



DES MOINES

International Airport

Terminal Programming Study

Public Workshop – September 13, 2016

HNTB + KPMG + BNIM

Welcome and Introductions

Edgar Hansell
Chairman



Introductions



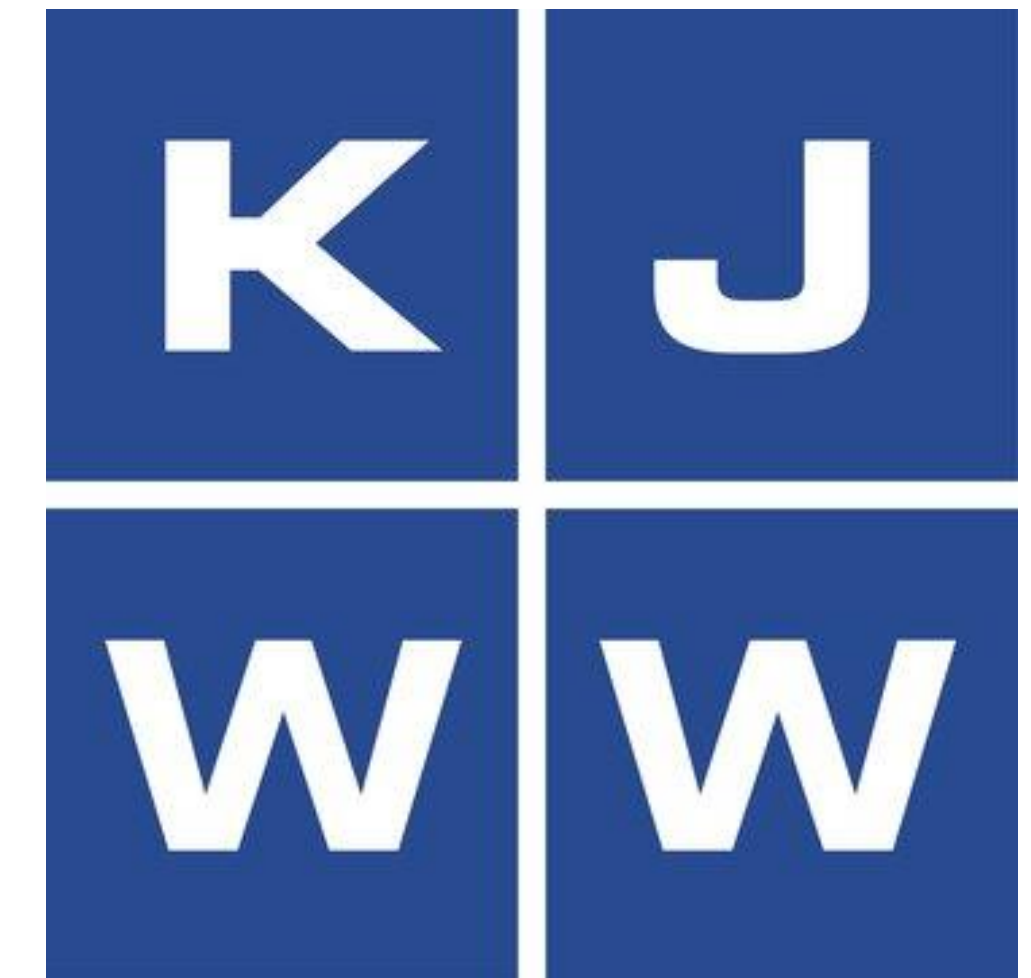
National aviation
experience

+



Local understanding
& expertise

+



International
engineering
consulting

Introductions



Design

Wichita, LAX, San Diego, Orlando

Planning

Tampa, Houston, Denver, Phoenix

Budget & Scope Focus



Wichita Dwight D. Eisenhower National Airport Terminal

Introductions



Phil Hannon
Senior Project Manager



Clint Laaser
**Deputy Project Manager /
Terminal Planner**

Workshop Agenda

1. Overall Presentation (30 minutes)
 - a. Goals and Process
 - b. East Option
 - c. South Option
 - d. Summary
2. Question & Answer (30 minutes)
3. Informal Open House (30 minutes)



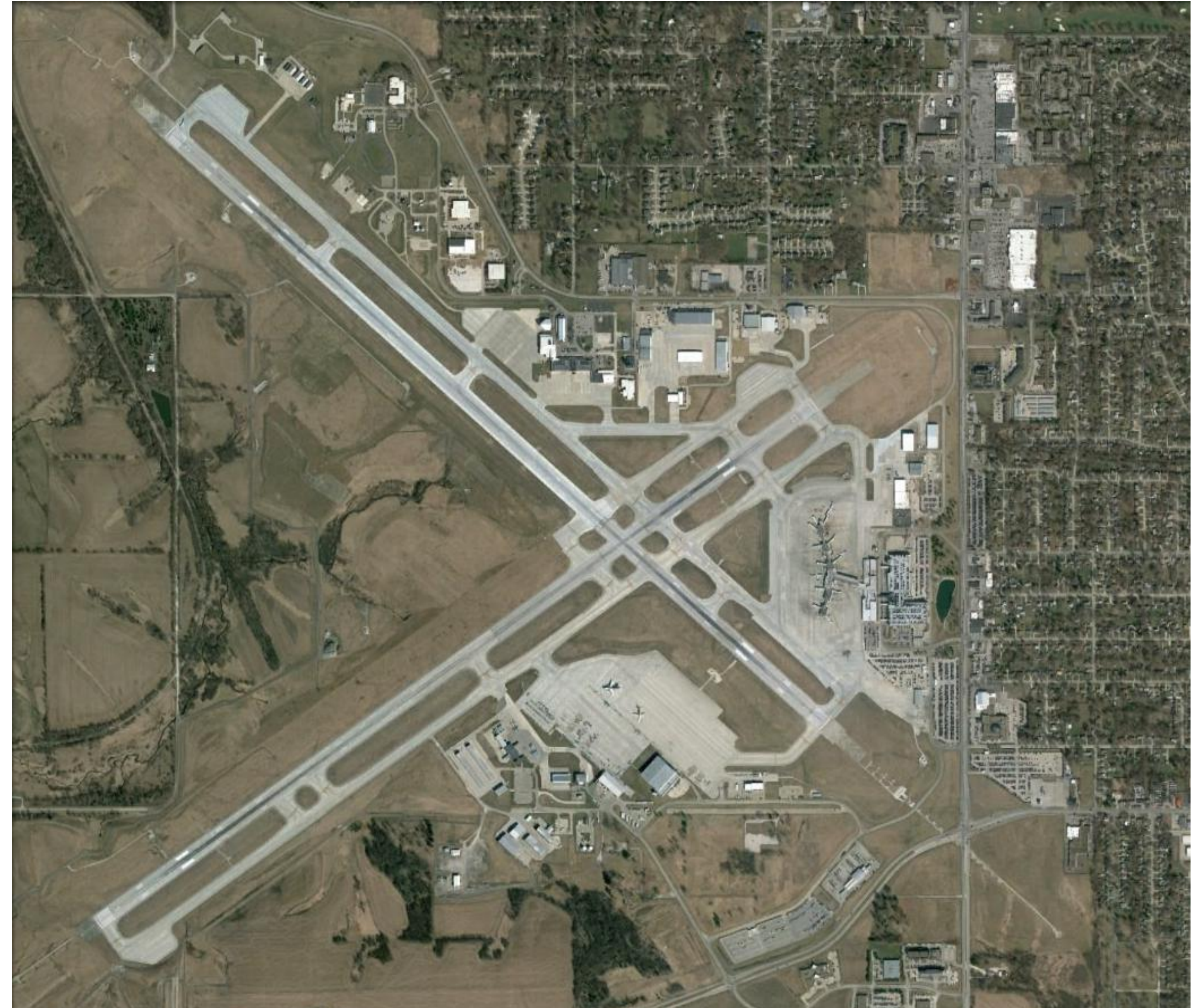
Goals & Process



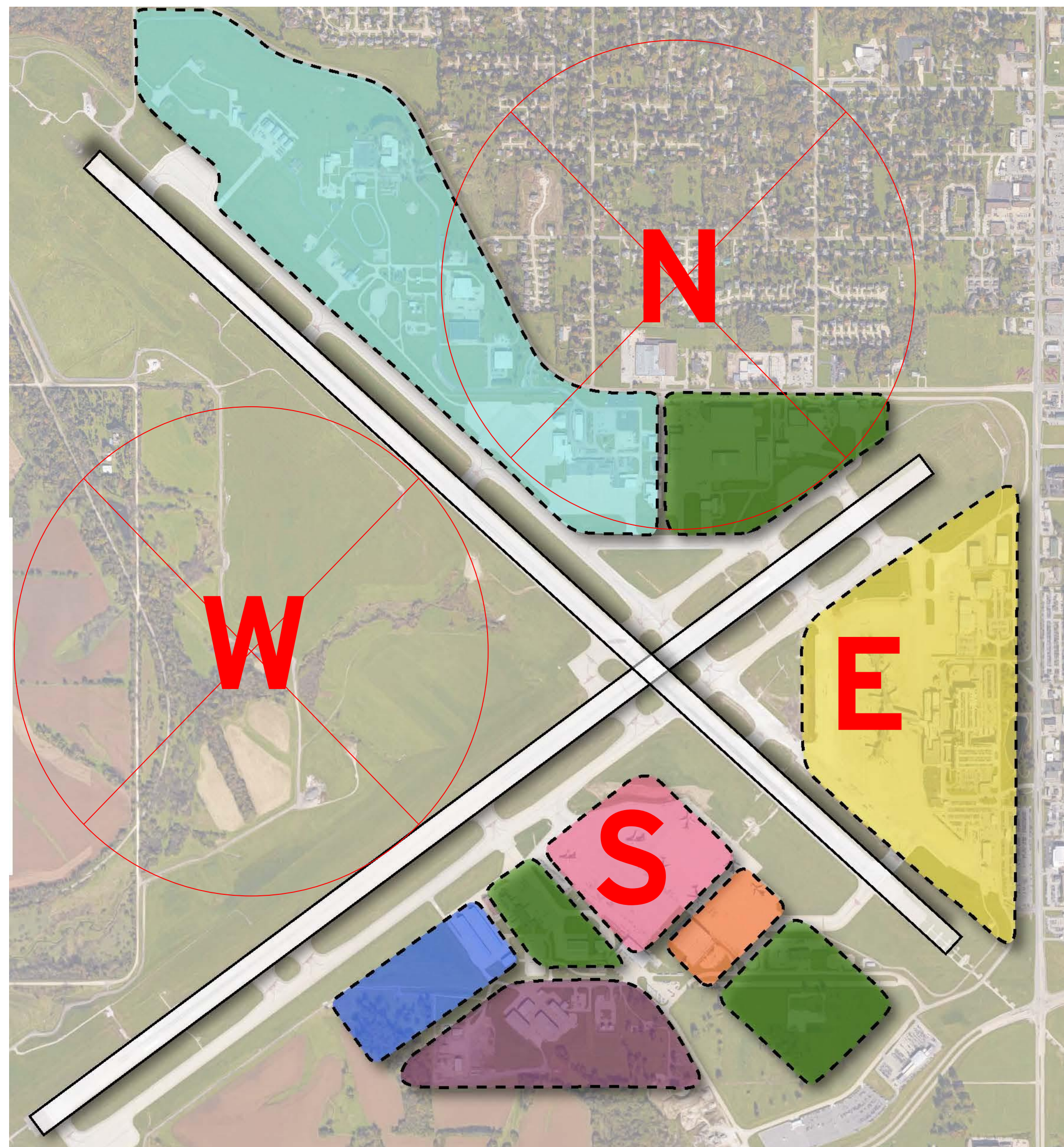
Project Goals

Project Goals

- Avoid Iowa Air National Guard site
- Functional / Operational
- Community connection & pride
- Increase passenger capacity
- Accommodate larger aircraft
- Future expansion capability
- Create a zoned campus
- Safety
- Cost efficient



Creating a Zoned Campus



-  AIR SUPPORT
-  GA/ T - HANGERS
-  IOWA AIR NATIONAL GUARD
-  GA/ CORPORATE
-  PASSENGER TERMINAL
-  AIRLINE MAINTENANCE
-  AIR CARGO

Study of entire campus:

NOT VIABLE:

- West & North Quadrants

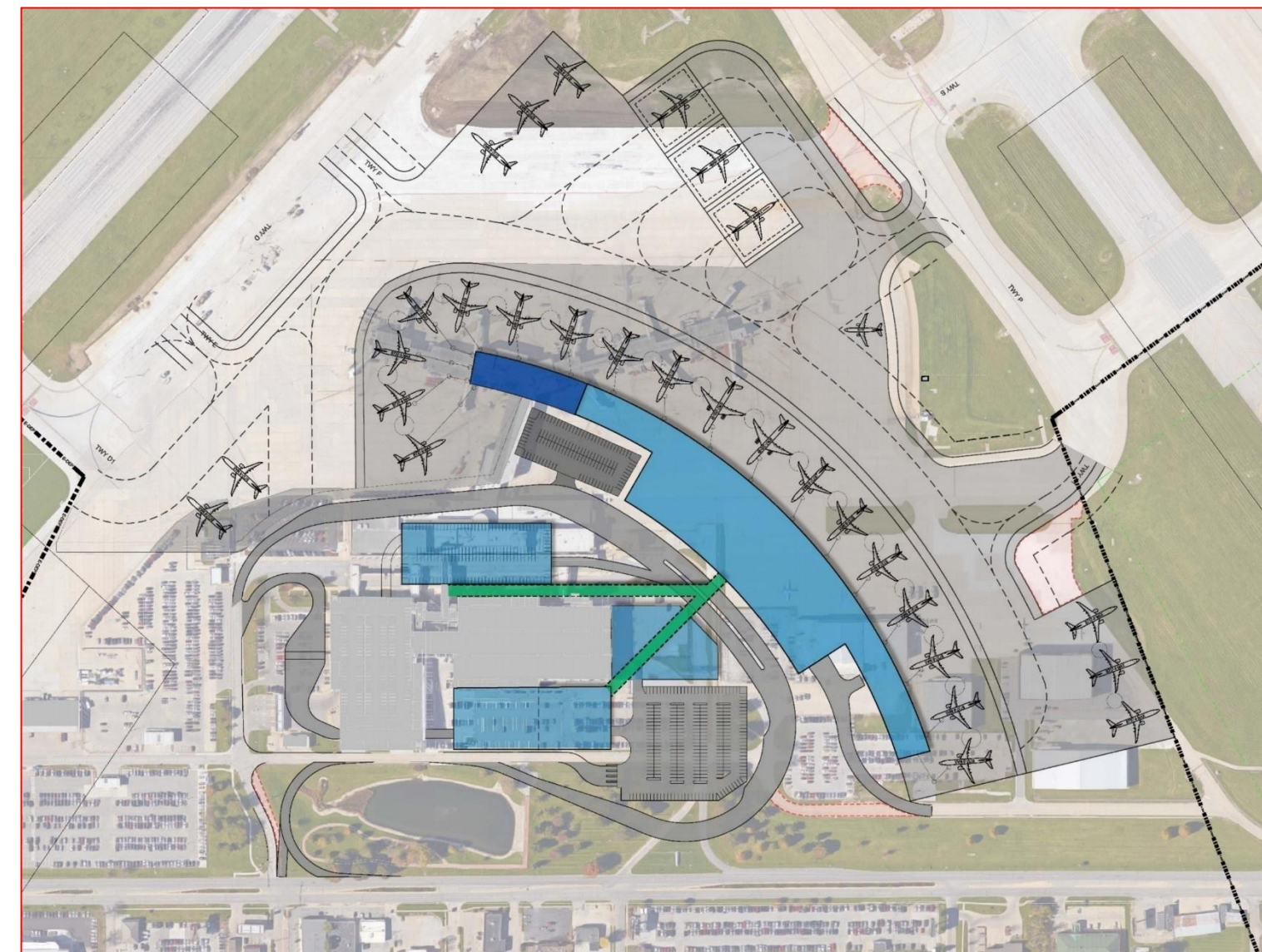
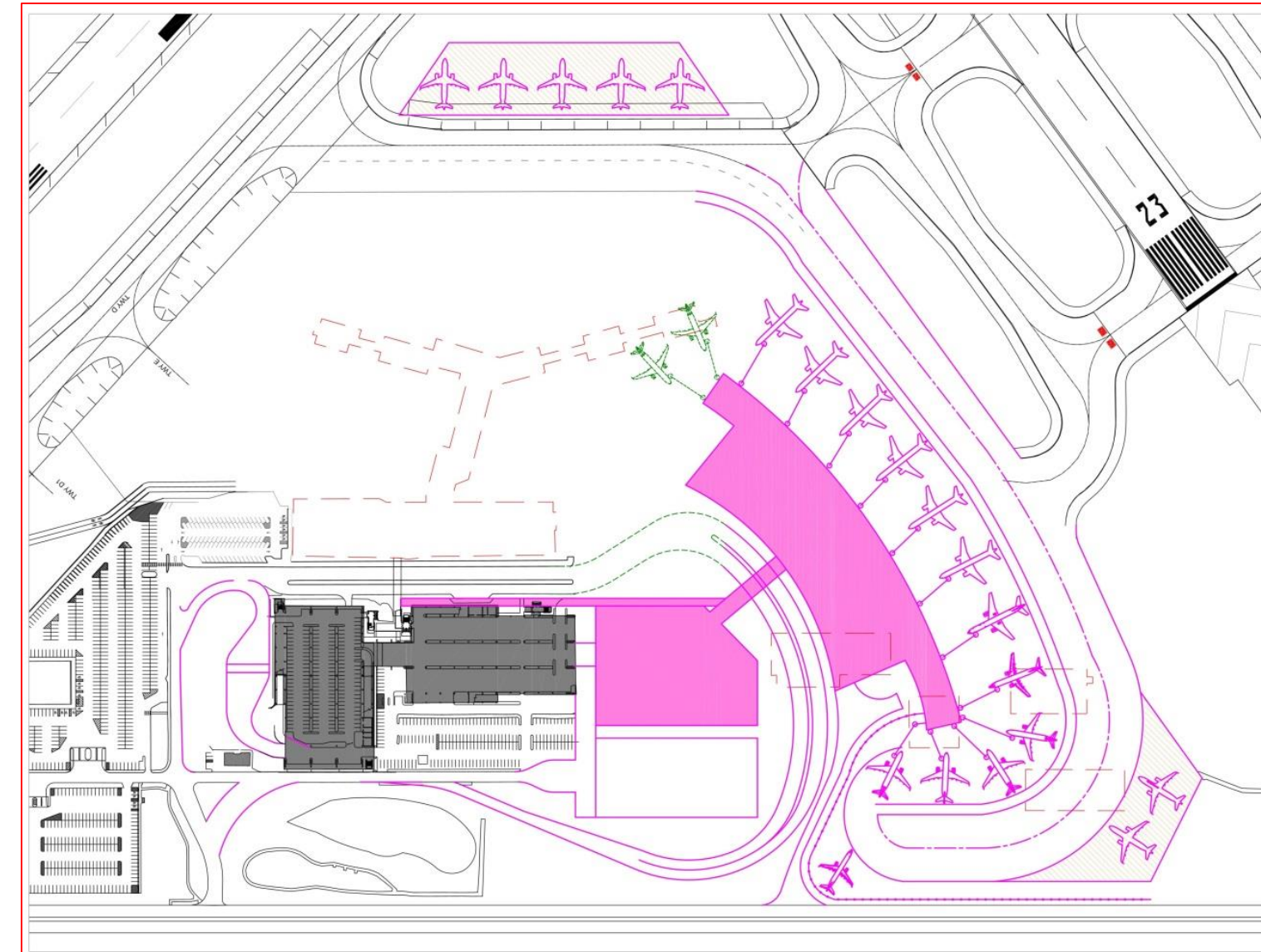
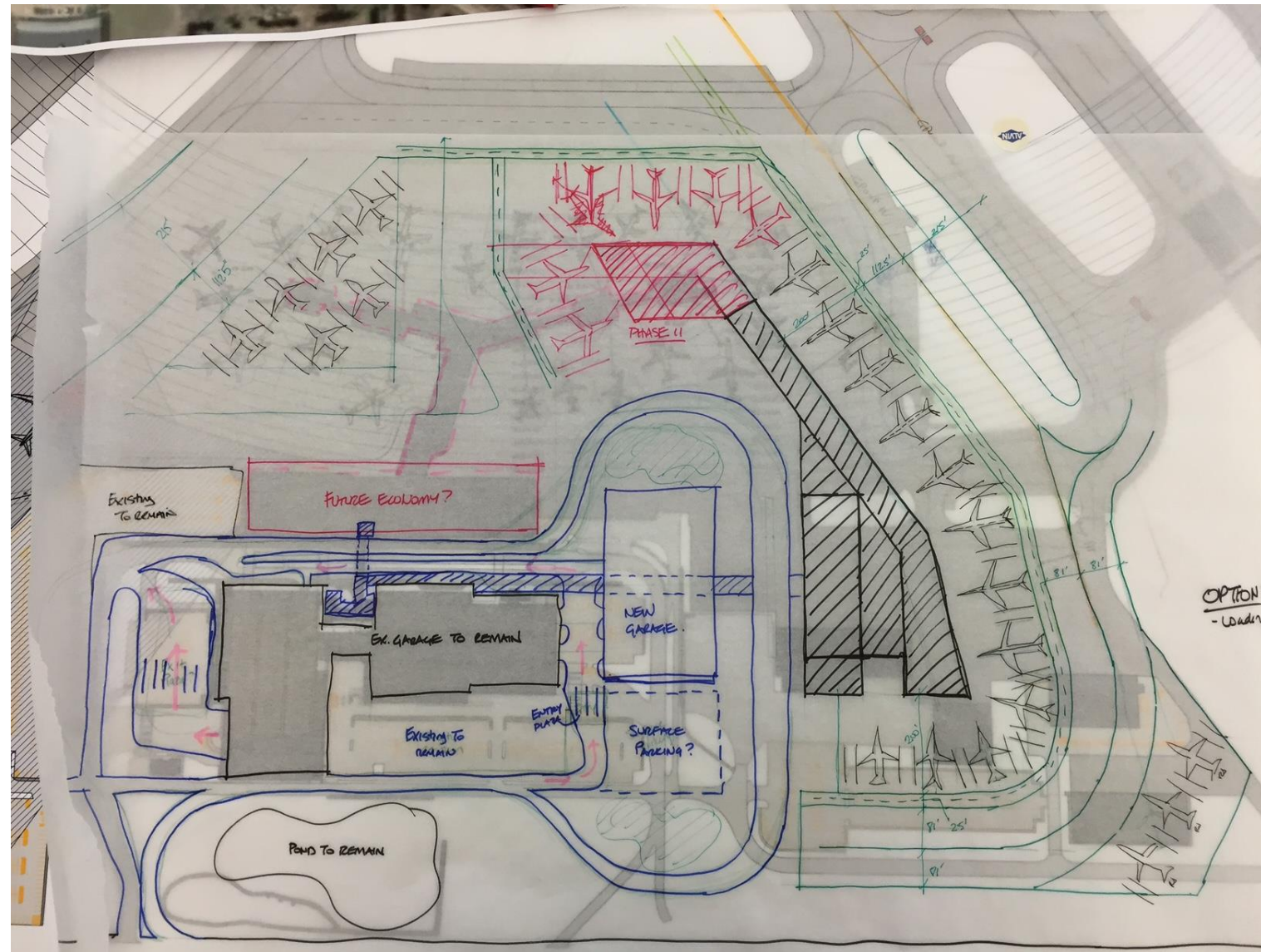
SHORTLISTED:

- South & East Quadrant

Goals:

- Terminal Flexibility/Functional
- Efficient Roadways
- Airfield Constraints
- Future Considerations
- Phasing/Construction
- Segregation of Traffic

Project History - Process



Shortlisted Concepts:

- South Quadrant
- East Quadrant

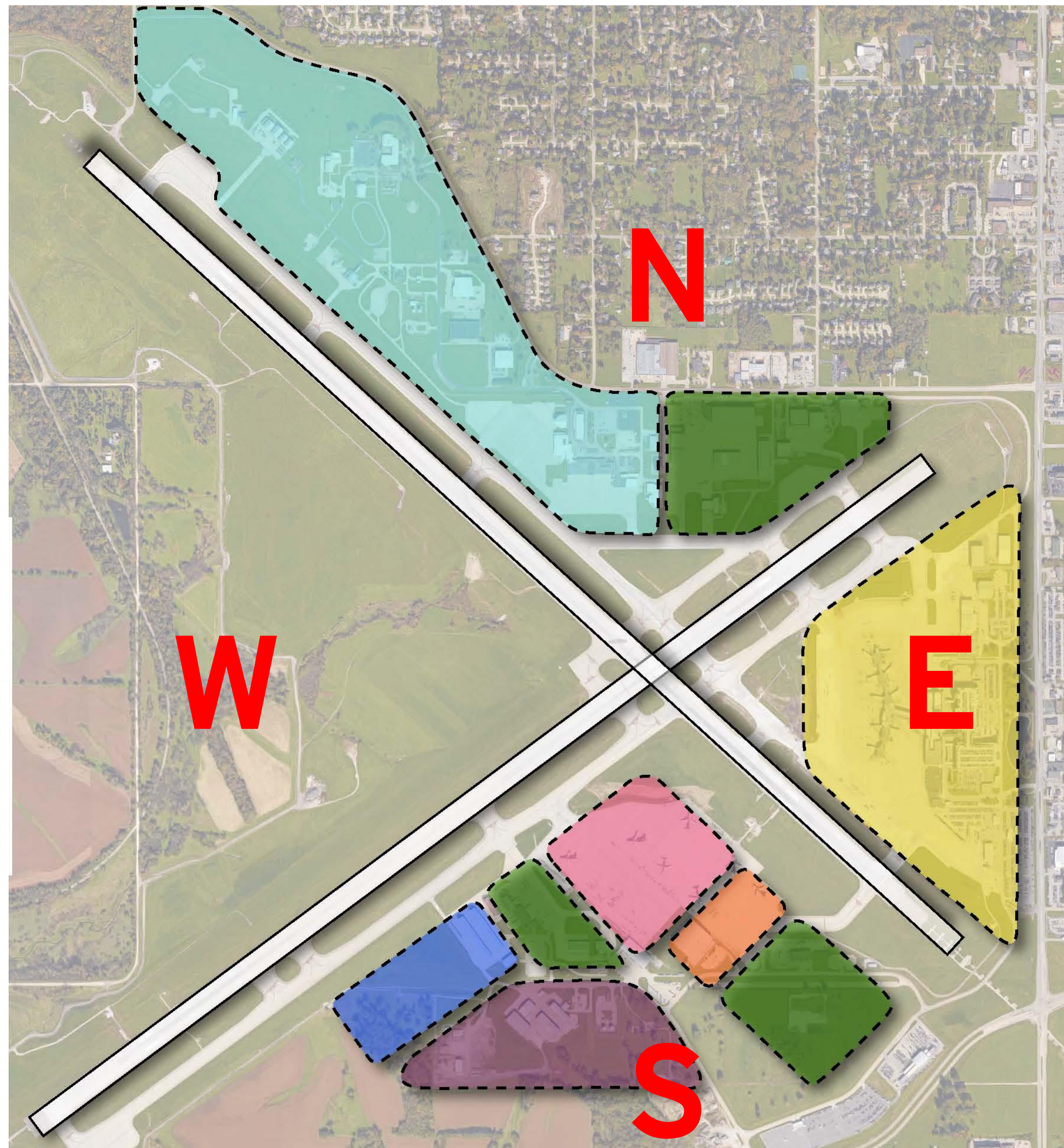
Workshops:

- Workshop #1 – June 1, 2016
- Workshop #2 – July 13, 2016
- Workshop #3 – August 23, 2016

East Concept



East: Creating a Zoned Campus



-  AIR SUPPORT
-  GA/ T - HANGERS
-  IOWA AIR NATIONAL GUARD
-  GA/ CORPORATE
-  PASSENGER TERMINAL
-  AIRLINE MAINTENANCE
-  AIR CARGO

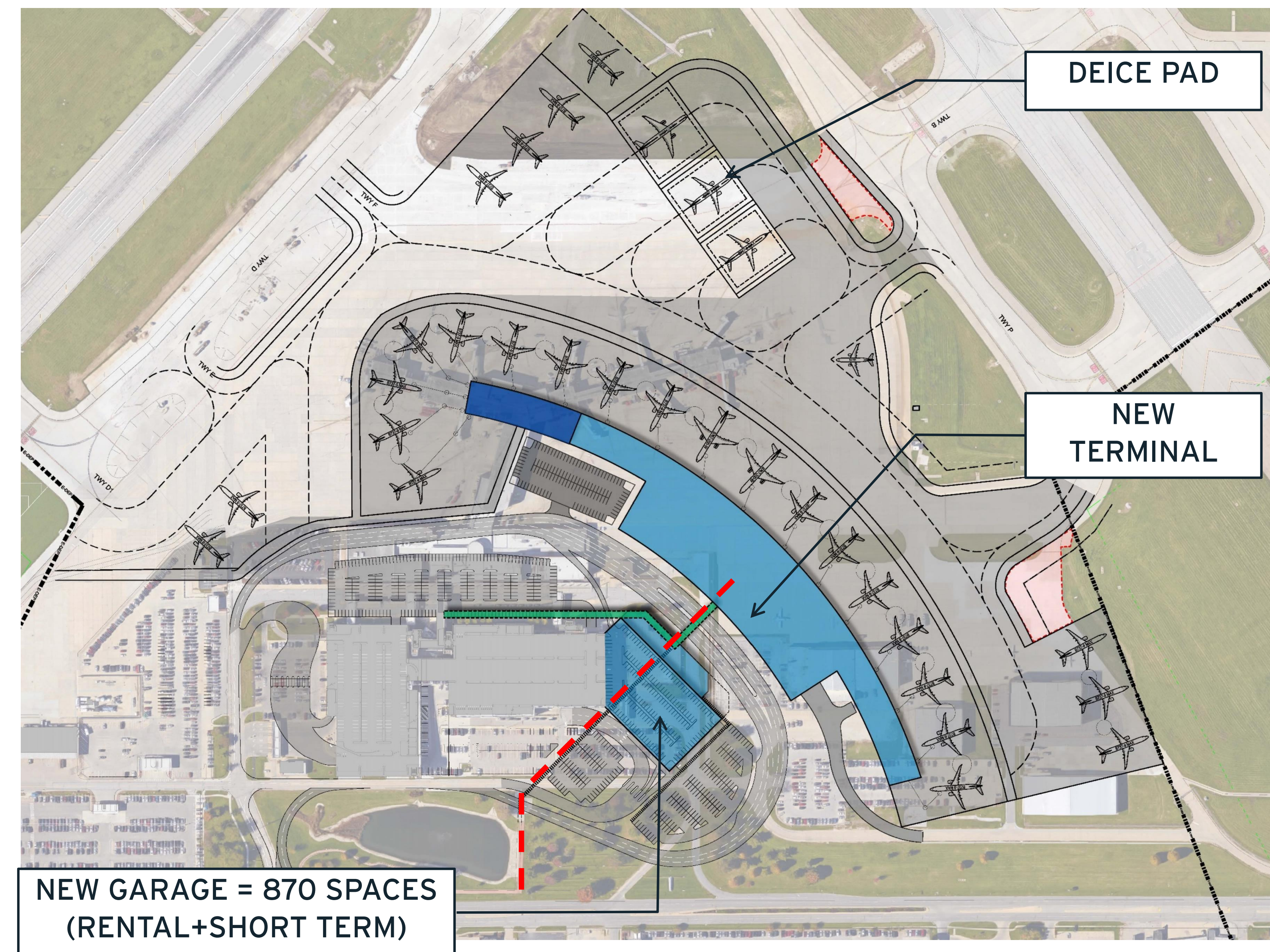
EAST:

- Terminal Functions only

SOUTH:

- Relocated Signature, DMFS & Hondajet with other GA/Corporate future facilities
- Cargo maintained
- Airline Maintenance
- GA/T-Hangars can expand
- Separates terminal functions

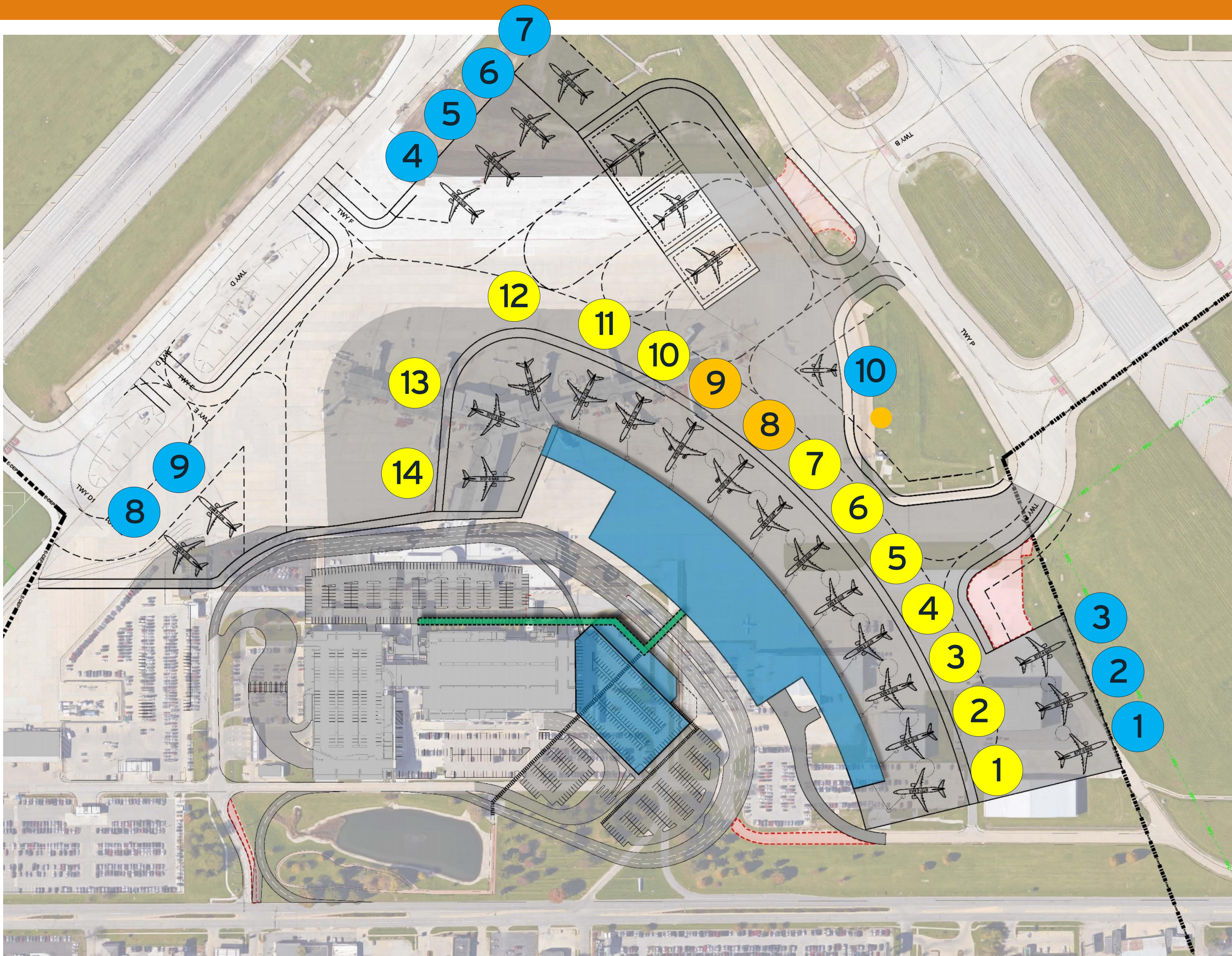
East: Overview



Key Factors:

- New terminal building close to existing for minimal walking distances to parking
- Accommodates required aircraft parking positions
- New Deice Pad & maintains existing infrastructure
- Corrects Airfield issues
- Maximizes Landside area for future growth
- Flexible airside for future expansion

East: Phase 1 – Aircraft



14 Contact Gates

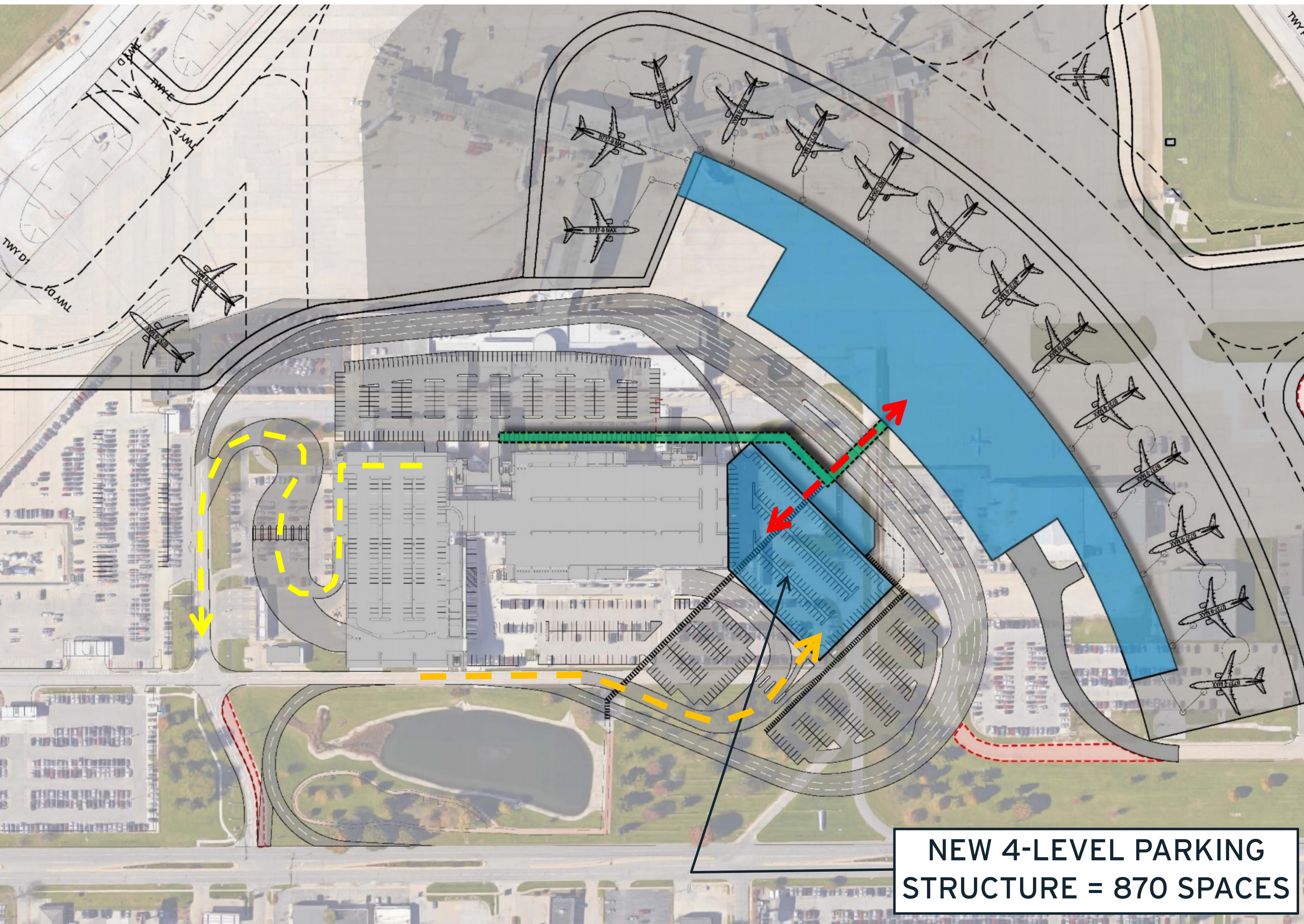
● = 737-900 / A321

● = 757-200 (Group IV)

RON

● = 10 positions

East: Landside



Key Factors:

- New 4-level parking structure
 - Rental Car
 - Public Parking
 - Pedestrian bridge
- Conditioned walkway to existing long term garages
- New entry and exit plazas
- Longer curbside
- Maximizes Landside area for future growth

Pedestrian Access 

Parking Entry 

Parking Exit 

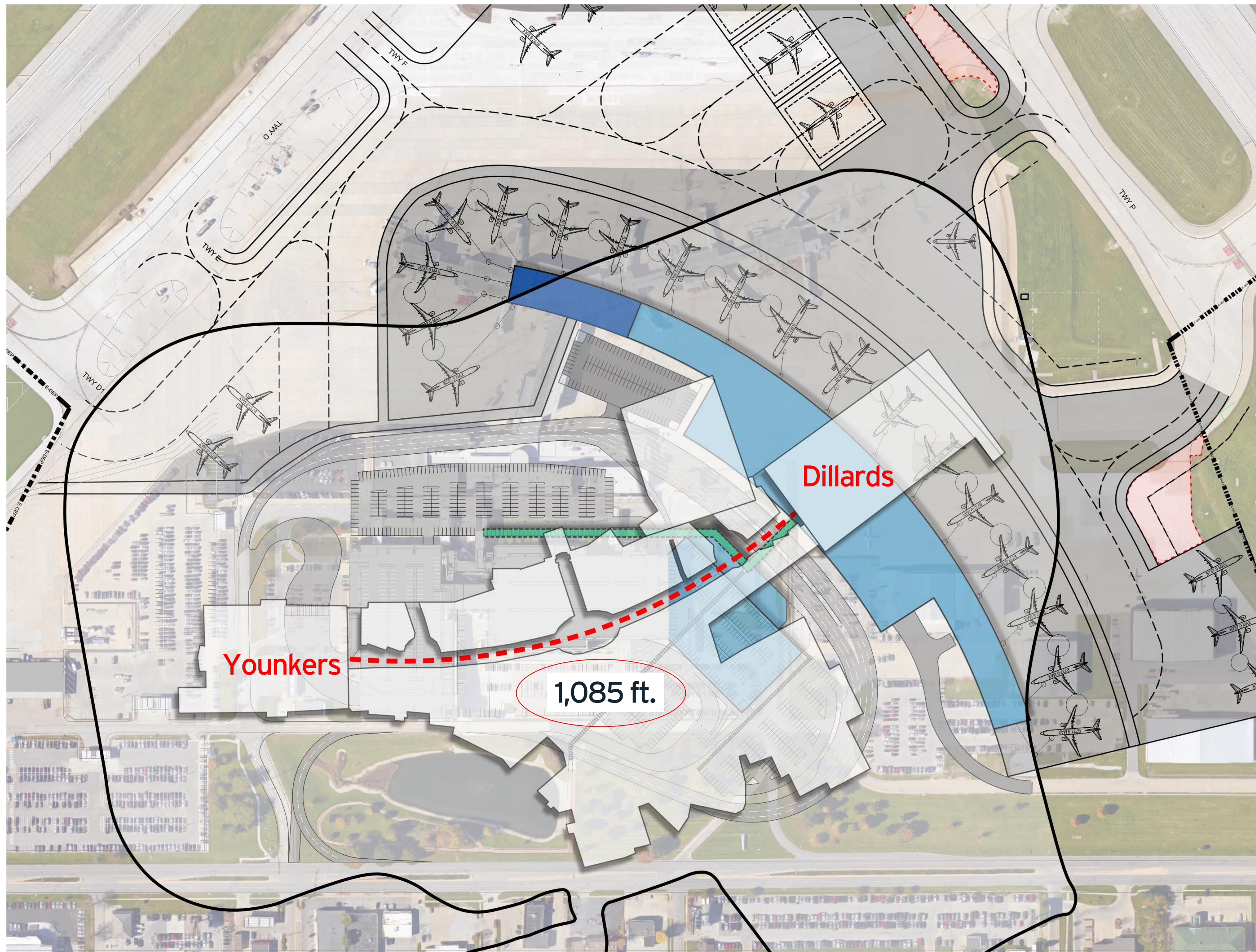
East: Landside – Connection to the Community



Connection to the Community:

- Fleur Drive address
 - *Direct connection to downtown*
 - *Familiar*
- View from concourse/gates
 - *Direct connection to downtown*
- View on landside roadway loop approaching the terminal
 - *Direct connection to terminal. Helps intuitive wayfinding to see the destination (terminal) while driving.*

East: Walking Distance Comparison



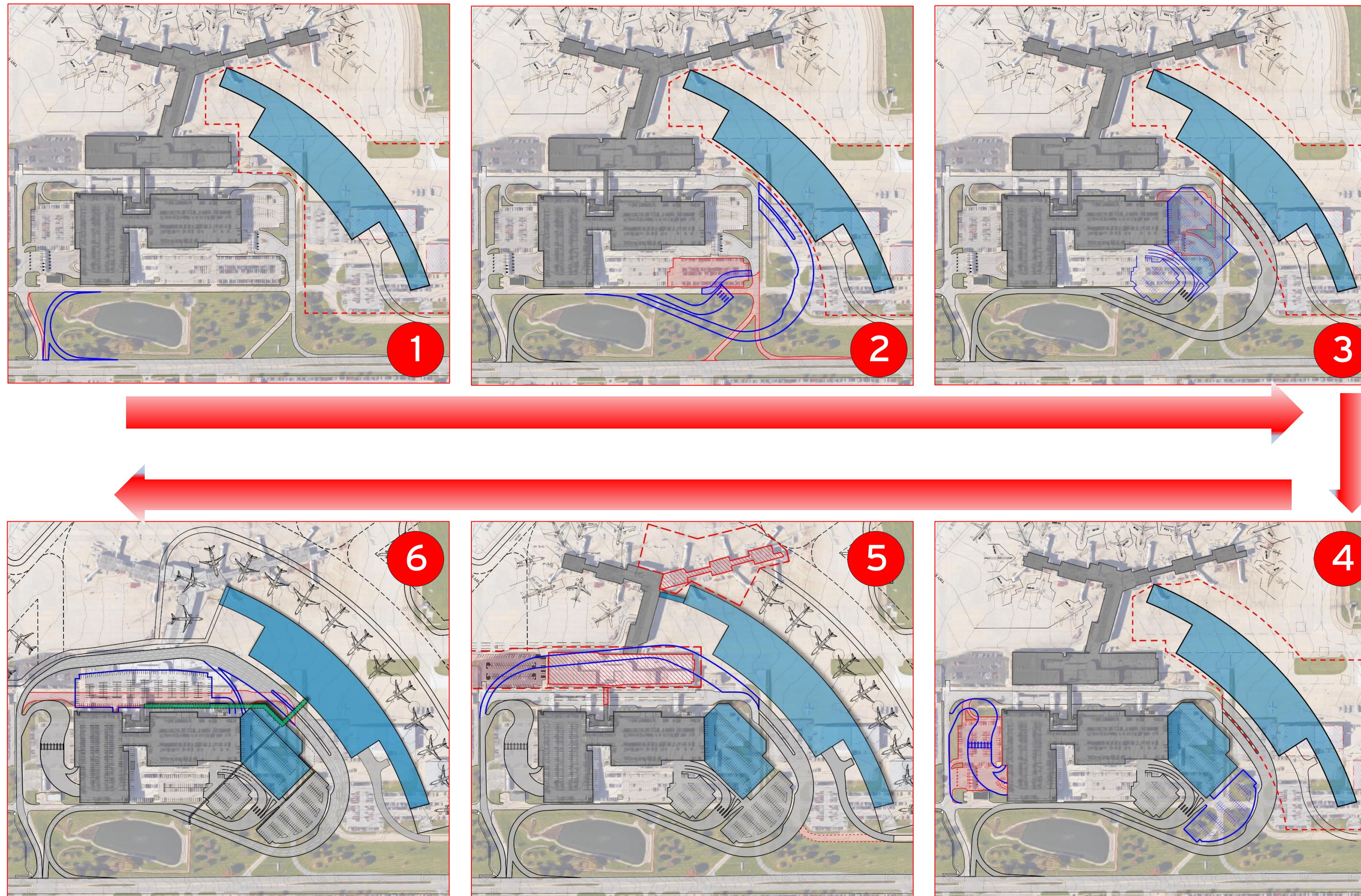
Jordan Creek Mall

Dillard's to Youngkers
(1,085 linear feet)

IS SIMILAR TO

New Terminal to farthest
garage parking space
(1,110 linear feet)

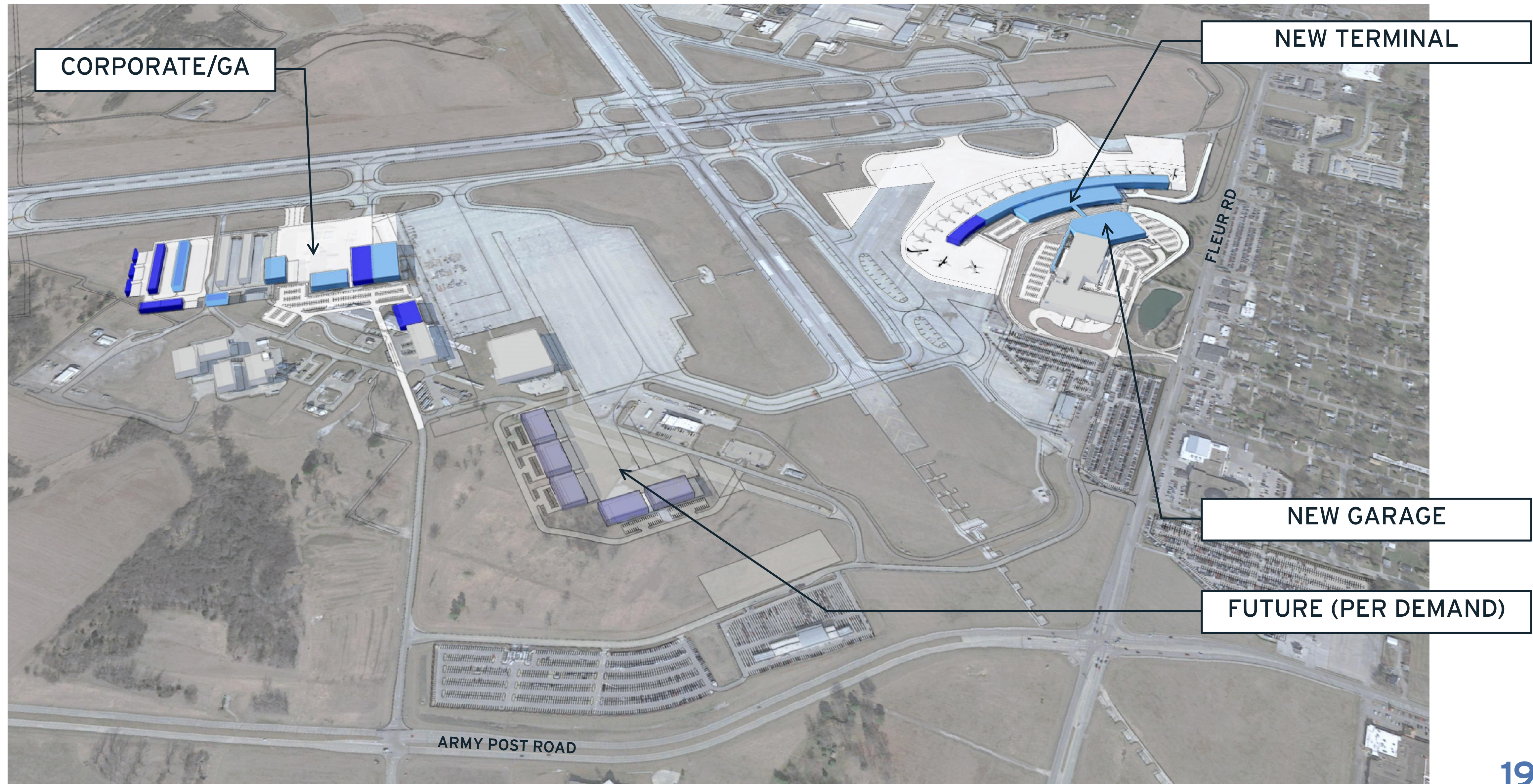
East: Phased Approach



Phasing Approach has been developed to confirm the concept can be built with:

- Minimal disruption to passenger
- Maintain airport operations
- Maximum capacity during construction for

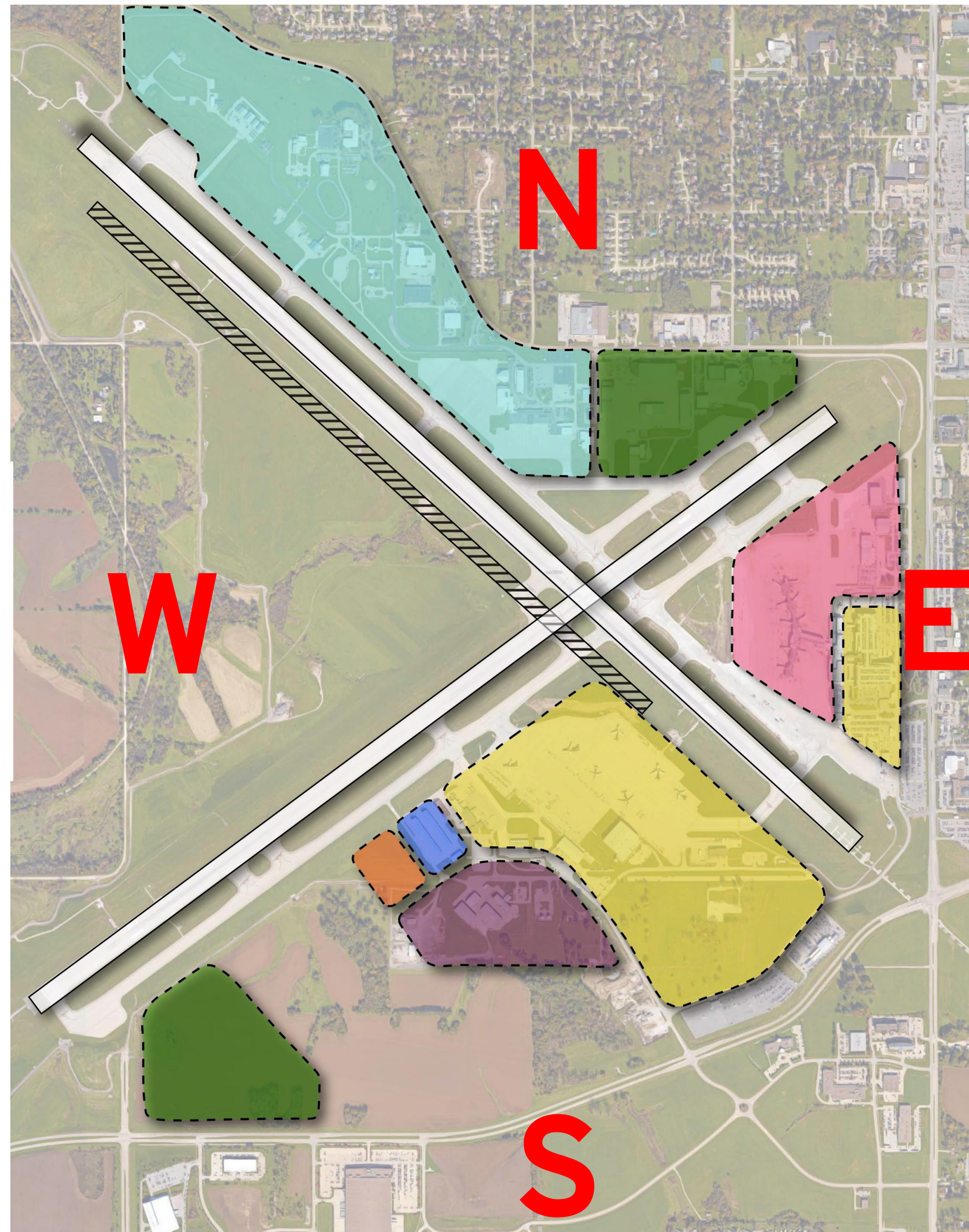
East: Overall



South Concept



South: Creating a Zoned Campus



-  AIR SUPPORT
-  GA/ T - HANGERS
-  IOWA AIR NATIONAL GUARD
-  GA/ CORPORATE
-  PASSENGER TERMINAL
-  AIRLINE MAINTENANCE
-  AIR CARGO

- Requires new parallel taxiway
- Terminal is not in a separate zone

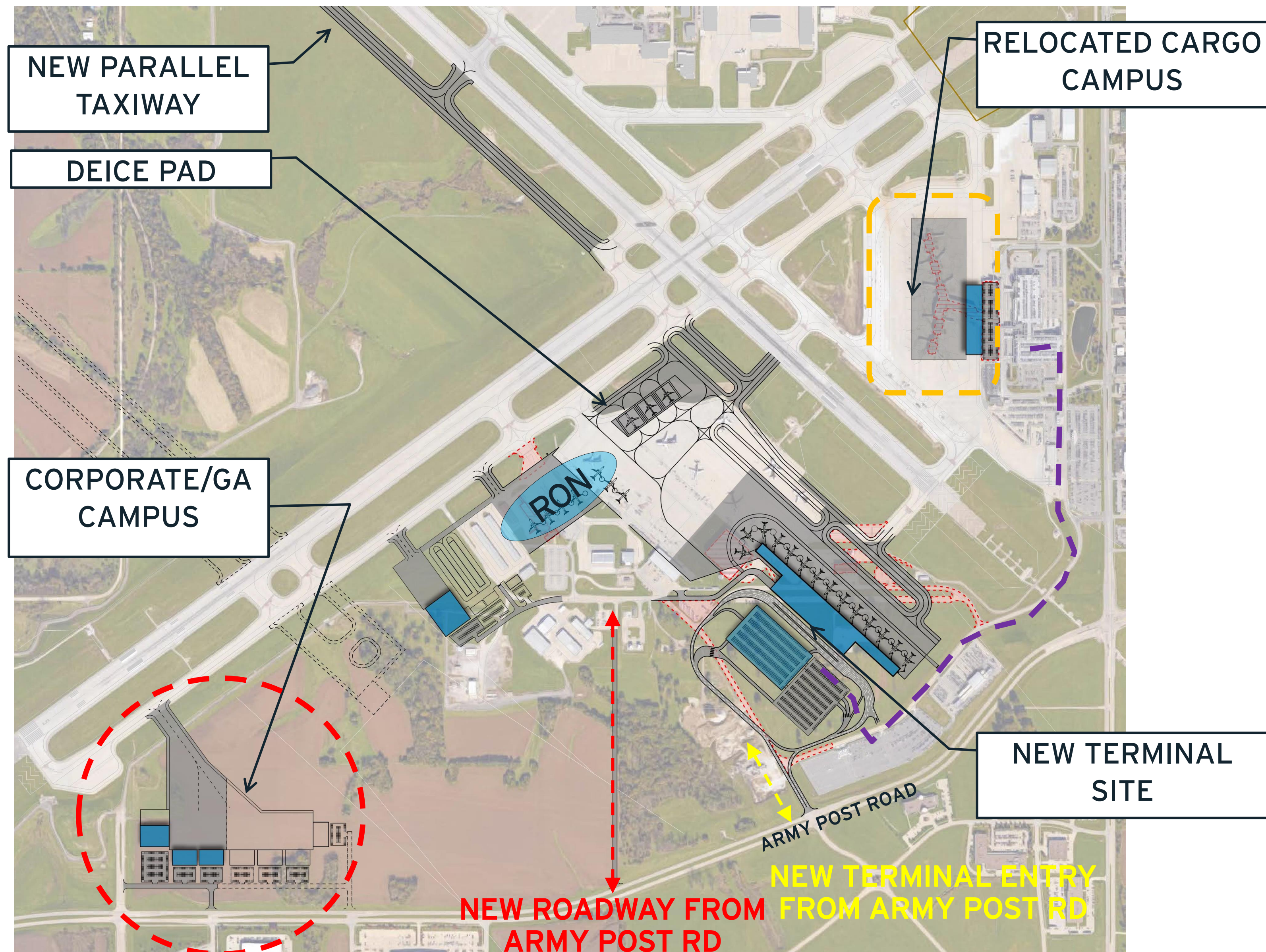
EAST:

- Cargo
- Existing parking structures

SOUTH:

- Terminal
- GA/Corporate & T-Hangars
- Airline Maintenance

South: Overview

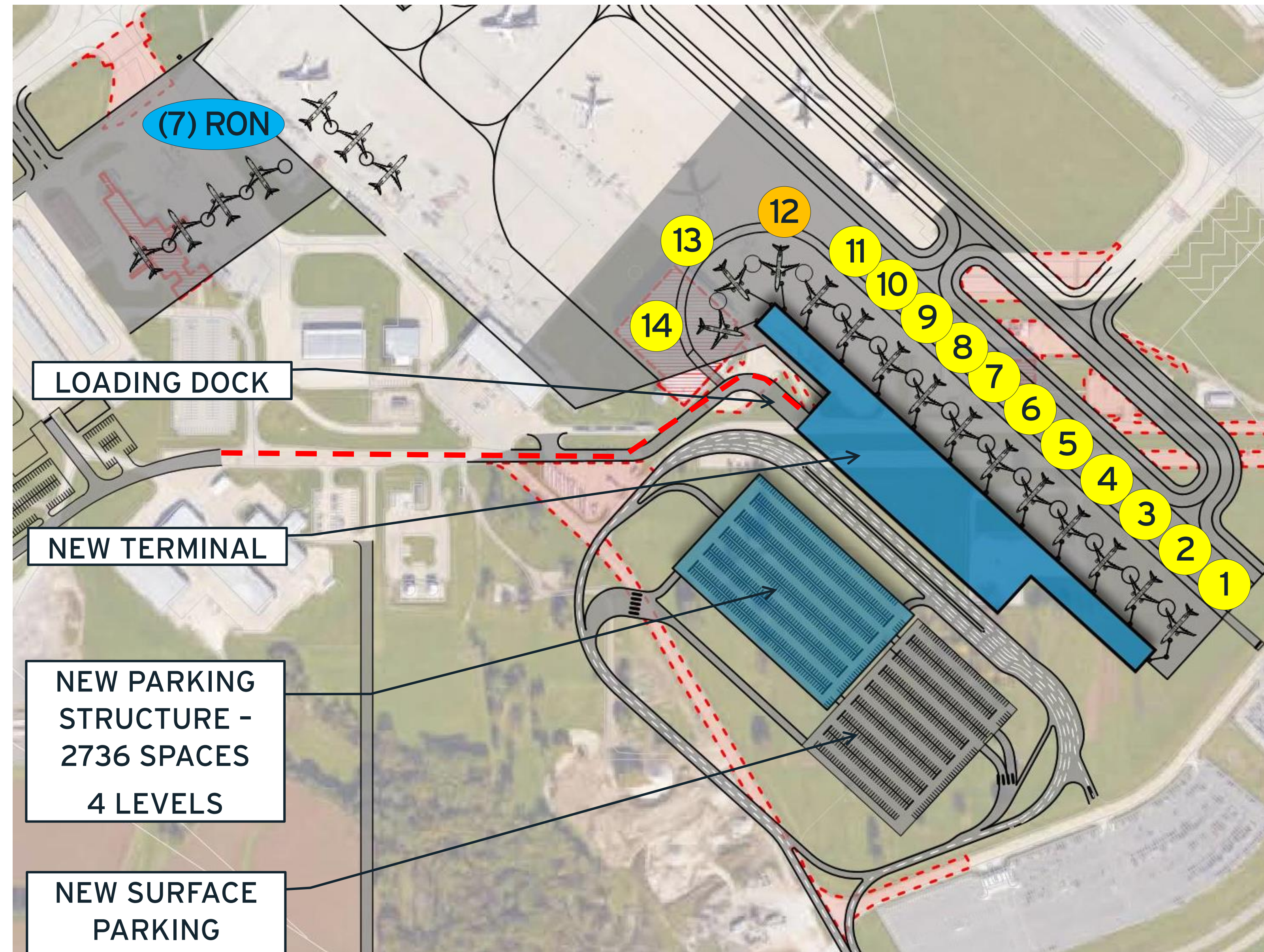


Key Factors:

- Minimize infrastructure costs by locating as close to Army Post Road as possible
- Requires new taxiway
- Minimize landside travel distance
- Easier and minimal phasing
- No direct connection to Fleur Drive
- View to downtown from concourse is more obstructed
- GA/Corporate visibility
- Grade/slope challenges



South: Phase 1



14 Contact Gates

● = 737-900 / A321

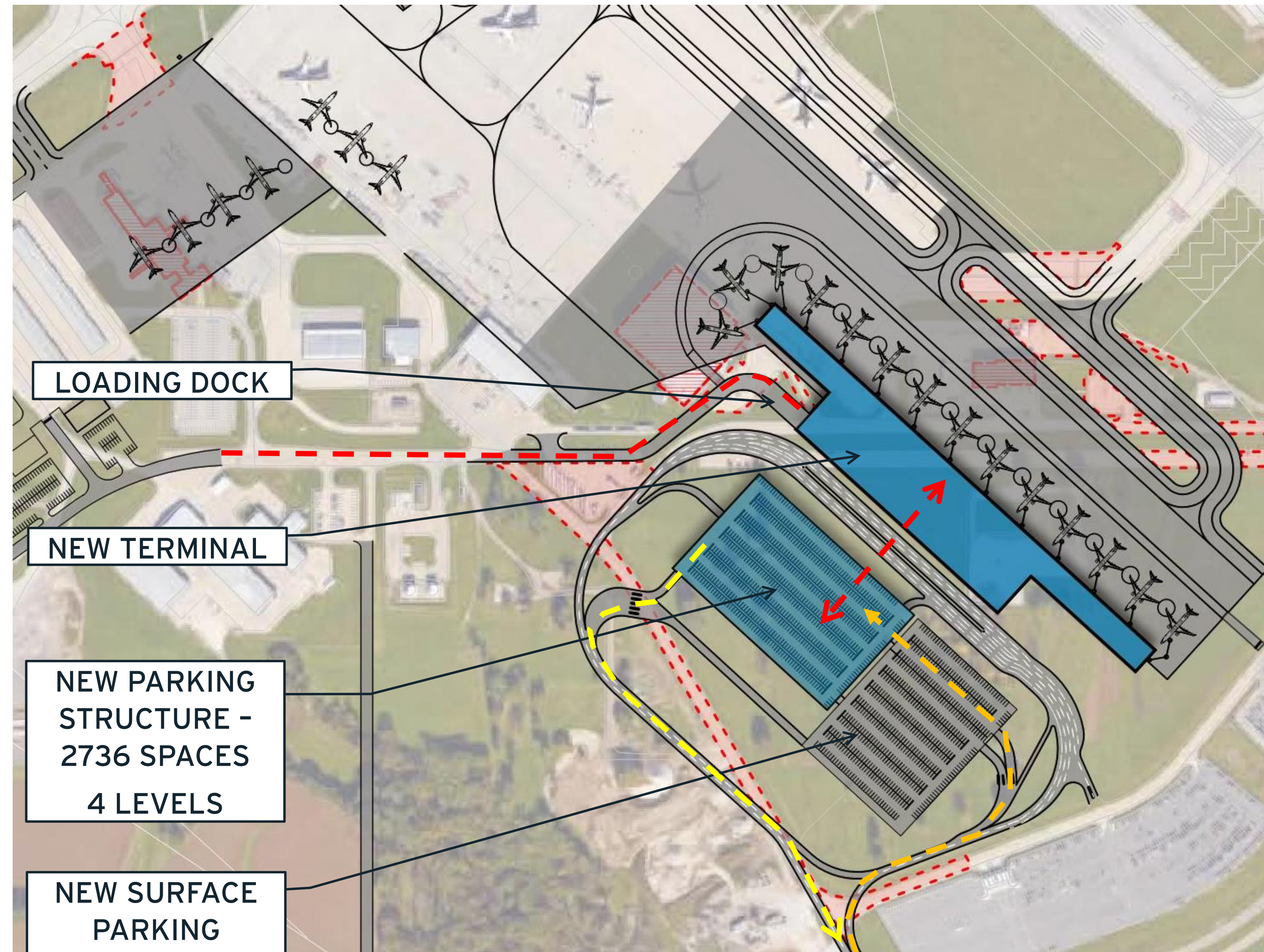
● = 757-200 (Group IV)

RON

● = 7 positions



South: Phase 1 - Landside

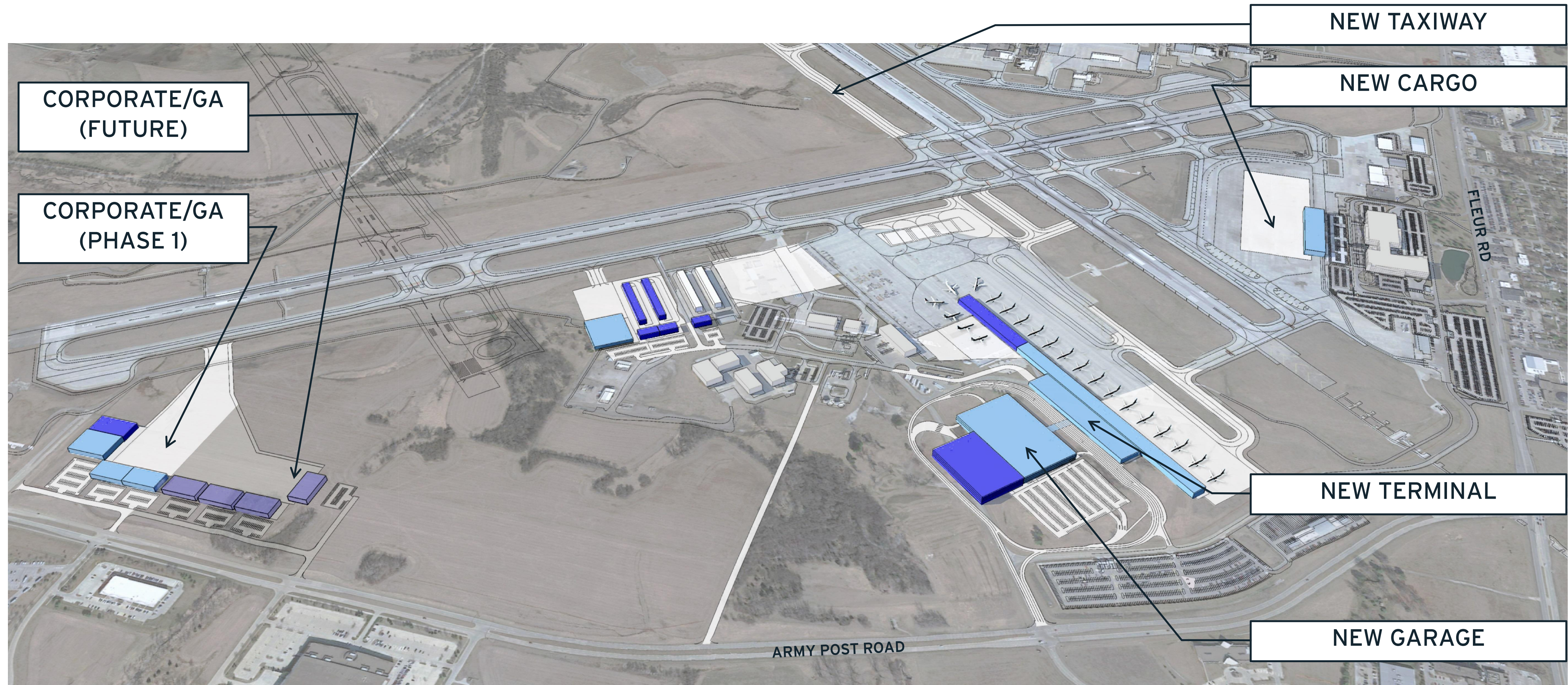


Key Factors:

- New 4-level parking structure
 - Rental Car
 - Public Parking
 - Pedestrian bridge or tunnel
- Requires more NEW parking spaces than East Concept
- New entry and exit plazas
- Longer curbside
- Maximizes Landside area for future growth



South: Overall

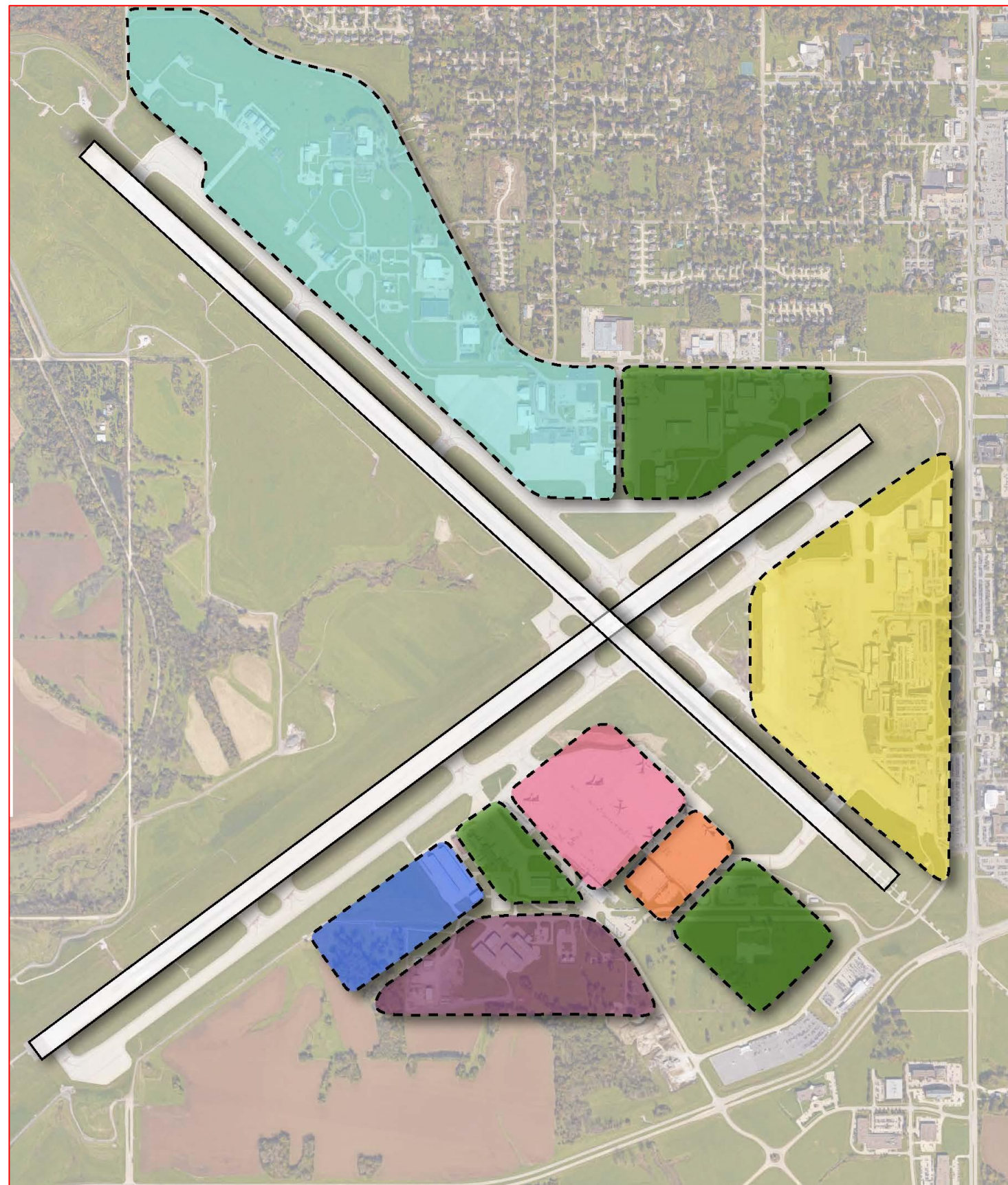


Concept Comparison

East vs. South

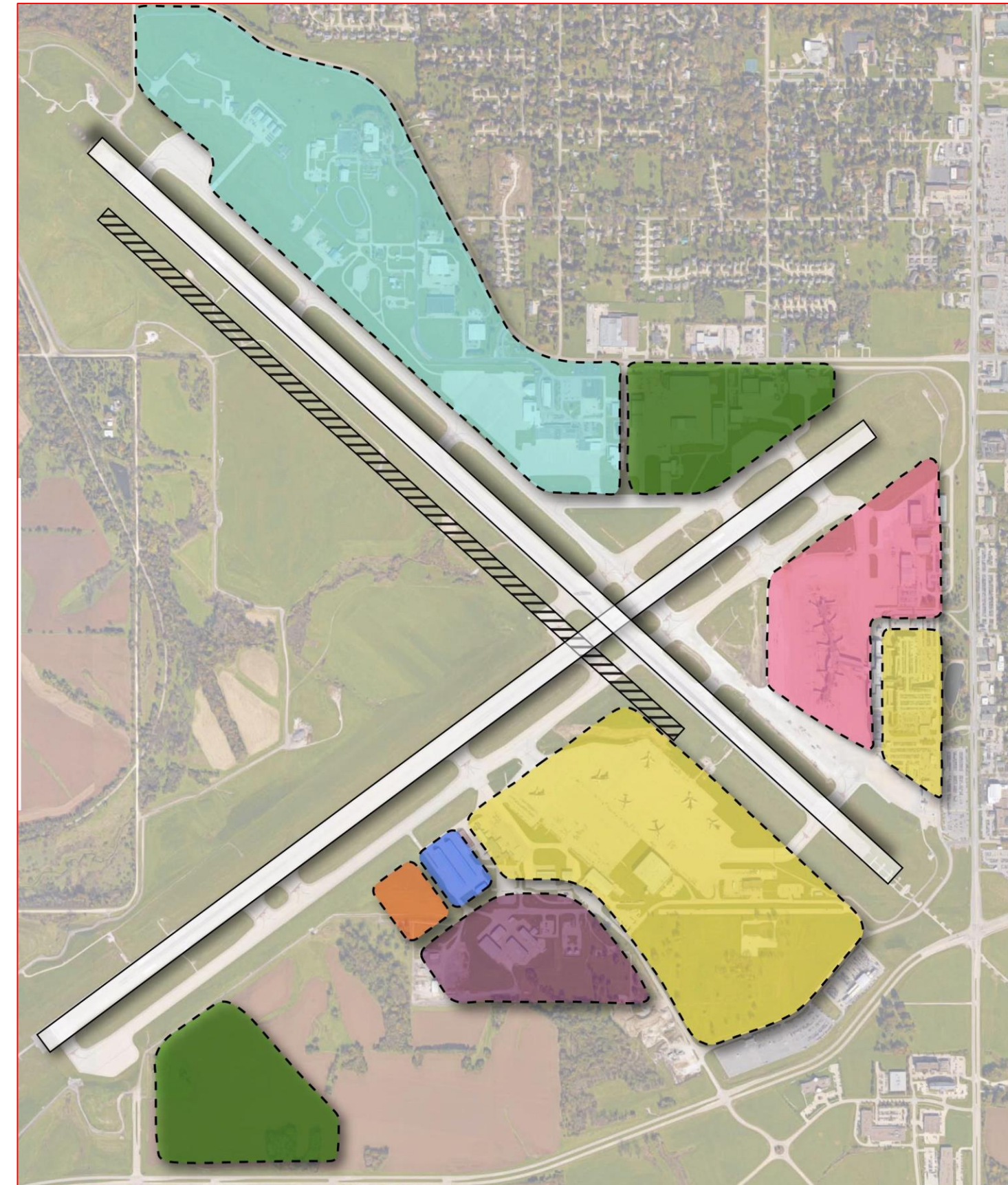


Masterplanning Comparison



East

- Terminal in separate zone
- Less relocation of tenants
- Connection to downtown with maintaining Fleur address



South

- Terminal located in south quadrant with multiple tenants
- Requires taxiway
- Not located on Fleur

GOALS:

- Avoid the IANG Site!!
- Segregate Terminal traffic from other tenants.

	AIR SUPPORT
	GA/ T - HANGERS
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Past, Present & Future

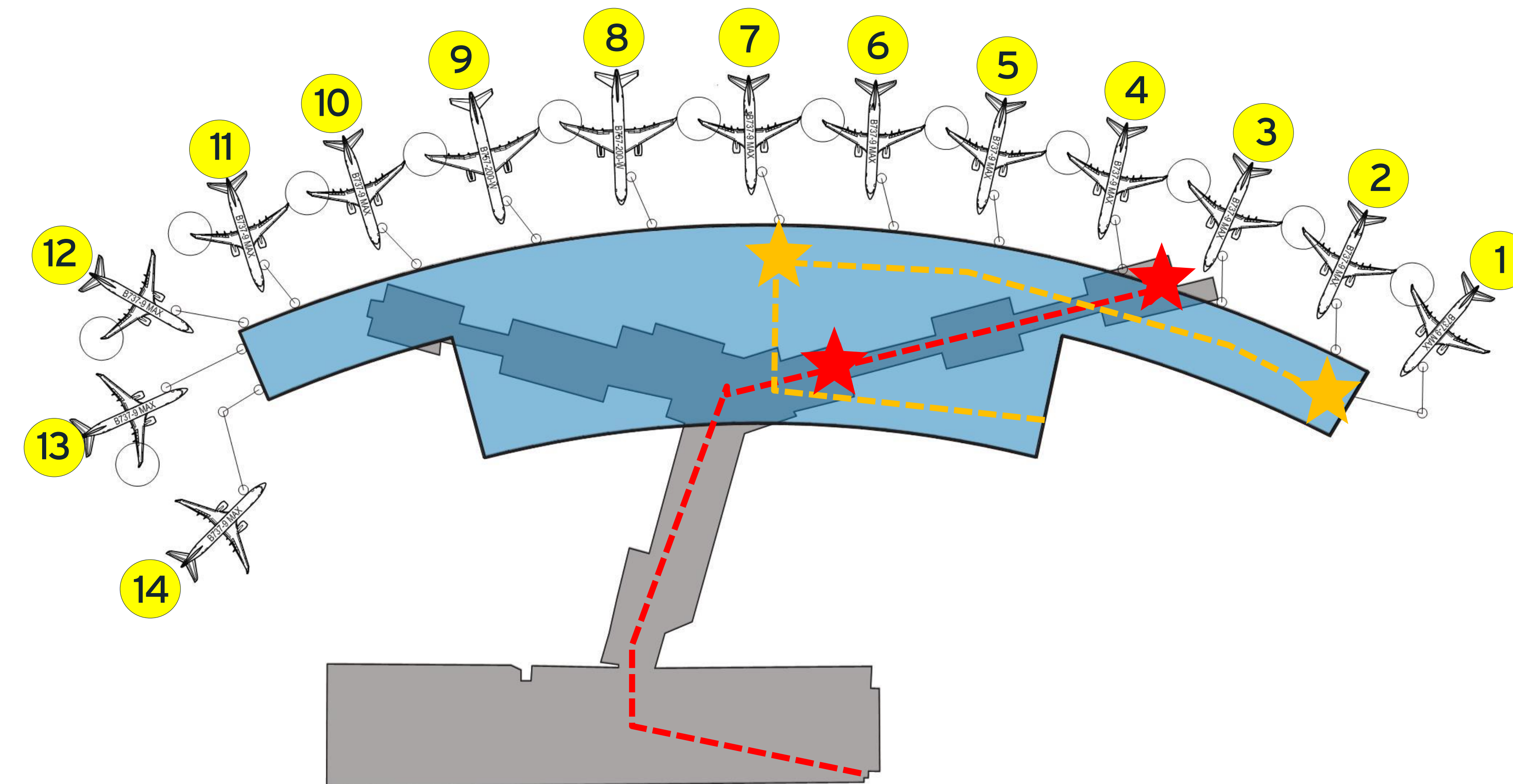
Airline Industry is changing!

- Larger aircraft
 - Less 50 seat regional aircraft
 - Larger regional (70 seat+) aircraft
 - Recent entrants with larger aircraft (737) (Southwest, Allegiant)
- Similar overall SF but in the wrong places
 - Concourses undersized to meet higher volume of people (holdrooms, concessions, restrooms)
 - Security checkpoint width issues
 - Ticketing and Baggage constraints

Existing Facility:	272,900 SF
Required for Phase I:	236,000 SF
Required for Phase II:	315,500 SF



Terminal Comparison



Existing Facility

272,900 SF

Required for Phase I:

236,000 SF

Required for Phase II:

315,500 SF

Existing Terminal:

- Inefficient layout
- Insufficient spaces:
 - Holdrooms
 - Security Checkpoint
 - Concessions

Walking distances:

Existing



- Shortest: 800 LF
- Farthest: 1,200 LF

New



- Shortest: 465 LF
- Farthest: 1,000 LF

Project Cost Comparison

East Concept: \$ 491,000,000



South Concept: \$ 618,000,000



Summary – Comparison Matrix

Goals	East	South
Functional / Efficient	+	+
Cost	+	-
Future Expansion Capability <i>(Ultimate Buildout)</i>	+	++
Zoning <i>(Segregation of tenants)</i>	+	-
NEW Parking Required <i>(3,346 total req'd - Phase 1)</i>	+	(399 surface) (613 surface) (870 garage) (2,733 garage)
NEW Taxiway Required	+	(NO) (YES)
Sustainability <i>(Infrastructure reuse)</i>	+	-
Pride / Community <i>(Connection to Fleur + Downtown)</i>	+	-



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QUESTIONS?

HNTB + KPMG + BNIM