

Welcome!



Rapid City
Regional Airport

**Airport Terminal
&
Runway 14-32
Briefing**

April 2022

Today's Agenda

- Overview of Rapid City Regional Airport (RAP)
- Key Projects in next 10 years
 - Details of Runway 14-32
 - Details of Airport Passenger Terminal
- Path Forward
- Challenges
- Questions

Future Runway Options



- Runway 14-32 pavement will likely require reconstruction in the next 7-10 years
- Runway options available
 - Reconstruct existing runway
 - Construct “new” Runway 14-32 east of the existing

“Reconstruct” Option



- Challenges & Impacts
 - Meeting FAA Runway Gradient Standards
 - Limited Phasing Options
 - Requires Runway/Airport Closure
 - Impacts to the flying public (Up to 3 summers)
 - Economic impacts
 - Impacts to RAP

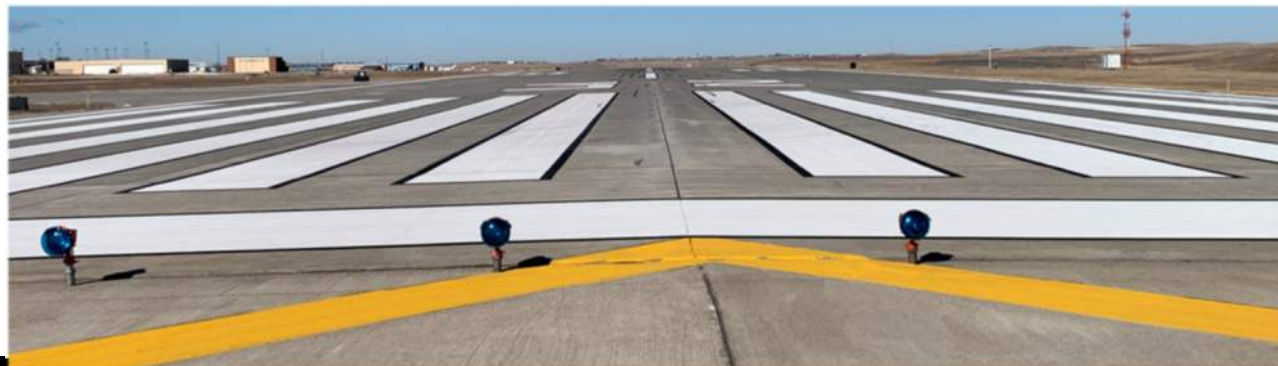
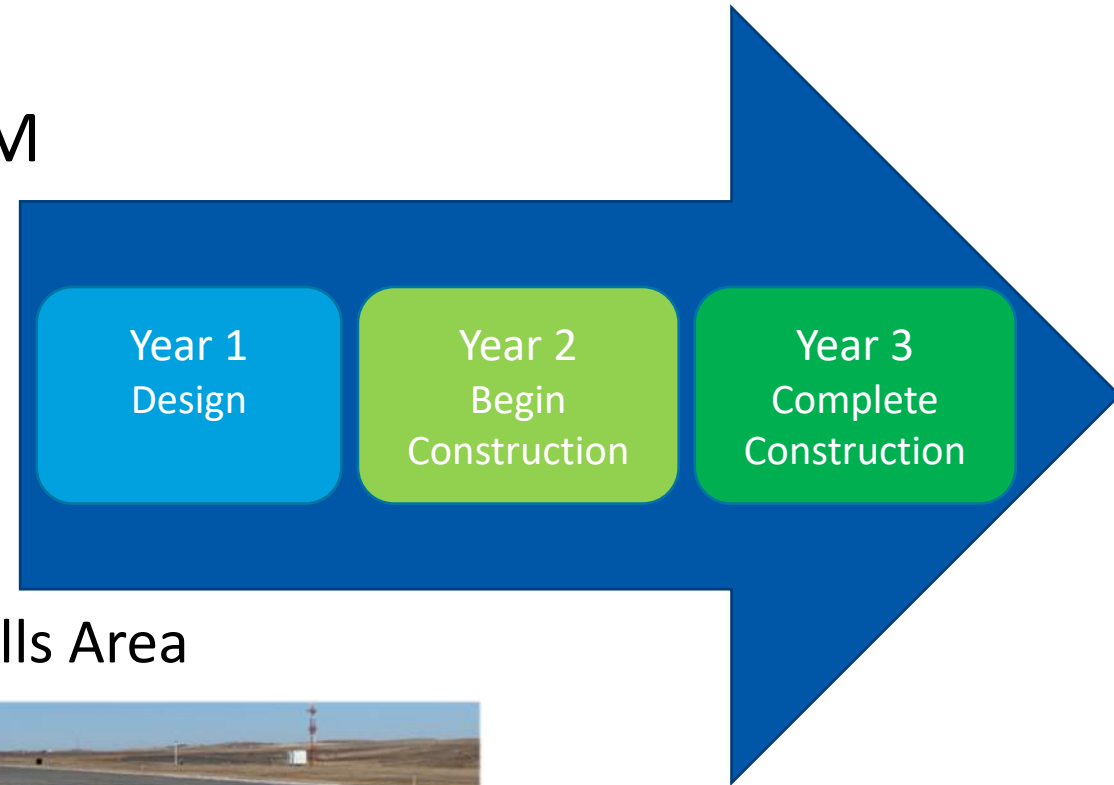
Project Phasing / Constructability

- Need to be able to tie into existing runway grade
- Smallest construction phase would likely be 2,500'
 - Approximately 5,100' is available for takeoff and landing in that scenario
 - Insufficient length to accommodate scheduled airline service and larger business jets



Reconstruct Runway 14 Overview

- Project duration dependent on funding/phasing (2 to 3 construction seasons)
- Planning Level Cost Estimate – \$65-70M
- Challenges/Considerations
 - Limited Runway Length During Const.
 - Results in loss of Air Service
 - Operational Impacts (GA / Cargo / USFS)
 - Economic Impacts to the Greater Black Hills Area



Airport Economic Impact



<https://dot.sd.gov/transportation/aviation/aviation-systems-plan>

Airport Location		Airport Classification	
Associated City:	Rapid City	Federal:	Nonhub
County:	Pennington	State:	Commercial Service

Airport Activity 2018		
Commercial Operations	15,755 GA Operations	28,985
Commercial Enplanements	303,659 GA Visitors	22,931
Commercial Visitors	151,830 Military Operations	1,736

Airport Economic Impacts					
Source of Impact	Category of Impact	Jobs	Earnings	GDP	Economic Activity
On-Airport	Direct	618	\$36,242,000	\$41,745,000	\$75,200,000
	Subtotal Direct	618	\$36,242,000	\$41,745,000	\$75,200,000
	Indirect	179	\$9,467,000	\$13,817,000	\$24,569,000
	Induced	248	\$11,051,000	\$18,517,000	\$33,077,000
	Subtotal Multiplier Effects	426	\$20,518,000	\$32,334,000	\$57,646,000
Airport Operations Subtotal		1,044	\$56,760,000	\$74,079,000	\$132,846,000
On-Airport	Direct	25	\$1,346,000	\$1,510,000	\$3,135,000
	Subtotal Direct	25	\$1,346,000	\$1,510,000	\$3,135,000
	Indirect	6	\$295,000	\$480,000	\$900,000
	Induced	9	\$395,000	\$662,000	\$1,183,000
	Subtotal Multiplier Effects	14	\$690,000	\$1,142,000	\$2,083,000
Capital Improvements Subtotal		39	\$2,036,000	\$2,652,000	\$5,218,000
Off-Airport	Direct	1,364	\$33,838,000	\$48,969,000	\$89,885,000
	Subtotal Direct	1,364	\$33,838,000	\$48,969,000	\$89,885,000
	Indirect	161	\$7,443,000	\$13,658,000	\$24,928,000
	Induced	182	\$8,057,000	\$13,505,000	\$24,114,000
	Subtotal Multiplier Effects	343	\$15,500,000	\$27,163,000	\$49,042,000
Visitor Spending Subtotal		1,707	\$49,338,000	\$76,132,000	\$138,927,000
Off-Airport	Direct	63	\$1,559,000	\$2,257,000	\$4,142,000
	Subtotal Direct	63	\$1,559,000	\$2,257,000	\$4,142,000
	Indirect	7	\$343,000	\$629,000	\$1,149,000
	Induced	8	\$371,000	\$622,000	\$1,111,000
	Subtotal Multiplier Effects	16	\$714,000	\$1,251,000	\$2,260,000
Special Event Subtotal		79	\$2,273,000	\$3,508,000	\$6,402,000
Total	Direct	2,069	\$72,985,000	\$94,481,000	\$172,362,000
	Subtotal Direct	2,069	\$72,985,000	\$94,481,000	\$172,362,000
	Indirect	353	\$17,548,000	\$28,584,000	\$51,546,000
	Induced	447	\$19,874,000	\$33,306,000	\$59,485,000
	Subtotal Multiplier Effects	800	\$37,422,000	\$61,890,000	\$111,031,000
Grand Total		2,869	\$110,407,000	\$156,371,000	\$283,393,000

Notes: Readers are reminded that the figures shown are estimates generated by economic models and not an exact accounting. Totals may not sum due to rounding. Where the table indicates 0 jobs but also includes estimates for earnings, GDP, and economic output, individuals worked less than half-time on airport-related activities. A "-" indicates there was no measurable economic impact activity.

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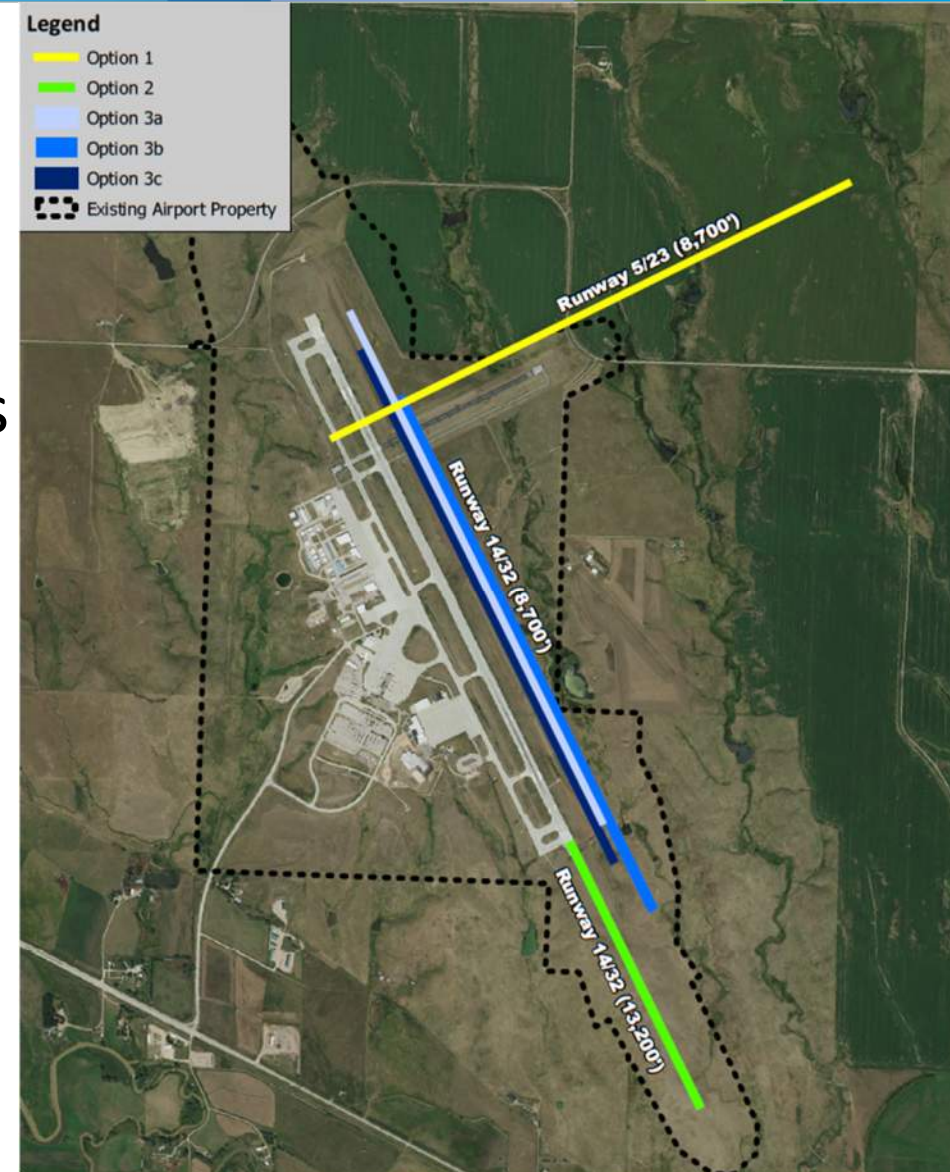
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“New” Runway Options

- Options Considered But Discarded
 1. Expand Crosswind Runway 5-23
 2. Extend Existing Runway 14-32
- Options Carried Forward For Further Analysis
 - 3a. New Runway 14-32
Offset 550' from existing & no shift
 - 3b. New Runway 14-32
Offset 550' from existing & 1,500' shift
 - 3c. New Runway 14-32
Offset 550' from existing & 600' shift



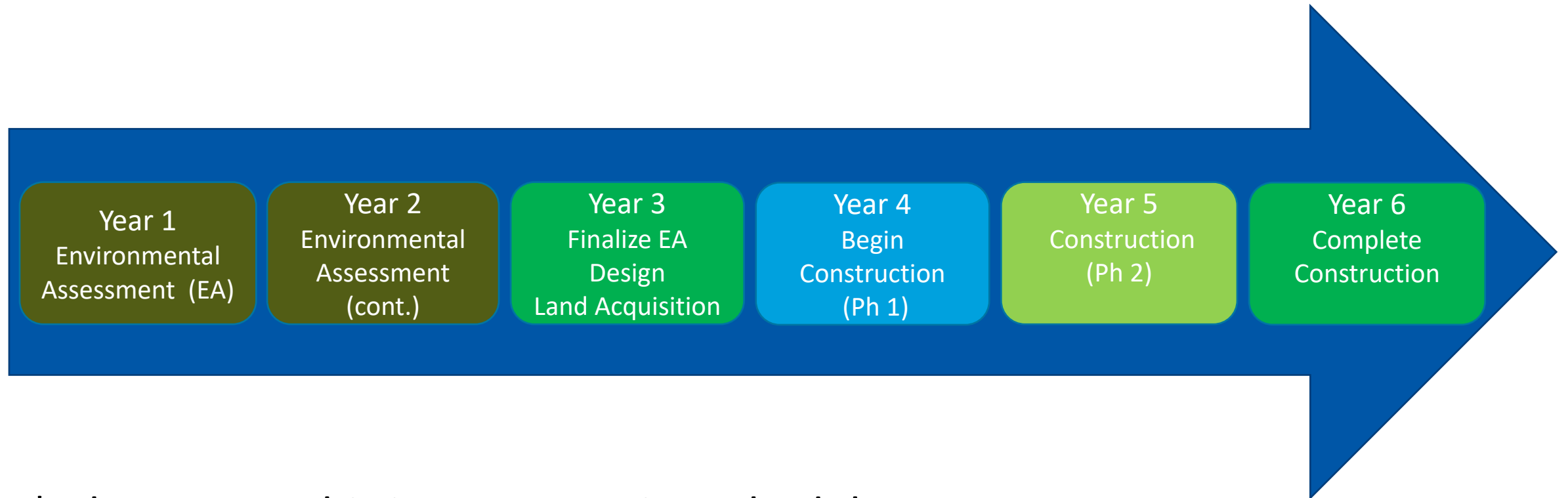
Options Carried Forward

Options 3a, 3b and 3c

- Offset 550' from Existing Runway 14-32
- Convert existing runway to a taxiway
- Increase developable space



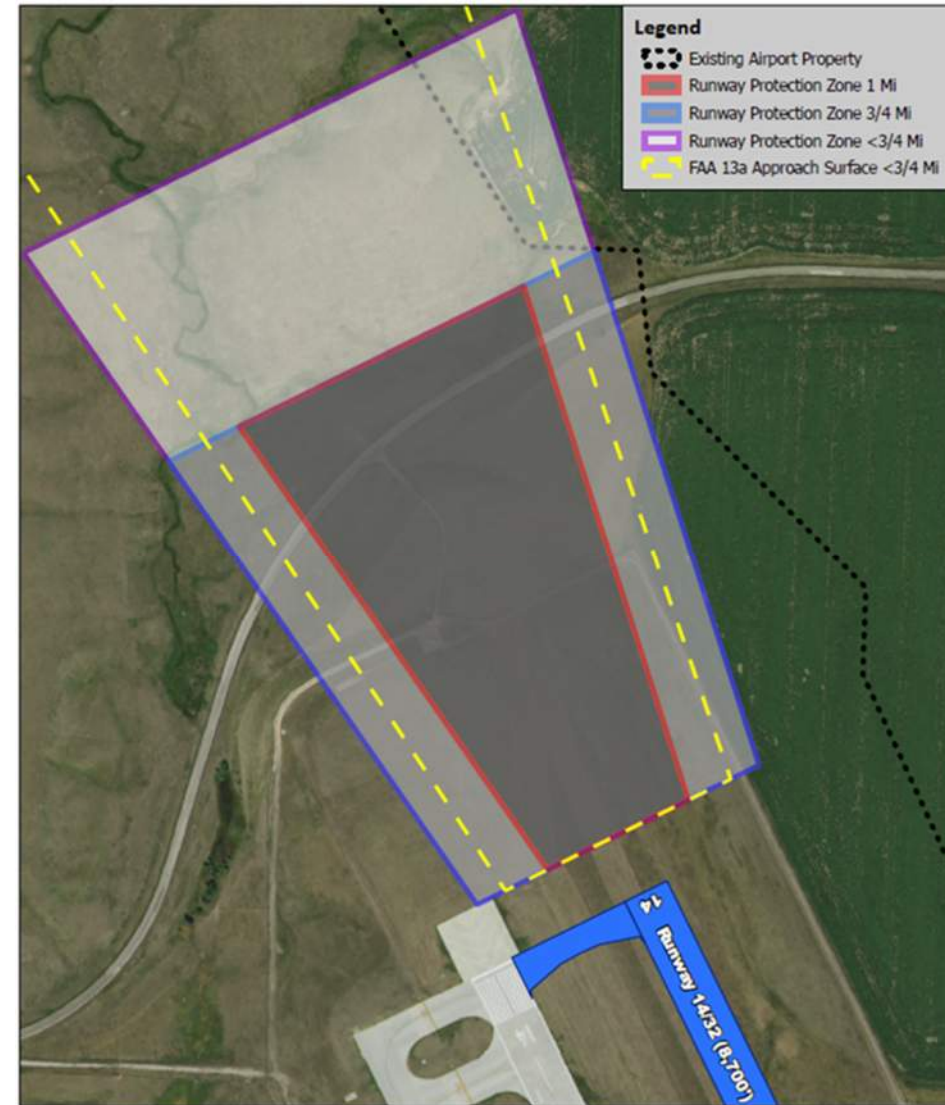
“New” Runway 14-32 Timeline



- * Please note this is an aggressive schedule.

Runway Overview

- Long lead time (6 – 9 years)
- Challenges
 - Environmental Reviews
 - FAA Standards – RPZ, Runway Gradients
 - Approach Surfaces – Obstacle evaluations
 - Earthwork (4.6M-6.4M cubic yards)
 - Funding (Est. \$90-\$100M)

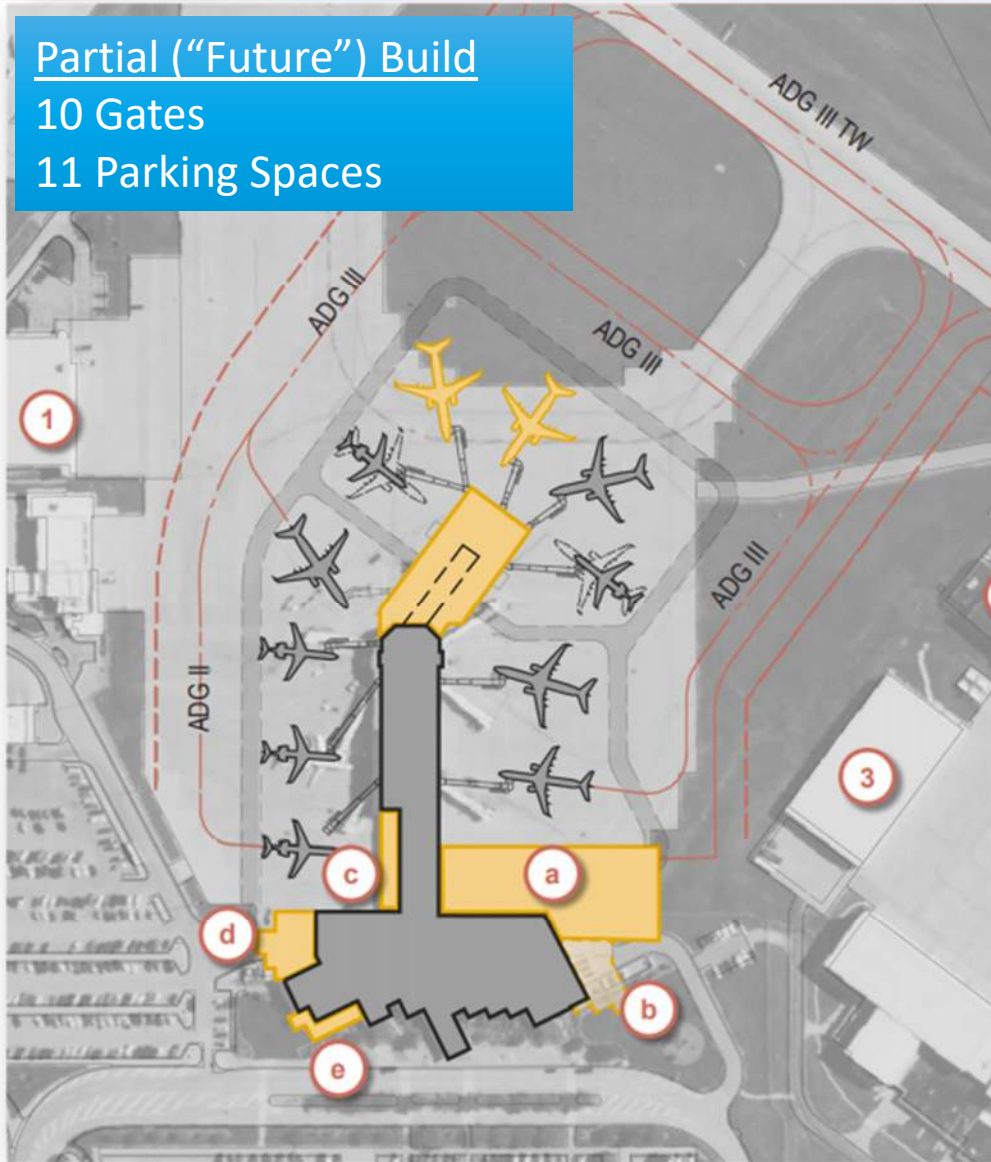


Terminal

Partial ("Future") Build

10 Gates

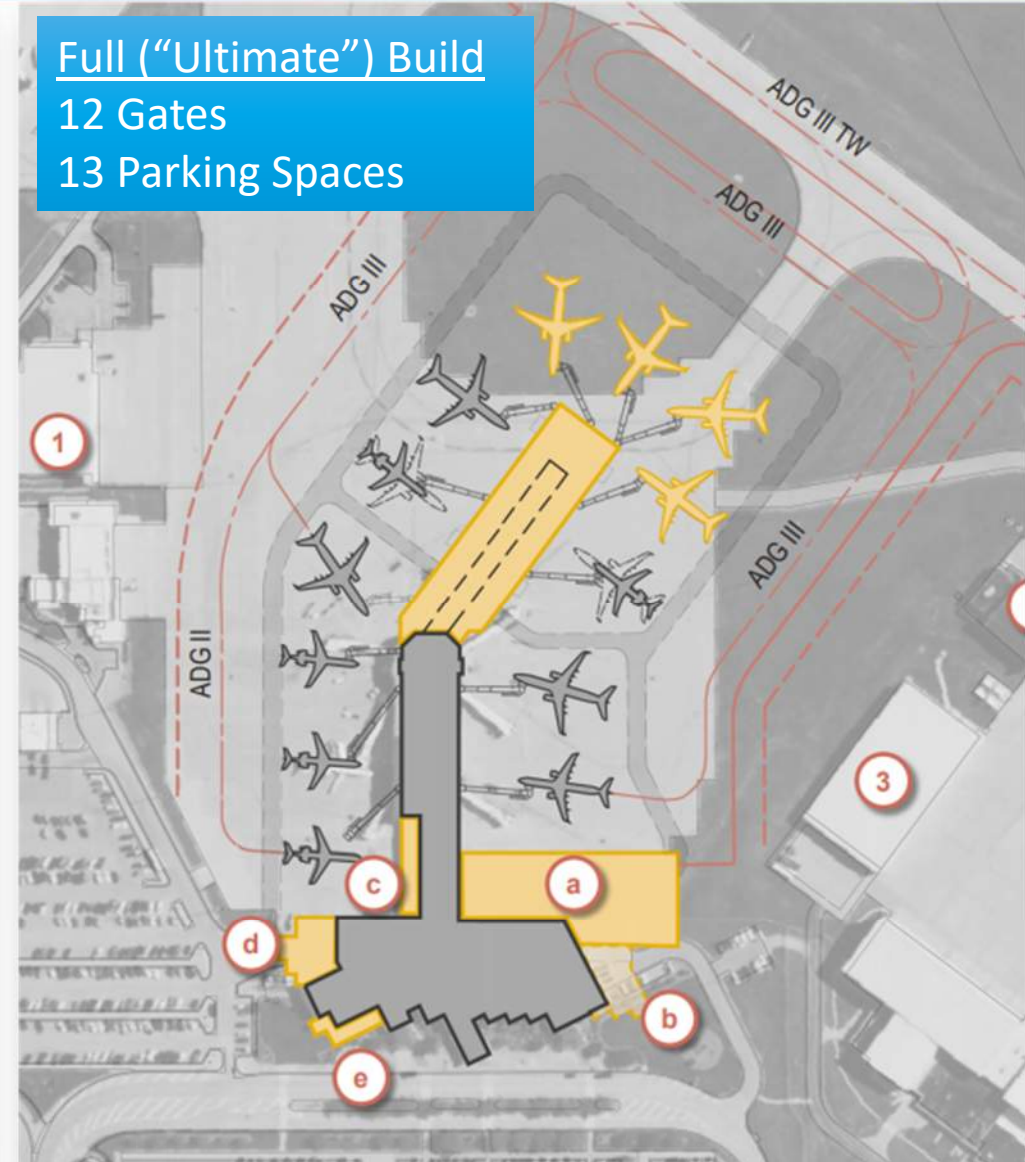
11 Parking Spaces



Full ("Ultimate") Build

12 Gates

13 Parking Spaces

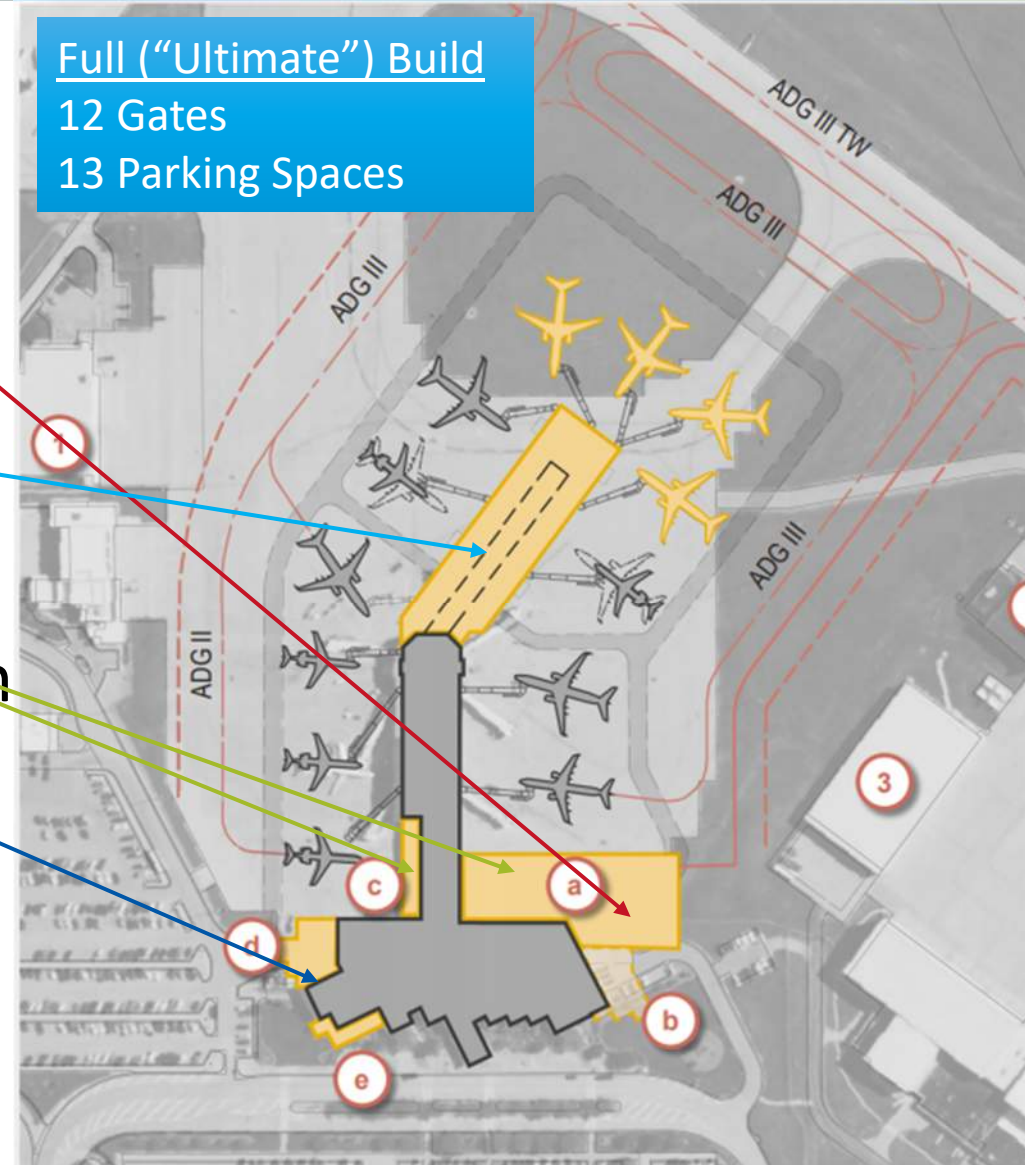


Terminal

4 Sections:

1. Ticketing and Baggage Makeup
2. Concourse Expansion
3. Security Checkpoint
4. Rental Car Area and Baggage Return

Full ("Ultimate") Build
12 Gates
13 Parking Spaces



Concourse Proposed Build

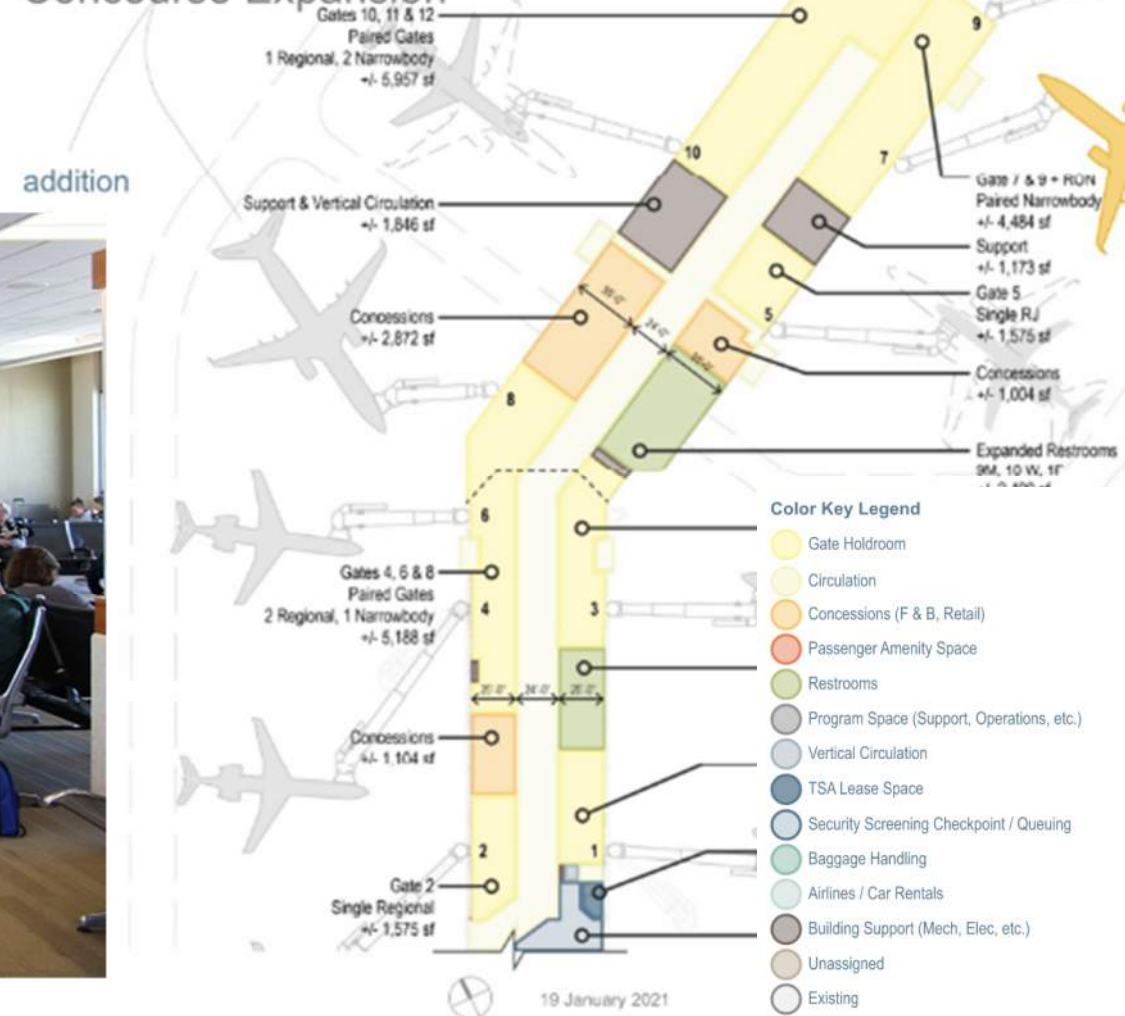
Planning Level Estimate

\$45M - \$50M

*Does not include associated apron construction costs

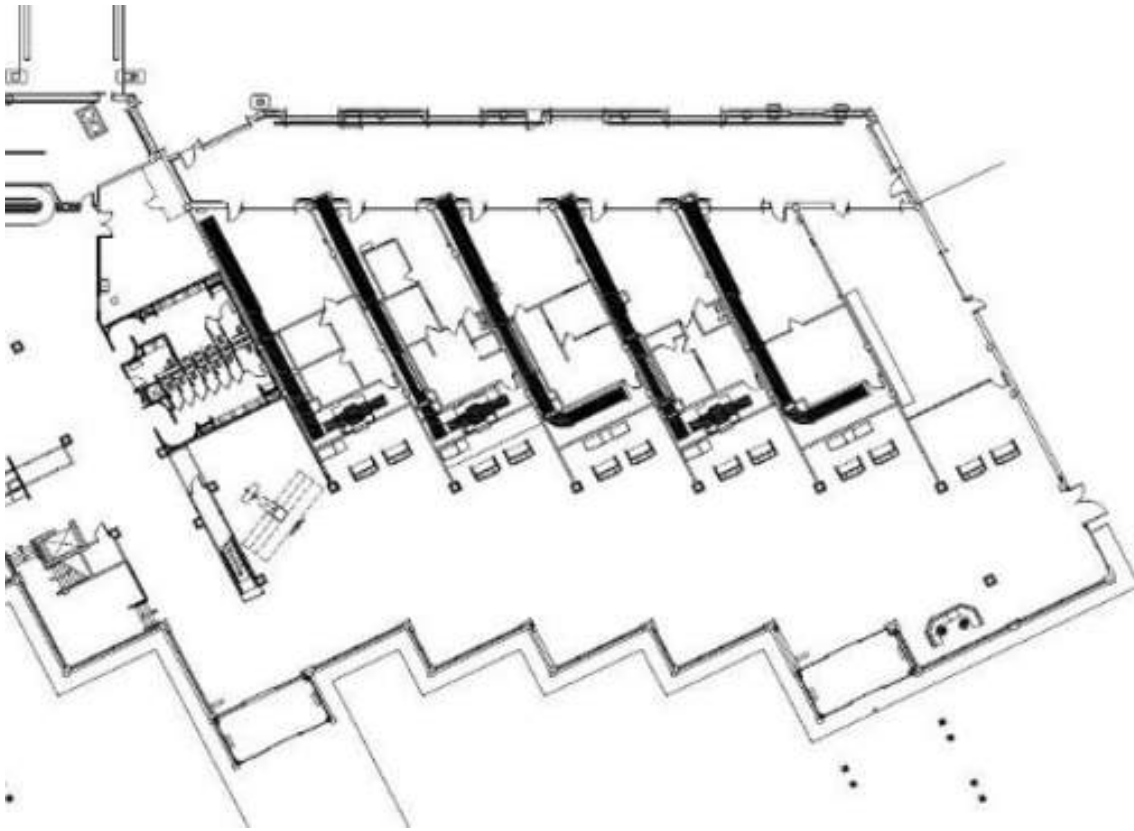


Concourse Expansion

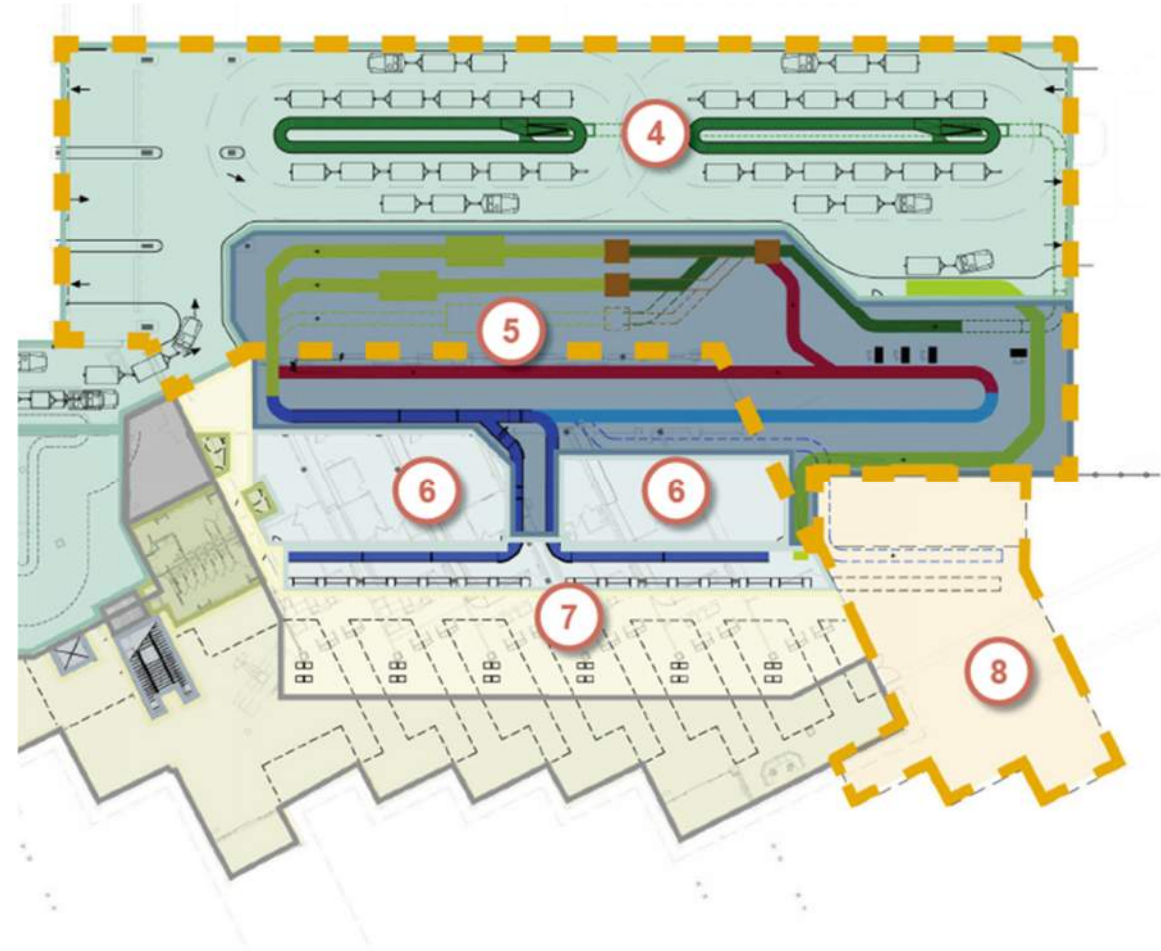


Ticketing and Baggage Makeup

Existing



Proposed



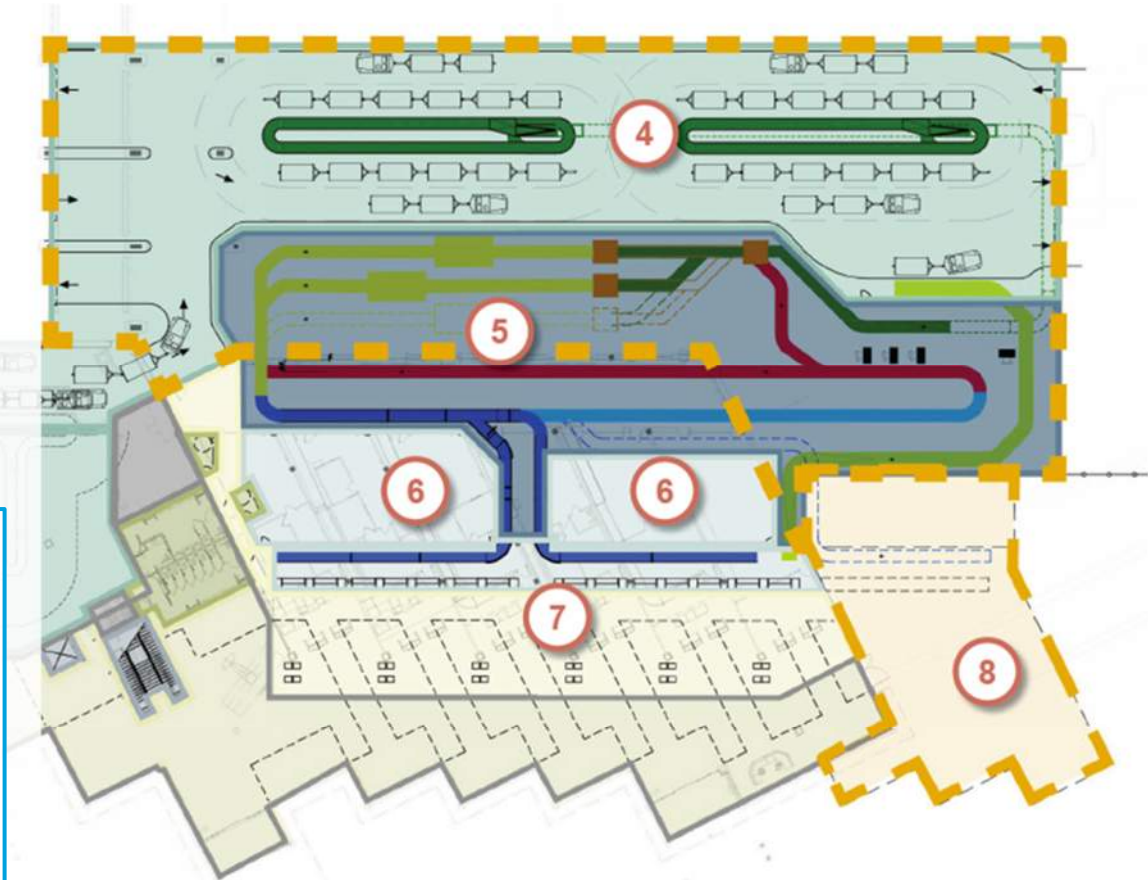
Ticketing and Baggage Makeup

Planning Level Estimate

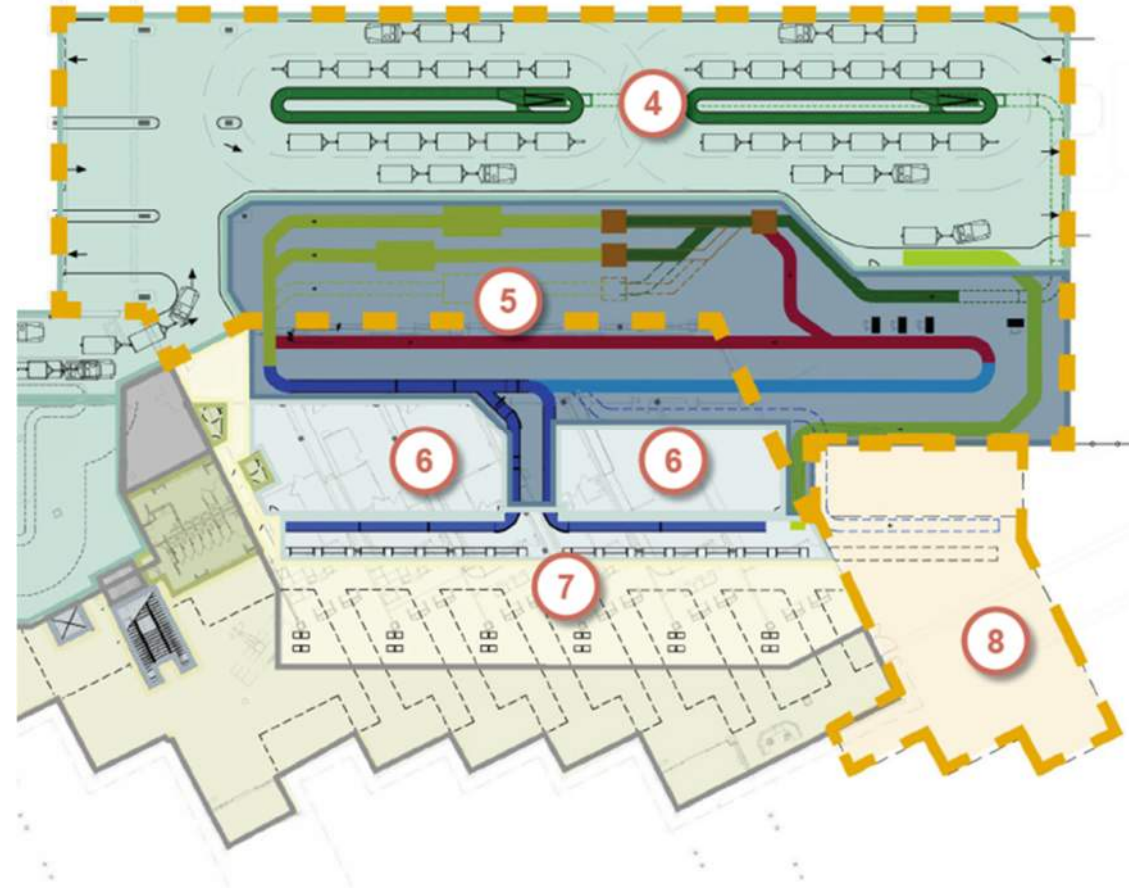
\$25M - \$35M

- Doesn't include est. \$13M baggage screening equipment costs eligible for TSA Reimbursement
- Doesn't include future ticketing hall expansion (Area 8)

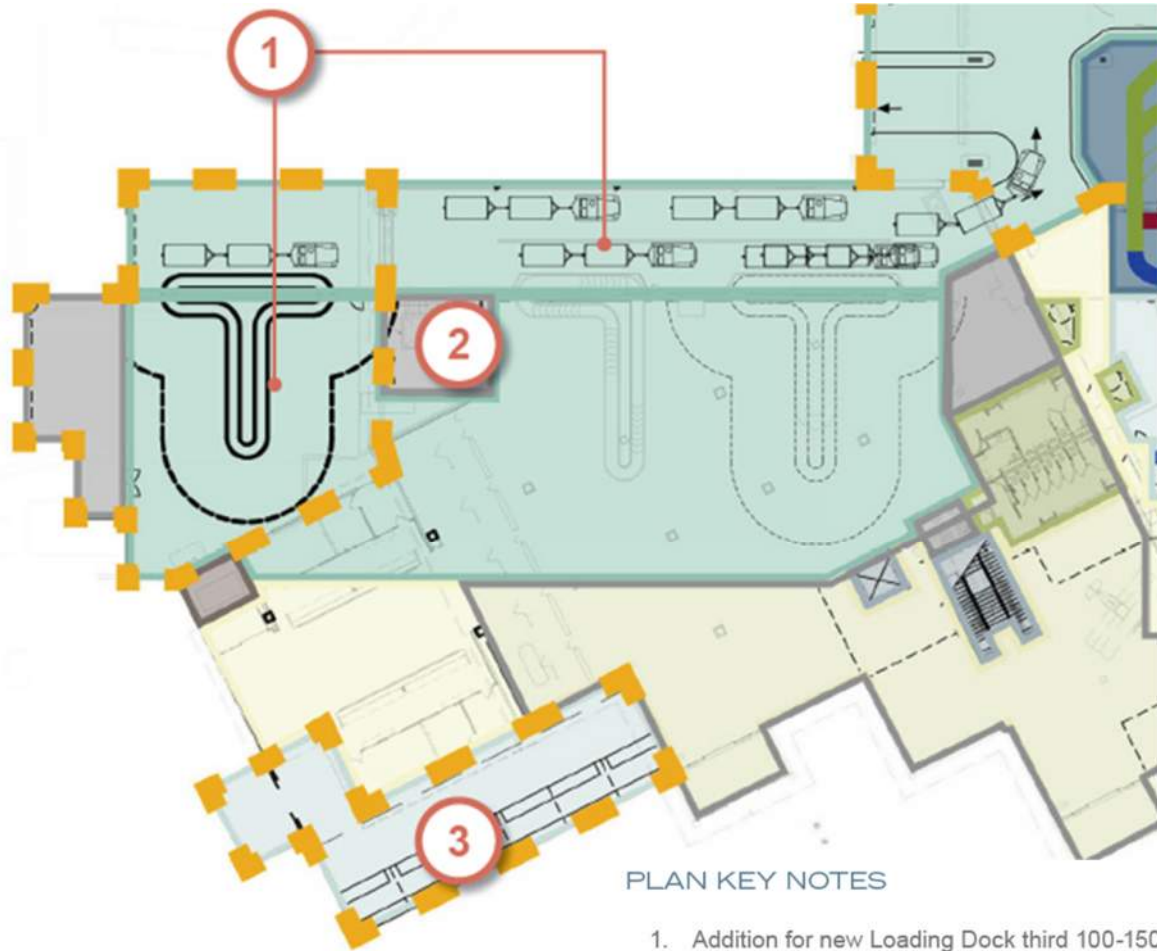
4. Baggage Makeup addition for two 160 LF Baggage Makeup flat plate carousels, 24-cart capacity (+/- 20,000 sf)
5. EDS Baggage Screening area
6. ATOs
7. New Ticket Counters & Scales: 28 positions
8. Future Ticketing Hall expansion (+/- 6,000 sf)



Ticketing and Baggage Makeup

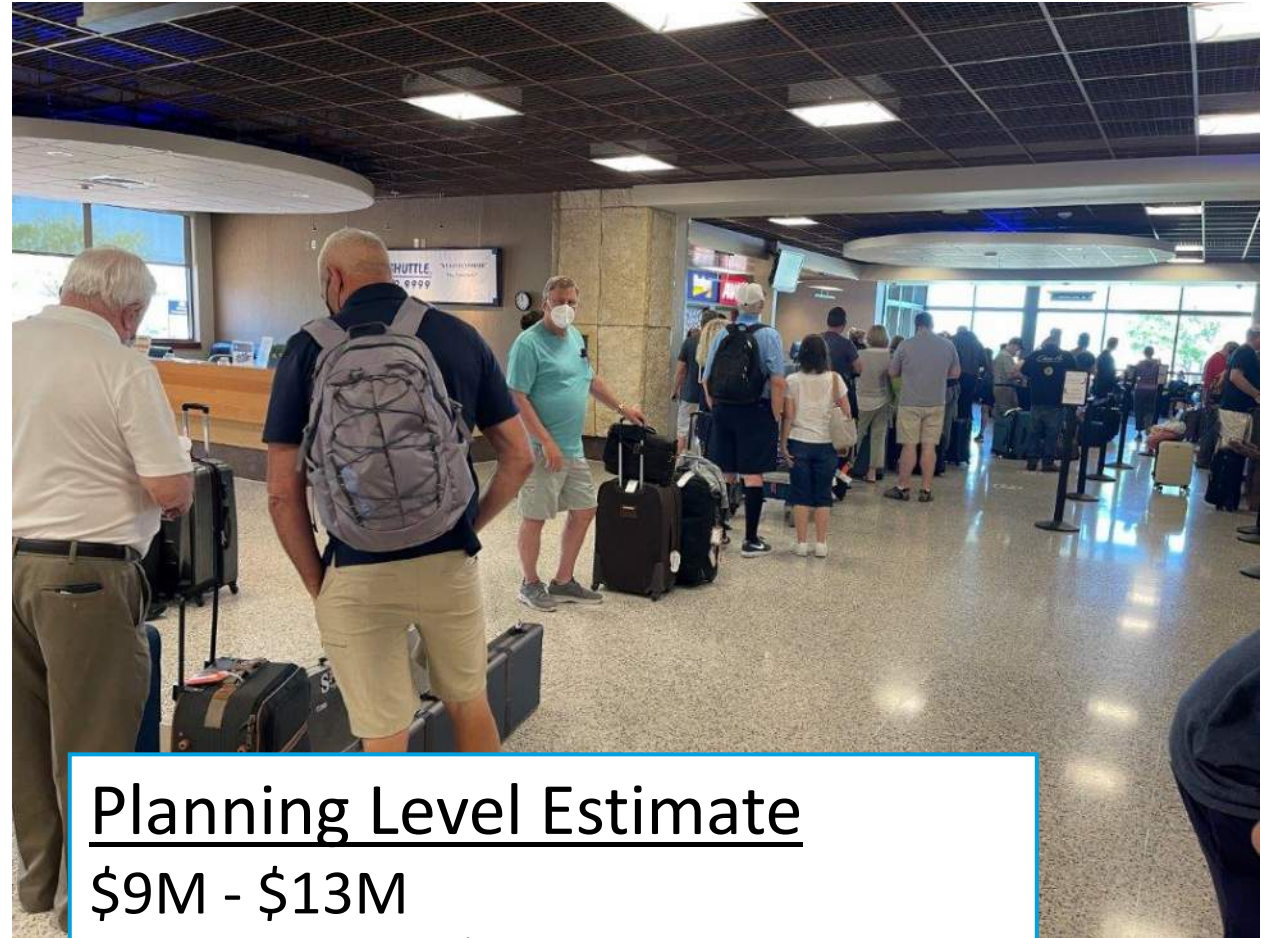


Rental Car Area and Baggage Return



PLAN KEY NOTES

1. Addition for new Loading Dock third 100-150 LF Claim Device, and expanded laydown area (+/- 6,000 sf)
2. New enclosure at existing vertical circulation
3. New addition for Car Rental (+/- 2,800 sf)



Planning Level Estimate

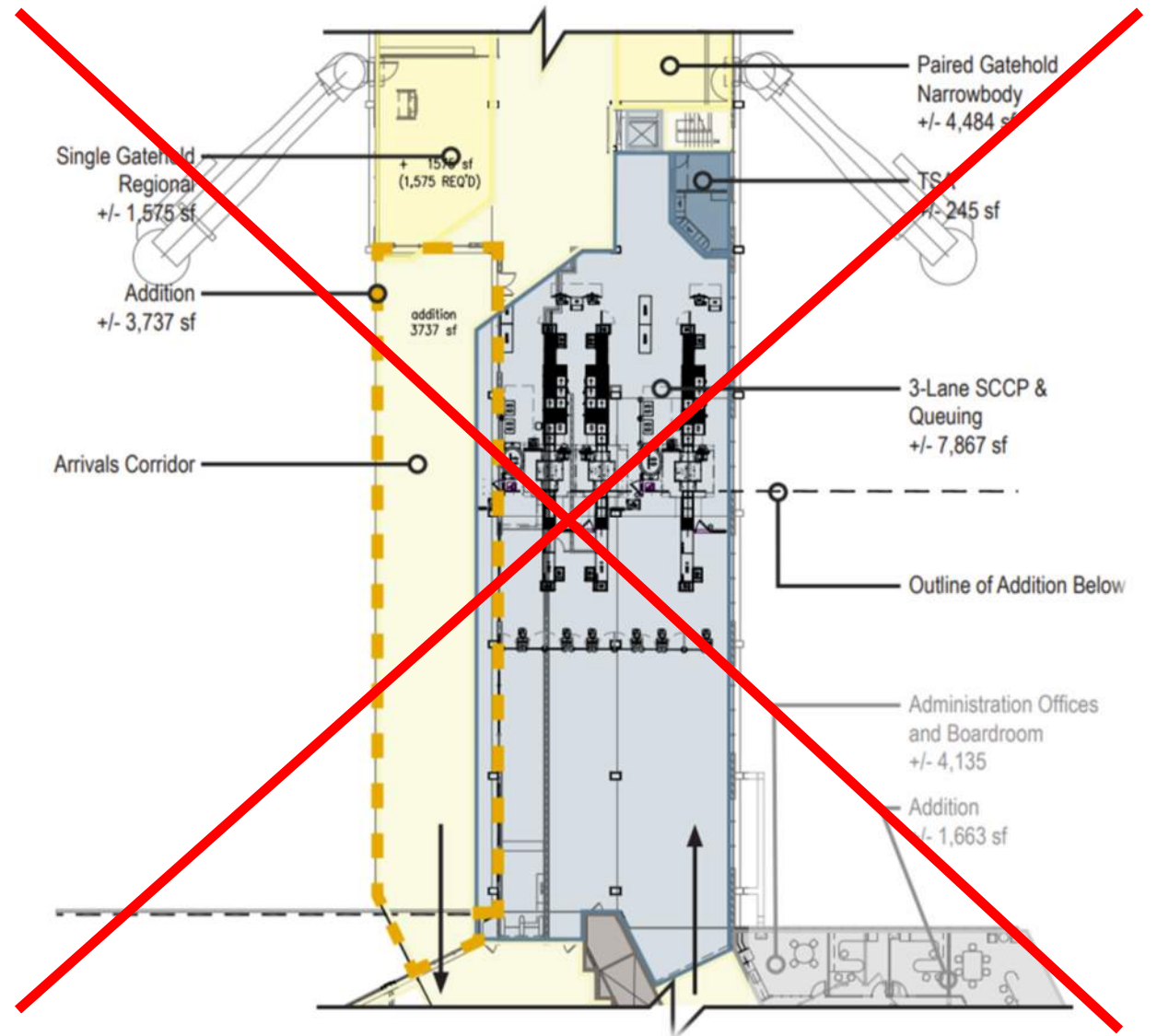
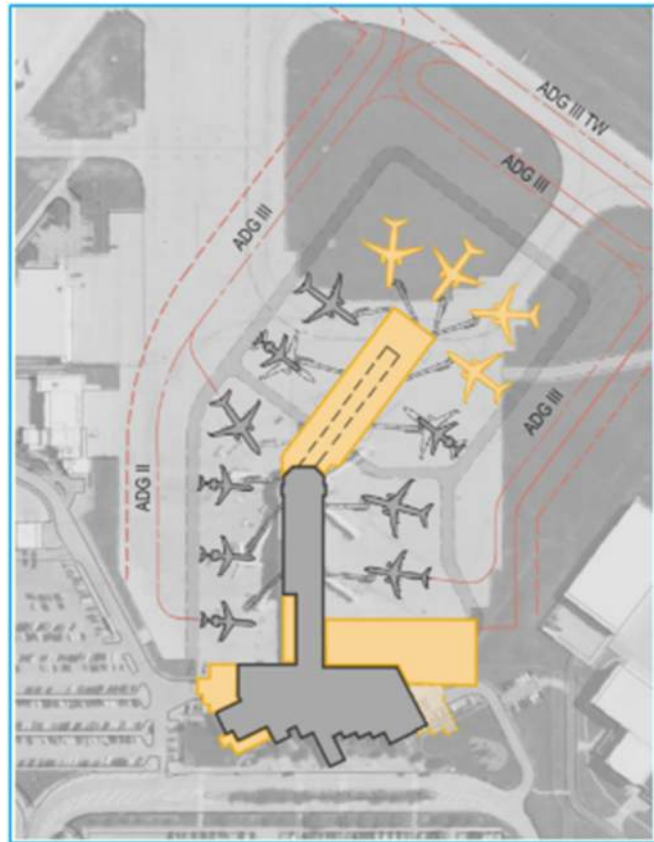
\$9M - \$13M

- Doesn't include est. \$13M baggage screening equipment costs eligible for TSA Reimbursement
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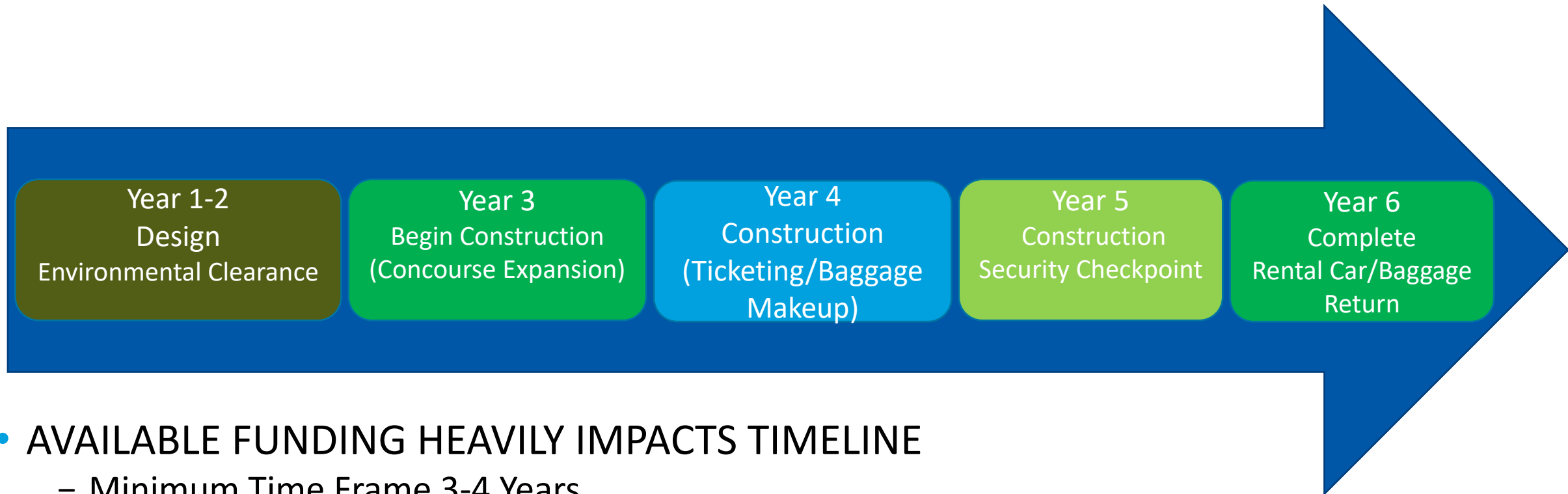
Security Checkpoint – Expansion Concept – BEING REVISED

Planning Level Estimate

TSA Standards Changing



Terminal Timeline



- **AVAILABLE FUNDING HEAVILY IMPACTS TIMELINE**
 - Minimum Time Frame 3-4 Years
 - Maximum Time Determined by available funding

Runway Challenges

- Operational Phasing
- ATCT Location (Line of Sight)
- Funding (\$140-160M)
- \$20M AIP Limited on Terminals

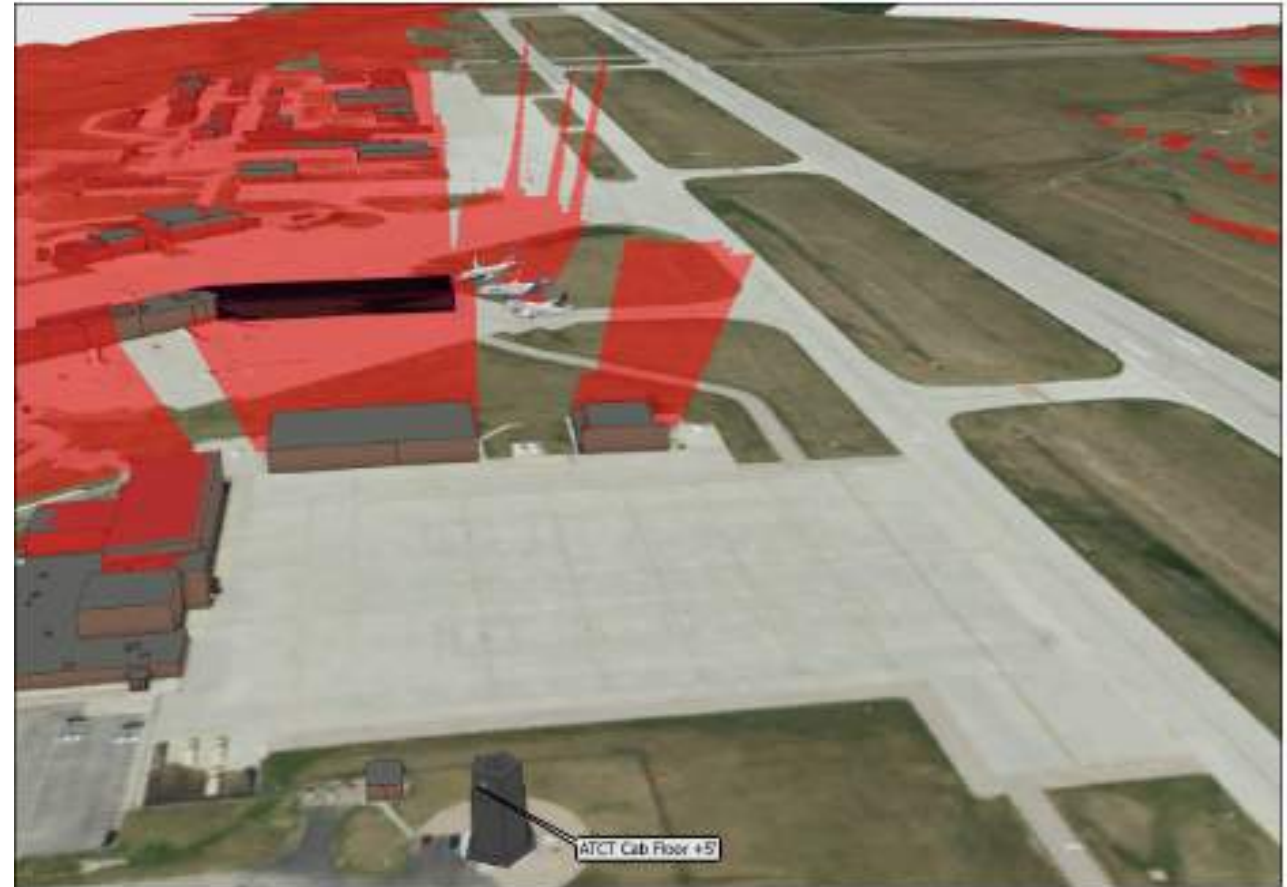


FIGURE 1:
LINE-OF-SIGHT SHADOWS: PREFERRED OPTION FULL BUILD —
ESTIMATED

Funding Needs

- Terminal Expansion (\$140-160M)
 - Including Concourse, Baggage Makeup, Ticket counter/Arrival lobby, Baggage Return, and Associated Aprons
- Runway 14-32 – Estimated (\$90-100M)
- Additional Routine Capital Expenditure are still needed such as:
 - Cargo apron
 - Corporate development
 - GA Hangar and Apron
 - Parking (Car Rental, Paid Parking) [* Not eligible for federal funding]

This presentation includes planning level concepts and cost estimates. Further analysis and environmental clearance (including opportunities for public input) will occur prior to implementation



Thank you.

“When Everything seems to be going against you, remember that the airplane takes off against the wind, not with it.”

Henry Ford, Founder of the Ford Motor Company