



Airport Master Plan

KANSAS CITY DOWNTOWN AIRPORT – WHEELER FIELD





AGENDA

Planning Advisory Committee (PAC) Meeting #4

Thursday April 3, 2025

Brigadier General Charles E. McGee

General Aviation Terminal Building Conference Room

1. Welcome/Introductions
2. Review of the Master Plan Process
3. Preferred Development Plan
4. Environmental Overview
5. Capital Improvement Program
6. Project Wrap Up

PROJECT TEAM



Prime Consultant: Responsible for all aspects of the master plan.
Airport planning, environmental analysis, land use planning, capital
improvement plan, airport layout plan.



FAA required Airports Geographic Information System
(AGIS) survey. Aeronautical surveys, data collection, and
aerial photography.



Engineering support for alternatives and CIP, cost
estimates, EMAS Evaluation



Instrument approach and
airspace analysis

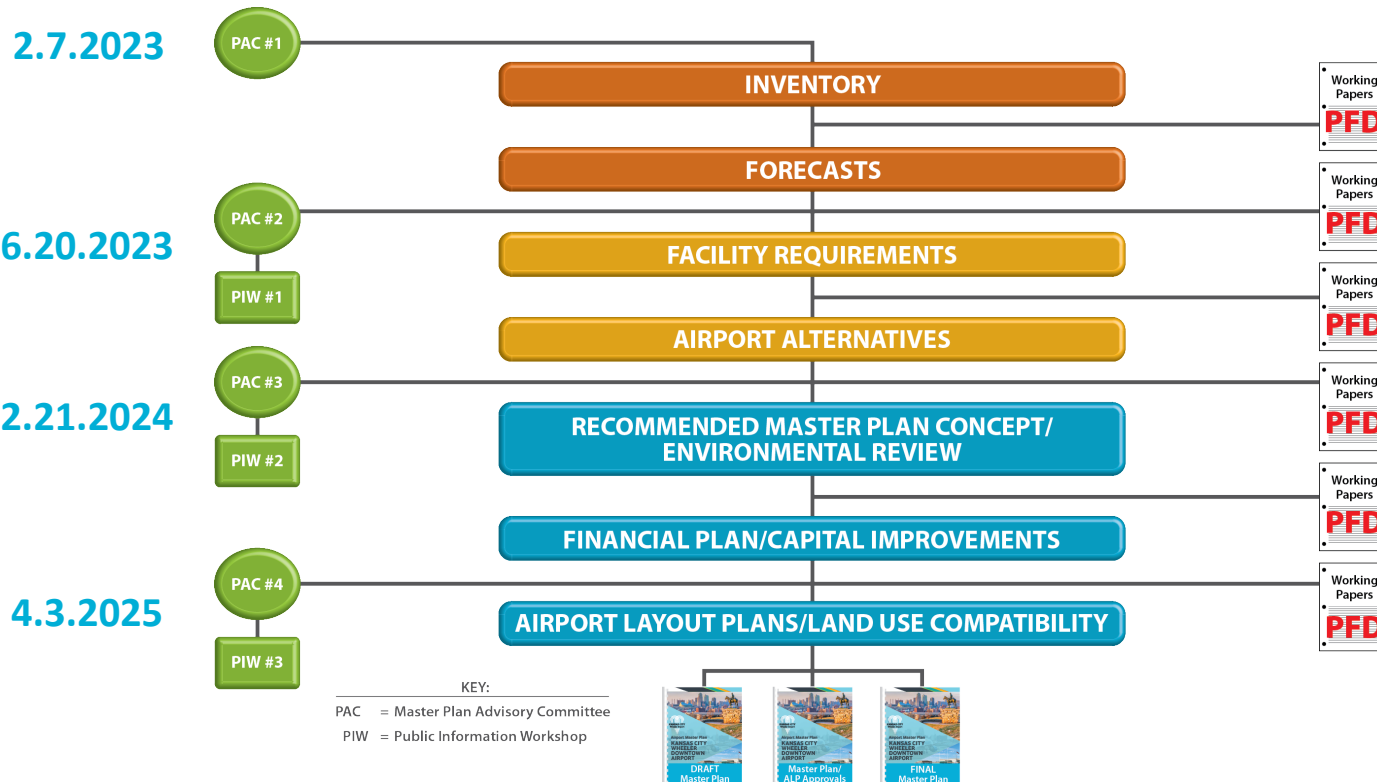


Economic Impact Analysis



Landside analysis, ROI for development
proposals

MASTER PLAN PROCESS



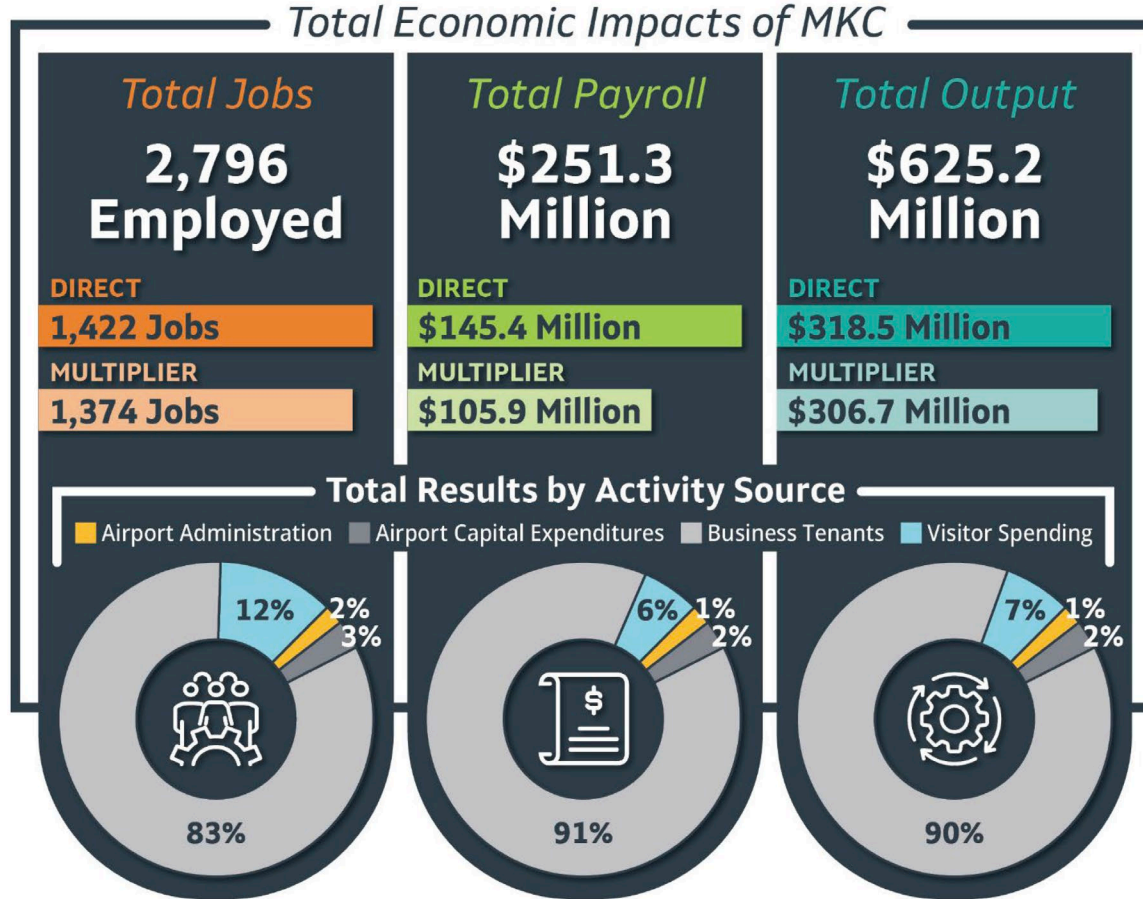
5.23.2024 CSA

DRAFT FINAL DOCUMENT STRUCTURE

<https://mkc.airportstudy.net>

ELEMENT	TITLE
Introduction	Introduction
Chapter 1	Inventory
Chapter 2	Forecasts
Chapter 3	Facility Requirements
Chapter 4	Airport Development Alternatives
Chapter 5	Preferred Development Concept
chapter 6	Capital Improvement Program
Appendix A	Glossary
Appendix B	Forecast Approval
Appendix C	Runway 1 Instrument Approach Analysis
Appendix D	EMAS Condition Report
Appendix E	Economic Impact Study
Appendix F	Comparative Safety Assessment Report
Appendix G	Hangar Technical Memo
Appendix H	Environmental Overview
Appendix J	Land Use Compatibility Plan
Appendix K	Recycling Plan
Appendix L	Airport Layout Plan

Figure 1.1: Economic Impact





FORECAST REVIEW

FORECAST SUMMARY

	Base Year	Forecast			CAGR
	2022	2027	2032	2042	
ENPLANEMENTS					
Annual Enplanements	5,055	5,422	5,815	6,689	1.41%
ANNUAL OPERATIONS					
<i>Commercial Operations (Itinerant)</i>					
Air Carrier (>59 seats)	321	360	400	480	2.03%
Air Taxi	21,592	28,508	29,069	30,222	1.70%
Total Commercial Operations	21,913	28,868	29,469	30,702	1.70%
<i>General Aviation Operations</i>					
Itinerant	50,661	52,721	57,630	66,540	1.37%
Local	40,549	50,705	53,294	58,735	1.87%
Total General Aviation Operations	91,210	103,426	110,923	125,275	1.60%
<i>Military Operations</i>					
Itinerant	930	984	984	984	0.28%
Local	41	47	47	47	0.69%
Total Military Operations	971	1,031	1,031	1,031	0.30%
Total Itinerant Operations	73,504	82,574	88,082	98,226	1.46%
Total Local Operations	40,590	50,752	53,341	58,782	1.87%
TOTAL ANNUAL OPERATIONS	114,094	133,326	141,423	157,008	1.61%





FORECAST SUMMARY

	Base Year	Forecast			CAGR
	2022	2027	2032	2042	
BASED AIRCRAFT					
Single Engine Piston	82	83	85	88	0.35%
Multi-Engine Piston	12	12	11	10	-0.91%
Turboprop	9	11	13	15	2.59%
Jet	82	87	90	96	0.79%
Helicopter	11	13	14	17	2.20%
TOTAL BASED AIRCRAFT	196	206	213	226	0.71%

CAGR: Compound Annual Growth Rate

	Base Year	Forecast		
	2022	2027	2032	2042
PEAKING ACTIVITY PROJECTIONS				
Annual Operations	114,094	133,326	141,423	157,008
Peak Month	12,149	14,199	15,062	16,721
Design Day	405	473	502	557
Design Hour	55	64	68	76

Ex 2J: Aircraft Reference Codes

A-I	Aircraft	TDG	B-II <i>over 12,500 lbs.</i>	Aircraft	TDG	C/D-II	Aircraft	TDG
	<ul style="list-style-type: none"> Beech Baron 55 Beech Bonanza Cessna 150, 172 Eclipse 500 Piper Archer, Seneca 	1A 1A 1A 1A 1A		<ul style="list-style-type: none"> Beech Super King Air 350 Cessna Citation CJ3(525B), V (560) Cessna Citation Bravo (550) Cessna Citation CJ4 (525C) Cessna Citation Latitude/Longitude Embraer Phenom 300 Falcon 10, 20, 50 Falcon 900, 2000 Hawker 800, 800XP, 850XP, 4000 Pilatus PC-24 	2A 2A 1A 1B 1B 1B 1B 2A 1B 1B		<ul style="list-style-type: none"> Challenger 600/604/800/850 Cessna Citation VII, X+ Embraer Legacy 450/500 Gulfstream IV, 350, 450 (D-II) Gulfstream G200/G280 Lear 70, 75 	1B 1B 1B 2A 1B 1B
	<ul style="list-style-type: none"> Beech Baron 58 Beech King Air 90 Cessna 421 Cessna Citation CJ1 (525) Cessna Citation 1(500) Embraer Phenom 100 	1A 1A 1A 1A 2A 1B		<ul style="list-style-type: none"> Bombardier Dash 8 Bombardier Global 5000, 6000, 7000, 8000 Falcon 6X, 7X, 8X 	3 2B 2B		<ul style="list-style-type: none"> Gulfstream V Gulfstream G500, 550, 600, 650 (D-III) 	2A 2B
	<ul style="list-style-type: none"> Beech Super King Air 200 Cessna 441 Conquest Cessna Citation CJ2 (525A) Pilatus PC-12 	2A 1A 2A 1A		<ul style="list-style-type: none"> Lear 25, 31, 45, 55, 60 Learjet 35, 36 (D-I) 	1B 1B		<ul style="list-style-type: none"> Airbus A319-100, 200 Boeing 737 -800, 900, BBJ2 (D-III) MD-83, 88 (D-III) 	3 3 4
							<ul style="list-style-type: none"> Airbus A300-100, 200, 600 Boeing 757-200 Boeing 767-300, 400 MD-11 	5 4 5 6
							<ul style="list-style-type: none"> Airbus A330-200, 300 Airbus A340-500, 600 Boeing 747-100 - 400 Boeing 777-300 Boeing 787-8, 9 	5 6 5 6 5

Note: Aircraft pictured is identified in bold type.



CRITICAL AIRCRAFT and RUNWAY DESIGN CODE

TABLE 2PP | Airport and Runway Classifications

	Current	Future
Airport Reference Code (ARC)	D-III-4000	D-III-4000
Airport Design Aircraft	D-III-2B	D-III-3
Runway Design Code (RDC)		
Runway 1-19	D-III-4000	D-III-4000
Runway 4-22	B-II-4000	B-II-4000
Approach Reference Code (APRC)		
Runway 1-19	D-IV-4000/D-V-4000	D-IV-4000/D-V-4000
Runway 4-22	B-III-4000	B-III-4000
Departure Reference Code (DPRC)		
Runway 1-19	D-IV/D-V	D-IV/D-V
Runway 4-22	B-III/D-II	B-III/D-II

Source: Current Airport Layout Plan; FAA AC 150/5300-13B, Airport Design

Comparative Safety Assessment

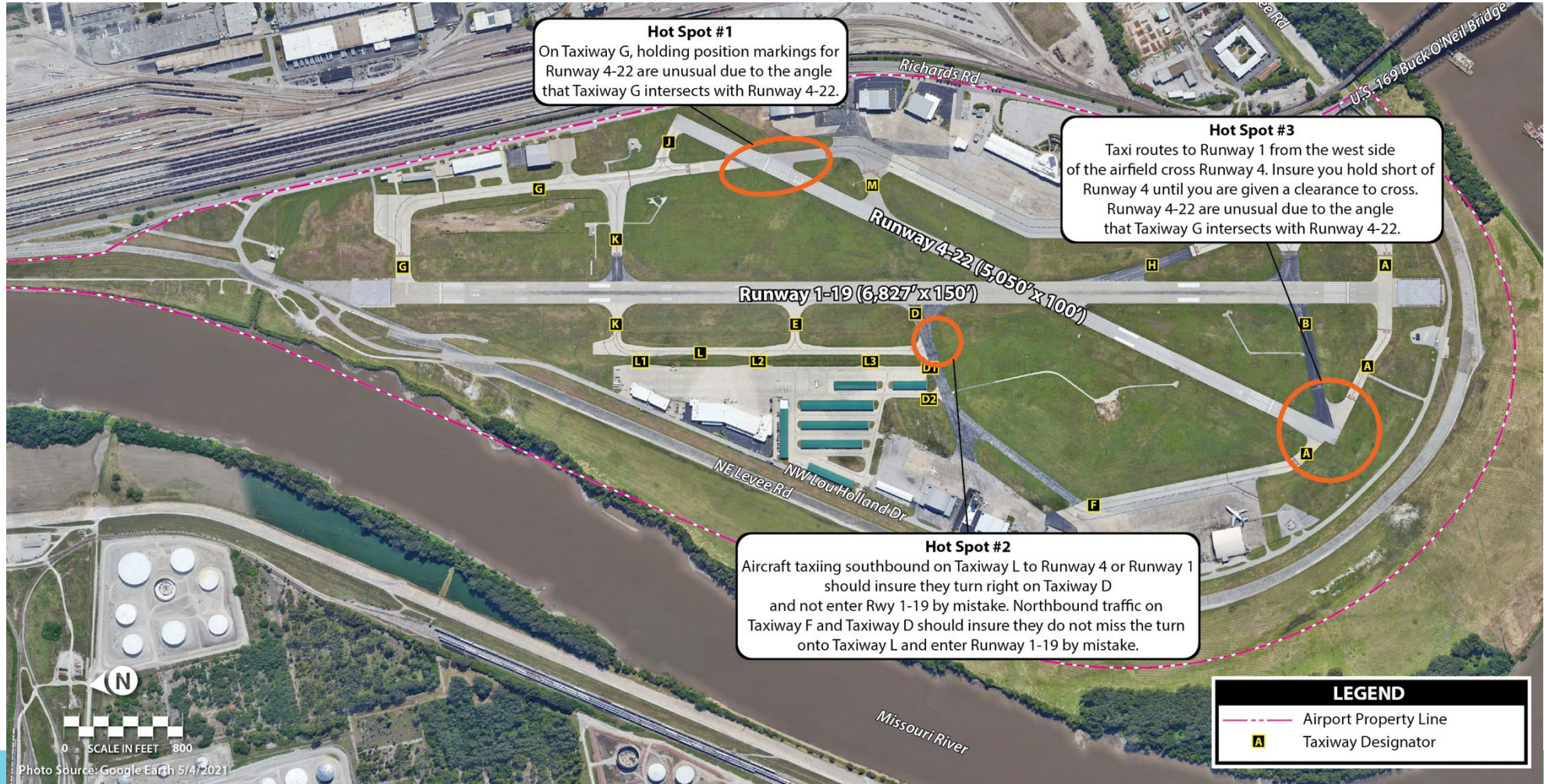
Primary Elements for the CSA

1. Hot Spot #1: Intersection of Taxiway G and Runway 4-22 and associated taxiways
2. Hot Spot #2: Direct access of Taxiway D to Runway 1-19
3. Taxiway H: Angled high-speed taxiway exit
4. Landside Development Alternatives: New development potential adjacent newly opened Taxiway L extension
 - Public road access/Status of Taxiway F
 - Potential hangar layouts/Viewshed from the control tower

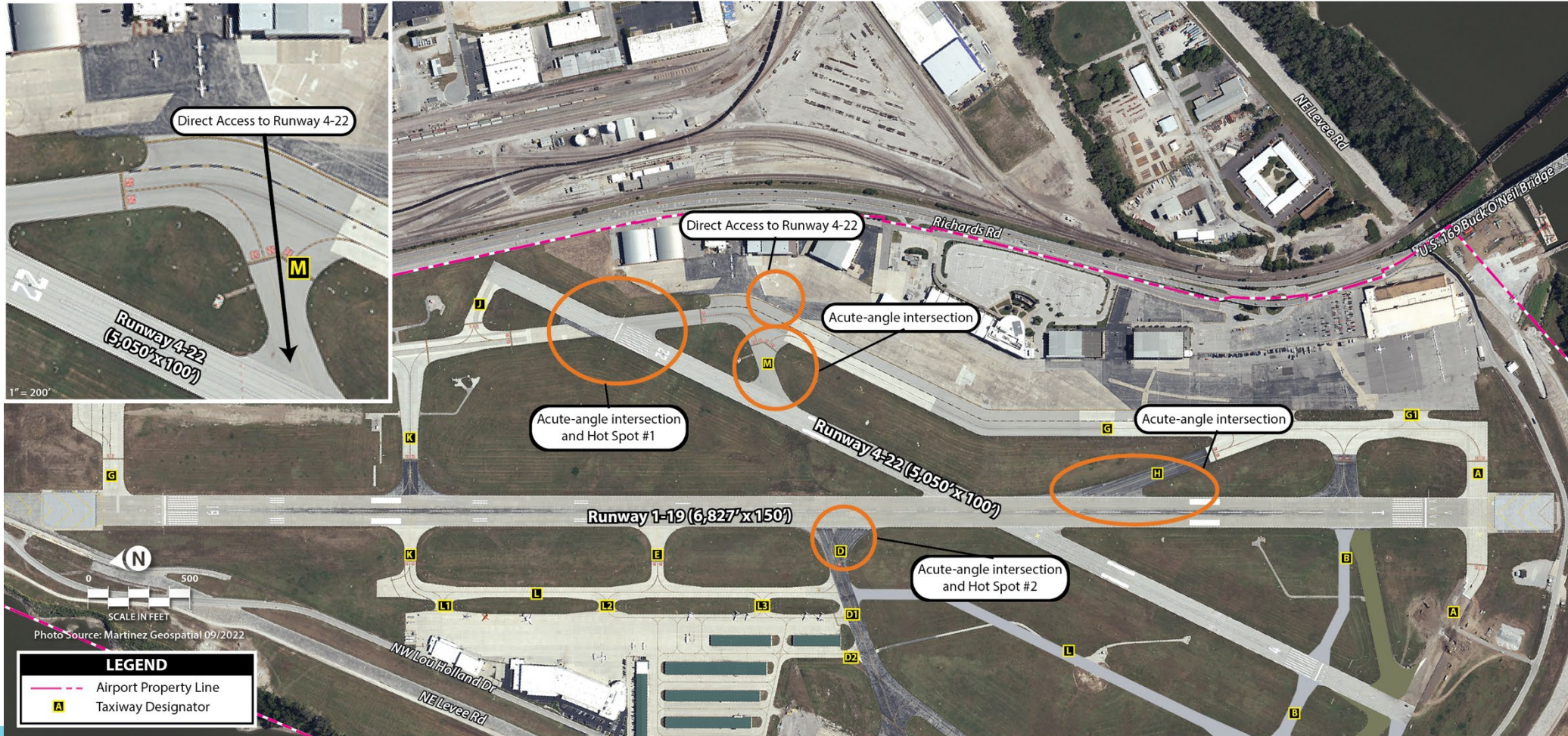
Elements not covered

- Runways: Previous analysis and consensus determined that the runways are to remain at their current length/width.
- Runway Safety Area (RSA): Safety is maximized based on the presence of EMAS
- Hot Spot #3: The newly opened Taxiway L largely mitigates this issue. Completion of Taxiway B provides resolution, and FAA may consider removing this as a designated hot spot.
- Potential instrument approach to Runway 1: This analysis is complete. It is likely feasible and can be pursued by KCAD (typical 2-year timeframe for a new instrument approach).

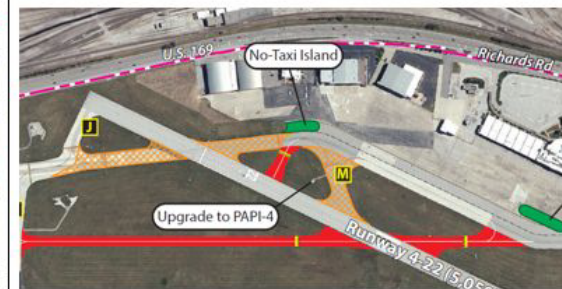
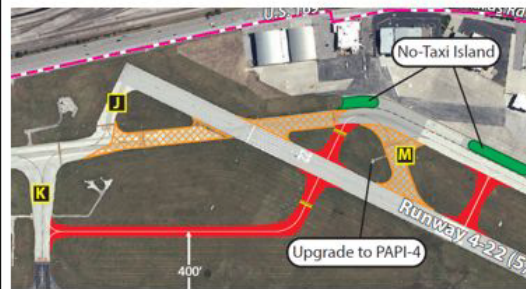
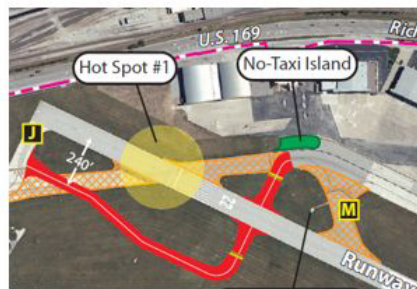
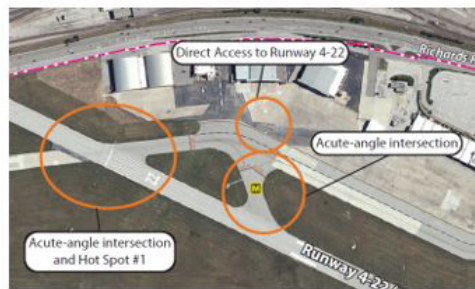
Exhibit 1J: FAA Hot Spots

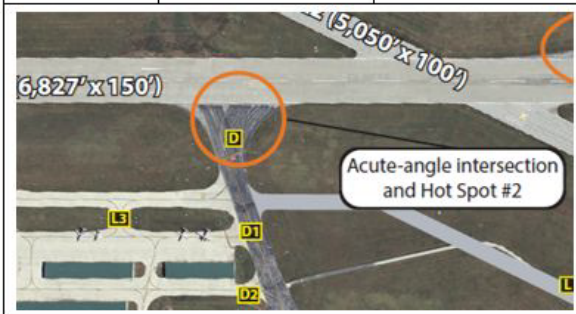
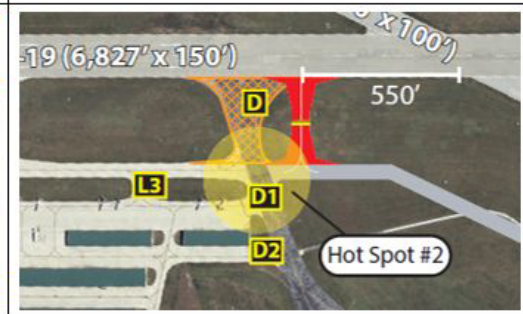
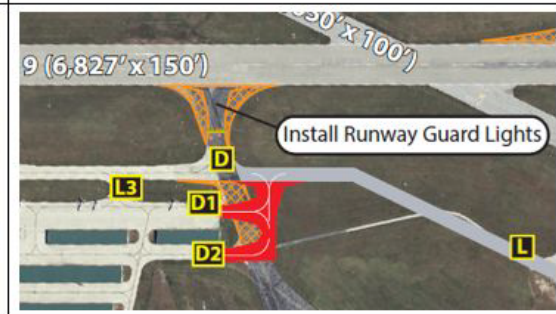




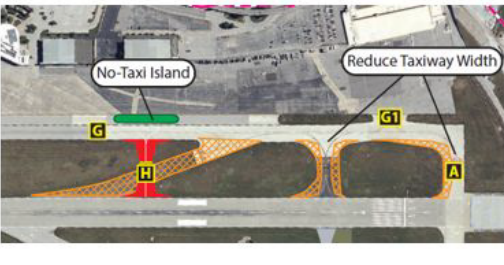
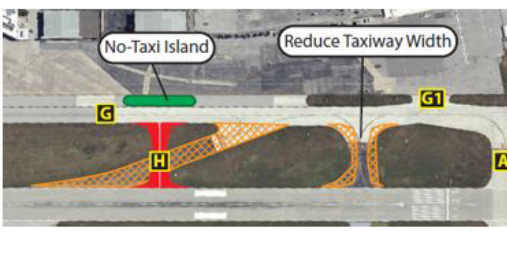
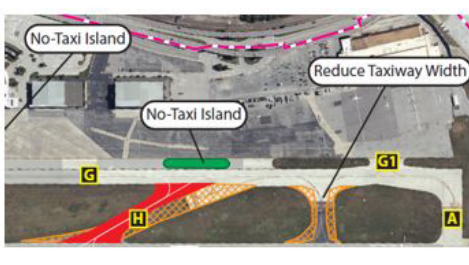
Ex 3F: Taxiway Geometry Concerns



Element	Brief Description	Safety Concern	Alternative 1	Alternative 2	Alternative 3
Hot Spot #1 and Taxiway M	<p>The Taxiway G and Runway 4-22 Intersection on Taxiway G and the holding position markings for Runway 4-22 are unusual due to the angle that Taxiway G intersects with Runway 4-22.</p> <p>Taxiway M is currently an angled connection which is nonstandard.</p>	<p>Inadvertent runway incursions. Taxiway M provides direct access to the Runway from an Apron. "...wide expanses of pavement at taxiway entrances and taxi paths that provide direct access to a runway can lead to loss of situational awareness for pilots and vehicle operators, which increases the risk of a runway incursion." (150/5300-13B)</p>	<ol style="list-style-type: none"> Remove a portion of Taxiway G that crosses the Runway 22 threshold. Construct a new right angle taxiway pavement on either side of Runway 4-22. Taxiway would intersect Runway 4-22 at a right angle; the new Taxiway is approximately 380 feet south of the threshold. <u>New</u> pavement extends west from the north end of the apron, cross the runway, and turn to the northeast to connect with Taxiway J. The new partial parallel taxiway to Runway 4-22 at the north end is separated from the runway by 240 feet with holding positions set 200 feet from the runway centerline. Taxiway M is proposed to be <u>removed</u>, with the new taxiway connecting the north apron to Runway 22 serving as an exit for pilots landing on Runway 4. No-taxi islands are proposed, which are either natural turf or artificial turf/paint that force pilots to make a turn prior to entering the runway environment, thereby improving pilot situational awareness, and reducing the risk of a runway incursion. No-taxi islands are proposed near the to eliminate apron to runway direct access. 	<ol style="list-style-type: none"> As in Alternative 1, remove a portion of Taxiway G pavement that crosses the Runway 22 threshold. Construct new right-angle taxiway pavement on either side of Runway 4-22. However, rather than constructing a partial parallel taxiway to Runway 4-22, a partial parallel taxiway is proposed for Runway 1-19. The taxiway would extend from the apron, cross Runway 4-22, and turn north to connect with Taxiway K. The taxiway would be separated from Runway 1-19 by 400 feet with holding positions to Runway 4-22 set 200 feet from the runway centerline. Taxiway M is proposed to be <u>removed</u> and a new taxiway connector constructed between Taxiway G and Runway 4-22, south of the existing Taxiway M. This connector would serve as an exit for pilots arriving on Runway 4. No-taxi islands are also planned for three areas on the east side apron to reduce the risk of inadvertent runway access from landside areas. No-taxi islands are proposed near the to eliminate apron to runway direct access. 	<ol style="list-style-type: none"> As in Alternative 1, remove a portion of Taxiway G pavement that crosses the Runway 22 threshold. Construct new taxiway pavement. Construct <u>parallel</u> taxiway intersecting at Runway 4-22 parallel to Runway 1-19. Taxiway would extend from Taxiway K to Taxiway G. <u>Taxiway</u> is separated by 412.5 feet from Runway 1-19, same as the existing parallel portion of Taxiway G. Taxiway M is proposed to be <u>removed</u>, with a new exit taxiway proposed to extend from the northeast apron to connect with Runway 4-22. No-taxi islands are proposed near the to eliminate apron to runway direct access.



Element	Brief Description	Safety Concern	Alternative 1	Alternative 2	Alternative 3
² Hot Spot #2 / Taxiway D	<p>Taxiway D is an exit taxiway to Runway 1-19; identified as Hot Spot #2 due to past pilot confusion about the intersection.</p> <p>The new extension of Taxiway L is likely to improve pilot situational awareness; however, Taxiway D still provides direct access from an apron area to the runway as it crosses Taxiway L. Removing the direct access issue is the object of the alternatives.</p>	Northbound traffic on Taxiway F and Taxiway D should ensure they do not miss the turn onto Taxiway L and enter Runway 1-19 by mistake.	<p>a) Hotspot #2 is proposed to be alleviated by the closure of a portion of Taxiway D connecting to the runway.</p> <p>b) A replacement connector taxiway is proposed approximately 100 feet south of the existing Taxiway D pavement and 550 feet from the intersection of the runways.</p> <p>c) A similar option was studied in the past and the primary concern was that a replacement Taxiway D connector closer to the intersection of the two runways might lead to pilot confusion and potential runway incursions.</p> <p>d) At the time, the replacement Taxiway D connector was positioned farther south and thus closer to the intersection of the runway than the one depicted in the figure below.</p>	<p>a) Taxiway D is proposed to be narrowed to the 50-foot standard, eliminating excess pavement that may contribute to confusion in this area.</p> <p>b) Removing pavement on either side of the taxiway also serves to form a right-angle connection between the taxiway and runway, which is preferred by FAA design standards.</p> <p>c) To further reduce the risk of accidental entrance onto Runway 1-19, runway guard lights are proposed to be installed. Runway guard lights are installed at taxiway/runway intersections to enhance the visibility of taxiway/runway intersections.</p> <p>d) Proposed lights consist of either:</p> <ul style="list-style-type: none"> a pair of <u>elevated flashing yellow lights</u> installed on either side of the taxiway, or a <u>row of in-pavement yellow lights</u> installed across the entire taxiway at the runway holding position marking. <p>e) In this alternative, Taxiway D west of Taxiway L is also modified by shifting it slightly south to eliminate direct access to the runway and create a 90-degree intersection with Taxiway L.</p>	<p>a) Proposed to be mitigated <u>similar</u> to Alternative 2.</p> <p>a) Taxiway D is narrowed to provide a 50-foot-wide surface and right-angle connection to Runway 1-19.</p> <p>b) The western portion of Taxiway D that extends from Taxiway L to the west apron is proposed to be closed and configured to provide an offset connection to Taxiway L.</p>
   					

Element	Brief Description	Safety Concern	Alternative 1	Alternative 2	Alternative 3
Taxiway H – High-Speed Exit	<p>Taxiway H currently provides a quick exit from the runway for aircraft landing on Runway 19. The preferred geometry for exit taxiways is 90 degrees for pilots to have full peripheral views.</p> <p>At capacity-constrained airports (like MKC), angled taxiways are permissible; however, there are geometric standards for the angle that would apply. The existing Taxiway H is a high-speed exit; however, it is not at a standard angle.</p>	<p>Acute-angle intersection.</p> <p>The angle between the runway centerline and the Taxiway H centerline is currently 20 degrees.</p> <p>According to FAA Advisory Circular (AC) 150/5300-13B, Airport Design, the standard angle for a high-speed exit is 30 degrees.</p>	<ol style="list-style-type: none"> In this alternative, existing Taxiway H pavement is proposed to be removed and a new right-angle connector constructed between Runway 1-19 and Taxiway G. This alternative also proposes two no-taxi islands, which are areas of either natural turf or artificial turf/paint that force pilots to make a turn prior to entering the runway environment, thereby improving pilot situational awareness, and reducing the risk of a runway incursion. No-taxi islands are proposed near the to eliminate apron to runway direct access. 	<ol style="list-style-type: none"> Like the previous taxiway alternative, a similar modification is proposed for Taxiway H. Existing Taxiway H pavement is proposed to be removed and a new right-angle connector constructed between Runway 1-19 and Taxiway G. No-taxi islands are proposed near the to eliminate apron to runway direct access. 	<ol style="list-style-type: none"> Taxiway H is proposed to remain as a high-speed exit taxiway because it enhances runway capacity by reducing runway occupancy times. This high-speed taxiway exit is also highly utilized, according to the airport traffic control tower (ATCT) manager, who indicated they would prefer to keep it operational as a high-speed exit. When it is time for Taxiway H to be reconstructed due to normal use, it is shown in a slightly different configuration. The angle between the runway centerline and the Taxiway H centerline is currently 20 degrees. According to the FAA AC 150/5300-13B, the standard angle for a high-speed exit is 30 degrees; therefore, this alternative shows Taxiway H to be reconstructed at the standard 30-degree angle. Another consideration is the capability for a reverse turn onto the parallel taxiway. The recommended runway-to-taxiway separation to allow for a reverse turn is 350 feet for a critical aircraft in taxiway design group (TDG) 3. The future TDG for the airport is TDG 3, and the current runway-to-taxiway separation is 412.5 feet; therefore, a high-speed exit with a reverse turn onto the parallel taxiway is feasible. No-taxi islands are proposed near the to eliminate apron to runway direct access.
<div>     </div>					

Element	Brief Description	Safety Concern(s)	Alternative 4	Alternative 5
Southwest Landside Alternatives Constrained by Existing Lease Lines	<p>This analysis is based on the current ATCT location to determine if the alternatives would interfere with the tower controller's line of sight.</p> <p>Each analysis is based on a cab eye level of 72 feet, with assumed hangar heights ranging from 20 feet (T-hangar) to 65 feet (200-foot by 200-foot conventional hangar).</p>	<p>Areas shaded in red are locations that would not be visible from the cab to the ground. The viewshed analysis for each southwest landside alternative is shown in the second figure of each alternative.</p> <p>Additionally, the existing Taxiway F will no longer serve as a taxiway under FAA ATCT control and will be separated by a roadway that enters the area from Lou Holland Drive.</p>	<ol style="list-style-type: none"> This is the first of two alternatives that generally preserve the existing lease lines in the southwest quadrant. This alternative considers several large conventional hangars that might be typical of an FBO complex. The hangars are large enough to house the largest business jets and potentially larger commercial type aircraft used for charter purposes. An access road is extended from Lou Holland Drive adjacent to Hangar 8B. This location is along the current lease line, which limits separating facilities. The access road extends to the 26-acre parcel that is currently unleased. The parking lot extends along the west edge of the lease line before the hangars. This layout attempts to locate the hangars as far back to the west as possible to maximize control tower sightlines. This alternative shows additional hangar development on parcels that are currently leased. Additional T-hangars are shown in proximity to the existing T-hangars. The existing shade hangar is shown to be replaced with two medium-sized box hangars. The south area is shown to be completely redeveloped with a series of conventional hangars. 	<ol style="list-style-type: none"> This is a variation of Landside Alternative 4 in which the centrally located hangars are more linearly oriented. There are a variety of hangar sizes; however, all are larger hangars that are typical for FBO services, bulk storage, or maintenance activities. The access road extends adjacent to Hangar 8B again along the existing parcel line. A development scenario is also shown for those areas that are currently under lease. On the south side of the new access road is redevelopment with four large conventional hangars. On the north side of the access road, the shade hangar is replaced with a conventional hangar and one other box hangar is shown to fill in an undeveloped area next to the AirShare hangar. The area next to the existing T-hangars is shown with a tiedown apron.



Exhibit 4M: Southwest Landside Alternative 4

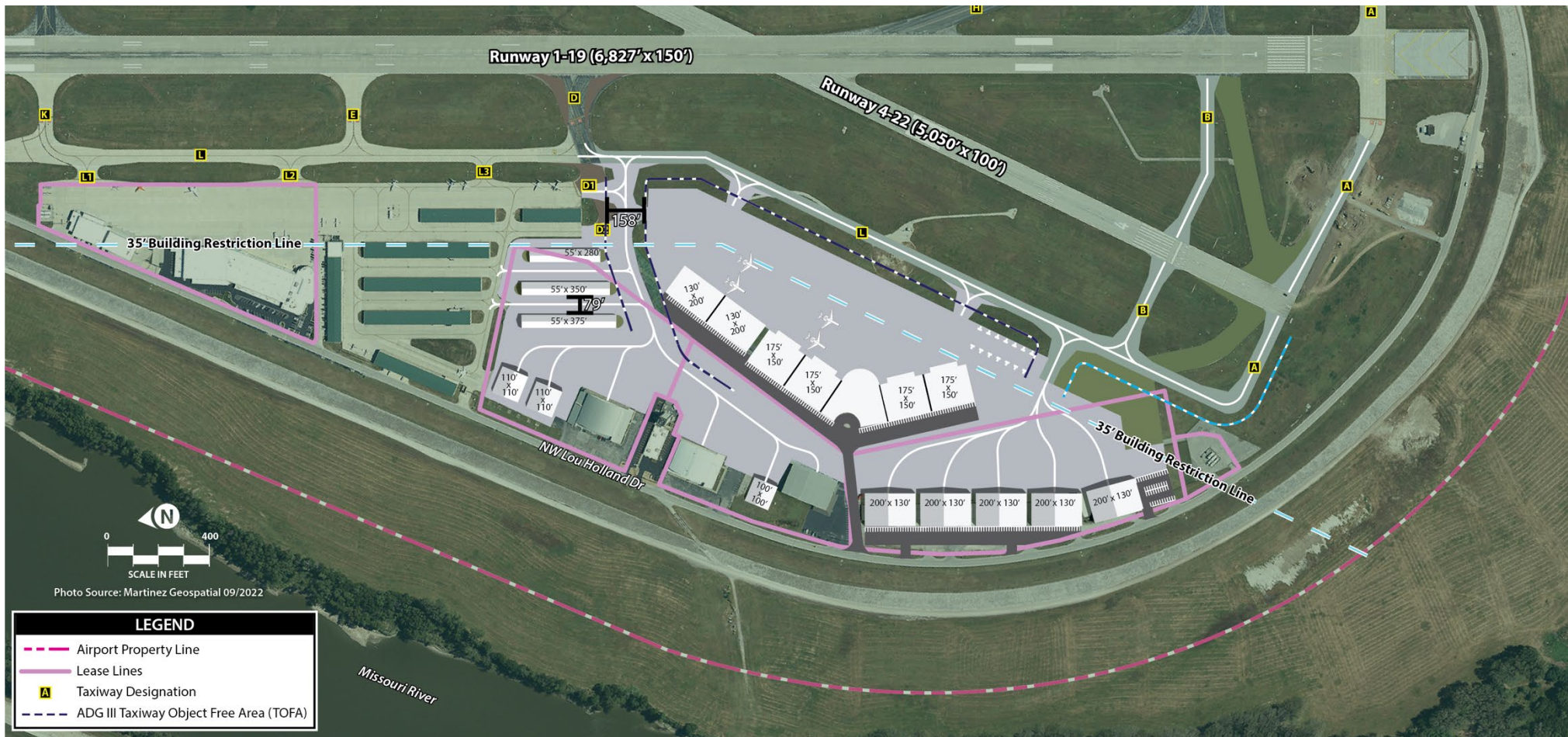
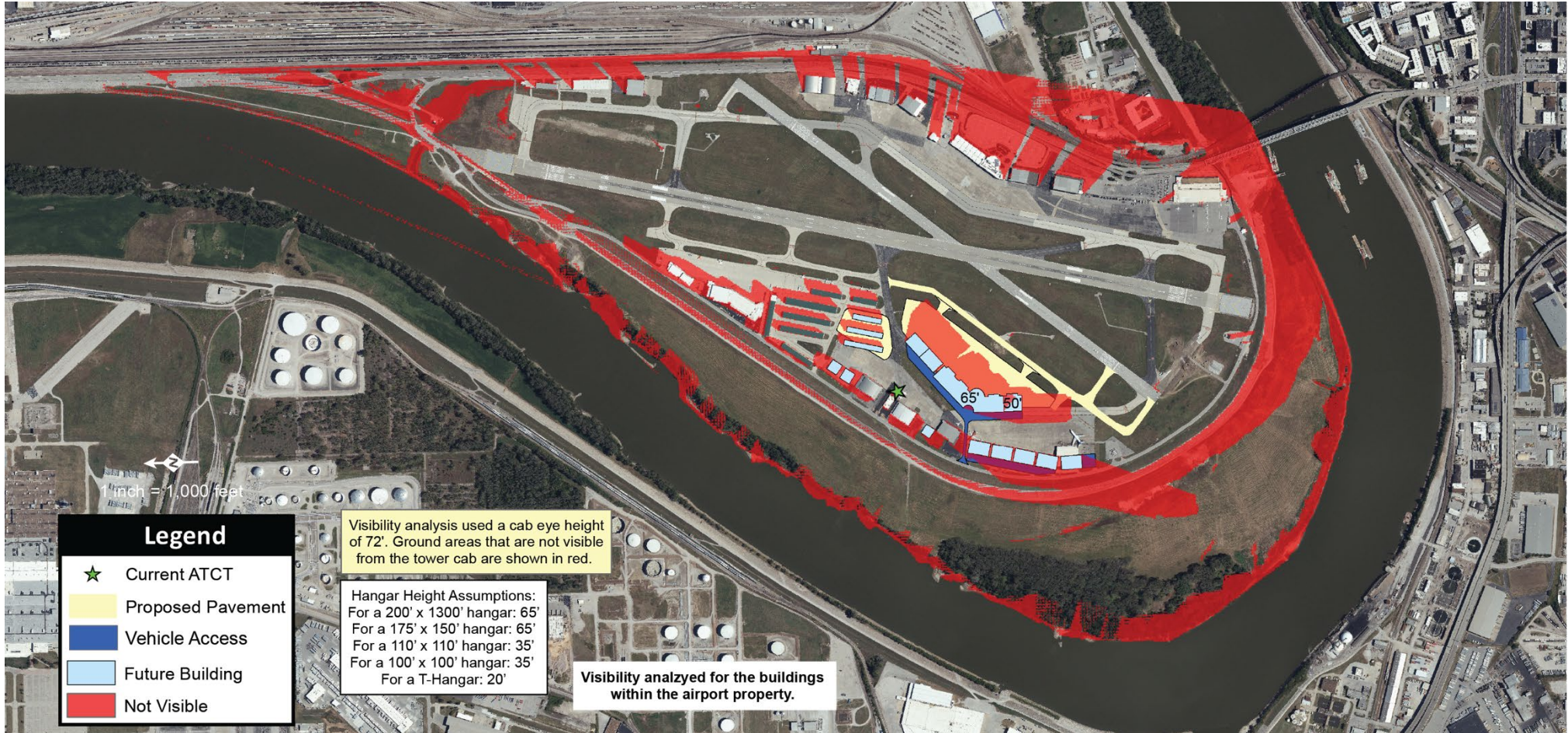


Exhibit 4M: Southwest Landside Alternative 4



The background of the slide features a composite image. On the left, a semi-transparent blue triangle contains the text. Behind this triangle, a faded image of a Spirit of '76 airplane is visible. To the right of the triangle, the background shows a clear view of the Kansas City skyline at dusk or dawn, with the Spirit of '76 statue prominently displayed on its stone pedestal in the foreground. The statue is a bronze equestrian figure of a Native American on a horse, standing on a large, rectangular stone block. The city skyline in the background includes several tall skyscrapers, some of which are illuminated. The sky is a mix of soft pinks, oranges, and blues, suggesting the time is either early morning or late evening. The overall composition is modern and professional, suitable for a city planning document.

Airport Master Plan

**KANSAS CITY
DOWNTOWN
AIRPORT –
WHEELER
FIELD**

Chapter 5
PREFERRED DEVELOPMENT PLAN

Exhibit 5A: Preferred Development Program

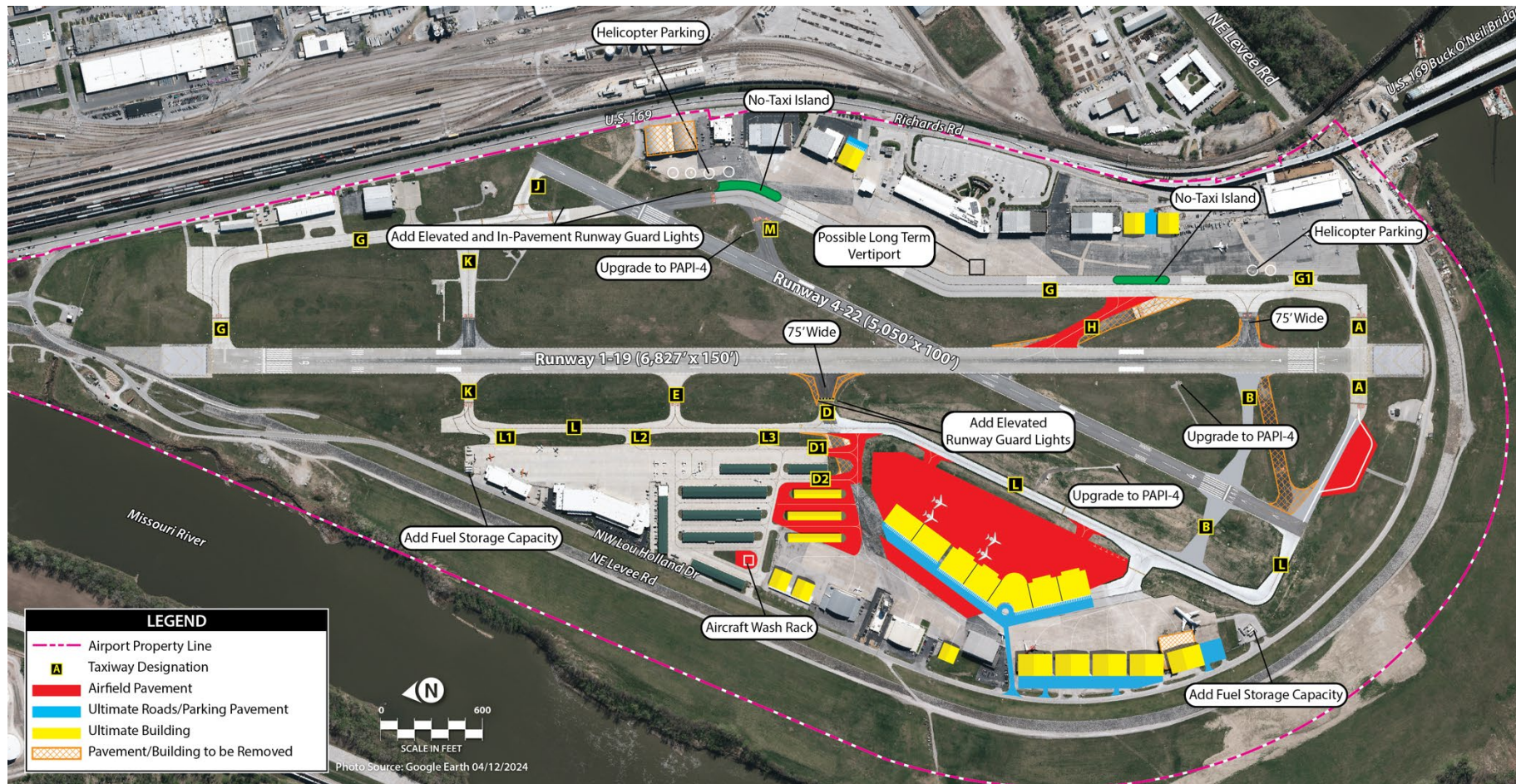



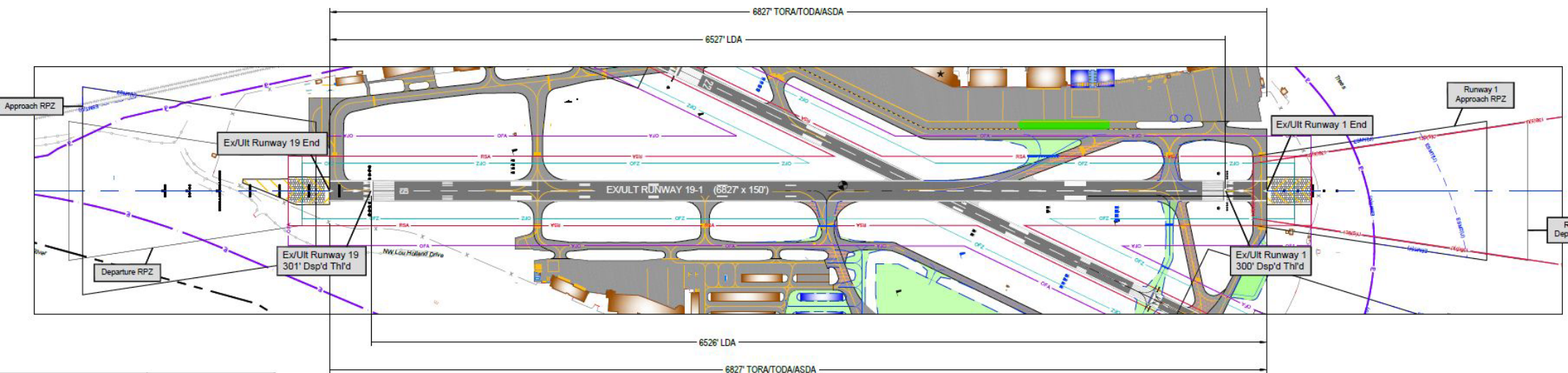


Table 5A: Declared Distances

Parameters	Runway 1	Runway 19	Runway 4	Runway 22
Takeoff Run Available (TORA)	6,827'	6,827'	5,050'	5,050'
Takeoff Distance Available (TODA)	6,827'	6,827'	5,050'	5,050'
Accelerate Stop Distance Available (ASDA)	6,827'	6,827'	4,770'	5,050'
Landing Distance Available (LDA)	6,528' 	6,526'	4,270'	4,351'

 Change
from 6,527'

Runway 1-19 Declared Distances



Runway 4-22 Declared Distances

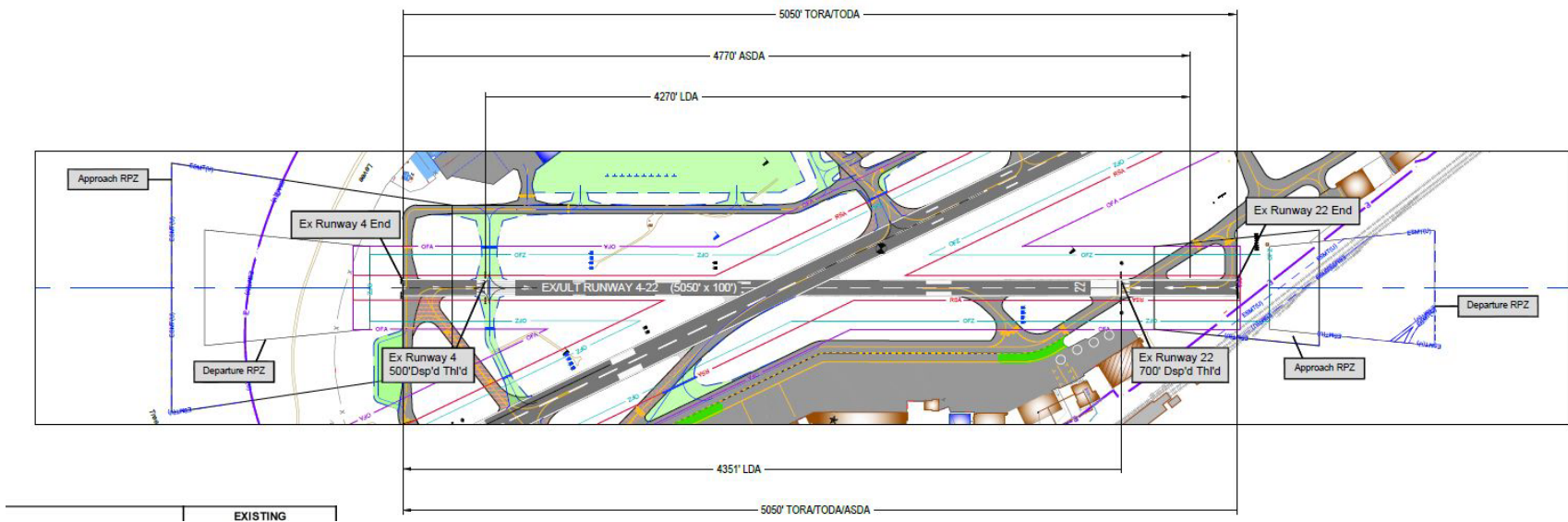




Table 5B: Non-Standard Runway Design Conditions

Description	Actual Dimensions	Standard Dimensions	Disposition/Proposed Improvement
RSA Obstructions – Runway 1 End	500' wide x 330' beyond end	500' wide x 1,000' beyond ends	EMAS present. Small corner of RSA penetrated by fence and road. Condition to remain because shortening the runway will negatively impact the critical aircraft.
RSA Obstructions – Runway 19 End	500' wide x 300' beyond end	500' wide x 1,000' beyond ends	EMAS present. Levee causes grading issue and fence penetration at the end of the RSA. Condition to remain because shortening the runway will negatively impact the critical aircraft.
ROFA Obstructions – Runway 1 End	800' wide x 330' beyond end	800' wide x 1,000' beyond ends	EMAS present. Small corner of ROFA penetrated by fence and road. Condition to remain because shortening the runway will negatively impact the critical aircraft.
ROFA Obstructions – Runway 19 End	800' wide x 300' beyond end	800' wide x 1,000' beyond ends	EMAS present. Levee causes grading issue and fence penetration at the end of the ROFA. Condition to remain because shortening the runway will negatively impact the critical aircraft.
ROFA Obstructions – Runway 22 End	500' wide x 70' beyond end	500' wide x 300' beyond end	ROFA obstructed by fence and road. Runway already declared shorter. Condition to remain because shortening the runway further will negatively impact current operations. MOS possibly needed upon reconstruction of the runway.
ROFZ Obstructions – Runway 22 End	400' wide by 0' beyond end	400' wide x 200' beyond end	East corner of ROFZ penetrated by fence and roads. Condition to remain because shortening the runway will negatively impact current operations.



Table 5C: Runway 1 Instrument Approach Options

Option	Obstacle Status	Retain Current Displaced Landing Threshold of 300' (1.0° Offset FAC)	Displace Landing Threshold 550' (1.5° Offset FAC)	Displace Landing Threshold 650' (1.5° Offset FAC)
		Cloud Height/Visibility Minimum		
A	No Changes to Obstacles	448' / 1⅜-mile	368' / 1-mile	250' / ¾-mile
B	Weld Building Replaced by 78' AGL Condos	337' / 1-mile	250' / ¾-mile	250' / ¾-mile
C	Eliminate/Reduce Height for On-Ramp Light Poles	448' / 1⅜-mile	455' / 1⅜-mile	250' / ¾-mile
D	Replace Weld Building and Reduce Light Poles	250' / ¾-mile	250' / ¾-mile	250' / ¾-mile
FAC: Final Approach Course				

The background of the slide features a composite image. On the right, a bronze statue of a Native American man on horseback stands atop a stone pedestal. Behind the statue is the Kansas City skyline with several skyscrapers. On the left, a large, semi-transparent blue triangle overlaps the skyline. Within this triangle, the tail of a Delta airplane is visible on the far left. The text 'Airport Master Plan' is written in a dark, sans-serif font across the middle of the blue triangle.

Airport Master Plan

**KANSAS CITY
DOWNTOWN
AIRPORT –
WHEELER
FIELD**

**Appendix H
ENVIRONMENTAL OVERVIEW**

Appendix H: Environmental Overview

- Analyzed the recommended development concept under National Environmental Policy Act (NEPA) regarding 21 potential environmental concerns.
- Identified the following potential impacts related to future airport development:
 - Wildlife – Federally protected and non-listed species of concern
 - Section 4(f) and Historic Resources
 - Floodplains – 500-year
 - Surface Waters – Buckeye Creek-Missouri River watershed
- Modeled aviation noise in Aviation Environmental Design Tool (AEDT) for the existing and future (20-year) forecast condition.

Exhibit H1: 2022 Existing Noise Contours

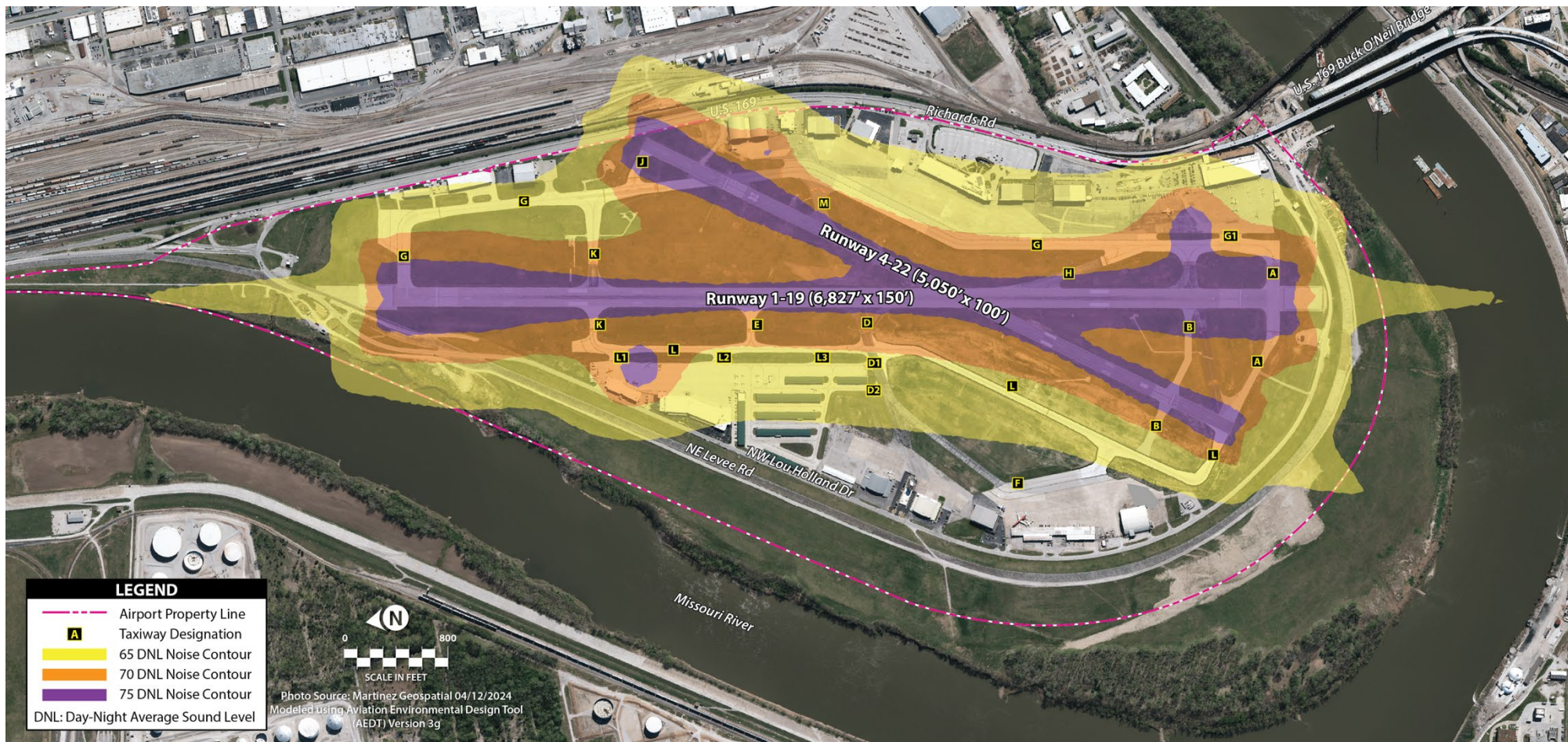
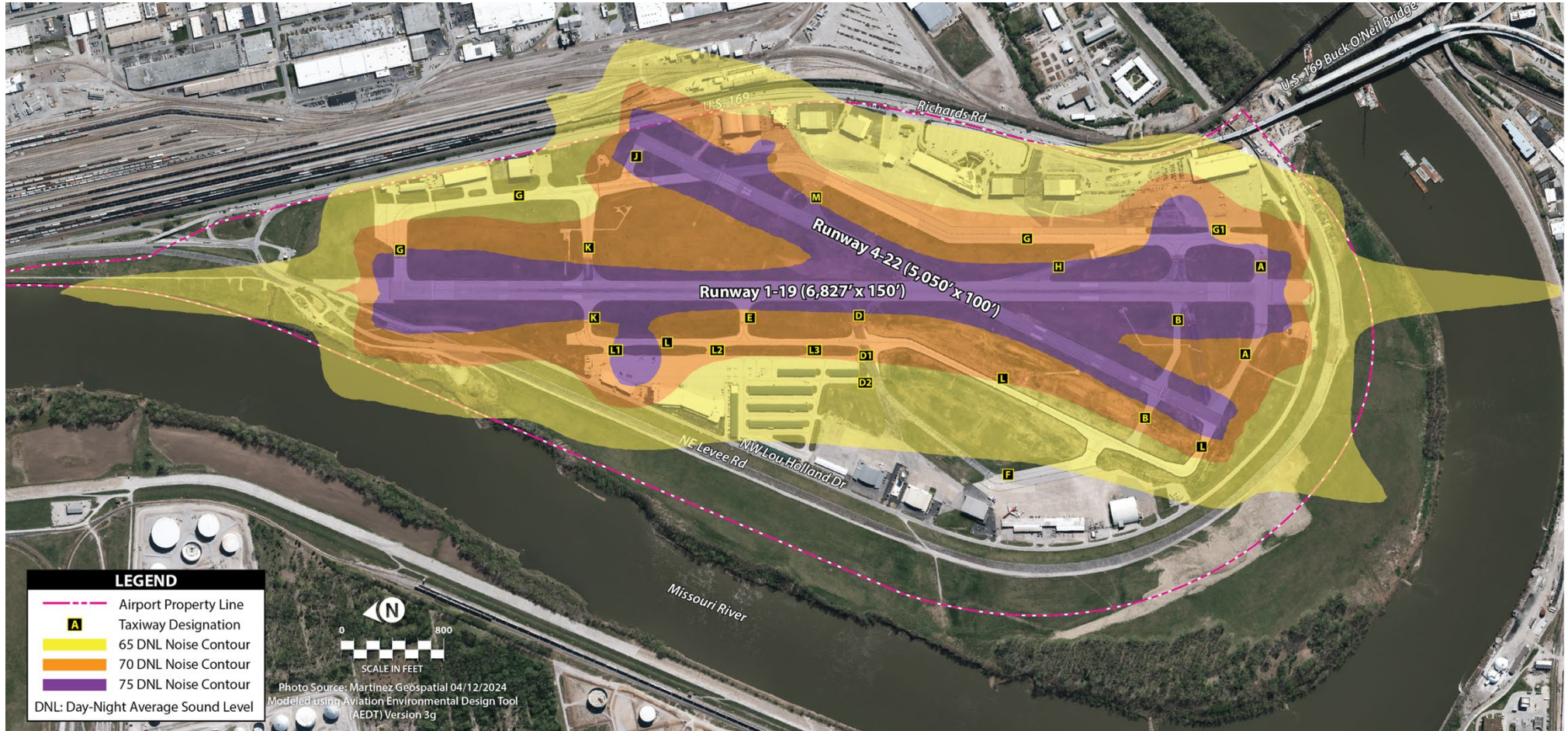


Exhibit H2: 2042 Future Noise Contours



Appendix J: Land Use Compatibility

- Analyzed the potential for non-compatible development within the airport approach surfaces out to 1 mile and the existing/future noise contours.
- Analyzed within the context of existing zoning and future land use plans.
- Compatibility factors:
 - Noise
 - Overflight
 - Safety
 - Airspace
- FAA Advisory Circular 150/5190-4B Airport Land Use Compatibility Planning (2022)



Exhibit J1: Existing Zoning

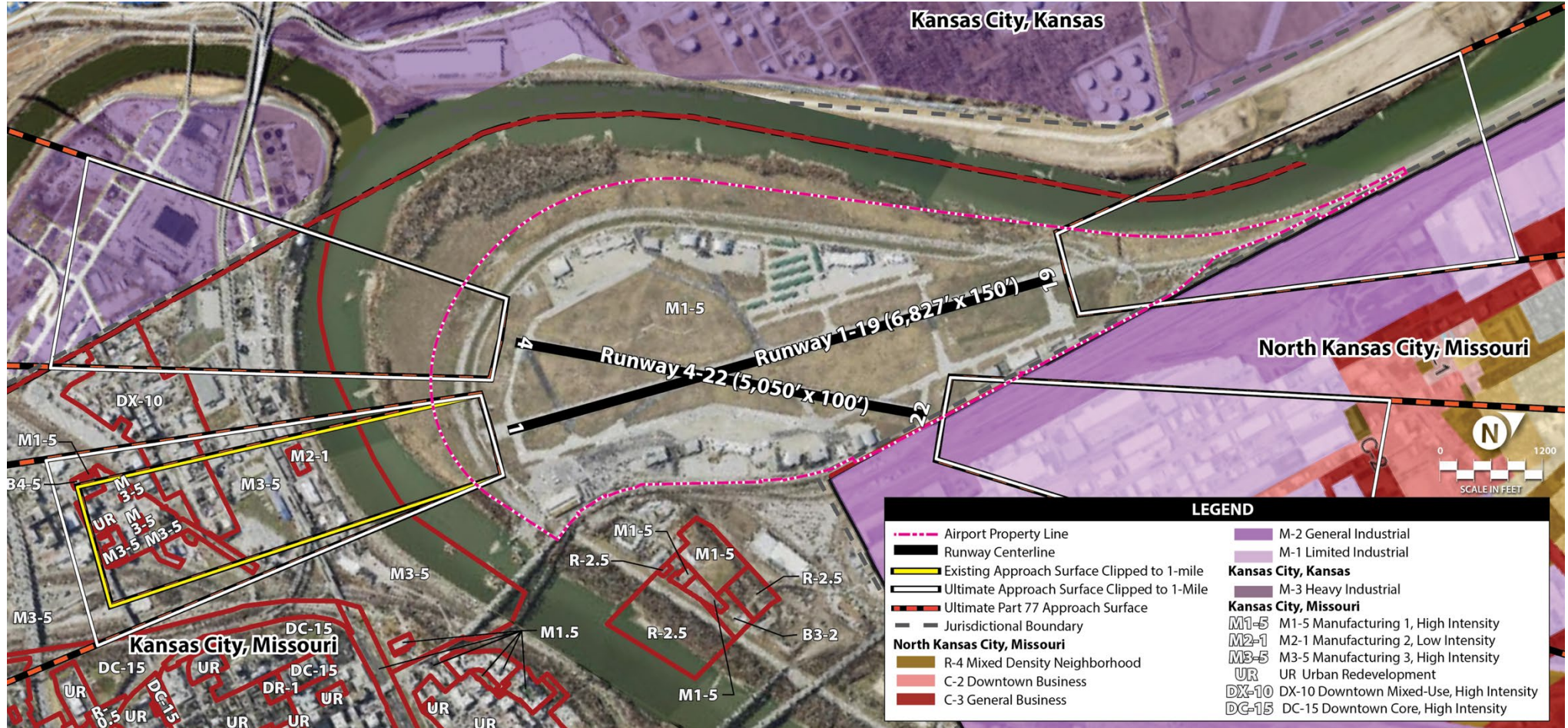
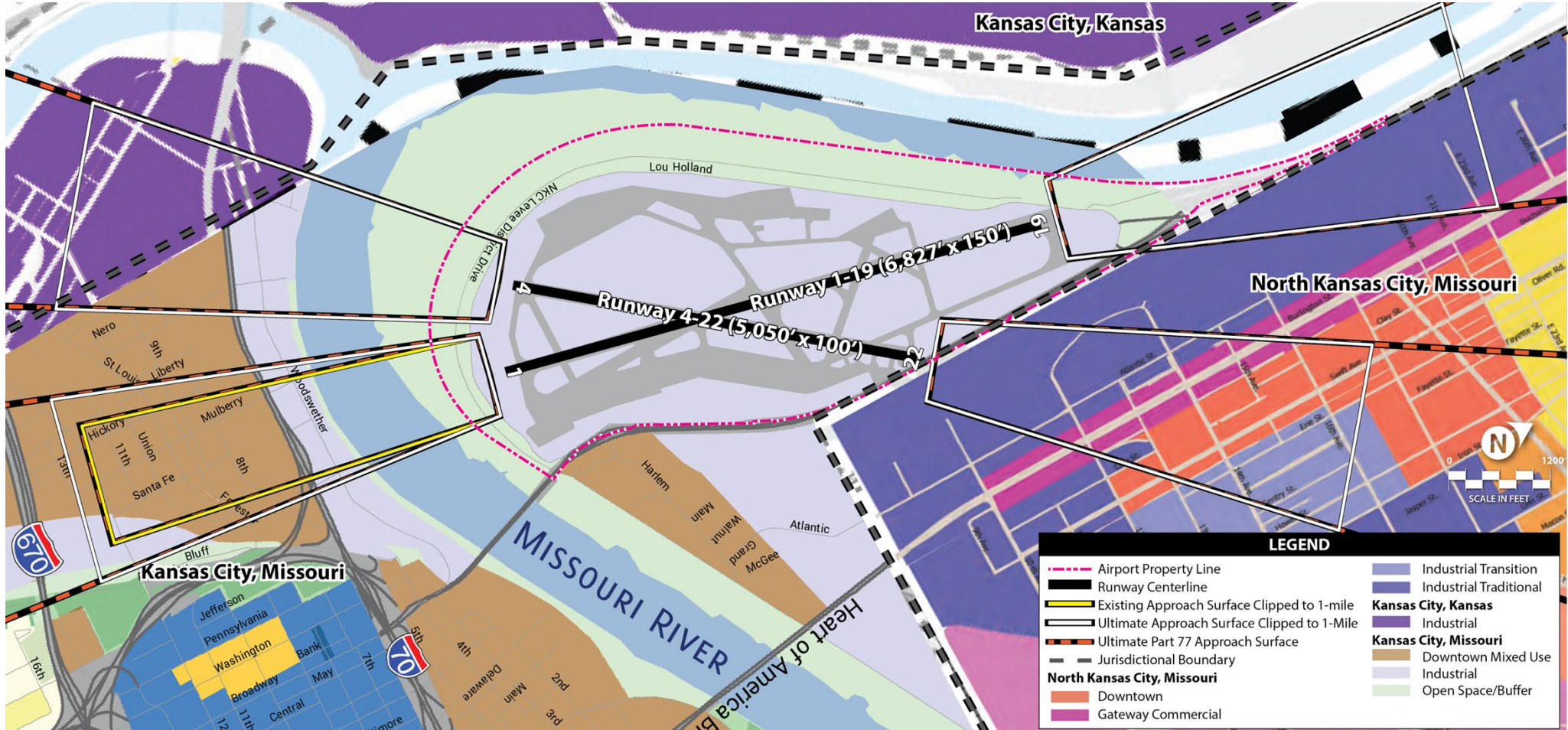


Exhibit J2: Future Land Use



Land Use Compatibility Recommendations

The following seven (7) land use compatibility tools are recommended:

- Update Airport Hazard Area Zoning Ordinance & Maps
- Encourage Surrounding Cities to Adopt Airport Hazard Area Zoning Ordinance & Maps
- Implement Use of the FAA Obstruction Evaluation/Airport Airspace Analysis Tool
- Consult FAA Advisory Circular for Wildlife Hazard Review
- Modify Special Exceptions/Conditional Uses
- Adopt Fair Disclosure Requirements for Real Estate Transactions
- Increase Airport and FAA Participation in Local and Regional Planning

The background of the slide features a composite image. On the left, a semi-transparent blue triangle contains a faded image of an airplane, likely a Spirit of '76, with the word 'Spirit' visible on its side. On the right, a photograph shows the Spirit of '76 statue, a bronze equestrian statue of a Native American on a horse, standing on a stone pedestal. In the background of this photo is the Kansas City skyline under a hazy, sunset or sunrise sky. The top of the slide has a decorative header with diagonal stripes in blue, green, yellow, and orange.

Airport Master Plan

**KANSAS CITY
DOWNTOWN
AIRPORT –
WHEELER
FIELD**

Chapter 6
CAPITAL IMPROVEMENT PROGRAM

Exhibit 6B: Preferred Development Plan Phasing

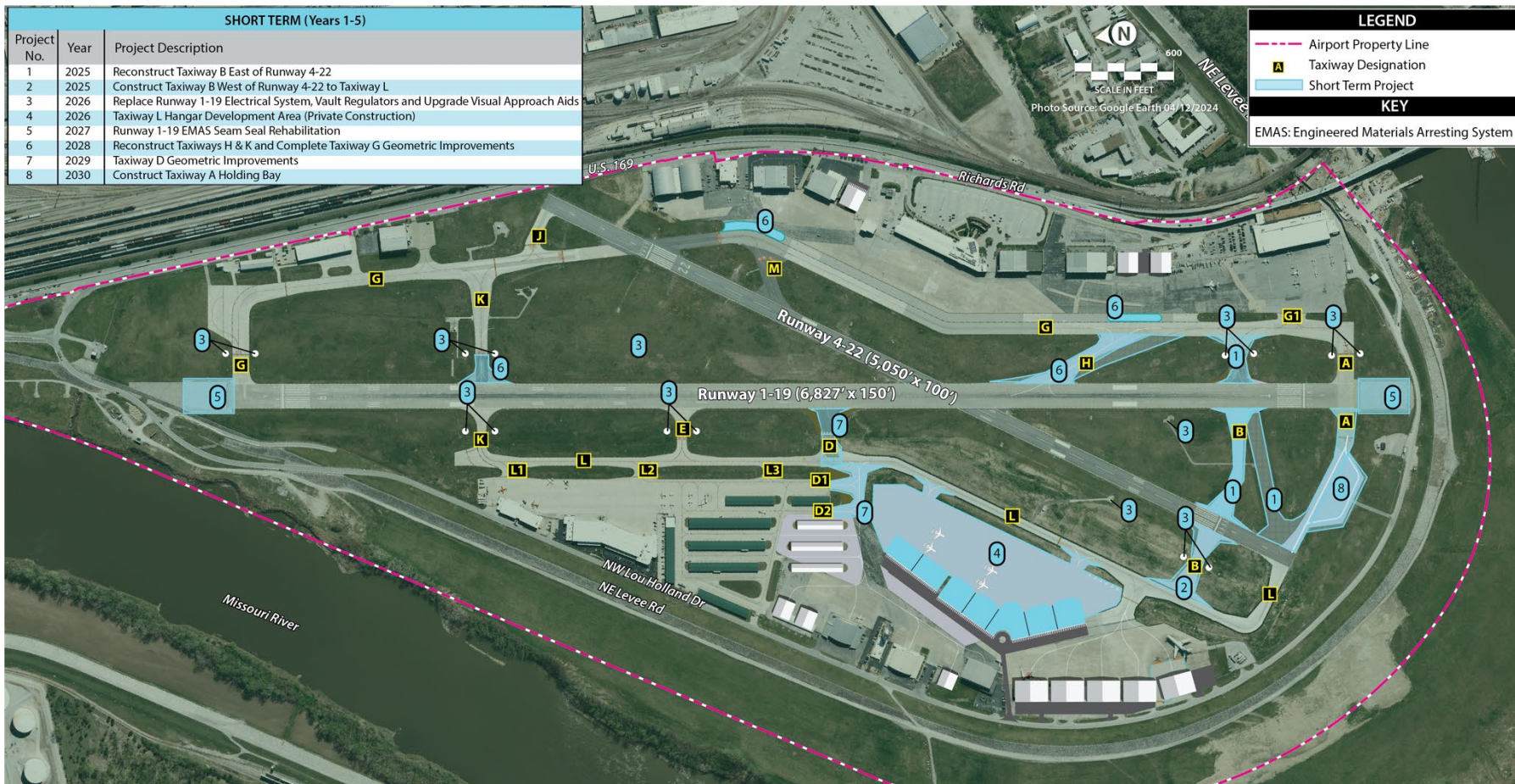




Exhibit 6A: Capital Improvement Program

Project No.	Timeframe	PROJECT DESCRIPTION	NPR	Federal Share	Local Share	Total
SHORT TERM (Years 1-5)						
1	2025	Reconstruct Taxiway B East of Runway 4-22	72	\$5,936,550	\$312,450	\$6,249,000
2	2025	Construct Taxiway B West of Runway 4-22 to Taxiway L	72	\$2,270,500*	\$119,500	\$2,390,000
3	2026	Replace Runway 1-19/4-22 Electrical System, Vault Regulators, and Upgrade Visual Approach Aids	72	\$3,562,500	\$187,500	\$3,750,000
4	2026	Taxiway L Hangar Development Area (Private Construction)	NA	\$0	\$0	\$70,000,000
5	2027	Runway 1-19 EMAS Seam Seal Rehabilitation	76	\$1,620,000	\$180,000	\$1,800,000
6	2028	Reconstruct Taxiways H & K and Complete Taxiway G Geometric Improvements	72	\$5,670,000	\$630,000	\$6,300,000
7	2029	Taxiway D Geometric Improvements	72	\$2,295,000	\$255,000	\$2,550,000
8	2030	Construct Taxiway A Holding Bay	56	\$3,105,000	\$345,000	\$3,450,000
SHORT TERM TOTAL				\$24,459,550	\$2,029,450	\$96,489,000

KEY

EMAS: Engineered Materials Arresting System
ASOS: Automated Surface Observation System

Exhibit 6B: Preferred Development Plan Phasing





Exhibit 6A: Capital Improvement Program

Project No.	Timeframe	PROJECT DESCRIPTION	NPR	Federal Share	Local Share	Total
INTERMEDIATE TERM (Years 6-20)						
9	IT	Reconstruct Air Carrier Apron	66	\$11,295,000	\$1,255,000	\$12,550,000
10	IT	Improve Airport Drainage	70	\$10,260,000	\$1,140,000	\$11,400,000
11	IT	Reconstruct Taxiway M and Portions of Taxiway G	72	\$8,964,000	\$996,000	\$9,960,000
12	IT	Reconstruct Portion of Taxiway G	72	\$4,338,000	\$482,000	\$4,820,000
13	IT	Construct Vertiport	54	\$648,000	\$72,000	\$720,000
14	IT	Construct Wash Rack	30	\$1,035,000	\$115,000	\$1,150,000
INTERMEDIATE TERM TOTAL				\$36,540,000	\$4,060,000	\$40,600,000

KEY

EMAS: Engineered Materials Arresting System
ASOS: Automated Surface Observation System

Exhibit 6B: Preferred Development Plan Phasing





Exhibit 6A: Capital Improvement Program

Project No.	Timeframe	PROJECT DESCRIPTION	NPR	Federal Share	Local Share	Total
LONG TERM (Years 11-20)						
15	LT	Rehabilitate Runway 1-19	76	\$7,740,000	\$860,000	\$8,600,000
16	LT	Rehabilitate East Taxiway System (Portions of Twy G, J, K, and A)	72	\$3,150,000	\$350,000	\$3,500,000
17	LT	Rehabilitate West Taxiway System (Portions of Twy K, E, L, L1, L2, and L3)	72	\$2,160,000	\$240,000	\$2,400,000
18	LT	Rehabilitate T-Hangar Taxilanes/Apron	66	\$1,080,000	\$120,000	\$1,200,000
19	LT	Rehabilitate Taxiways A and B	72	\$594,000	\$66,000	\$660,000
20	LT	Rehabilitate Runway 4-22	76	\$6,174,000	\$686,000	\$6,860,000
21	LT	Rehabilitate Taxiway L South of Taxiway D	72	\$405,000	\$45,000	\$450,000
22	LT	EMAS Replacement	76	\$18,558,000	\$2,062,000	\$20,620,000
23	LT	ASOS Replacement	68	\$1,800,000	\$200,000	\$2,000,000
24	LT	Hangar 5A/5B Removal	56	\$534,600	\$59,400	\$594,000
25	LT	Master Plan Update	68	\$1,800,000	\$200,000	\$2,000,000
LONG TERM TOTAL				\$43,995,600	\$4,888,400	\$48,884,000
GRAND TOTAL				\$104,995,150	\$10,977,850	\$185,973,000

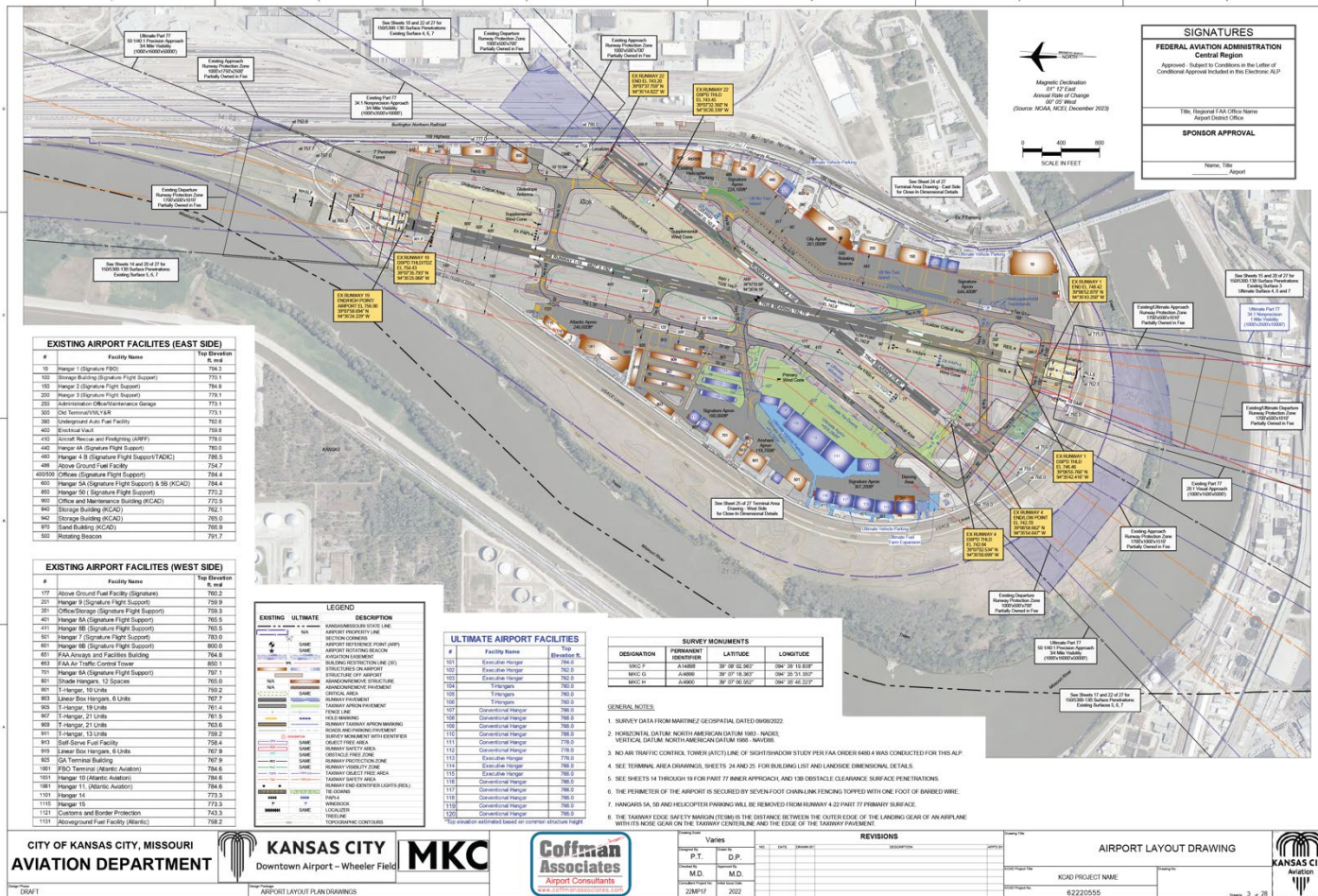
KEY

EMAS: Engineered Materials Arresting System
ASOS: Automated Surface Observation System

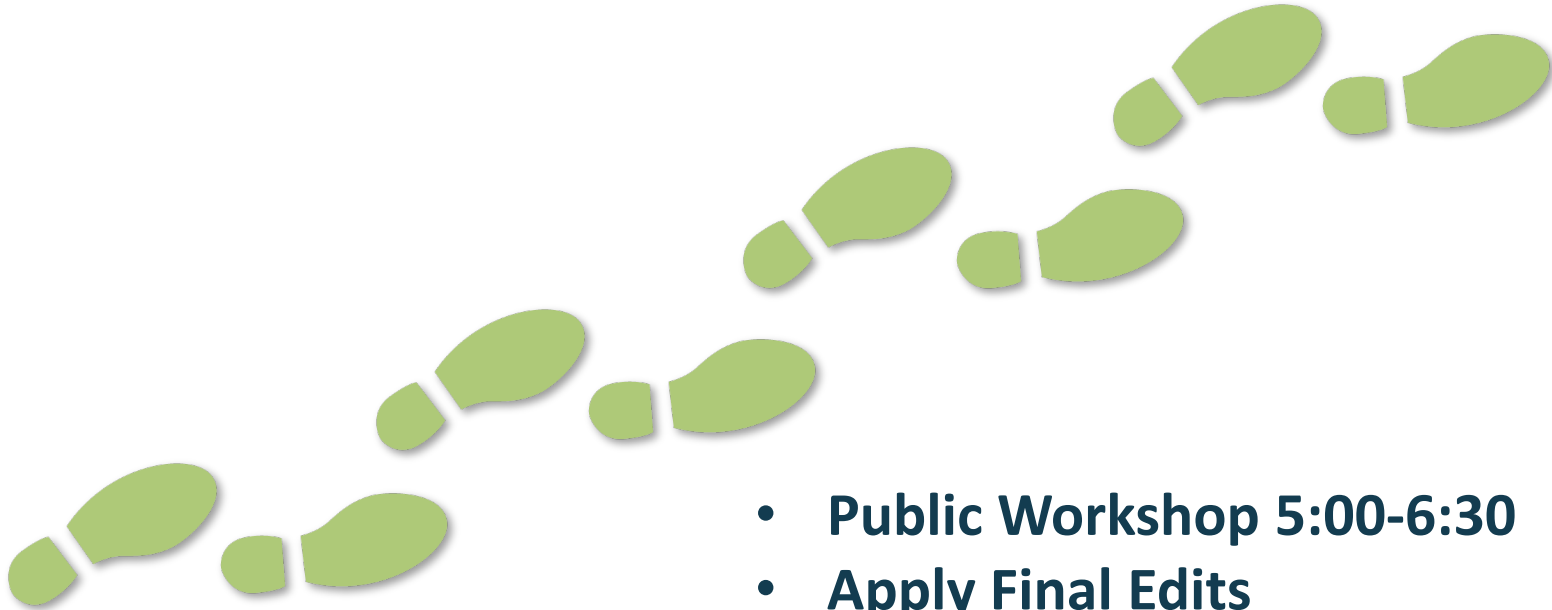
Table 6D: BIL-AIG Funding Availability

Fiscal year (FY) funds are first made available:	AIG funds available to MKC:	Funds must be obligated (under grant) by:*	Any unobligated funds must be obligated (under grant) in FY:
2022	\$763,000	September 30, 2025	2026
2023	\$844,000	September 30, 2026	2027
2024	\$851,000	September 30, 2027	2028
2025	\$687,000	September 30, 2028	2029
2026	\$687,000	September 30, 2029	2030
*Applications for grants should be submitted by June to meet the September 30 obligation date.			

Airport Layout Drawing



NEXT STEPS



- **Public Workshop 5:00-6:30**
- **Apply Final Edits**
- **Finalize ALP and Submit to FAA**
- **Local Approvals Process**
- **Final Master Plan Document**



THANK YOU!