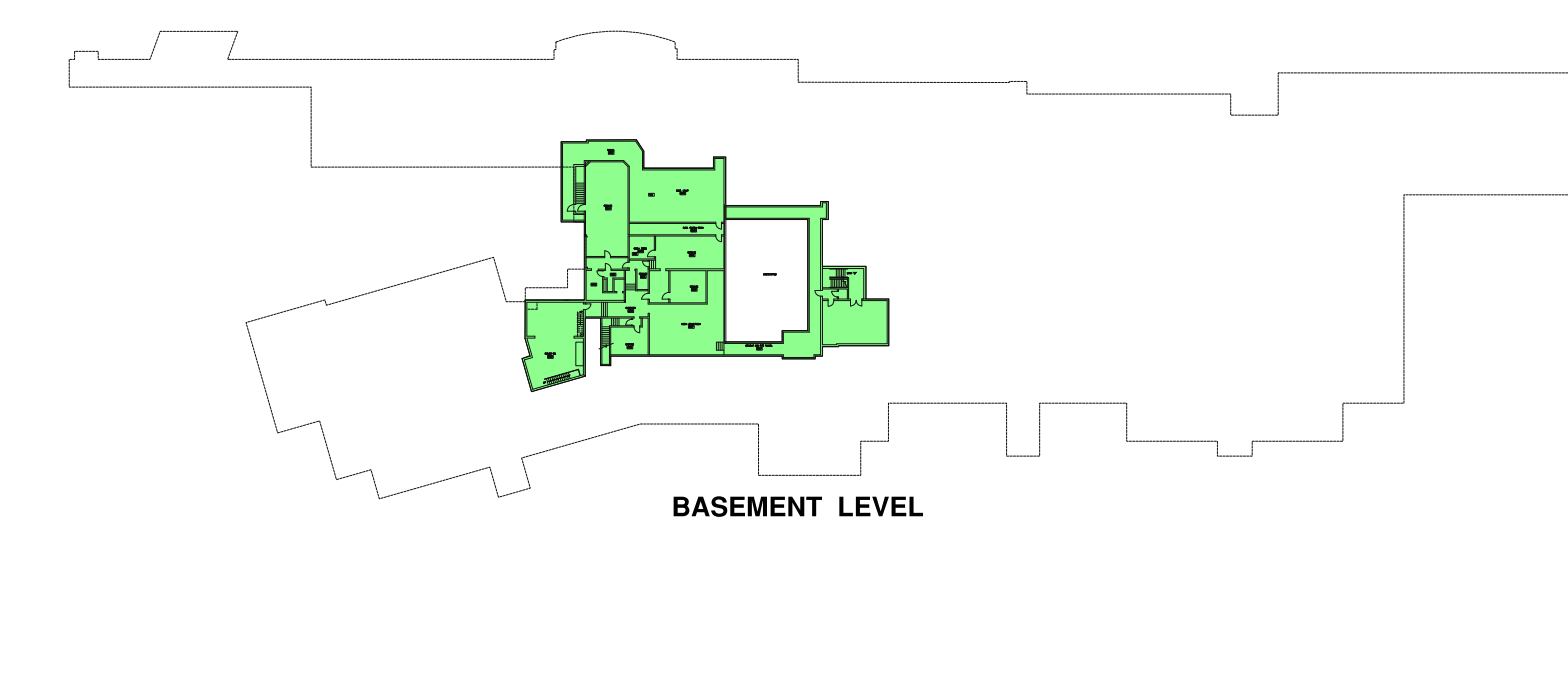
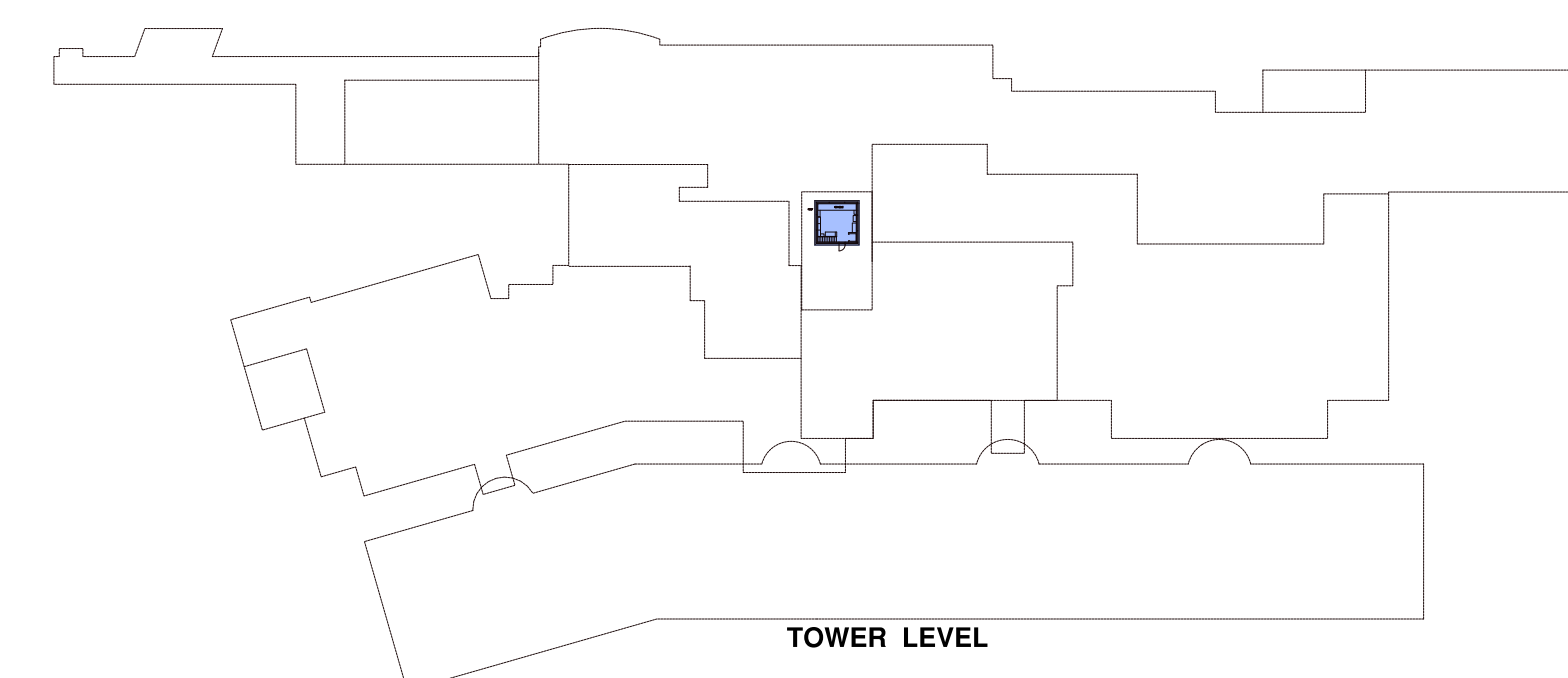
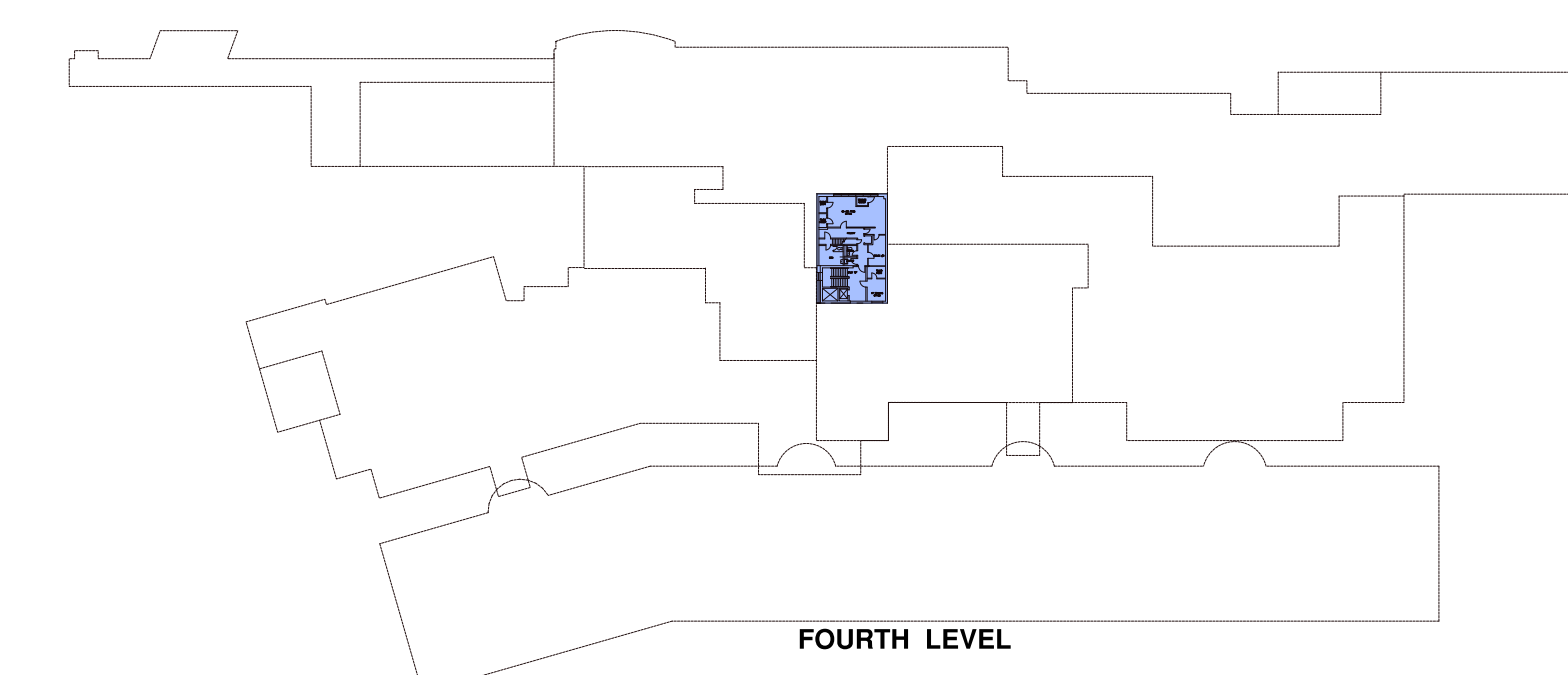
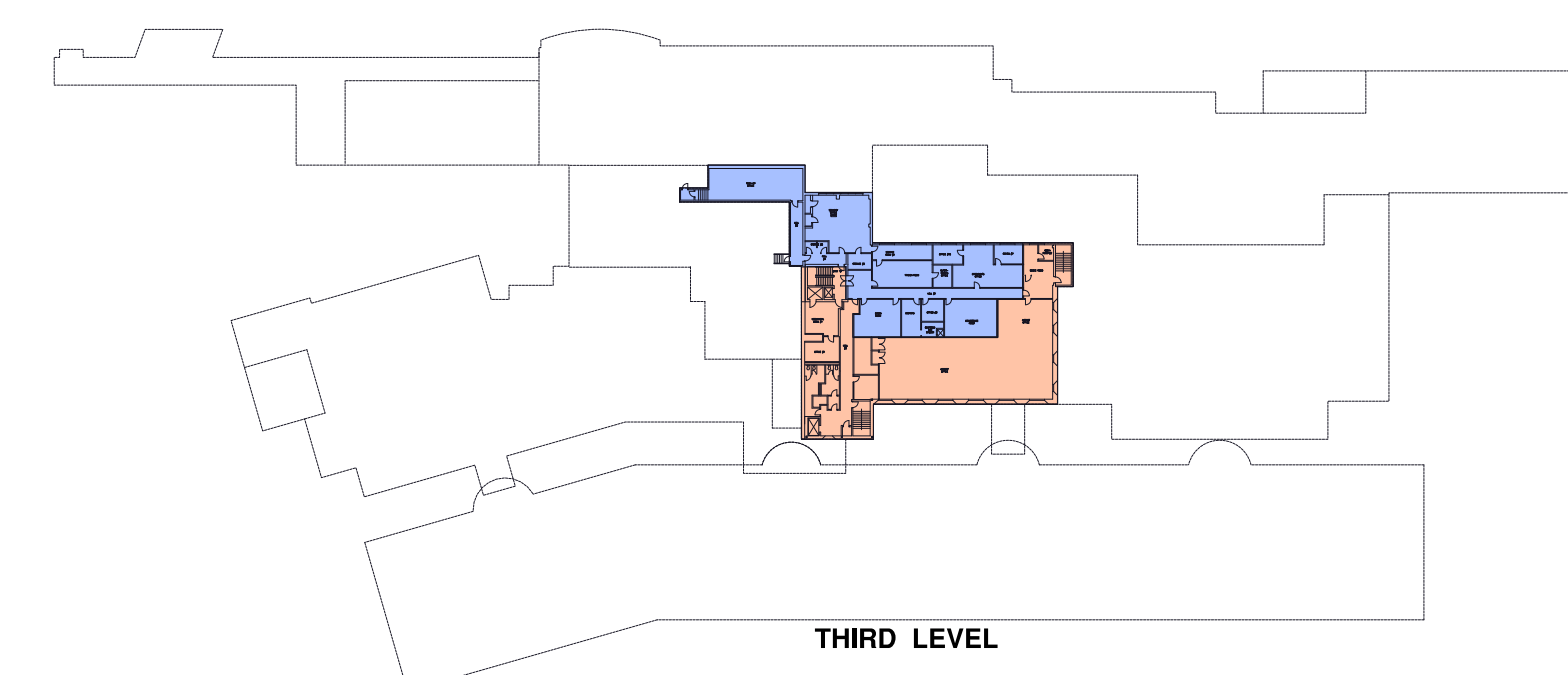
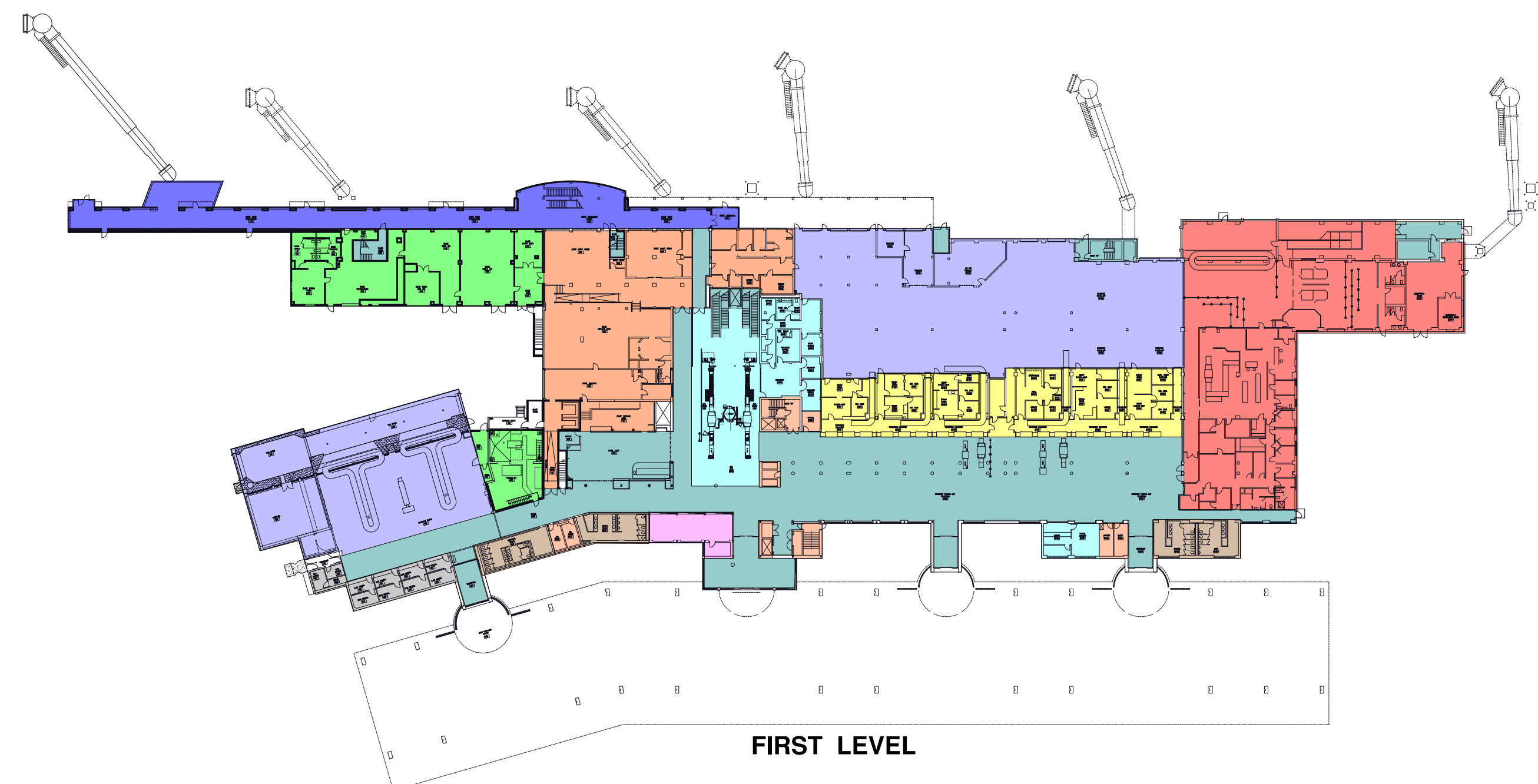
FAA defines passenger enplanements as revenue passengers boarding an aircraft.

Annual Enplanements	Base Year Level (2023)	Base Year +5 years (2028)	Base Year +10 years (2033)	Base Year +20 years (2043)
Baseline	101,368	231,000	245,900	303,700
High Scenario	101,368	245,600	304,900	360,200
Low Scenario	101,368	144,700	159,000	188,100



TERMINAL PROGRAMMING

Terminal facilities were assessed to identify areas of deficiency under today's operating environment. While the terminal has been very well maintained over its life, various sections of the building were added over the years to meet the needs of operational circumstances that have since changed. Many areas of the terminal are now either oversized, underutilized, undersized, or inefficiently laid out to meet the service demands of today's traveling public. Additionally, many critical pieces of equipment are reaching the end of their useful life and will need replacement in the near-term. The new terminal program works to modernize and 'right-size' functional areas of the facility to meet customer experience and level of service expectations. Modernizing the terminal also benefits airport operations through efficiency gains that ultimately improve the overall airport user experience as well as airline/tenant service effectiveness.

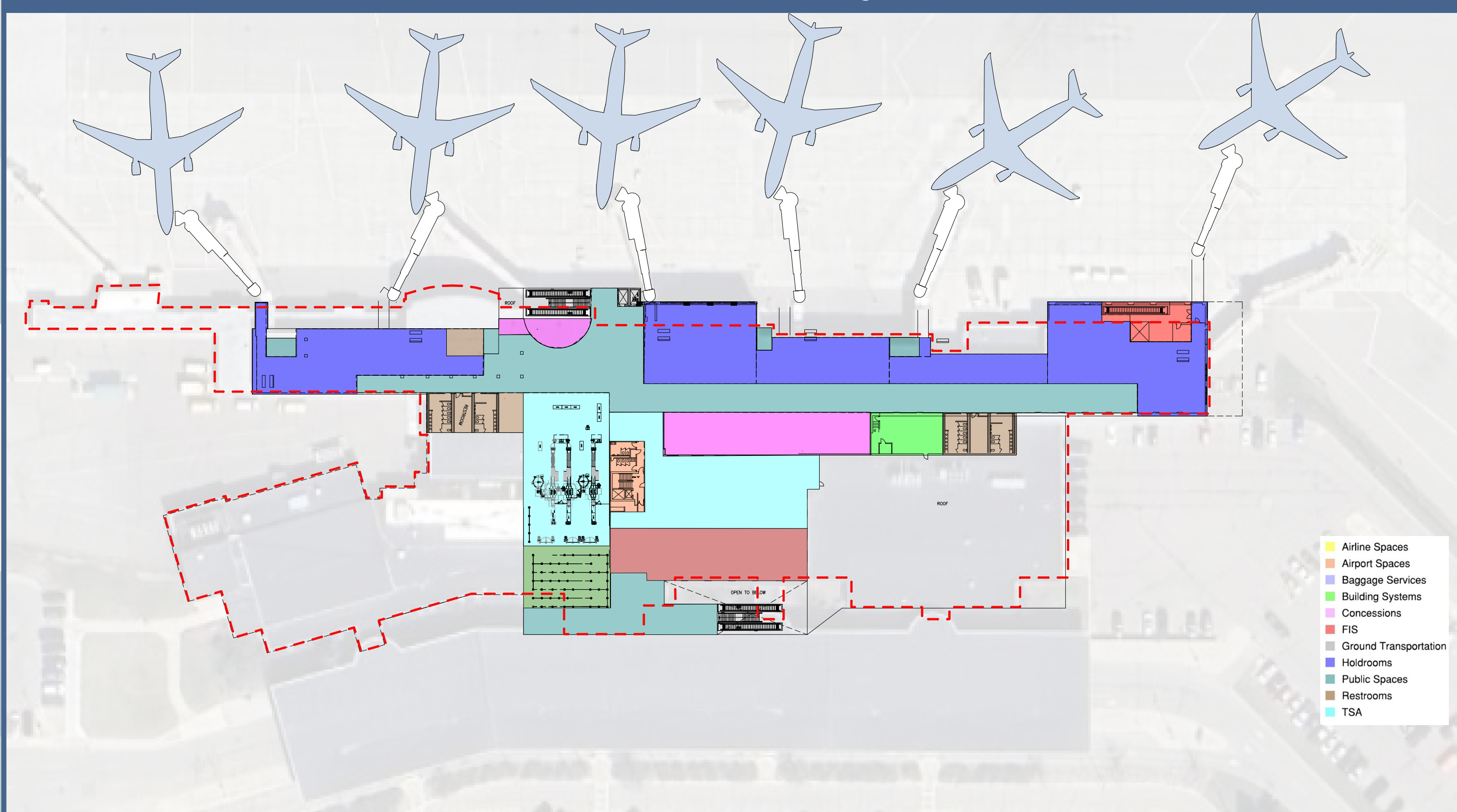


Terminal Functional Space Programming						
Category	Label	Existing Area (SF)	PAL 3 (2043) Need (SF)	Surplus/Deficit (SF)	PAL 3 (2043) High Growth Need (SF)	Surplus/Deficit (SF)
Airline Space		7,800	5,500	2,300	5,500	2,300
Airport Space		41,900	41,900	0	41,900	0
Baggage Services		25,800	26,200	(400)	29,100	(3,300)
Building Systems		22,100	5,700	16,400	6,200	15,900
Concessions		7,200	4,600	2,600	4,900	2,300
Customs and Border Protection (CBP)		17,900	20,700	(2,800)	21,300	(3,400)
Ground Transportation		1,400	2,800	(1,400)	3,300	(1,900)
Holdrooms/Gates		20,600	13,500	7,100	16,800	3,800
Public Space		30,900	13,900	17,000	15,800	15,100
Restrooms		5,400	4,800	600	5,000	400
Transportation Security Administration (TSA)		5,800	5,900	(100)	5,900	(100)
Total		186,800	145,500	41,300	155,700	31,100

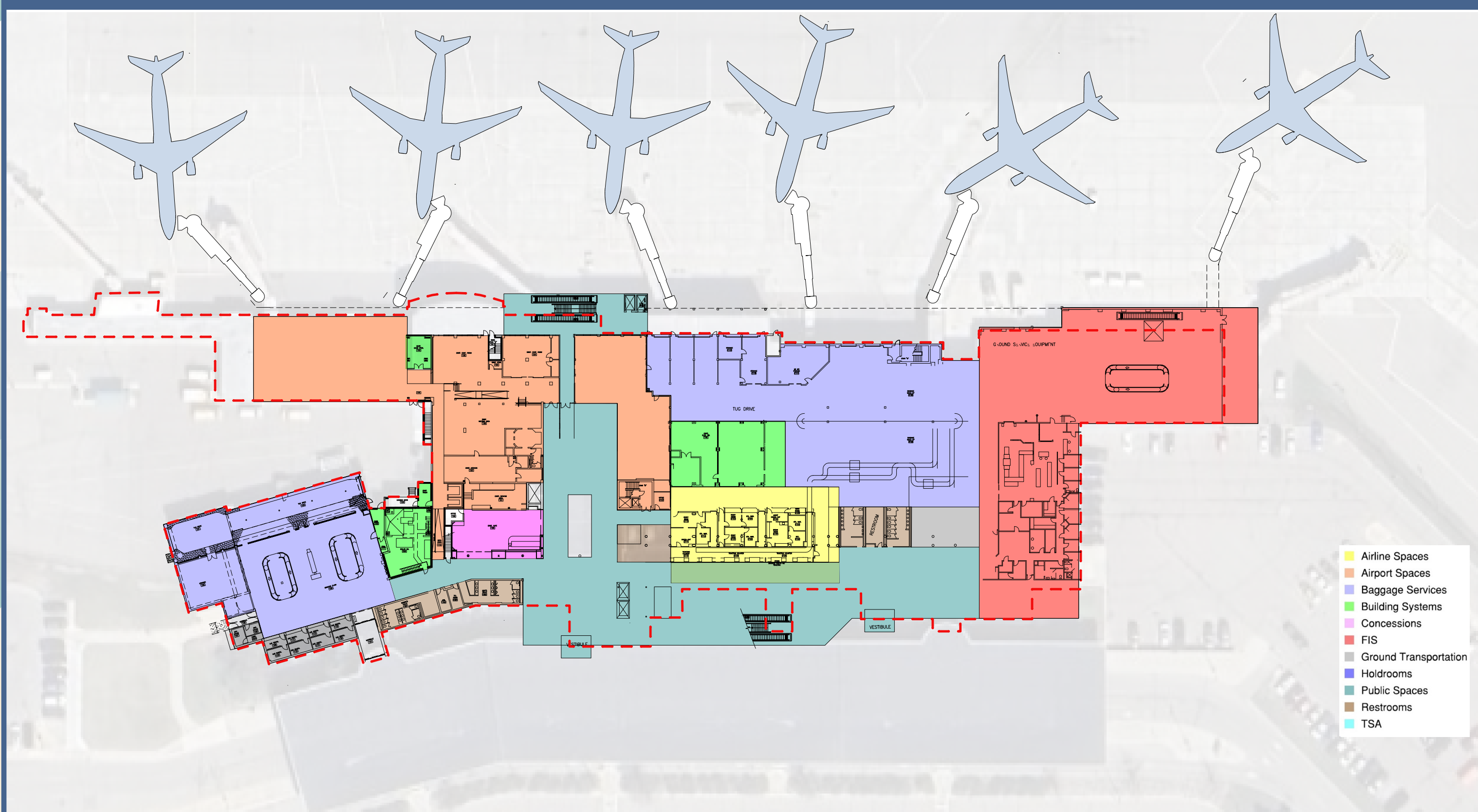
Notes:
 PAL 3= Planning Activity Level 3 which is associated with the level of demand in forecast year 2043.
 SF= Square Feet

TERMINAL ALTERNATIVE 1

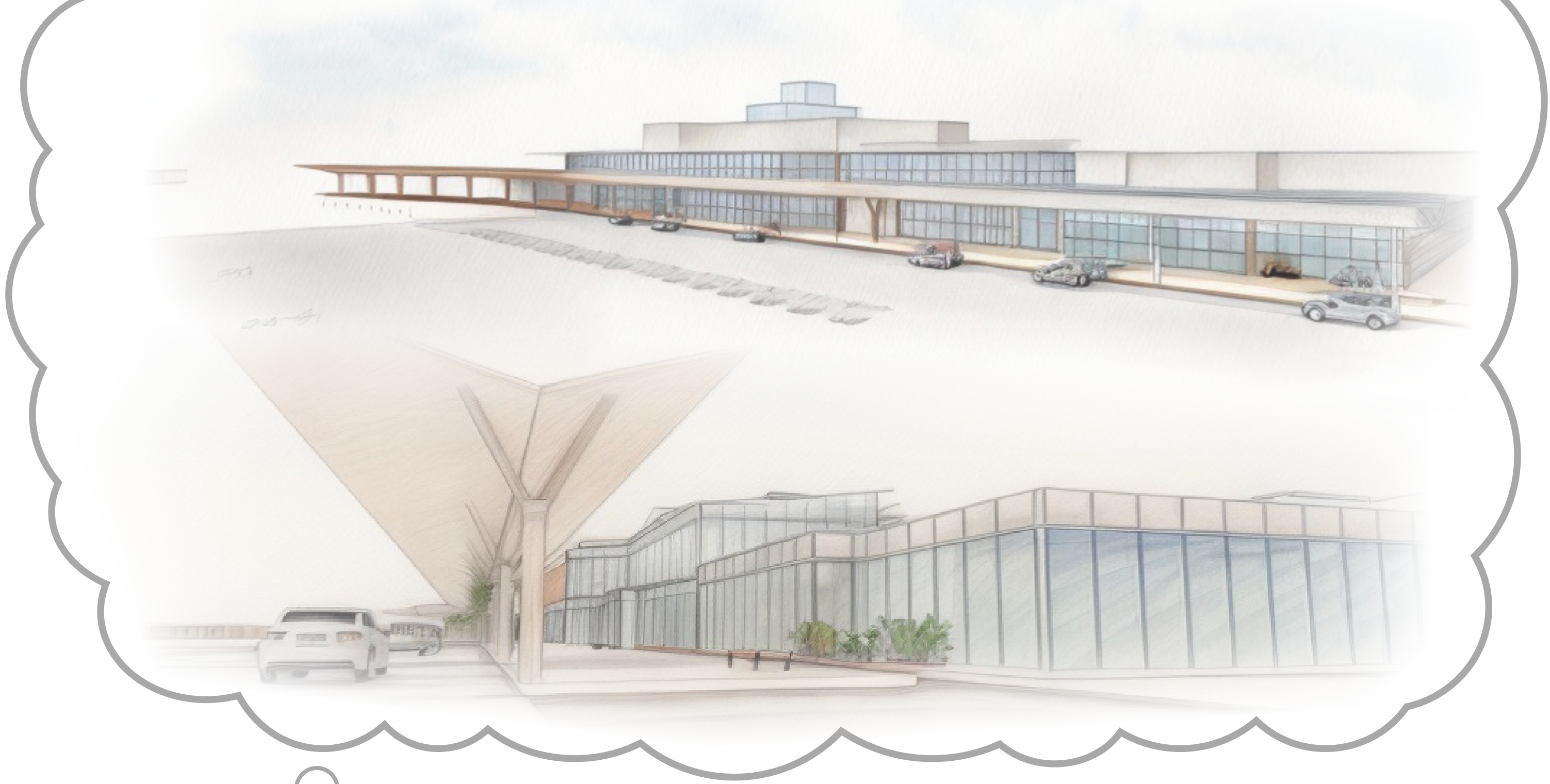
Alternative 1 - Renovation Second Floor Layout



Alternative 1 - Renovation First Floor Layout



IMAGINE LAN...

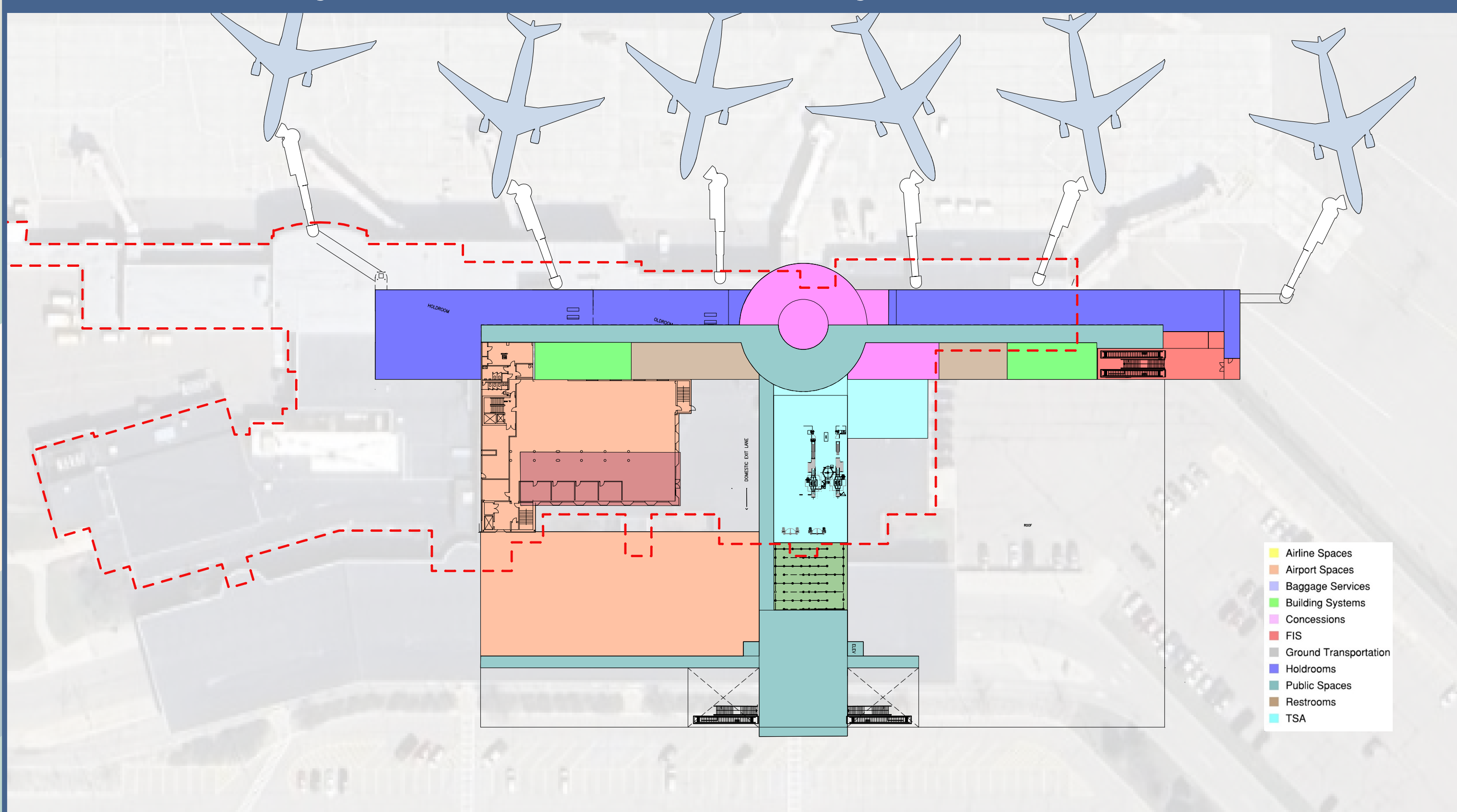


Each terminal alternative is evaluated for cost, including the total cost of ownership of the life of the building, against a "no build" option. A terminal assessment was performed to inventory all aspects of the building, including mechanical, electrical, and plumbing equipment to understand overall condition and replacement needs.

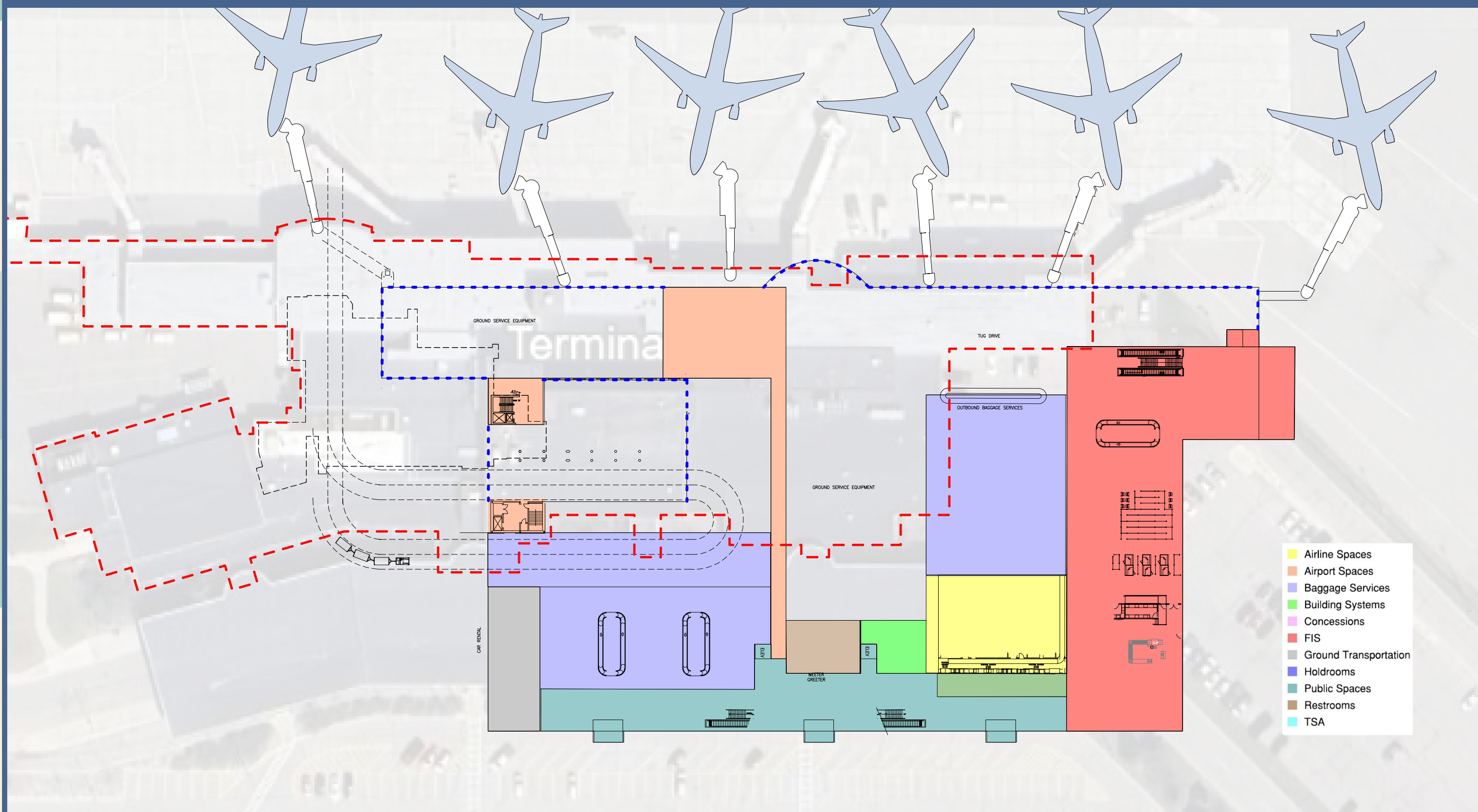
The first terminal alternative focuses heavily on interior building updates and renovation. With the intent of avoiding/minimizing any demolition or new construction, the terminal renovation concept makes best possible use of the existing building envelope under a modern terminal layout programmed with updated passenger and user amenities. Any exterior improvements in this alternative would involve cladding or 'smoothing out' odd setbacks and relics of multiple expansion projects over the building's life. All alternatives maintain airport terminal operations during redevelopment.

TERMINAL ALTERNATIVE 2

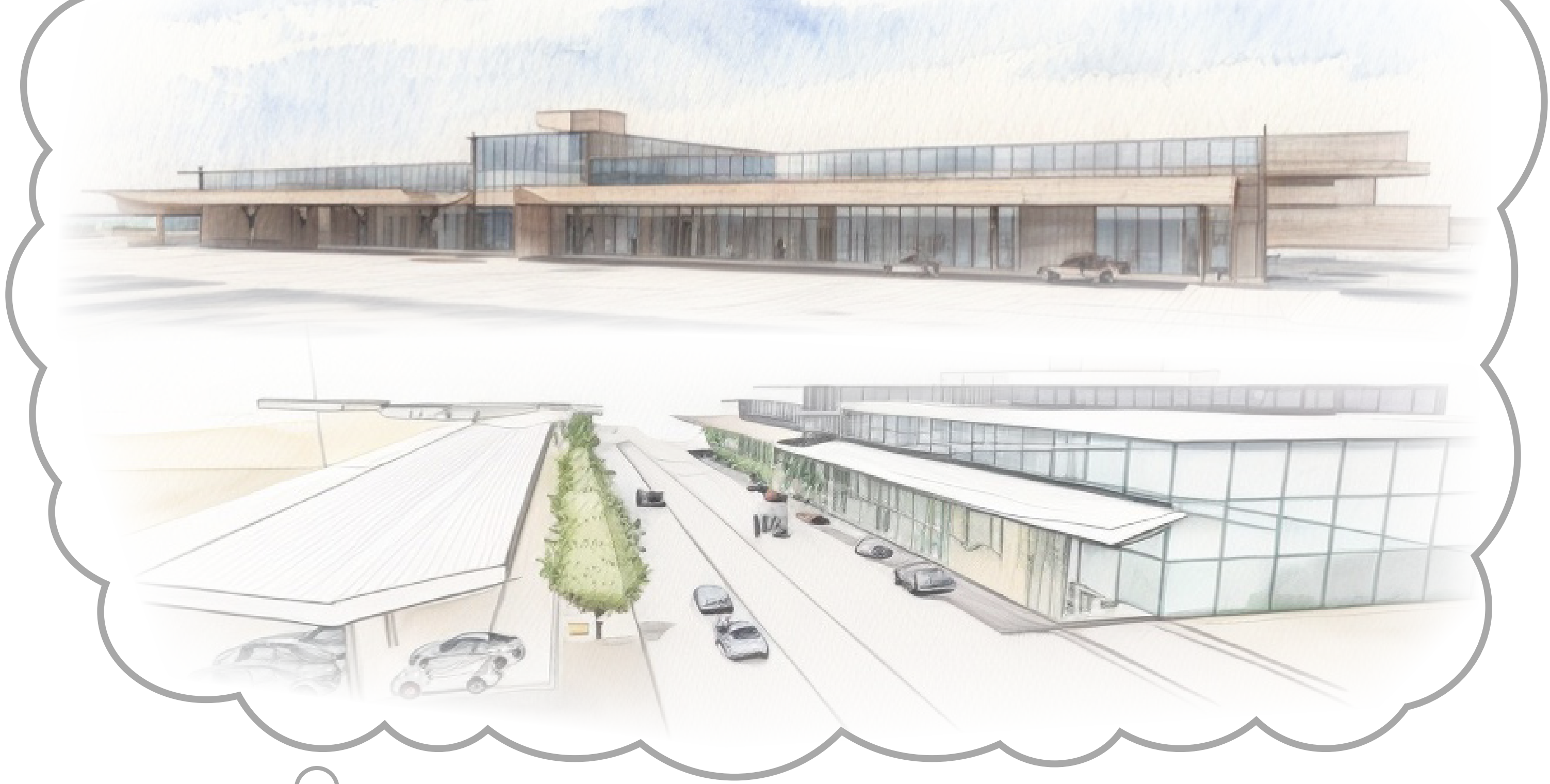
Alternative 2 - Hybrid Second Floor Layout



Alternative 2 - Hybrid First Floor Layout



IMAGINE LAN...

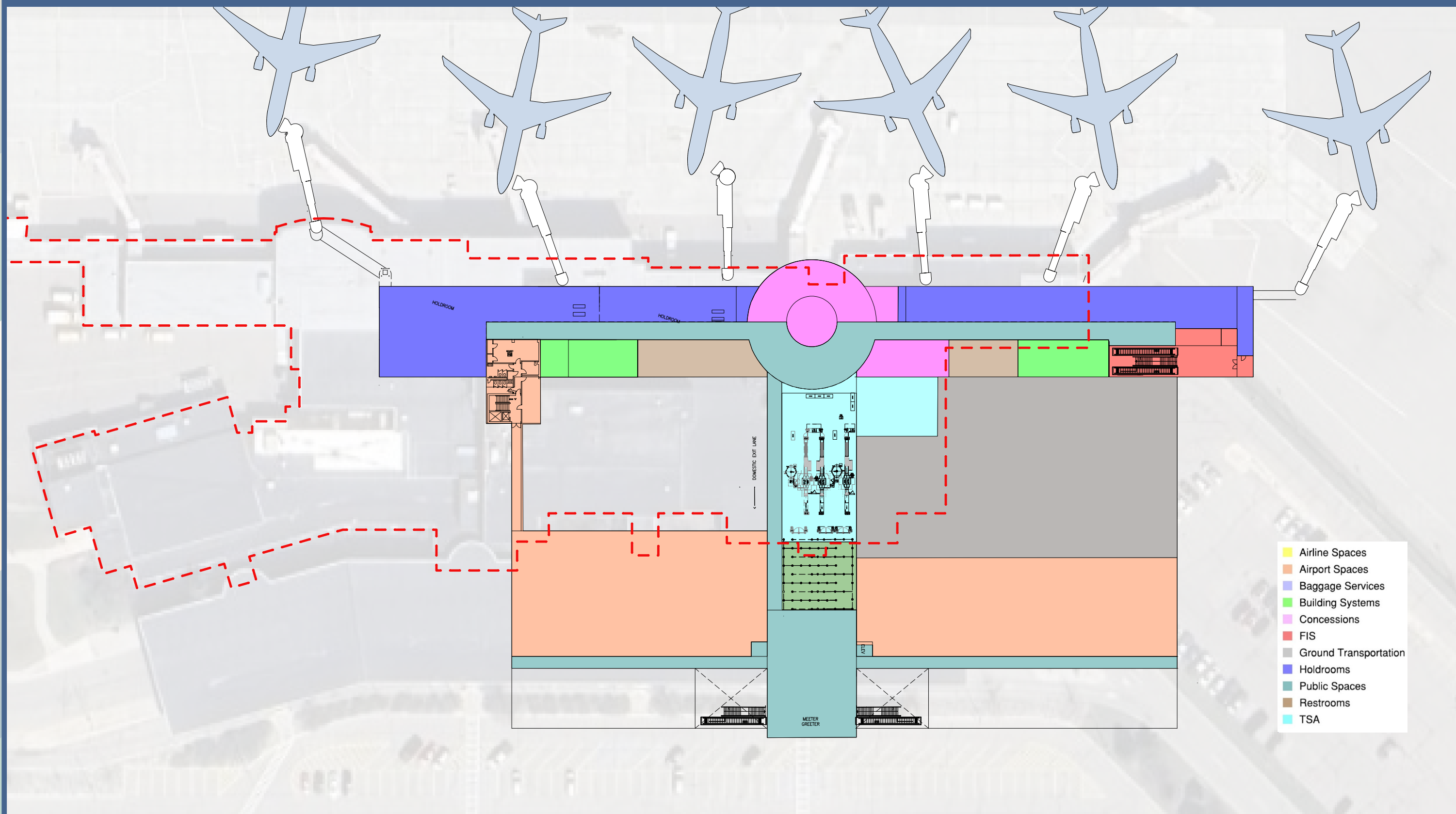


Each terminal alternative is evaluated for cost, including the total cost of ownership of the life of the building, against a “no build” option. A terminal assessment was performed to inventory all aspects of the building, including mechanical, electrical, and plumbing equipment to understand overall condition and replacement needs.

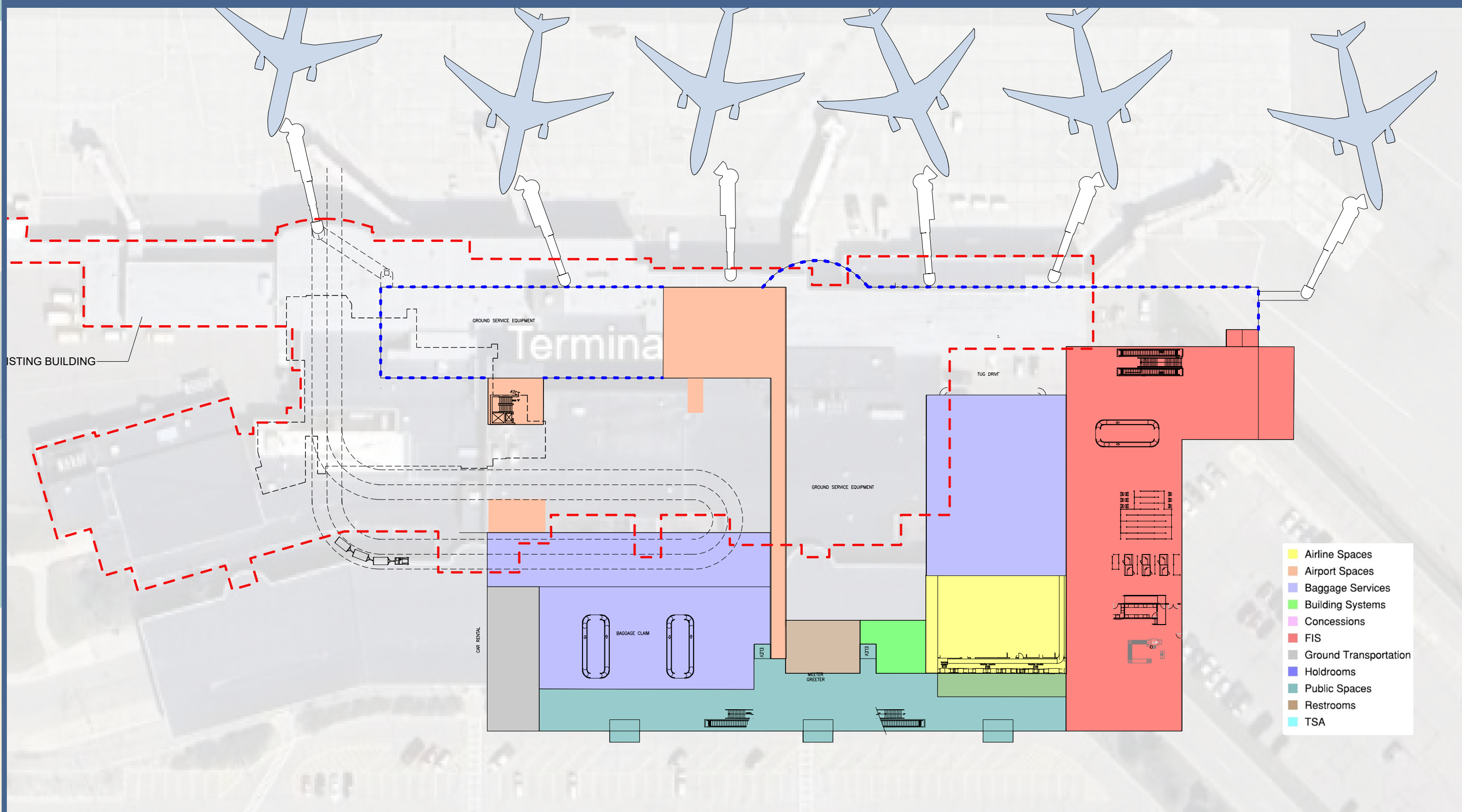
The second terminal alternative, known as the “hybrid concept”, blends demolition and new construction to remove the oldest, most deficient areas of the terminal and replaces them with modern components. The result is a largely new terminal layout programmed to meet current standards with the latest passenger and user amenities. With a higher degree of replacement (rather than renovation), functional areas and passenger flow are greatly enhanced to support a high-quality user experience with an improved building interface and aesthetics. All alternatives maintain airport terminal operations during redevelopment.

TERMINAL ALTERNATIVE 3

Alternative 3 - New Second Floor Layout



Alternative 3 - New First Floor Layout



IMAGINE LAN...

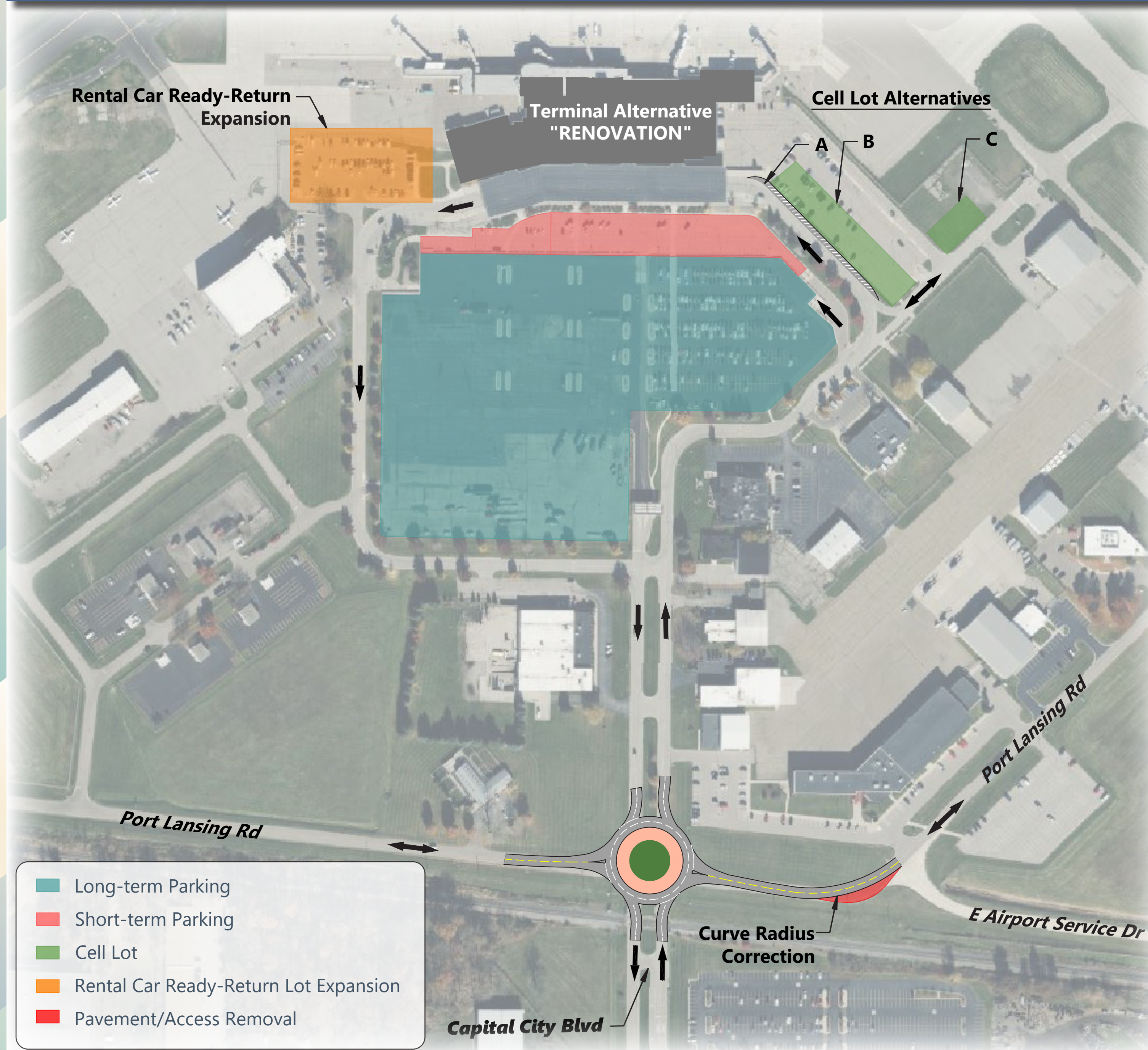


Each terminal alternative is evaluated for cost, including the total cost of ownership of the life of the building, against a “no build” option. A terminal assessment was performed to inventory all aspects of the building, including mechanical, electrical, and plumbing equipment to understand overall condition and replacement needs.

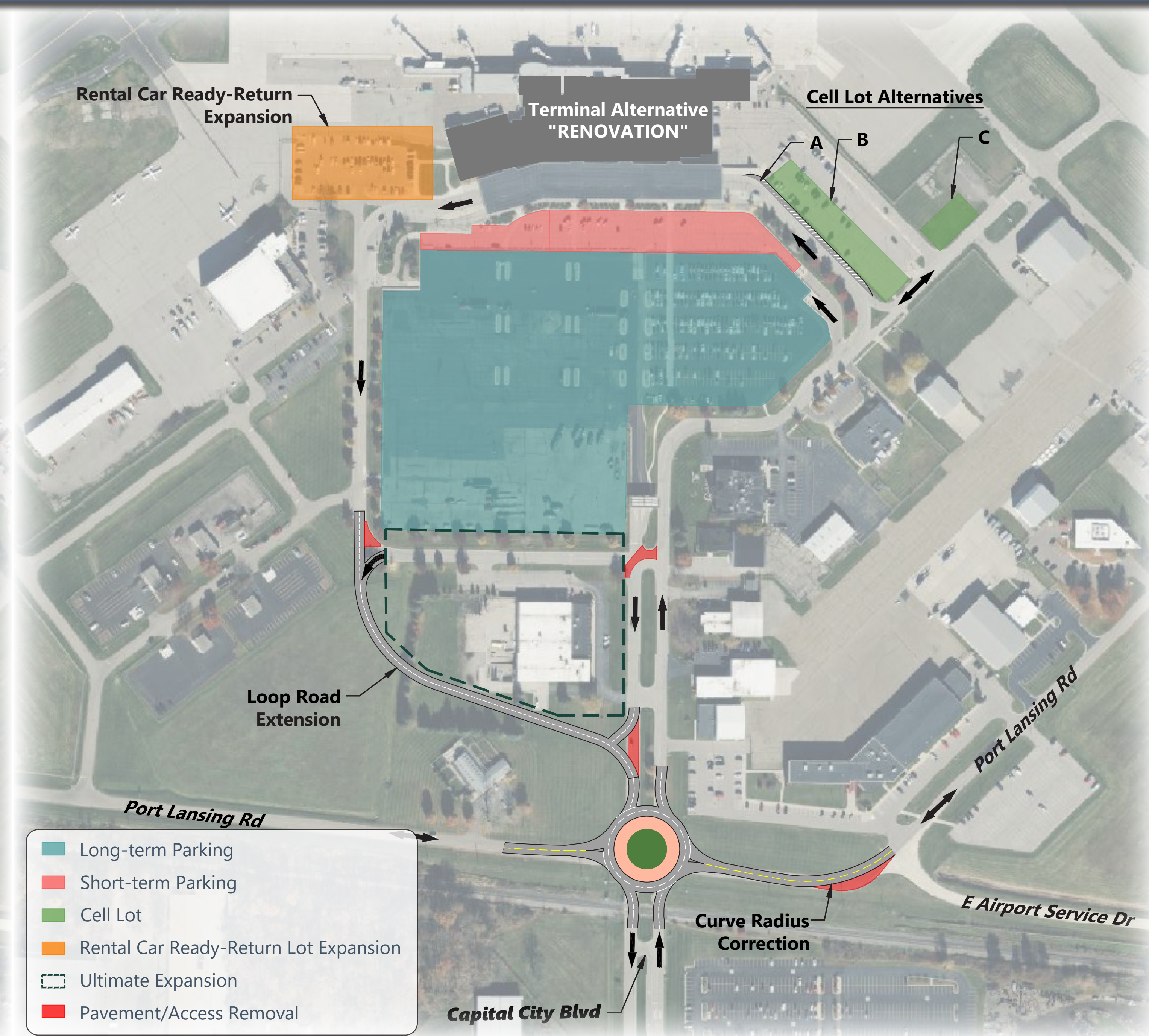
The third terminal alternative is a full new-build providing state-of-the-art facilities that make the most efficient use of the program space, mitigate passenger access disruption during construction, and maximize airfield safety. The new terminal is built within the immediate area of the existing terminal with phased construction to allow uninterrupted operations. Deficient areas of the existing terminal are demolished once replacements are completed. This facility would incorporate modern infrastructure, environmental sustainability, and energy efficiencies. Modern design and engineering technologies can be incorporated into the new construction to develop and maintain an efficient facility over the building’s life.

LANDSIDE ALTERNATIVE 1

Terminal Renovation Landside Option



Near-Term Development

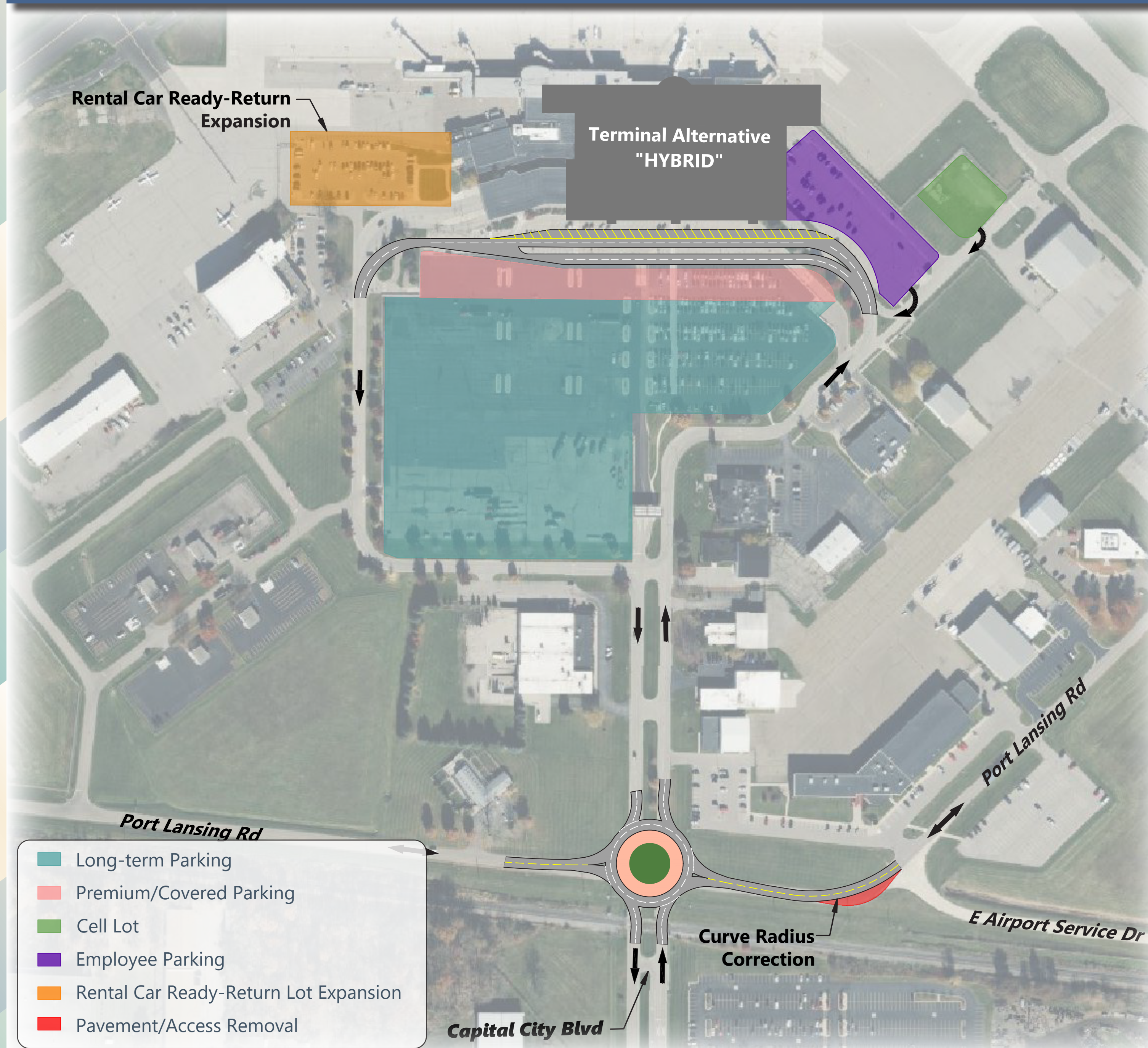


Long-Term Development

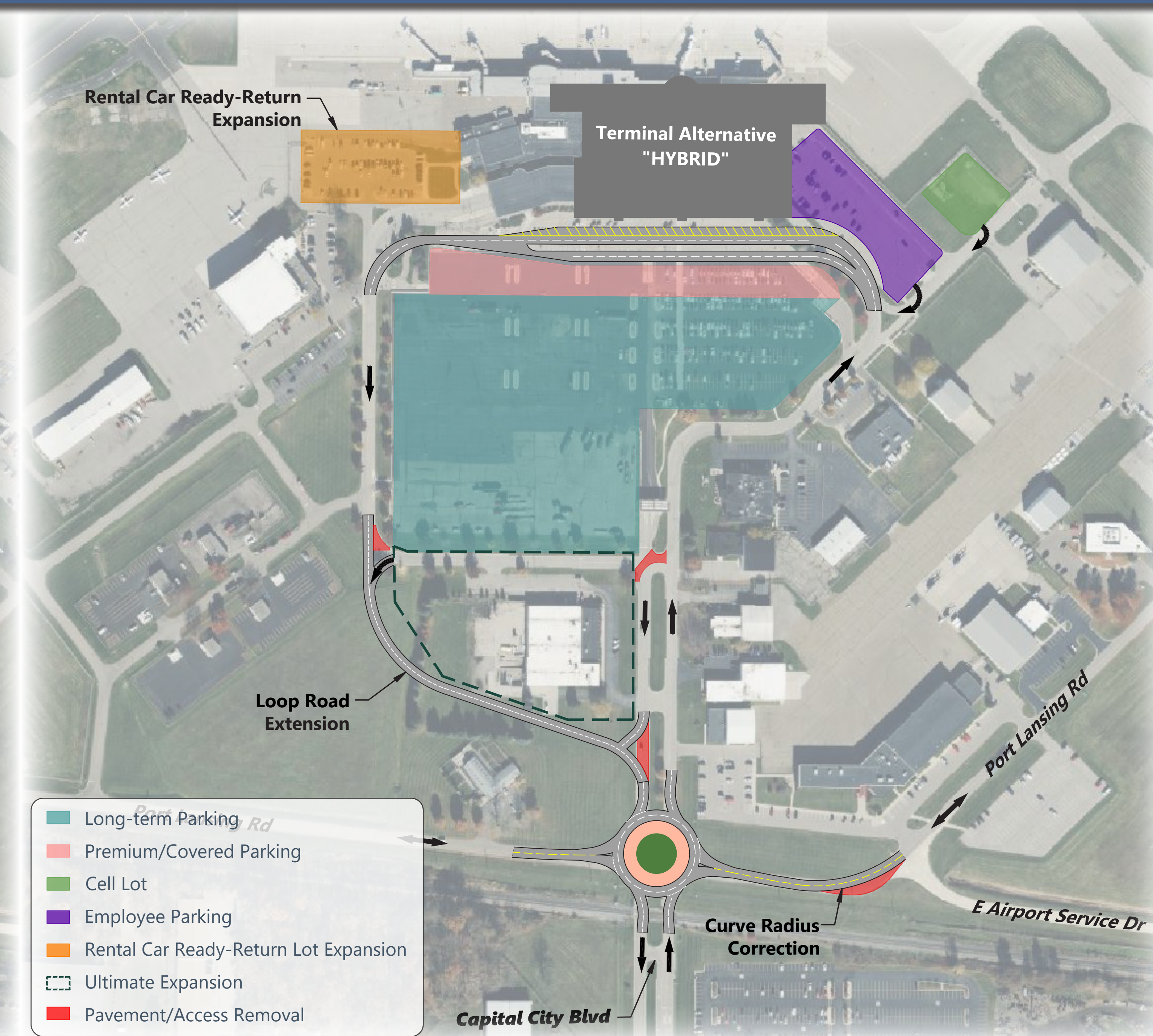
Landside Alternative 1 requires the least amount of change to the existing roadways. A new roundabout controls traffic flows at a problem intersection. Public parking remains in its current configuration. Three options to provide customers a cell phone waiting area are available and rental car is expanded to meet forecast need. Long-term improvements include expansion of the loop road to provide opportunities beyond the planning period for parking or other development.

LANDSIDE ALTERNATIVE 2

Terminal Hybrid Landside Option



Near-Term Development

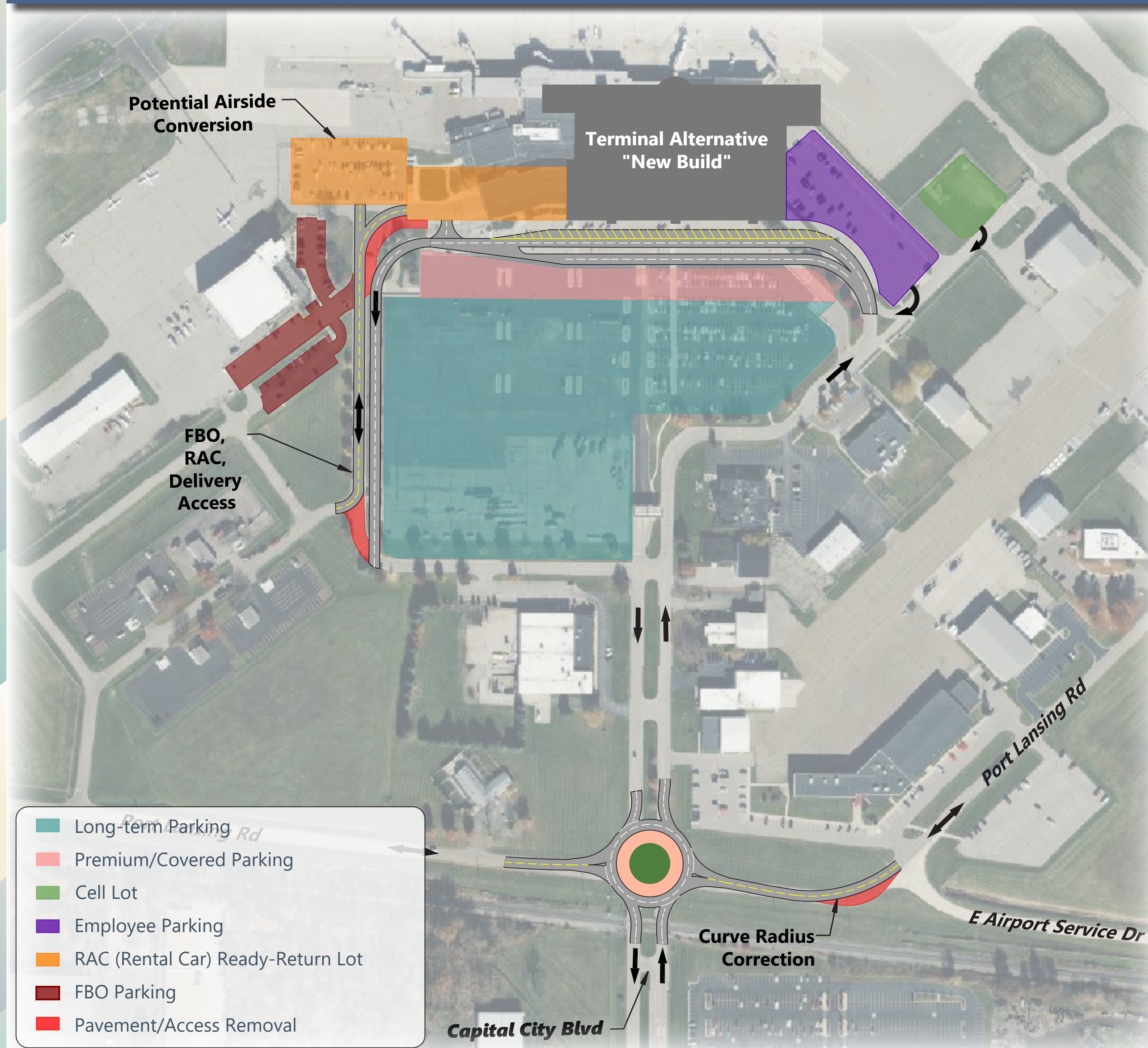


Long-Term Development

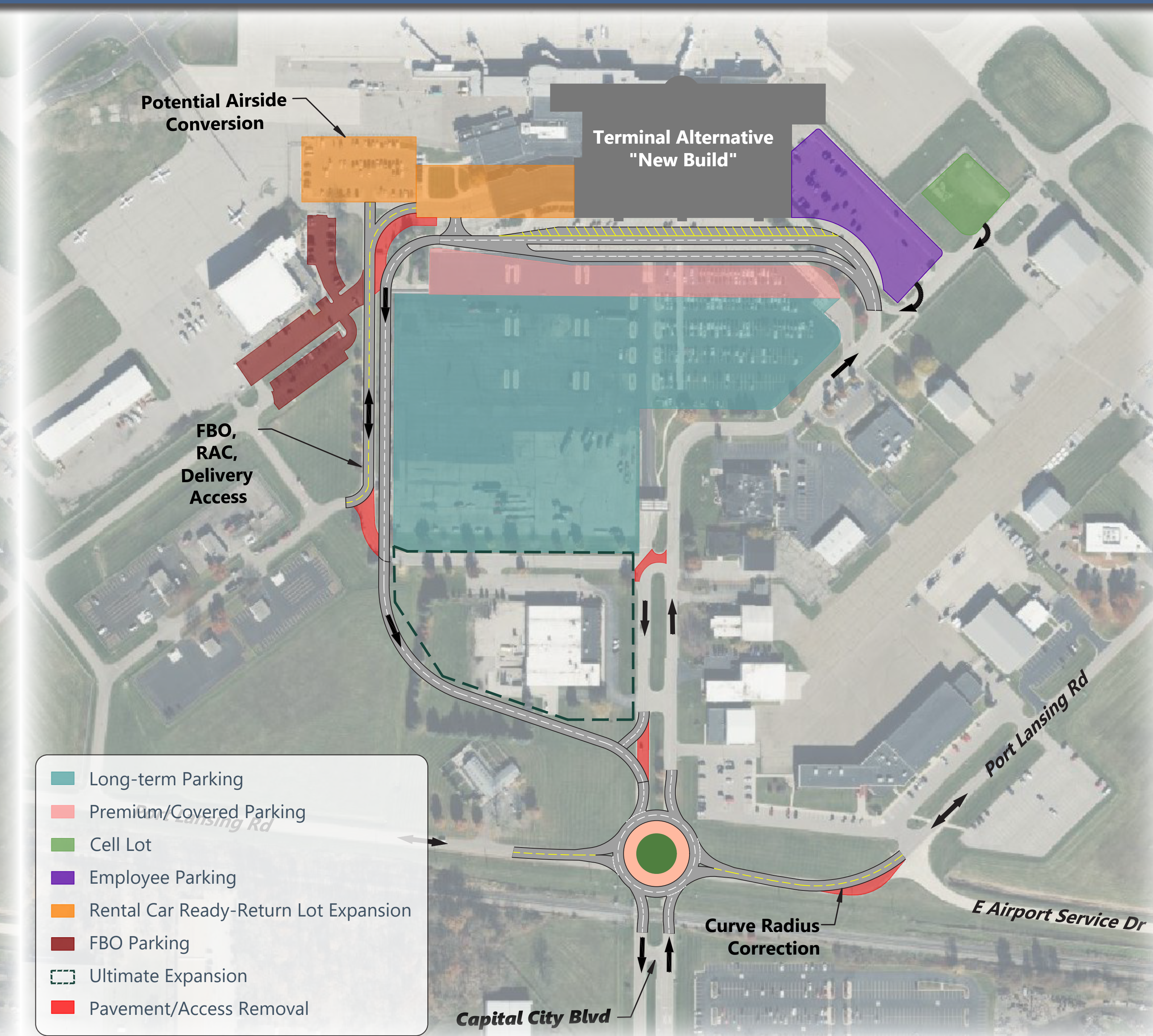
Landside Alternative 2 requires a modest degree of road investment based on the proposed terminal location. A new roundabout controls traffic flows at a problem intersection. This alternative shifts the terminal curb road (same configuration) south into existing short-term parking to allow terminal expansion. The remaining parking area is reprogrammed for premium covered parking and economy parking. Rental car ready-return space is expanded toward the new terminal. Long-term improvements include expansion of the loop road to provide opportunities beyond the planning period for parking or other development.

LANDSIDE ALTERNATIVE 3

Terminal New Build Landside Option



Near-Term Development



Long-Term Development

Landside Alternative 3 proposes the most dramatic changes to the terminal area roads. A new roundabout controls traffic flows at a problem intersection. The terminal curb road (same configuration) is shifted south into existing short-term parking to allow terminal expansion. The southbound exiting portion of the loop road is shifted east to allow repurposing of right-of-way to a dedicated two-way road serving the FBO, rental car servicing, and general aviation facilities. The parking area is reprogrammed for premium covered parking and economy parking. Long-term improvements include expansion of the loop road to provide opportunities beyond the planning period for parking or other development.

NEXT STEPS

Coming soon...

- Airport facility requirements analysis
- Evaluation and selection of preferred terminal area development alternative

For more information, please visit the LAN Master Plan Website

Scan Here

