

Phoenix Deer Valley Airport (DVT)

Land Use Plan Update

Project Summary

June 2023



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Stakeholder Interviews

Stakeholder Interviews

- To inform the Land Use Update, stakeholder interviews were conducted with:
 - City of Phoenix Aviation Department (AVN) and current tenants
 - Stakeholders with interest in developing facilities at DVT
 - Stakeholders with interest in economic development in the North Phoenix area

Stakeholder Interviews



Summary of Stakeholder Interview Takeaways

- Leading local employment sectors in the Deer Valley area are transitioning general industrial manufacturing to Advanced Manufacturing and Semiconductors industries
- Arrival of TSMC and associated businesses have put significant pressure on industrial warehouse rents and land values around DVT
- Both airport staff and existing tenants have witnessed recent increases in corporate aircraft activity and additional presence of Airplane Design Group (ADG) III aircraft on DVT's airfield

Summary of Stakeholder Interview Takeaways

- Expressed need for additional aircraft storage at DVT (including covered tie-downs, T-hangars, and jet hangars)
- Desire for an additional Fixed Base Operator (FBO) – competition among the FBOs may facilitate introduction of additional services at DVT such as maintenance, repair and overhaul (MRO) and fueling (it was noted that Cutter currently offers competitive fuel prices)
- Most developers are interested in the vacant parcel in the southeast quadrant of DVT due to its size and available infrastructure (i.e., connecting roadways and utilities)

Summary of Stakeholder Interview Takeaways

- Prospective tenants conveyed the need to sub-divide the vacant parcels located in the northeast and northwest quadrants of DVT to sizes more conducive to phased development
- Introduction of U.S. Customs and Border Protection service for air travelers could entice additional corporate aircraft activity

Market Opportunity Assessment

Objectives of the Market Opportunity Assessment

- Assess the range of economic and market opportunities for the Greater Phoenix and the Deer Valley area surrounding DVT
- Prepare profiling of General Aviation airports in the Greater Phoenix area to consider their competitive positioning
- Identify progressive aero-biz opportunities that could be considered at DVT in the future
- Identify types of aeronautical uses that could be accommodated on DVT's vacant parcels

Economic Overview – Greater Phoenix Area

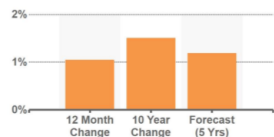
- Greater Phoenix remains one of the nation's best-performing markets for job growth due to a diversified employment base
- Affordability, job prospects, and economic diversity are attracting people to Greater Phoenix at a rate of 1,700 new residents a week

Greater Phoenix-Mesa-Chandler Economic Summary

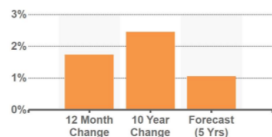
Demographic Category	Current Level		12 Month Change		10 Year Change		5 Year Forecast	
	Metro	US	Metro	US	Metro	US	Metro	US
Population	5,008,104	332,819,406	1.0%	0.3%	1.5%	0.6%	1.2%	0.5%
Households	1,781,177	124,226,195	1.0%	0.2%	1.5%	0.7%	1.2%	0.5%
Median Household Income	\$79,007	\$75,543	7.8%	8.4%	4.4%	4.0%	3.2%	3.2%
Labor Force	2,552,999	164,956,875	1.7%	1.9%	2.4%	0.6%	1.1%	0.5%
Unemployment	3.2%	3.6%	-0.2%	-0.9%	-0.4%	-0.4%	-	-

Source: Oxford Economics

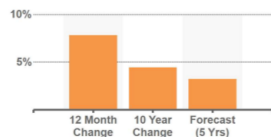
POPULATION GROWTH



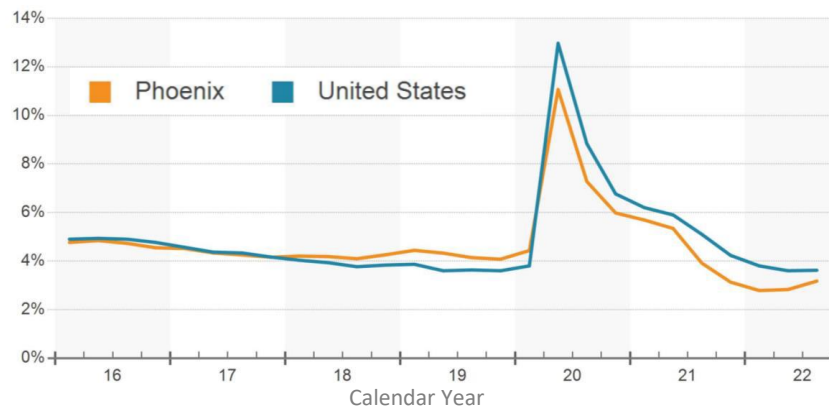
LABOR FORCE GROWTH



INCOME GROWTH



Greater Phoenix-Mesa-Chandler Unemployment Rate



Source: Oxford Economics

Economic Overview – Greater Phoenix Area

- Businesses are selecting Phoenix to expand because of the extensive labor pool, affordability, and business-friendly regulations
 - **TSMC**'s overall investment for the two fabs will be approximately \$40 billion and will result in an additional 10,000 high-tech jobs, including 4,500 direct TSMC jobs
 - **Zoom** revealed plans to open a Phoenix Research & Development Center
 - **Amazon** recently opened several last-mile and fulfillment sites throughout the metro area, one of which is located north of DVT
 - Other companies that have added hundreds of new jobs over the past few years include **Farmers Insurance** and **USAA**



Employment Sector Analysis Terminology

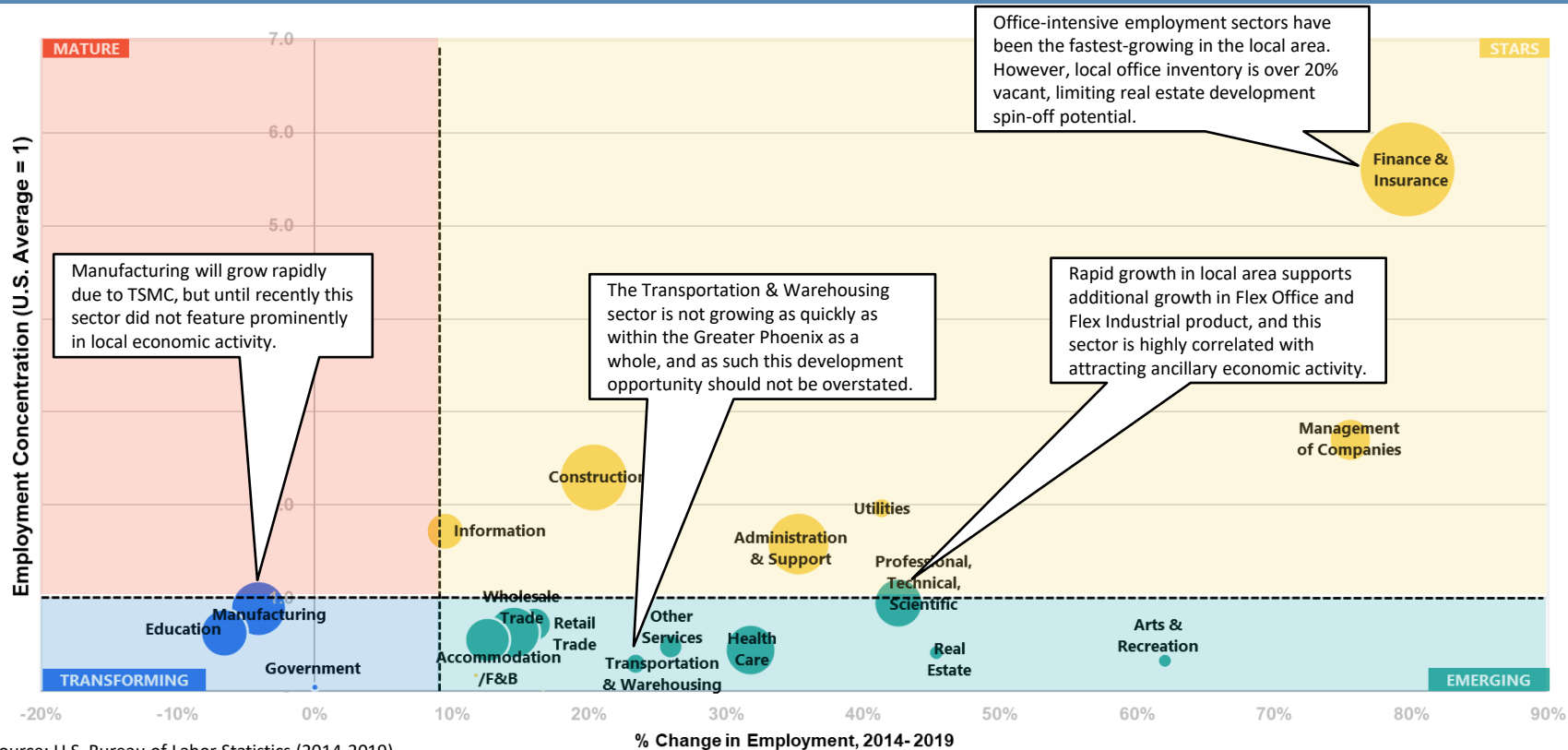
Employment Sector	Employment Concentration (U.S. Average = 1)	% Change in Employment (2014-2019)
Stars	>1	>10%
Emerging	<1	>10%
Mature	>1	<10%
Transforming	<1	<10%

Source: U.S. Bureau of Labor Statistics

Employment Sector Analysis for Deer Valley Area

- **Stars Sectors** are quickly growing and have a higher concentration of employment in the Deer Valley area relative to the U.S. average
 - **Key Industries:** Finance & Insurance, Administration & Support, and Construction (Source: U.S. Bureau of Labor Statistics for 2014-2019)
- **Emerging sectors** are anticipated to drive the local economy over the coming years and suggest longer term demand for additional facilities
 - **Key Industries:** Advanced Business Services, Aerospace & Defense, Autonomous & Electric Vehicles, Blockchain, Cybersecurity, Healthcare & Biomedical, Semiconductors, Software & IT, and Wearables (Source: Greater Phoenix Economic Council)
- **Mature and Transforming sectors** are not introducing additional employment to the local area and are not currently driving demand for commercial or industrial development

Employment Sector Analysis for Deer Valley Area



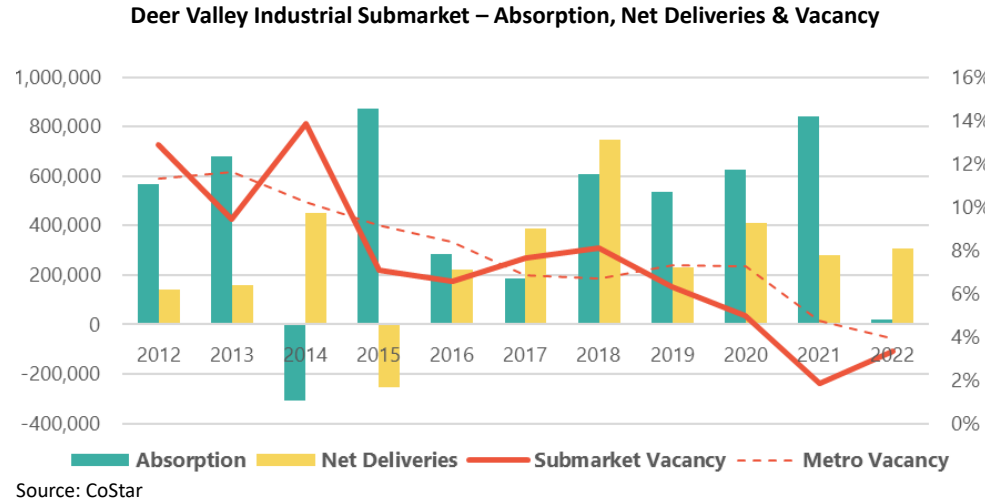
Source: U.S. Bureau of Labor Statistics (2014-2019)

Summary of Deer Valley Area Economy

- Leading local sectors include Advanced Manufacturing, Aerospace & Defense, Semiconductors, and Autonomous & Electric Vehicles
- Arrival of TSMC and its associated ecosystem will put **significant pressure on industrial rents and land values around DVT**
- Advanced Manufacturing and Professional, Scientific and Technical activities are well represented in the Deer Valley area and are highly correlated with attracting ancillary economy activity to local areas
- Transportation and Warehousing is not growing as quickly in the Deer Valley area as it is across the Greater Phoenix area, but will continue to put **upward pressure on industrial rents and land values around DVT**

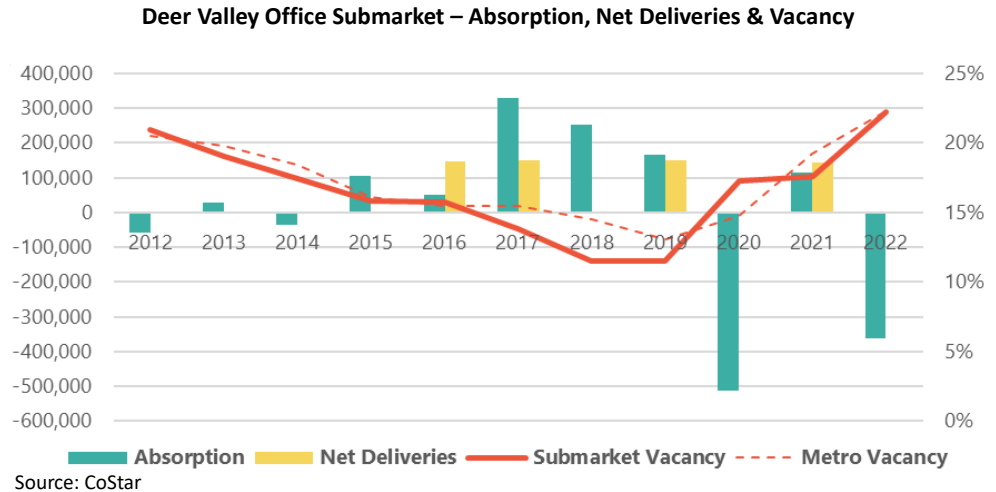
Market Analysis for Deer Valley Industrial Submarket

- Growth of the Deer Valley industrial submarket has accelerated since 2015 and **pricing had soared to an all-time high**
- Demand has outpaced limited new supply, and **vacancies have compressed to a historic low, at 2.9%** - this rate is among the lowest of all Greater Phoenix industrial submarkets



Market Analysis for Deer Valley Office Submarket

- Deer Valley submarket is one of Greater Phoenix's largest office hubs, with over 12M SF of inventory and houses multiple Fortune 500 companies (e.g., American Express and USAA)
- Deer Valley submarket's office inventory has not grown significantly over the past decade
- **Vacancies in the Deer Valley office submarket remain high and are trending higher**



Deer Valley Area Real Estate Market Analysis Summary

	Industrial	Office
Vacancy Rate	2.9%	20.1%
Asking Rent /SF NNN (For new properties)	- Logistics/Manufacturing: \$15.50 - Flex Office: \$20	Class A: \$28.74
Cap Rates	5.67%	7.00%
Annual Absorption	431,000 SF	-265,000 SF

Progressive Aero-biz Examples and Opportunities

- **Collection of aircraft hangars and office-hangar hybrids**
 - Atlantic Aviation FBO at Carlsbad McClellan-Palomar Airport (CRQ): ~263,600 SF 5 hangars/office flex buildings
 - Kemp Jet Services FBO at Ogden Gateway Center (OGD): ~70,000 SF of building with 45,000 SF of hangar
- **General aviation maintenance, repair and overhaul (MRO) and service areas**
 - WestStar Aviation MRO at Chattanooga Metropolitan Airport (CHA): over 165,500 SF of hangar/shop/office
- **Space for aviation research and innovation sectors to test new products**
 - Williams International Development at OGD: ~200,500 SF of design to production building for testing small gas turbine engines

Progressive Aero-biz Opportunities and Examples



Potential Aeronautical Uses at DVT

- Additional state-of-the-art FBOs
- Additional Corporate and General Aviation (GA) box hangars as well as GA T-hangars
- Corporate and GA Maintenance, Repair, and Overhaul (MRO) facilities
- U.S. Customs and Border Protection (CBP) service for air travelers and specialized cargo
- Support facilities for Rotary Wing and Electric Vertical Takeoff and Landing (eVTOL)

Aviation Activity Forecast

Historical Aviation Activity Data Review

Historical Based Aircraft at DVT

Year	Total Based Aircraft	
	Previous Master Plan and Airport Records (a)	FAA Terminal Area Forecast (b)
2003	1,250	946
2004	1,252	923
2005	n/a	923
2006	n/a	1,149
2007	n/a	1,149
2008	1212	943
2009	n/a	943
2010	987	981
2011	1181	981
2012	964	995
2013	1,033	975
2014	1,058	965
2015	1,119	951
2016	1,092	940
2017	1,142	950
2018	1,144	923
2019	1,183	942
2020	1,163	917
2021	1,182	936
2022	1,236	958
Average Annual Growth Rate		
2003-2022	-0.1%	0.1%

(a) Phoenix Deer Valley Master Plan Update, 2015, and City of Phoenix records.

(b) FAA, 2021 Terminal Area Forecast, 2022.

Sources: As noted and HNTB analysis.

Historical Aircraft Operations at DVT

Calendar Year	Itinerant					Local			Total Operations
	Air Carrier	Air Taxi	General Aviation	Military	Total	Civil	Military	Total	
2002	-	4,990	166,777	55	171,822	217,730	18	217,748	389,570
2003	-	4,153	152,934	55	157,142	232,155	12	232,167	389,309
2004	-	4,079	137,550	44	141,673	198,759	5	198,764	340,437
2005	-	4,584	146,136	51	150,771	226,325	745	227,070	377,841
2006	-	5,216	150,111	52	155,379	251,107	21	251,128	406,507
2007	21	5,676	135,527	11	141,235	236,472	642	237,114	378,349
2008	284	6,217	133,150	40	139,691	236,853	90	236,943	376,649
2009	-	3,804	149,934	11	153,749	248,586	-	248,586	402,335
2010	-	2,973	135,651	389	139,013	229,732	2	229,734	368,747
2011	1	3,832	124,086	89	128,008	189,276	159	189,435	317,443
2012	159	4,690	139,389	54	144,292	221,110	30	221,140	365,432
2013	17	4,518	135,772	56	140,363	214,601	31	214,632	354,995
2014	15	5,368	119,912	72	125,367	214,112	14	214,126	339,493
2015	15	5,535	132,231	218	137,999	231,753	7	231,760	369,759
2016	17	4,184	124,017	74	128,292	241,742	-	241,742	370,034
2017	12	4,670	131,822	123	136,627	242,139	11	242,150	378,777
2018	13	4,600	140,700	117	145,430	269,689	47	269,736	415,166
2019	42	51,326	97,666	92	149,126	307,645	19	307,664	456,790
2020	20	52,662	81,608	50	134,340	268,064	40	268,104	402,444
2021	15	26,154	70,206	54	96,429	175,548	2	175,550	271,979

Average Annual Growth Rate

2002-2019	-	14.7%	-3.1%	3.1%	-0.8%	2.1%	0.3%	2.1%	0.9%
2002-2021	-	9.1%	-4.5%	-0.1%	-3.0%	-1.1%	-10.9%	-1.1%	-1.9%

Sources: FAA, Air Traffic Activity System (ATADS) and HNTB analysis.

Additional Data Informing Based Aircraft Forecast

- **Current Aircraft Waitlist at DVT:**
 - For covered tie-downs and T-hangars¹: 479
 - For jet hangars (Cutter Aviation)²: 36
- **Aeroguard Flight Training will base 12 additional aircraft at DVT by end of 2024**
 - 73 based aircraft at DVT currently
 - Increase by 6 aircraft each year in 2023 and 2024
- **Current and Upcoming Development:**
 - Cutter Aviation is constructing 3 box hangars
 - Each box hangar measures 140' x 140'
 - Sky Harbour Phase 1 development will break ground in January 2023
 - 8 box hangars – each measures 100' x 120'
 - Phase 2 of the Sky Harbour development will be configured similarly to the Phase 1 development, with 8 additional box hangars

¹Source: DVT Monthly Waitlist, dated November 1, 2022.

²Source: Jet Hangars Waitlist (Cutter Aviation), dated December 9, 2022, and Stakeholder Interview with Cutter Aviation held on October 28, 2022

Current and Upcoming Development

DRAWING LEGEND

RUNWAY PAVEMENT		RUNWAY HOLDING POSITION	
EXISTING TAXIWAY / APRON PAVEMENT		INTERMEDIATE HOLDING POSITION	
FUTURE TAXIWAY / APRON PAVEMENT		NON-MOVEMENT AREA BOUNDARY	
AIRPORT PROPERTY LINE		FUTURE BUILDING - ON AIRPORT	
EXISTING BUILDING - ON AIRPORT		EXISTING FENCE	

Based Aircraft Forecast Assumptions for Current and Upcoming Development:

- Assumes 100% hangar occupancy upon opening¹
- Assumes 92% / 8% split between C-II and D-III aircraft occupying new hangars²

Notes:

¹Assumed based on waitlist for jet hangars and information provided by Cutter Aviation staff during stakeholder interview held on October 28, 2022. Note that there are currently 36 jet aircraft on the waitlist with both C-II and D-III jet aircraft.

²Both Cutter Aviation and Sky Harbour representatives shared that the likely occupants in these hangars will be C-II and D-III aircraft (e.g., Gulfstream G-V, G650, Bombardier Global 5000, Bombardier Challenger 650, Hawker, and Citations). In addition, the current split of C-II and D-III jet aircraft at DVT is 92% / 8% and is 90% / 10% at Scottsdale Municipal Airport (SCF).

Cutter Aviation
60,000 SF Box Hangars

Sky Harbour Development
(200,000 SF Hangar Space)

Forecast of Based Aircraft

Based Aircraft by Type (a)

Year	Single Engine Piston	Multi Engine Piston	Turboprop	Jet	Helicopter	Other	Total
2021	1,023	105	15	20	9	10	1,182
2026	1,272	133	19	39	13	14	1,490
2031	1,511	163	25	52	17	19	1,787
2041	2,041	235	40	89	29	31	2,465

Average Annual Growth Rate

2021-2031	4.0%	4.5%	5.2%	10.0%	6.6%	6.6%	4.2%
2021-2041	3.5%	4.1%	5.0%	7.8%	6.0%	5.8%	3.7%

(a) Fleet mix based on FAA projected GA trends and input from tenant surveys.

Sources: As noted and HNTB analysis.

Forecast of Annual Operations

Aircraft Operations by Type (a)
(Includes Estimated Operations between Midnight and 6 am) (b)

Year	Itinerant Operations							Local					Total
	Single Engine Piston	Multi Engine Piston	Turboprop	Jet	Helicopter	Other	Subtotal	Single Engine Piston	Multi Engine Piston	Helicopter	Other	Subtotal	
2021 (c)	78,018	8,008	3,958	5,434	2,466	763	98,647	157,404	16,156	4,490	1,539	179,588	278,235
2026	97,038	10,852	5,626	12,439	3,791	1,184	130,930	195,776	21,895	6,901	2,388	226,960	357,890
2031	113,530	13,421	7,495	17,512	5,212	1,707	158,877	229,049	27,077	9,488	3,445	269,059	427,936
2041	157,773	20,477	11,947	29,413	9,014	2,919	231,543	318,311	41,313	16,410	5,889	381,923	613,466
Average Annual Growth Rate													
2021-2041	3.6%	4.8%	5.7%	8.8%	6.7%	6.9%	4.4%	3.6%	4.8%	6.7%	6.9%	3.8%	4.0%

(a) Projected based on based aircraft forecasts and FAA projected utilization trends.

(b) Aircraft operations between midnight and 6 am estimated at 2.3 percent of daily total based on information provided by the City of Phoenix.

(c) Base year distribution of operations based on data provided by City of Phoenix, FAA data, and estimates provided by DVT tower.

(d) Note that this reflects an unconstrained forecast. It is assumed that infrastructure improvements at DVT will be made when necessary, without impeding projected aviation activity.

Sources: As noted and HNTB analysis.

Forecast of Jet Fleet Mix

Jet Aircraft Operations by Airport Reference Code

2021							
Approach Category	Design Group						Total
	I	II	III	IV	V	VI	
A	238	95	-				333
B	1,122	1,922	19				3,064
C	1,030	739	44				1,813
D	84	75	65				224
Total	2,475	2,831	129				5,434

2026							
Approach Category	Design Group						Total
	I	II	III	IV	V	VI	
A	451	330	-				780
B	1,679	3,841	44				5,565
C	1,460	3,949	86				5,495
D	119	110	370				599
Total	3,708	8,230	500				12,439

2031							
Approach Category	Design Group						Total
	I	II	III	IV	V	VI	
A	835	852	-				1,687
B	2,118	5,756	68				7,941
C	1,923	5,071	118				7,113
D	175	125	472				772
Total	5,051	11,804	658				17,512

2041							
Approach Category	Design Group						Total
	I	II	III	IV	V	VI	
A	1,745	2,132	-				3,877
B	3,618	10,189	104				13,911
C	3,260	6,991	195				10,446
D	280	241	658				1,179
Total	8,902	19,554	957				29,413

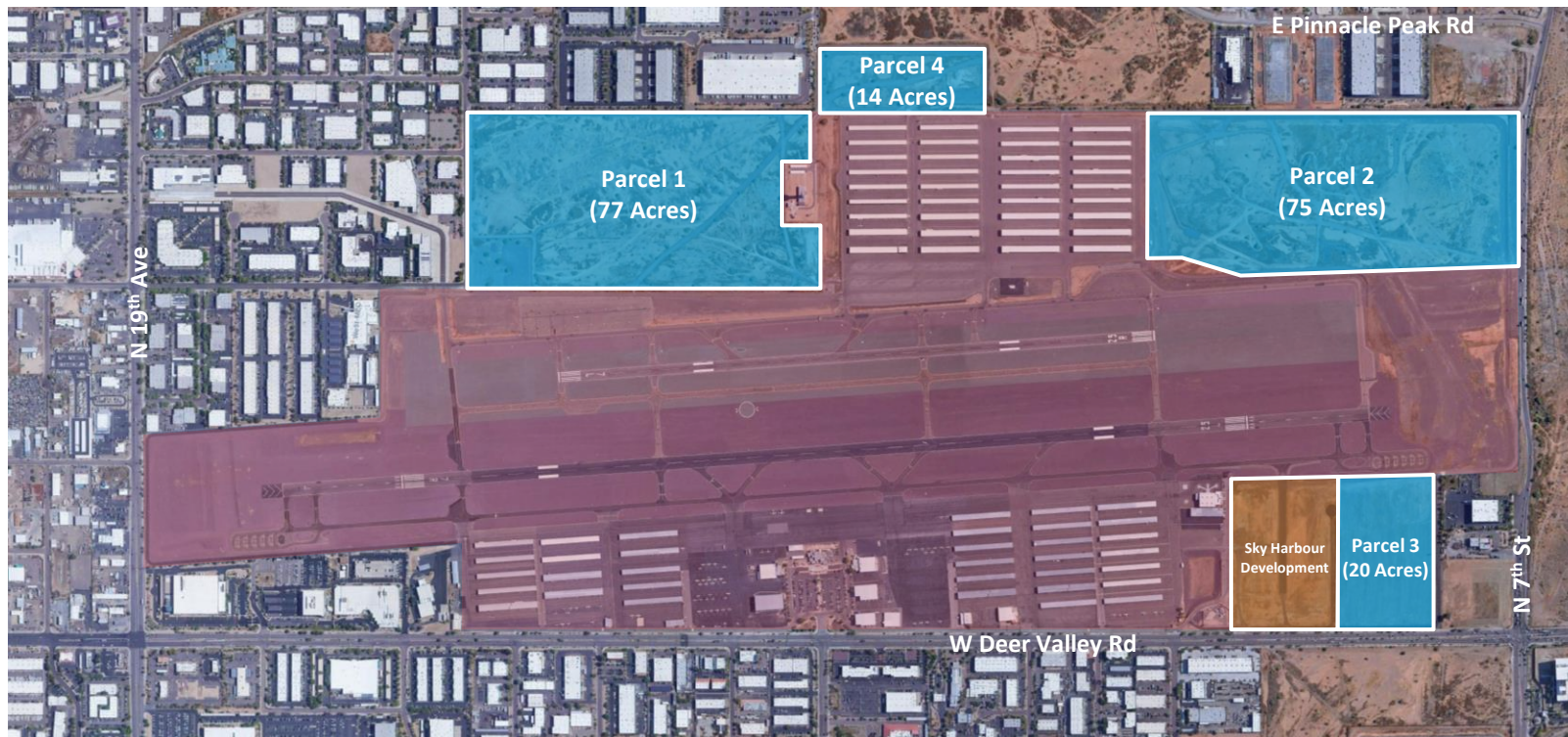
← Current critical aircraft remains in the C-II category

← Note that the future critical aircraft in the 20-year planning horizon will shift to the D-III category

Sources: HNTB analysis

Overview of Development Opportunities

Development Parcels



Allowable Land Uses

- Parcels 1 through 4 are designated for aeronautical use¹
- Parcels 1 and 3 were acquired with FAA AIP Grants in 1999 for airport development purposes
 - For land purchased under a grant for airport development purposes, it is required to be used for aeronautical purposes
- Note that all property comprising the land used for any operational purpose related to the flight of aircraft at, to or from the airfield is considered aeronautical use of real property²
 - It also includes property required by activities that are complementary to flight activity such as convenience concessions serving the public

¹As illustrated on the FAA-approved Airport Layout Plan (ALP), dated September 18, 2015

²Source: FAA Order 5190.6B Change 1, Appendix Z

Example of Aeronautical Use/Property¹

- Pavement areas used for the movement or parking of aircraft
- Portions of passenger terminals
- Aircraft Hangars
- Aircraft Fuel storage facilities
- Fixed Base Operators (FBOs)
- Aircraft and parts manufacturing and storage, aircraft maintenance, repairs, and overhaul, or flight simulation/training/management facilities that require access to airport ramps and movement areas
- *Note that activities that do not require access to airport ramps and movement areas are **not** considered aeronautical activities*

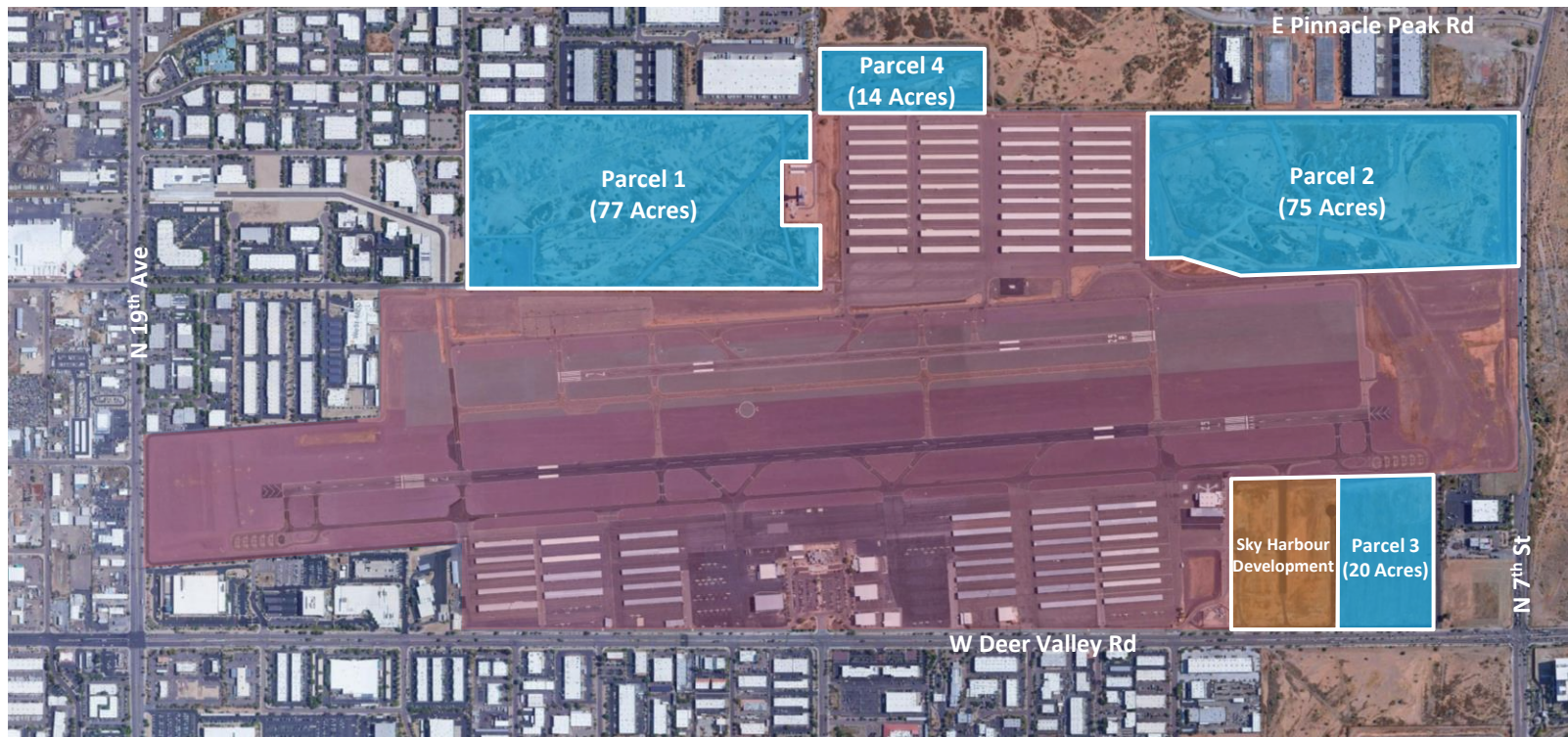
¹Source: FAA Order 5190.6B Change 1, Appendix Z

Development Parcel Needs Assessment

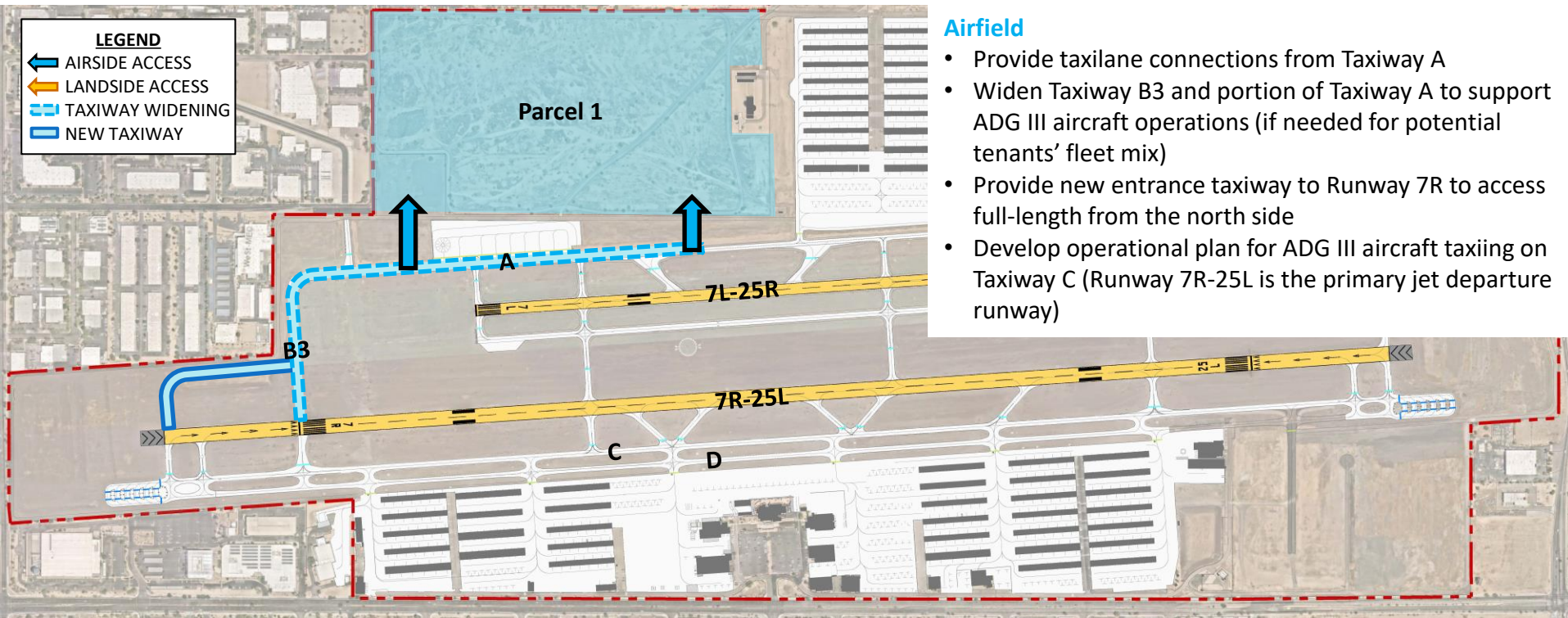
Needs Assessment

- Reviewed parcels to identify infrastructure upgrades needed to develop parcels
- Focused on three types of infrastructure needed to support development of aeronautical uses:
 - Airside
 - Landside
 - Utility
- Infrastructure improvements may be provided by City, developer or a combination of both (not determined in the needs assessment)

Development Parcels



Parcel 1 Infrastructure Upgrades Needed



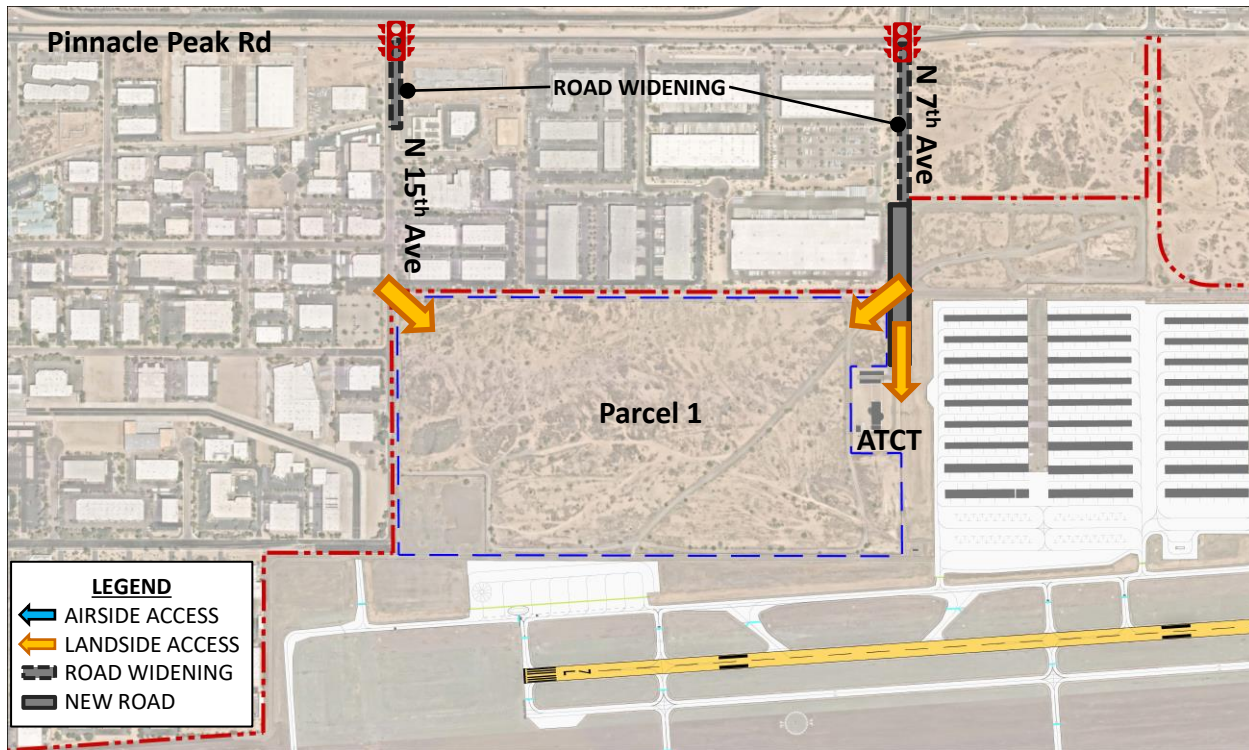
Parcel 1 Infrastructure Upgrades Needed

Landside

- Roadway connection via N 15th Ave and/or N 7th Ave
- Roadway widening to accommodate traffic growth
- Signal may be required at N 15th Ave and Pinnacle Peak Rd
- Maintain access to ATCT from N 7th Ave
- *Signal planned to be installed at N 7th Ave & Pinnacle Peak Rd and N 7th Ave reconstruction by other development*

Utility

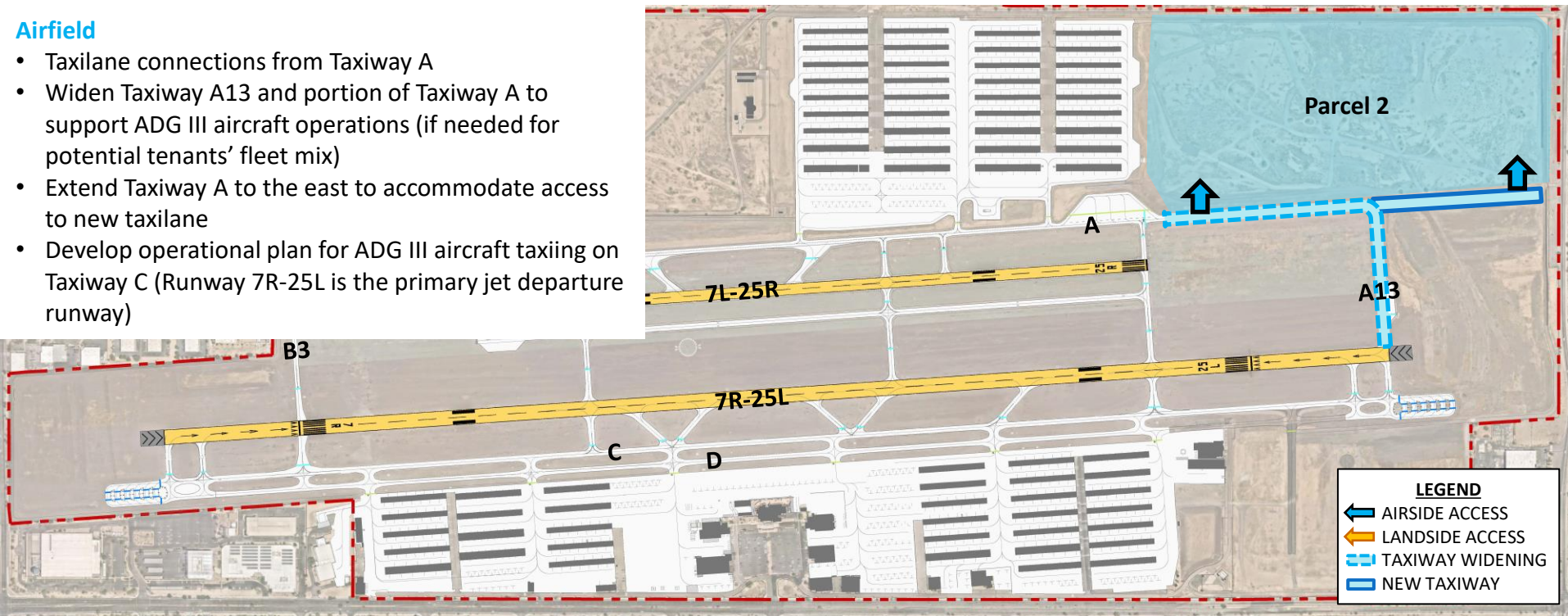
- New connections to existing/new utility main lines
 - Existing 8" sewer and water lines along the southern boundary of parcel (Source: 1994 Utility Master Plan)



Parcel 2 Infrastructure Upgrades Needed

Airfield

- Taxilane connections from Taxiway A
- Widen Taxiway A13 and portion of Taxiway A to support ADG III aircraft operations (if needed for potential tenants' fleet mix)
- Extend Taxiway A to the east to accommodate access to new taxilane
- Develop operational plan for ADG III aircraft taxiing on Taxiway C (Runway 7R-25L is the primary jet departure runway)



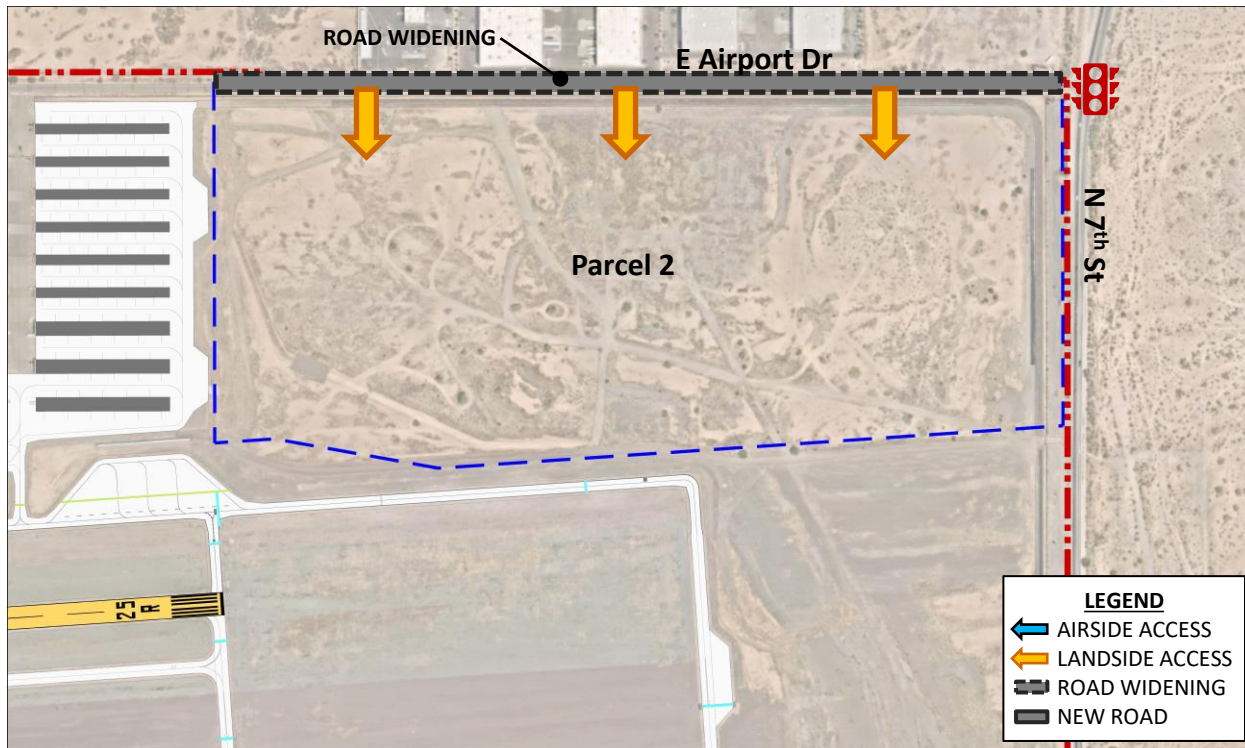
Parcel 2 Infrastructure Upgrades Needed

Landside

- Roadway connection via E Airport Dr and N 7th St
- E Airport Dr and N 7th St upgraded to accommodate traffic growth, may warrant installation of signal at intersection of E Airport Dr & N 7th St

Utility

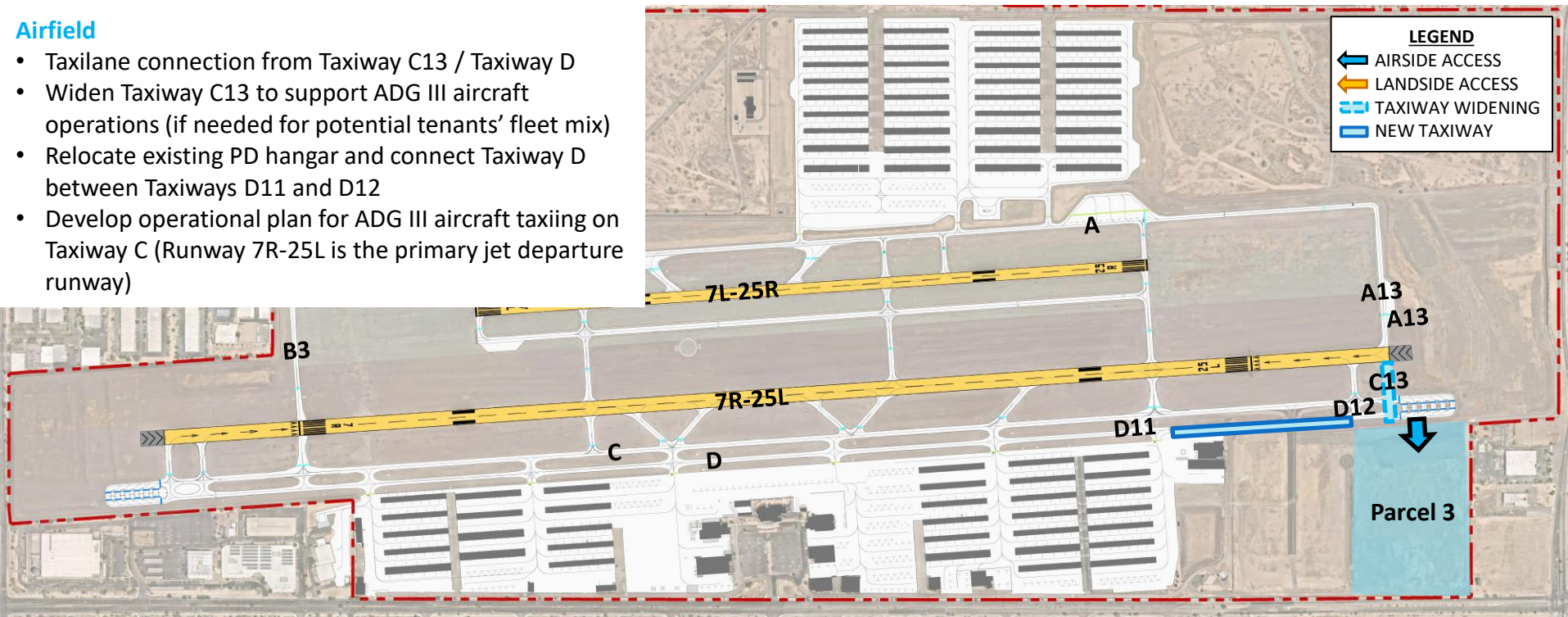
- Require new connections to existing/new utility main lines
 - Existing 12" water line along the northern boundary of parcel (Source: 1994 Utility Master Plan)



Parcel 3 Infrastructure Upgrades Needed

Airfield

- Taxilane connection from Taxiway C13 / Taxiway D
- Widen Taxiway C13 to support ADG III aircraft operations (if needed for potential tenants' fleet mix)
- Relocate existing PD hangar and connect Taxiway D between Taxiways D11 and D12
- Develop operational plan for ADG III aircraft taxiing on Taxiway C (Runway 7R-25L is the primary jet departure runway)



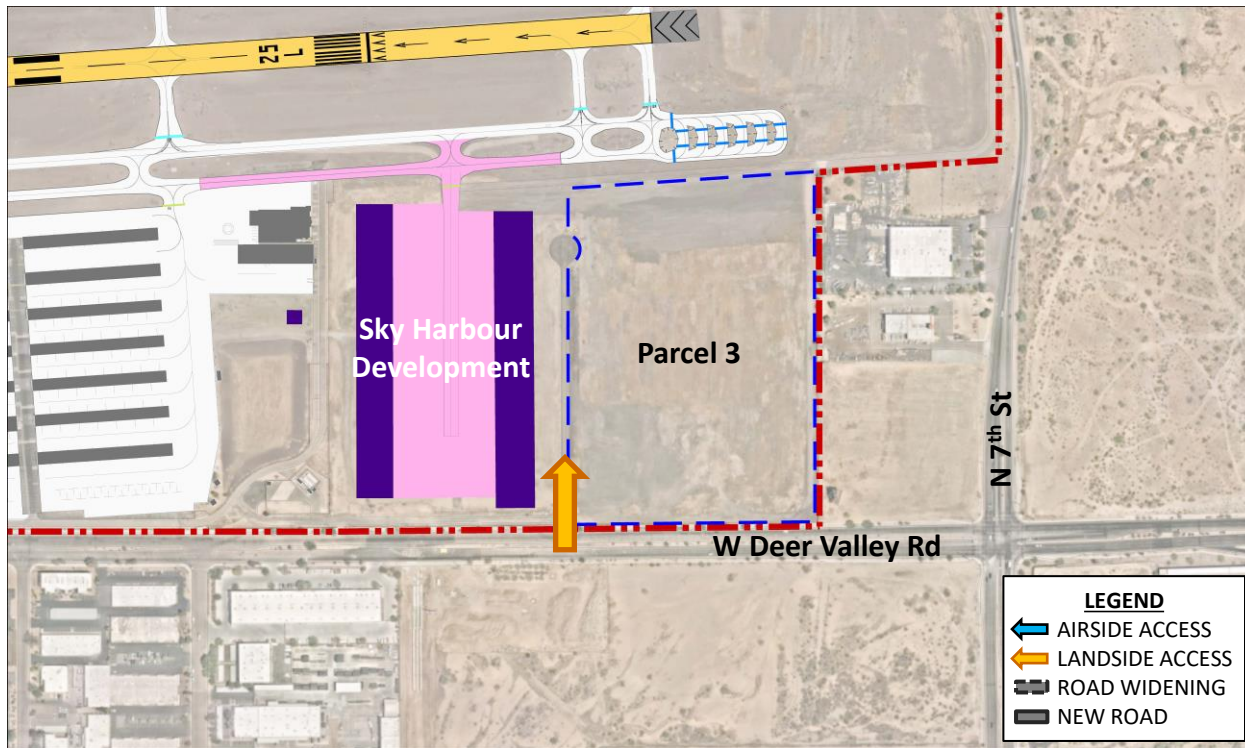
Parcel 3 Infrastructure Upgrades Needed

Landside

- Parcel can utilize new entry point from W Deer Valley Rd that was recently constructed

Utility

- New connections to existing/new utility main lines:
 - Existing sanitary sewer and 12" watermain located alongside roadway between the Sky Harbour development and Parcel 3 (Source: Phase 1 Hangar Site Development as-builts, dated February 2005)
 - Electrical conduits previously installed along the western and southern boundaries of Parcel 3 (Source: DV Corporate Hangars as-builts [APS], dated September 7th, 2005)



Parcel 4 Infrastructure Upgrades Needed

Airfield

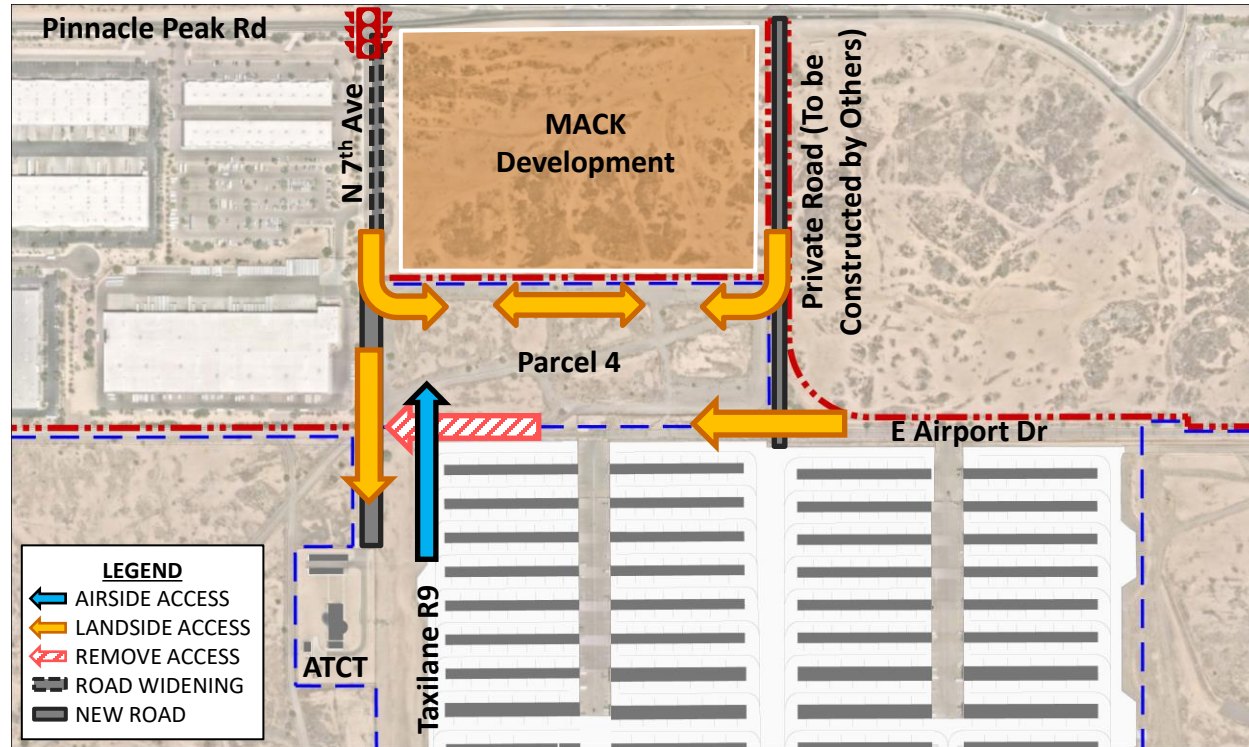
- Provide taxilane connections from Taxiway A via Taxilane R9 along west edge of T hangars

Landside

- E Airport Rd to ATCT rerouted around Parcel 4 (maintain access to west T hangars)
- Roadway connection via N 7th Ave or new private road (constructed by others), N 7th Ave requires widening to accommodate traffic growth
- *Signal planned to be installed at N 7th Ave & Pinnacle Peak Rd and N 7th Ave reconstruction by other development*
- *Private road at 3rd Ave. planned to be constructed by other development*

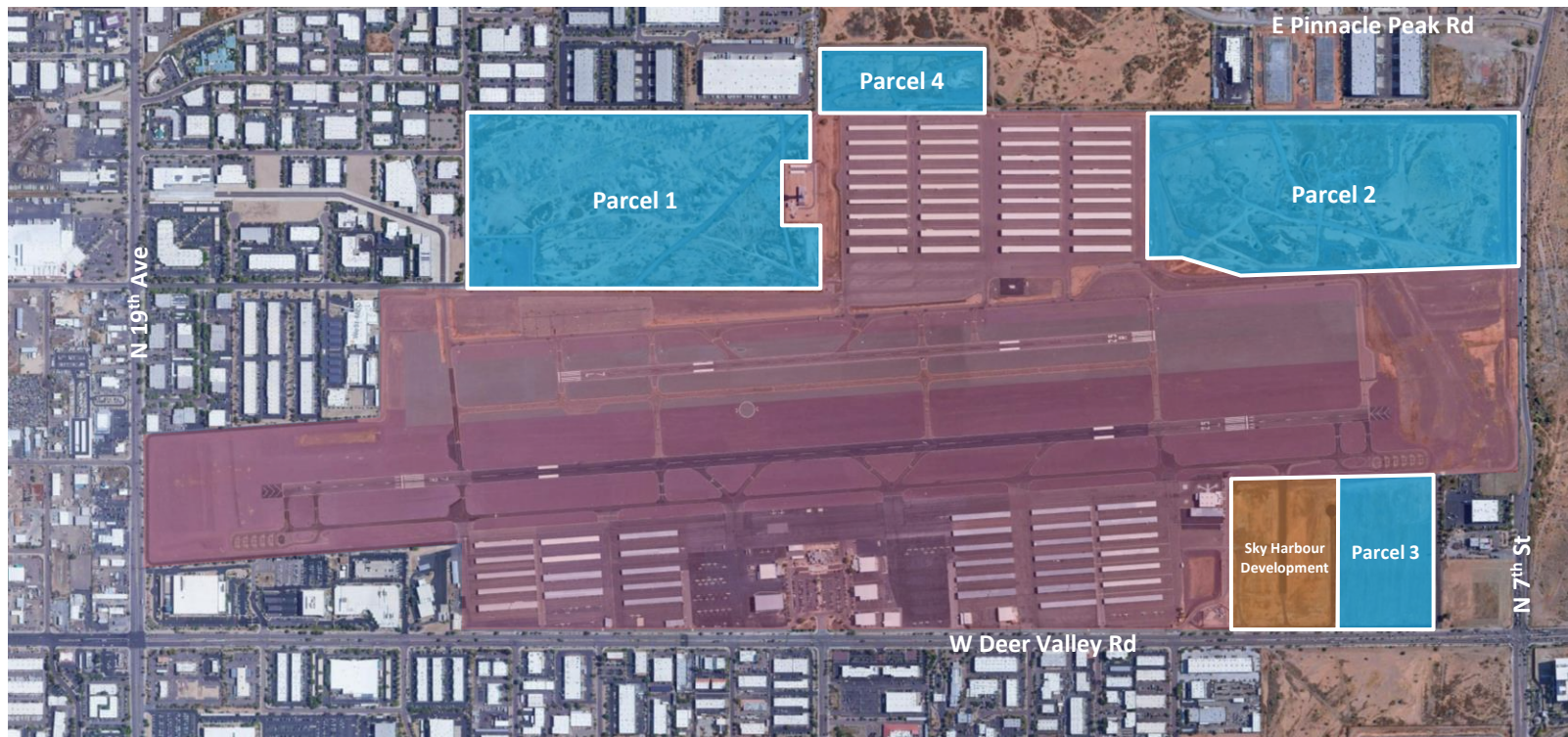
Utility

- Require new connections for all utilities



Overview of Development Opportunities

Development Parcels



Infrastructure Improvements (Near Parcel 1)

Landside

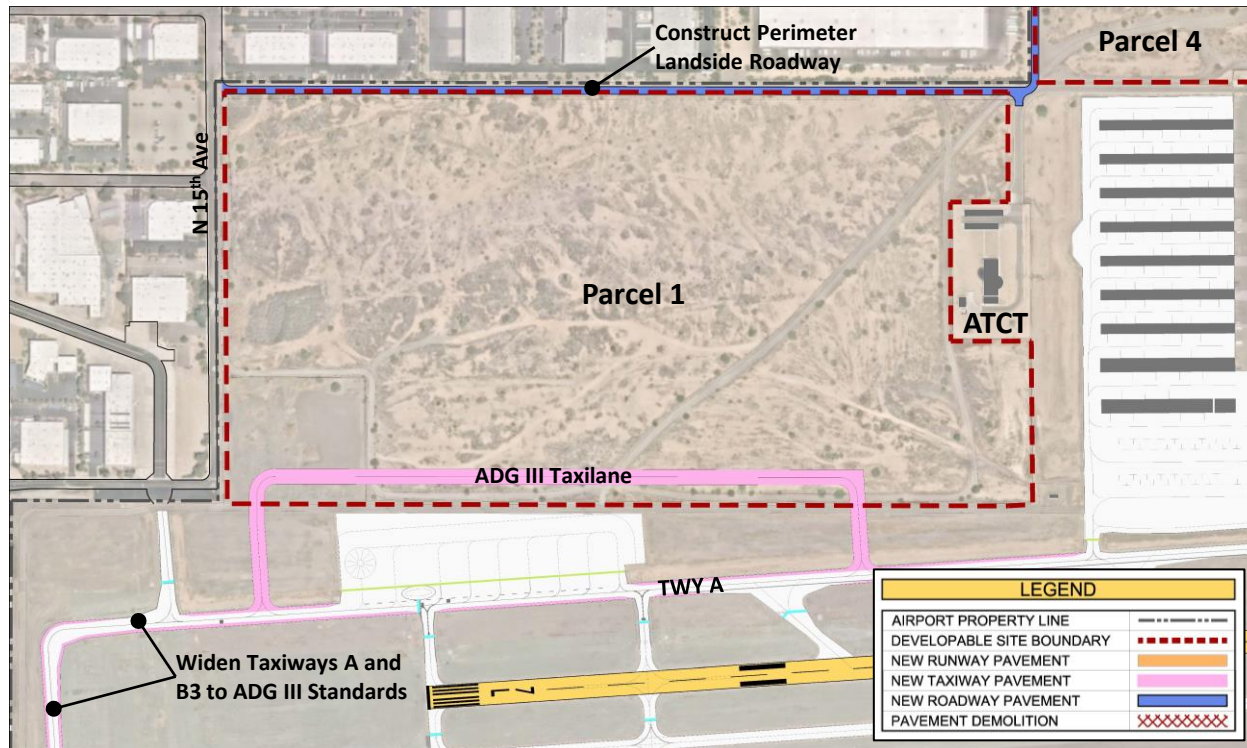
- Construct roadway connection via N 15th Ave with potential connection to new perimeter roadway north of Parcel 1

Airfield

- Widen Taxiways A and B3 to Airplane Design Group (ADG) III standards
- Construct ADG III Taxiway access to Parcel 1 from Taxiway A

Utility

- New connections to existing/new utility main lines



Infrastructure Improvements (Near Parcel 2)

Landside

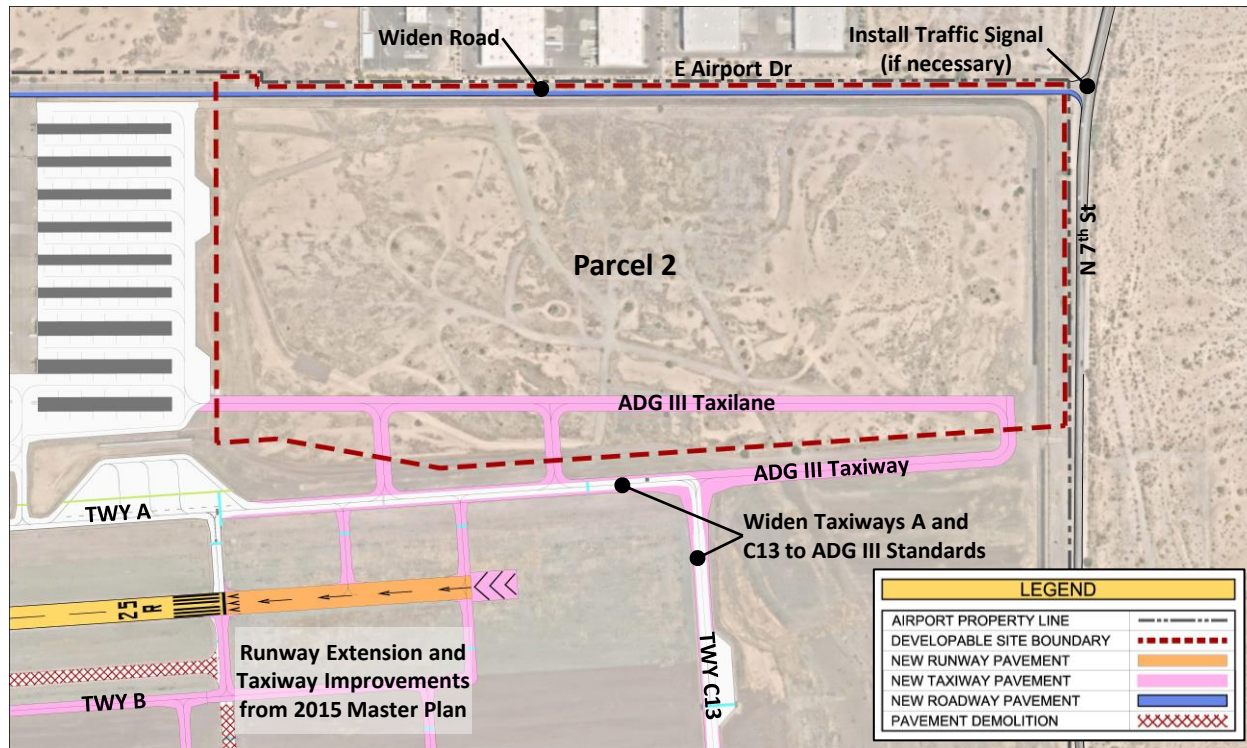
- E Airport Dr and N 7th St upgraded to accommodate traffic growth
- May warrant installation of signal at intersection of E Airport Dr & N 7th St

Airfield

- Widen Taxiways A and C13 to ADG III standards
- Extend Taxiway A to the east
- Construct ADG III Taxilane access to Parcel 2 from Taxiway A
- Construct 800' eastward extension of Runway 7L-25R and related taxiway improvements per the 2015 Master Plan

Utility

- New connections to existing/new utility main lines



Infrastructure Improvements (Near Parcel 3)

Landside

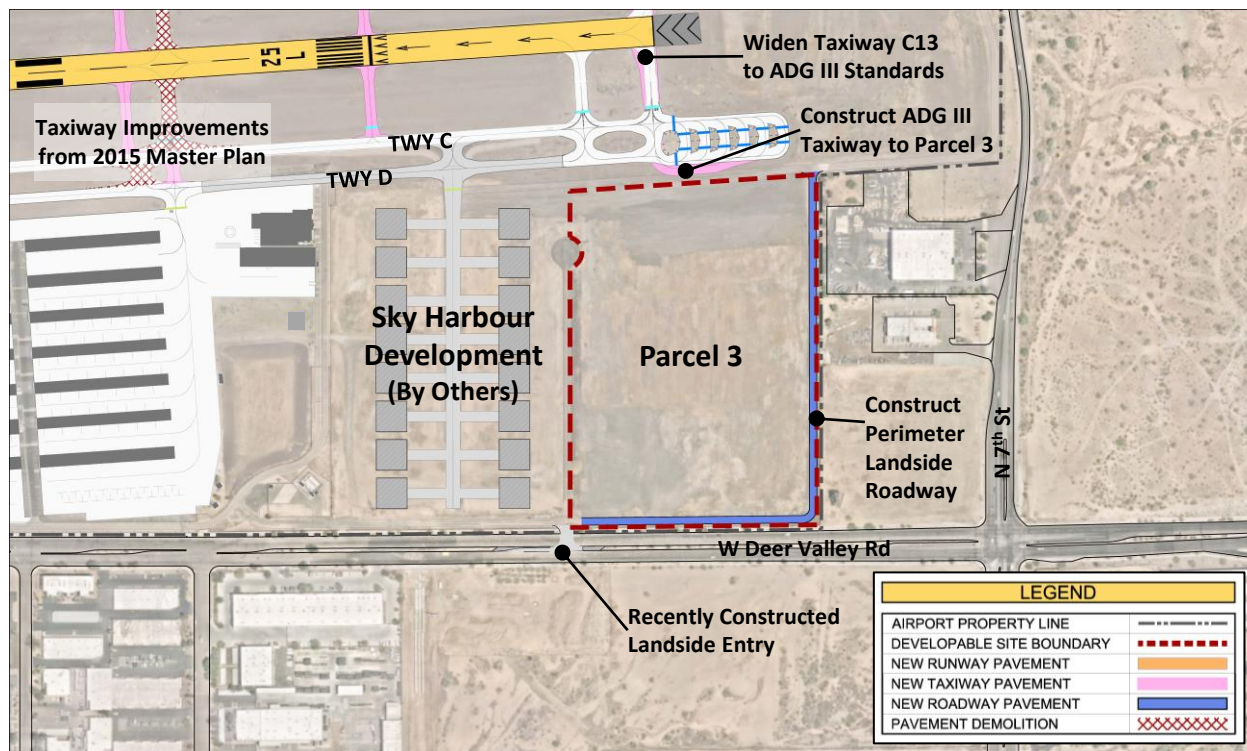
- Utilize recently constructed entry point from W Deer Valley Rd
- Construct perimeter roadway with connection to new entry point

Airfield

- Widen Taxiway C13 and portion of Taxiway D to allow ADG III aircraft to access Parcel 3
- Construct 800' eastward extension of Runway 7L-25R and related taxiway improvements per the 2015 Master Plan

Utility

- New connections to existing/new utility main lines



Infrastructure Improvements (Near Parcel 4)

Landside

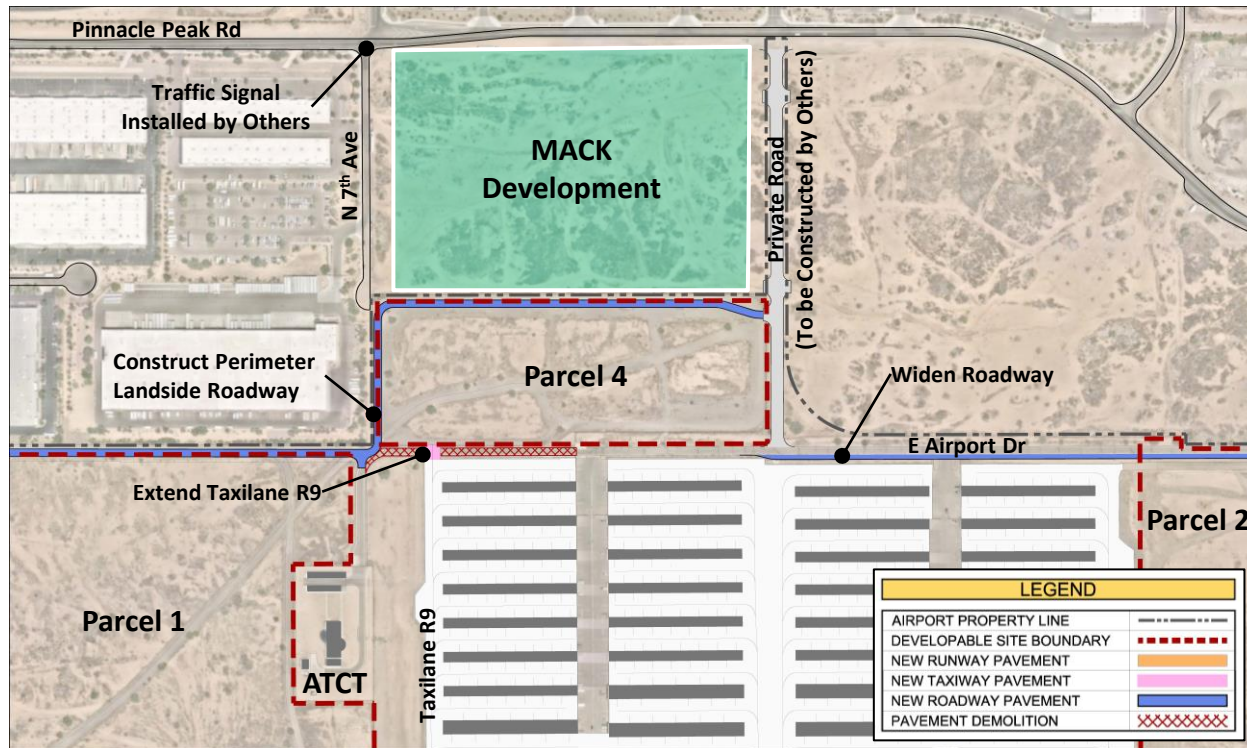
- E Airport Dr to ATCT rerouted around Parcel 4 (maintain access to west T hangars)
- Roadway connection via new private road at 3rd Ave (constructed by others)
- E Airport Dr and N 7th Ave upgraded to accommodate traffic growth
- Potential connection to Parcel 1 proposed perimeter roadway

Airfield

- Extend Taxilane R9 north to Parcel 4

Utility

- New connections for all utilities



Recommended Land Use

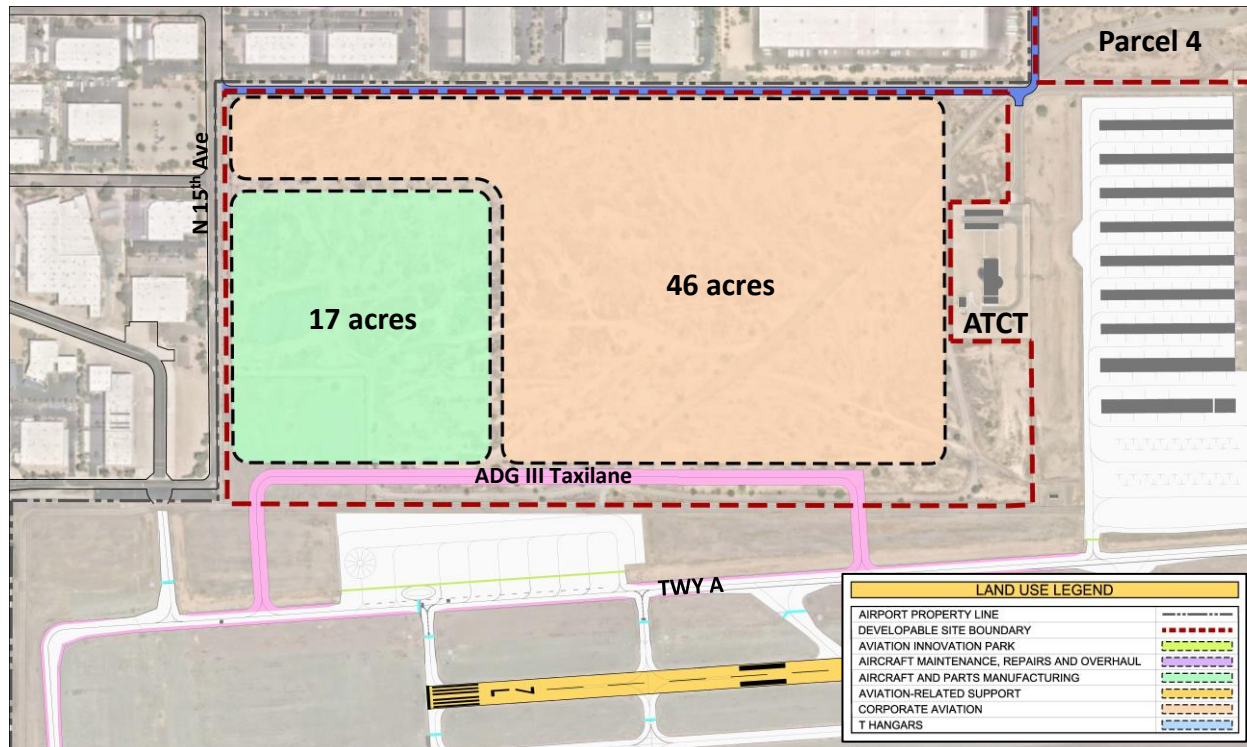
Types of Airport Land Use Functions

- **Aircraft Maintenance, Repairs, and Overhaul (MRO)**
- **Aircraft and Parts Manufacturing**
 - Related uses: Flight Simulation/Training Facilities, MRO
 - *Note that these facilities must be associated with final assembly of an aircraft, aircraft preflight or validation activities, aircraft acceptance and post-maintenance activities, and must require access to airport ramps and movement areas*
- **Aviation Innovation Park**
 - Support facilities for Advanced Air Mobility (AAM), rotary wing aircraft, and other new and transformational aircraft types
- **Aviation-Related Support**
 - Example: Foreign Trade Zone (FTZ), Aviation-Related Research & Development, Aircraft Fuel Storage Facilities, Engine Testing Facilities
- **Corporate Aviation**
 - Example: Corporate Hangars, Fixed Base Operator (FBO), U.S. Customs and Border Protection (CBP) services for air travelers
- **T Hangars**

Parcel 1 Recommended Land Use

Summary of Land Use Functions⁽¹⁾:

- **Aircraft and Parts Manufacturing** on west end of Parcel 1, with potential to have private landside entry from N 15th Ave
 - This land use may also include an assortment of self-contained uses such as flight simulation and training facilities and aircraft MRO
 - *Note that these facilities must be associated with final assembly of an aircraft, aircraft preflight or validation activities, aircraft acceptance and post-maintenance activities, and must require access to airport ramps and movement areas*
- **Corporate Aviation** for the remainder of Parcel 1 with landside entry provided via a new perimeter roadway

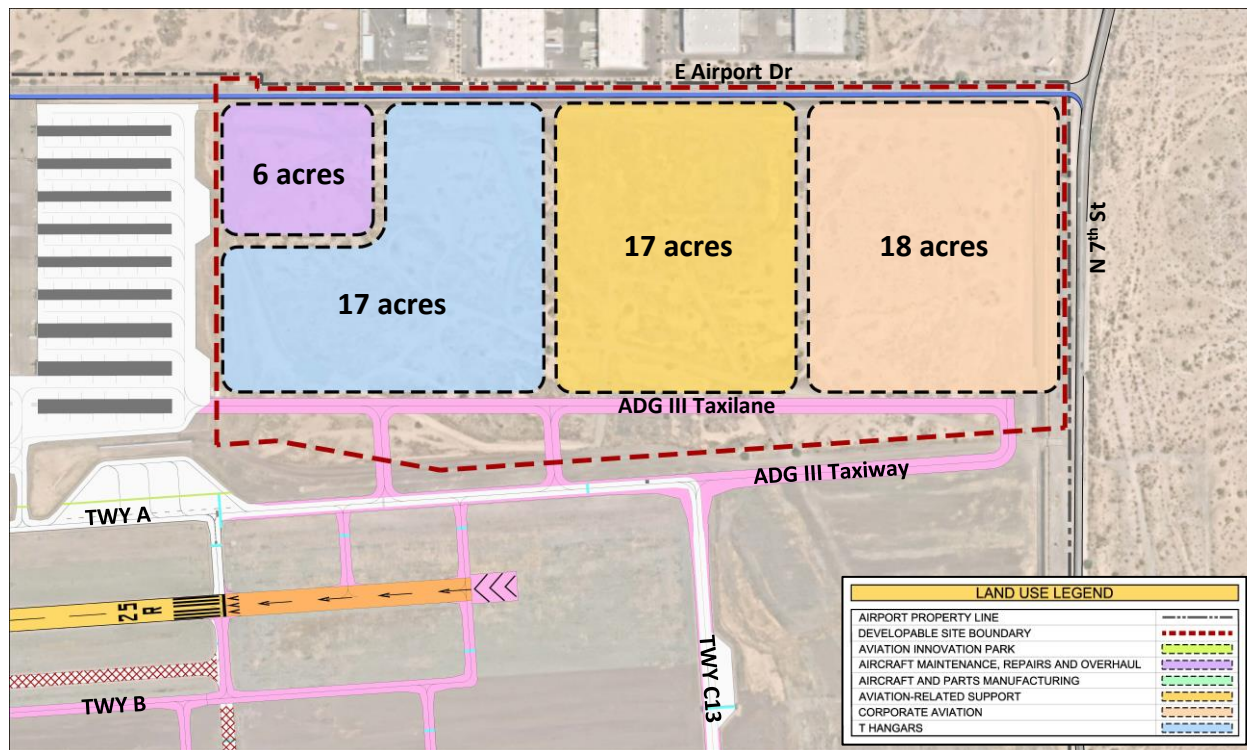


(1) Note that areas allocated for the recommended land use functions were determined based on the following analyses: (1) aviation activity forecast update; (2) market opportunity evaluation for the Greater Phoenix, Deer Valley area, and DVT; (3) benchmarking exercise against comparable General Aviation and Corporate airports; and (4) stakeholder interviews.

Parcel 2 Recommended Land Use

Summary of Land Use Functions⁽¹⁾:

- **Aircraft MRO** provided in the top left quadrant for use by both corporate and private aircraft operators
- **T Hangars** provided in a similar layout to the existing hangars to the west, with parallel hangars split by vertical landside access down the middle
- **Aviation-related Support** located east of the T Hangars
- **Corporate Aviation** in the eastern portion of Parcel 2
- All land uses may have individual access from the widened E Airport Dr



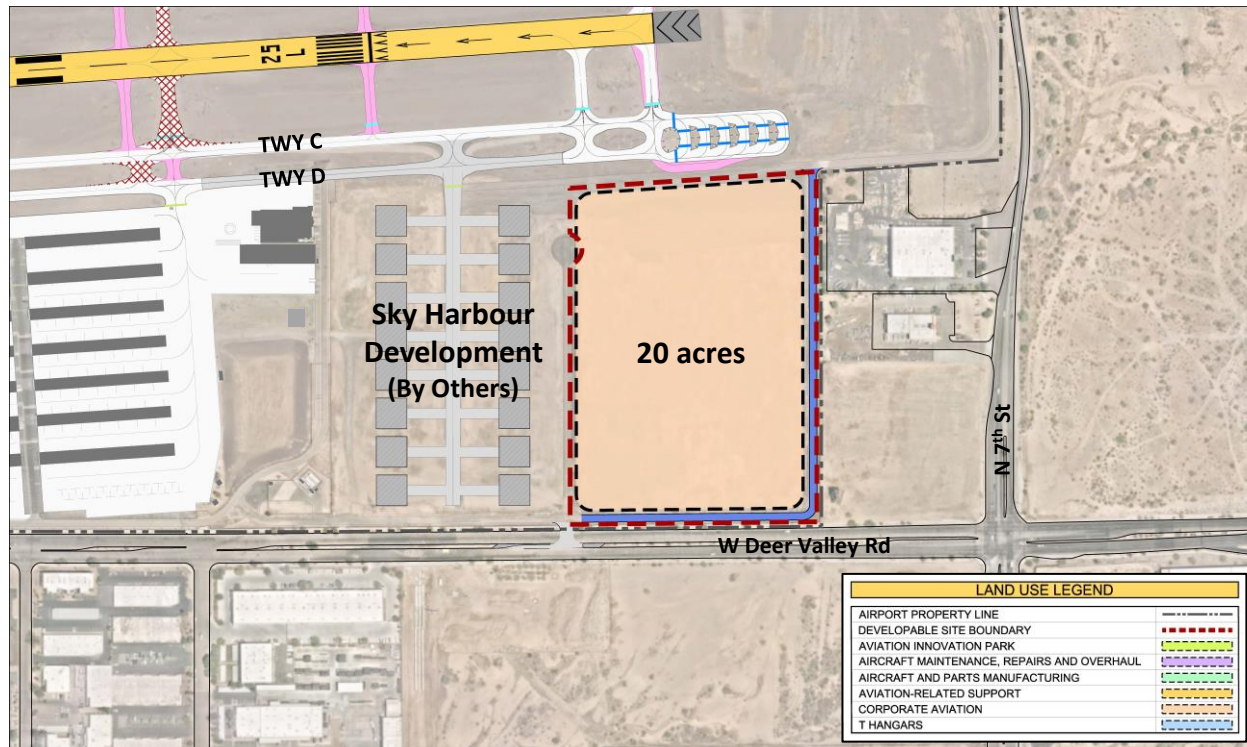
(1) Note that areas allocated for the recommended land use functions were determined based on the following analyses: (1) aviation activity forecast update; (2) market opportunity evaluation for the Greater Phoenix, Deer Valley area, and DVT; (3) benchmarking exercise against comparable General Aviation and Corporate airports; and (4) stakeholder interviews.

Parcel 3 Recommended Land Use

Summary of Land Use Functions⁽¹⁾:

- **Corporate Aviation**

Landside entry provided via new intersection on W Deer Valley Rd and new perimeter roadway.



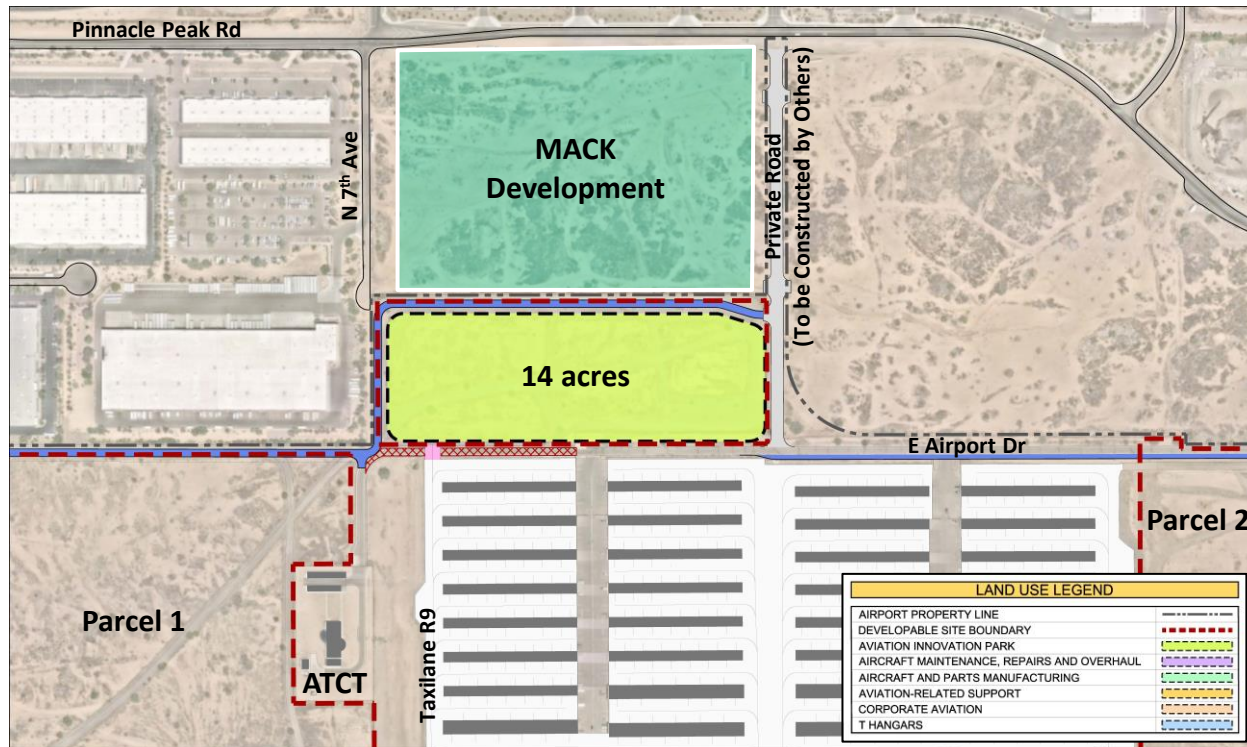
(1) Note that areas allocated for the recommended land use functions were determined based on the following analyses: (1) aviation activity forecast update; (2) market opportunity evaluation for the Greater Phoenix, Deer Valley area, and DVT; (3) benchmarking exercise against comparable General Aviation and Corporate airports; and (4) stakeholder interviews.

Parcel 4 Recommended Land Use

Summary of Land Use Functions⁽¹⁾:

- **Aviation Innovation Park**

May include support facilities (e.g., hangars, terminal building, and apron parking) for Advanced Air Mobility (AAM), rotary wing aircraft, and other new and transformational aircraft types



(1) Note that areas allocated for the recommended land use functions were determined based on the following analyses: (1) aviation activity forecast update; (2) market opportunity evaluation for the Greater Phoenix, Deer Valley area, and DVT; (3) benchmarking exercise against comparable General Aviation and Corporate airports; and (4) stakeholder interviews.

**Prepared by HNTB Corporation
for the City of Phoenix Aviation Department**