

Chapter One

# INVENTORY



Sustainable Airport Master Plan



## Chapter One

## INVENTORY



The initial step in the preparation of the Sustainable Master Plan for Albuquerque International Sunport (the Sunport, ABQ) is the collection of information pertaining directly to or influencing the Sunport and the area it serves. The information summarized in this chapter will be used in subsequent analyses within this study and includes:

- Background information related to the Greater Albuquerque Region, including descriptions of the local geography, regional climate, and surface transportation systems.
- Physical inventories and descriptions of current facilities and services offered at the Sunport. The analysis will include airfield and landside infrastructure and services as well as local and regional airspace, competing airport facilities, air traffic control, and aircraft operating procedures.
- Albuquerque International Sunport's role in regional, state, and national aviation systems. Development at the airport since the completion of the previous master plan will also be discussed.
- Socioeconomic data including population, employment, and income activity sectors will be analyzed. These sectors typically offer an indication of future trends that could influence commercial and general aviation activity at the Sunport.



- A review of existing local and regional plans and studies which will be utilized later in the process to determine their potential influence on the development and implementation of this sustainable airport master plan.
- Review of existing environmental conditions and sensitivities, on or near the Sunport, so as to be factored in the recommended development plan.

The information outlined in this chapter provides a foundation for all subsequent chapters. Much of the information was obtained through on-site inspections of the Sunport and interviews with Aviation Department staff, commercial operators, and other tenants. Information was also obtained from outside resources including documents prepared by the Federal Aviation Administration (FAA), New Mexico Department of Transportation (NMDOT)– Aviation Division, City of Albuquerque, Bernalillo County, the Middle Regional Council of Governments (MRCOG) and other pertinent regional planning and economic development agencies.

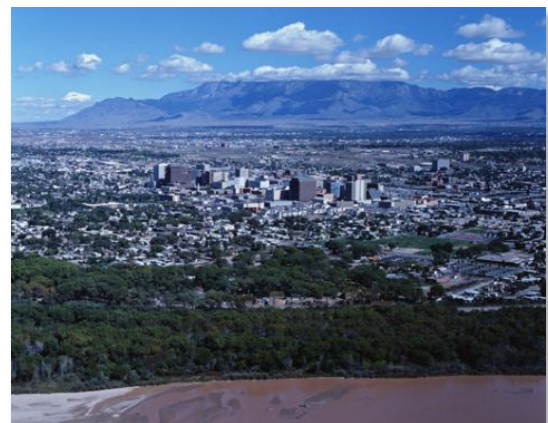
### **Sustainable Master Plan Approval Process**

The Albuquerque International Sunport Sustainable Airport Master Plan approval process complies with Federal Aviation Administration (FAA) requirements, which includes City review, approval, and adoption. The Sustainable Master Plan will be reviewed by the City’s Environmental Planning Commission (EPC), which will provide a recommendation to the City Council, as the City’s Zoning Authority. The Sustainable Master Plan will first go to the Land Use Planning and Zoning Committee (LUPZ), who will then provide its recommendation to the City Council. The City Council will then take action on the Master Plan

Major amendments to the approved Sustainable Airport Master Plan will require a similar process.

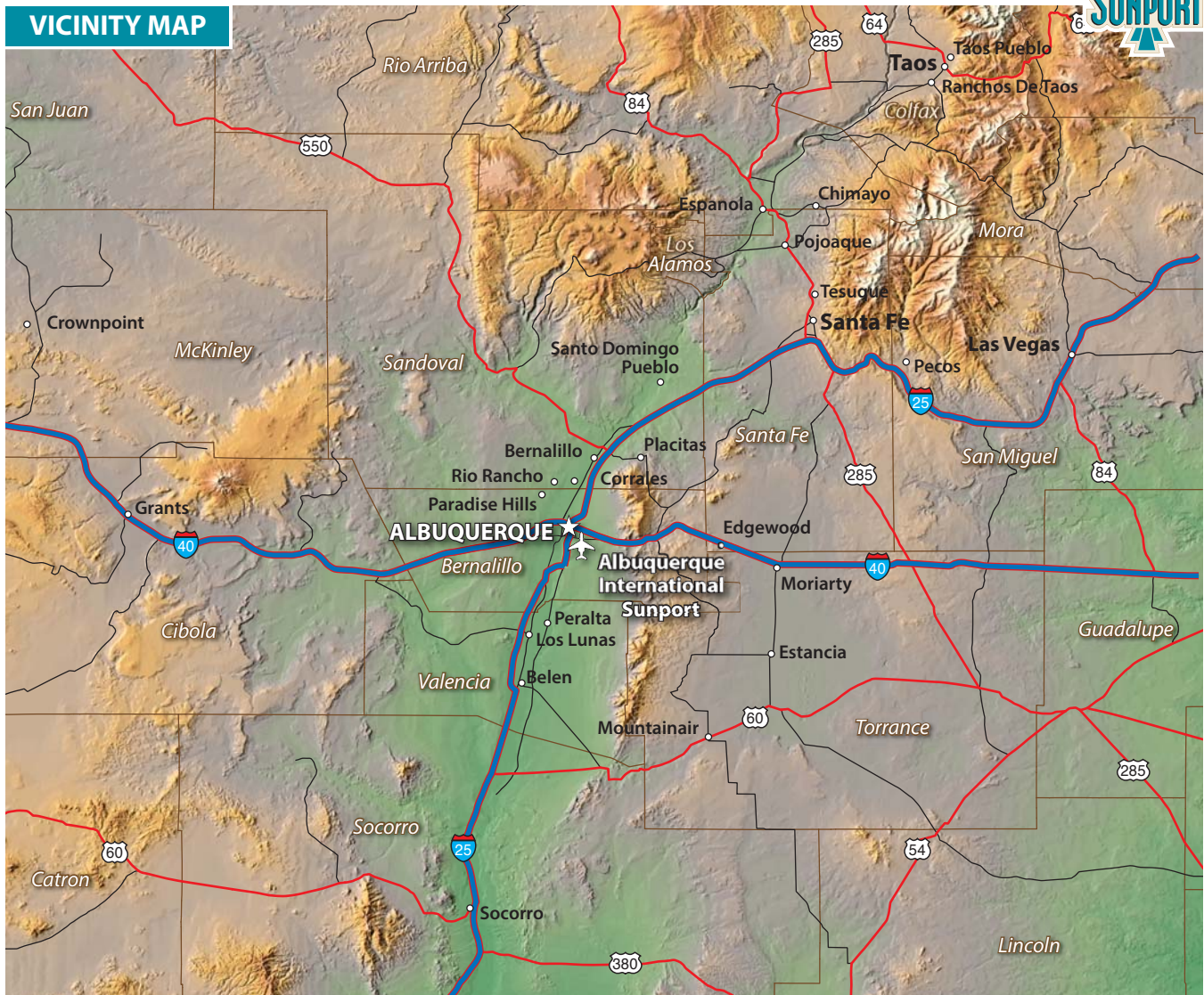
### **REGIONAL SETTING**

The City of Albuquerque is located in central New Mexico, along the Rio Grande river. It is situated in the Rio Grande Valley and on the mesas and slopes which rise along either side of the river. The Sandia and Manzano Mountain ranges extend along the eastern edge of the city, with the Tijeras Canyon separating the two ranges. West of the city, the terrain rises gradually to the Continental Divide, approximately 90 miles away. **Exhibit 1A** presents the regional setting for the Sunport.



Albuquerque is the most populous city in New Mexico with a 2013 census estimate of slightly more than 556,000 people. The Albuquerque Metropolitan Statistical

## VICINITY MAP



## LOCATION MAP



Area, which includes the counties of Bernalillo, Sandoval, Tarrant, and Valencia, had an estimated population of approximately 957,000 people in 2013. Albuquerque serves as the county seat of Bernalillo County.

*The Sunport encompasses approximately 2,743 acres of property.*

#### AIRPORT LOCATION

The Sunport is situated within the southern portion of the City of Albuquerque on a mesa overlooking the Rio Grande.

The Sunport is approximately four miles southeast of the central business district (CBD) and encompasses approximately 2,743 acres of property. An additional 145 acres of property is leased from Kirtland Air Force Base (KAFB). The leased property is adjacent to Taxiways A, B, E, and the end of Runway 30.

Kirtland AFB shares the runway/taxiway system with the Airport. The primary KAFB facilities are located north of Taxiway B with additional KAFB property surrounding the airport on the north, east, and south sides.

*Kirtland AFB shares the runway/taxiway system with the Sunport.*

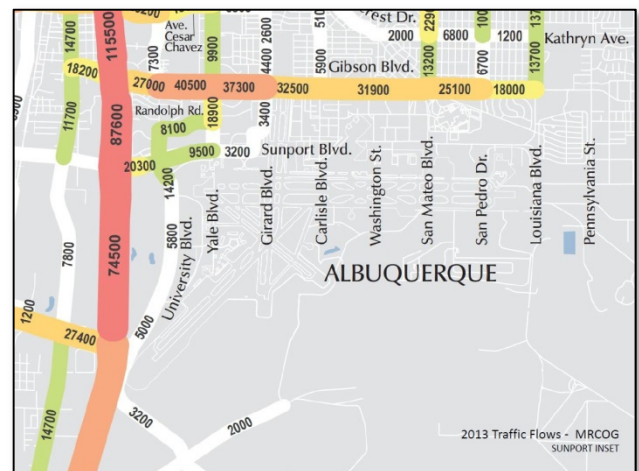
#### REGIONAL TRANSPORTATION NETWORK

Primary regional access to the City of Albuquerque is provided by U.S. Interstates 40 and 25 (I-40 and I-25). Interstate 25 provides north/south access through the city and I-40 provides east/west access. They intersect immediately northeast of downtown Albuquerque. Interstate 25 passes approximately one mile to the west of the Sunport.

Primary access to the airport is Sunport Blvd., which extends from an interchange with I-25 leading directly to the airport terminal. The airport terminal area can also be accessed via several surface streets, including Yale and Girard Blvd. from the north and University Boulevard from the south.

#### Traffic Counts

The MRCOG collects traffic counts on all major roads in the area. The resulting traffic data is used to support various transportation planning activities and produce annual Traffic Flow Maps. Traffic counts along the streets approaching the Sunport provide an indication of the number of vehicles entering the passenger terminal area. **Table 1A** presents the 2013, 2006, and 1999 average weekday traffic counts for roadway segments in the vicinity of the Sunport.



**TABLE 1A**  
**Traffic Counts (Sunport Area)**

Road Segment	Average Weekday Traffic Count		
	1999	2006	2013
Sunport Blvd. from 1-25 to University	16,900	19,200	20,300
Sunport Blvd. from University to Yale	11,500	14,800	9,500
Sunport Blvd. from Yale to Girard	NA	7,900	3,200
Yale from Gibson to Randolph	19,500	27,800	18,900
Yale from Randolph to Sunport Blvd.	10,200	7,100	NA
Girard South from Gibson Road	2,300	4,900	3,400
University to Access Road B	9,700	18,000	14,200
University from Access Road B to Clark Carr	6,400	6,500	5,800
University from Clark Carr to Spirit	4,500	NA	NA
University from Spirit to I-25	7,600	7,500	5,000

*Source: Traffic Flows for the Greater Albuquerque Area, (by year), MRCOG*

As mentioned above, the access points leading into and out of the Sunport terminal loop road are from Sunport Boulevard, Yale, and Girard. According to MRCOG, in 2013 there was an average of 9,500 daily vehicles in and out of the Sunport from Sunport Blvd. and 3,400 from Girard. A 2013 count from Yale access was not available, but based upon counts from recent years, it was estimated at approximately 5,000 daily vehicles. This resulted in access or egress by an average of 17,900 vehicles daily. This is lower than in 1999 and 2006, when 24,000 and 26,800, respectively, average daily vehicles passed through the terminal area.

## CLIMATE

Weather conditions are important to the planning and development of an airport. Temperature is an important factor in determining runway length requirements, while wind direction and speed are used to determine optimum and adequate runway orientation. The need for navigational aids and lighting is determined by the percentage of time that visibility is impaired due to cloud coverage or other conditions.



Albuquerque has an arid high desert climate with mild winters and hot summers. It lies within the northern edges of the Chihuahuan Desert ecoregion. The semi desert Colorado Plateau located to the west also influences the climate. At 5,312 feet above mean sea level (MSL), the city has one of the highest elevations of any major U.S. city, though the effects of the elevation are tempered by its position in the southwest continental U.S. Portions of the city in the foothills of the Sandia Mountains rise to over 6,700 feet (MSL). The Rio Grande is classified



as an “exotic” river because it flows through a desert ecoregion. The New Mexico portion of the river lies within the Rio Grande Rift Valley, bordered by a system of tectonic faults.

Albuquerque weather is usually sunny and dry, with relatively low humidity. Sunshine averages 278 days a year. Periods of extended cloudiness are rare. Spring usually brings windy and warm conditions. Summers bring average high temperatures in the 90s and occasional monsoon rain fall. The city averages 9.45 inches of precipitation annually. The city experiences approximately 11 inches of snow annually, which typically occurs in January and February.

**Table 1B** lists historical average climate data for Albuquerque, New Mexico. Information pertaining to temperature and precipitation were obtained from the National Oceanic and Atmospheric Administration (NOAA), while the wind speed, percent of time in instrument and visual flight rule conditions, and clear sky was derived from the Sunport’s automated surface observation service (ASOS). Visual flight rule (VFR) conditions are those when the pilot is allowed to fly with visual reference, having a minimum of three miles visibility and at least 1,000-foot cloud ceilings. Instrument flight rule (IFR) conditions are those times where either visibility or cloud heights fall below VFR conditions.

**TABLE 1B**  
**Historic Climate Data**  
**Albuquerque, New Mexico**

Period	Average Precipitation (in.) <sup>1</sup>	Average Snowfall (in.) <sup>2</sup>	Average Daily High Temp (F) <sup>1</sup>	Average Daily Low Temp (F) <sup>1</sup>	Average Wind Speed (mph) <sup>2</sup>	Percent IFR <sup>2</sup>	Percent VFR <sup>2</sup>	Percent Clear Sky <sup>2</sup>
Jan.	0.38	2.5	46.8	26.1	7.11	2.95%	97.05%	69.00%
Feb.	0.48	2.1	52.5	30.3	8.09	3.69%	96.31%	63.00%
Mar.	0.57	1.8	60.5	35.7	9.14	2.28%	97.72%	66.00%
Apr.	0.61	0.6	69.0	43	10.54	1.03%	98.97%	72.00%
May	0.50	0	78.8	52.5	10.13	0.22%	99.78%	73.00%
Jun.	0.66	0	88.3	61.6	9.55	0.44%	99.56%	76.00%
Jul.	1.50	0	90.1	66.4	8.72	0.57%	99.43%	59.00%
Aug.	1.58	0	87.2	65.1	7.23	0.59%	99.41%	65.00%
Sept.	1.08	0	80.7	57.9	7.76	0.83%	99.17%	71.00%
Oct.	1.02	0.1	69.0	46.1	7.33	0.60%	99.40%	78.00%
Nov.	0.57	1.2	55.8	34.1	6.87	1.39%	98.61%	71.00%
Dec.	0.50	2.7	46.1	26.5	6.84	7.65%	92.35%	61.00%

<sup>1</sup>Source: NOAA - Climatology of the U.S. No. 81 (30-years of data from 1981-2010) as sourced from the on-airport automated surface observation system (ASOS)

<sup>2</sup>Source: On airport ASOS; 110,099 observations from 11.1.2005 to 10.31.2014.

**KEY:**

in. - Inches

MPH - Miles per hour

F - Degrees Fahrenheit

IFR - Instrument Flight Rule

VFR - Visual Flight Rule



## AIRPORT HISTORY AND BACKGROUND

Albuquerque International Sunport was initially developed in 1937 through a cooperative effort between the City of Albuquerque and the New Mexico Airport Corporation (a subsidiary of Trans World Airlines). The City of Albuquerque took responsibility for developing airfield facilities, while the New Mexico Airport Corporation developed a terminal building, maintenance hangar, and fuel storage facilities on 53 acres owned by the corporation.

Through World War II, the Albuquerque airport served both the airline needs of Trans World Airlines and the growing needs of the Army Air Corps located adjacent to the airport. The City of Albuquerque continued to expand the airfield facilities during the 1940s. By 1945, the airport site had grown to more than 223 acres.

In 1950, the federal government negotiated a quitclaim deed with the City and took possession of the airport. Over the next 12 years, the Department of Defense developed the airport to meet the expanding research and development programs conducted at the Air Base. Meanwhile, the New Mexico Airport Corporation continued operational control over the civilian terminal area.

In 1962, the Department of Defense returned the airfield and most property west of former Runway 17-35 by quitclaim deed to the City. Under the agreement, the Department of Defense retained title to the Air Base while agreeing to provide airport crash, fire and rescue services for civilian operations in accordance with Federal Aviation Regulations. The Department of Defense also agreed to pay the City annual compensation for the use of the airfield.

Initially, all civilian facilities were located northwest of the runways. This included a new passenger terminal (constructed in 1965), apron areas, air mail facility, and aircraft storage hangars. The most significant changes to the facilities occurred in the mid and late 1980s, when all general aviation facilities and the airport maintenance facilities were relocated to the southwest quadrant of the airport. This provided space for the expansion of the passenger terminal building.

Various improvements have continued through the 1990s and into the 2000s. An air cargo facility and apron were constructed in 1992. A replacement airport traffic control tower was constructed in 1994. Runways 8-26 and 3-21 were reconstructed in the mid-1990s, and Runway 3-21 was concurrently upgraded and extended to 10,000 feet in length. Runway 12-30 was reconstructed and extended to 6,000 feet in the late 1990s. A postal facility was also added to the airport in 1994. Taxiway A was reconstructed in 1993, and Taxiway E was constructed in 1991. Four departure gates were added to concourse A in 1996. An observation deck and food court were added in 1998.

Sunport Boulevard was constructed in 1999, providing direct airport access to Interstate 25. It also provided access for rental car facilities to be consolidated remotely from the terminal on the west side of the airport off University Blvd. in 2001. This 76-acre site contains a rental car terminal, rental ready/return areas, and maintenance/storage areas for each rental car provider operating at the Sunport.



In 2003 and 2005, the airport invested in a variety of security enhancements in response to the terrorist attacks of September 11, 2001. This included reconstruction of the airport security checkpoints and remodeling of the original terminal building for use by the Transportation Security Administration (TSA).

The airport has secured several FAA Airport Improvement Program (AIP) grants through the Voluntary Airport Low Emissions Program (VALE). The VALE program is designed to reduce all sources of airport ground emissions and to assist airports in meeting their state regulated air quality responsibilities under the Clean Air Act. In 2009, the airport obtained two electric-hybrid vehicles. In 2010 and 2011, the airport constructed two photovoltaic solar arrays to generate power for use at the airport. The solar arrays are located on top of the parking garage. A 2013 VALE grant funded the purchase of electric vehicle charging stations (eGSE), and the most recent VALE grant in 2014 funded the cost to replace four boilers in the airport's central utility plant.

In the summer of 2012, Runway 17-35 was officially closed. This not only saved the cost of full reconstruction of the runway, but also improved airfield safety and efficiency by eliminating a runway that intersected each of the other three runways on the airfield.

**Exhibit 1B** presents major capital improvement projects completed over the past several years. The two main funding sources are the AIP (administered by the FAA) and Passenger Facility Charges (PFCs), which is a user fee authorized by the FAA. As can be seen in the exhibit, the Sunport has benefited from nearly \$80 million in AIP funding since 2000. PFC funds have supported an additional \$170 million in capital projects since the early 1990s. Periodically, the Sunport will receive grants from other sources, such as the Environmental Protection Agency (EPA) and the Department of Energy (DOE), for projects.

## ***HISTORICAL AERONAUTICAL ACTIVITY***

At commercial service airports, the number of passenger boardings (enplanements) is a key indicator of activity levels and are typically the basis for federal grants-in-aid. Enplanements are also a good barometer of operational conditions as they can be used to measure the level of commercial passenger airline services. Another commercial airline indicator is the amount of air cargo shipped, typically recorded in annual enplaned pounds or tons. The airport's based aircraft and annual operations (takeoffs and landings) in aggregate and by aircraft type are also important aeronautical activity measures to factor. These indicators will be used in subsequent analyses in this master plan to project future aeronautical activity and determine future facility needs. Each of the activity segments is briefly described below.

### **PASSENGER ENPLANEMENTS**

Commercial service airports provide local and regional access to the national and international aviation systems. As such, these airports are vital to interstate commerce as well as a key component to local and regional economic infrastructure. These facilities support and drive growth in all socioeconomic categories.

**RECENT CAPITAL PROJECTS FUNDED THROUGH FAA AIRPORT IMPROVEMENT PROGRAM (AIP)**

Year	AIP Grant #	Project Description	Grant Amount
2014	46	Rehabilitate Taxiway A (Phase 3)	\$6,998,810
2014	45	Update Airport Master Plan	\$900,000
2014	44	VALE Infrastructure (boiler replacement)	\$431,479
2013	43	VALE Infrastructure (eGSE charging stations)	\$483,584
2013	42	Rehabilitate Taxiway A (Phase 2-Construction)	\$9,077,735
2012	41	VALE Infrastructure (Energy efficiency equipment/infrastructure)	\$3,389,237
2012	40	Rehab Taxiway A (Phase 1-Design)/Rehabilitate Taxiway E (Sealcoat)	\$659,745
2011	39	Reconstruct GA Apron	\$8,275,767
2011	38	VALE Infrastructure (PV solar on parking garage)	\$1,765,424
2010	37	VALE Infrastructure (PV solar on parking garage)	\$2,441,597
2010	36	Wildlife Hazard Assessment	\$81,307
2010	35	Rehabilitate Taxiway Lighting	\$2,745,364
2009	34	VALE Infrastructure (2 electric/hybrid vehicles)	\$26,130
2008	33	Rehabilitate Apron/Runway Incursion Markings	\$9,441,340
2007	32	Rehabilitate Taxiway E	\$5,486,917
2006	31	Terminal Apron Rehabilitation	\$10,453,996
2005	30	Terminal Apron Rehabilitation	\$1,043,078
2005	29	Security Checkpoint Enhancements	\$3,872,490
2003	28	Security Enhancements	\$8,430,102
2003	27	Rehabilitate Taxiway (A, B, C)	\$2,049,933
2002	26	Rehabilitate Runway	\$723,933
2002	25	Security Enhancements	\$440,000
2000	24	Update Airport Master Plan	\$652,069
<b>TOTAL</b>			<b>\$79,870,037</b>

Source: FAA Records accessed on 11.10.14. [http://www.faa.gov/airports/aip/grantapportion\\_data/](http://www.faa.gov/airports/aip/grantapportion_data/)

**RECENT CAPITAL PROJECTS FUNDED THROUGH PASSENGER FACILITY CHARGE (PFC)**

Year	PFC#/Project #	Project Description	Grant Amount
2014	3/6	Rehab Terminal-Mech/Elect/Fire	\$12,175,304
2013	3/2	Rehabilitate Terminal Apron	\$5,352,660
2012	3/5	Rehab Terminal-Public Space	\$17,364,987
2011	3/3	Upgrade Communications System	\$3,769,000
2007	3/4	Upgrade FIDS/BIDS	\$5,883,029
2007	3/7	Const Customs/Fed Insp Station	\$402,315
2007	3/8	Rehab Term-Passenger Screening	\$1,430,230
2006	3/10	Extend University Boulevard <sup>1</sup>	\$0
2006	3/11	PFC Application Admin Fees	\$80,000
2005	3/9	Extend Spirit Drive	\$3,166,186
2001	2/11	PFC Application Administrative Cost	\$67,348
2000	2/6	Runway 12-30 Extension & Reconstr.	\$11,814,160
1999	2/7a	DE-II Apron Expansion	\$358,979
1999	2/7b	DE-II Taxiway Improvements	\$325,157
1999	2/7c	DE-II Runway Improvements	\$703,330
1999	2/9	Construct Sunport Boulevard	\$10,648,487
1998	2/10	Expand Air Cargo Apron	\$1,211,556
1997	1/1	Reconstruction of Runway 8-26	\$49,773,870
1996	3/1	Extend Runway 3/21	\$28,580,092
1995	2/5	Runway 3-21 Extension & Upgrade	\$8,291,816
1995	2/2	Reconstruct Taxiway E	\$2,214,261
1994	2/3	Improve Taxiways A & B	\$5,285,658
1994	2/4	Terminal Apron Expansion	\$331,678
1993	2/1	Update Master Plan	\$83,782
1992	2/8	Construct Access Road D	\$508,424
<b>TOTAL</b>			<b>\$169,822,309</b>

<sup>1</sup>Project completed by the City of Albuquerque

Source: Airport records.

*In 2014, there were 2,446,388 enplanements.*

An enplanement includes any revenue passengers that board an aircraft for a fare at an airport. This statistic is important in that it is utilized by the FAA to determine the annual level of entitlement funding dedicated to an airport under the AIP.

Airports with at least 10,000 annual enplanements are eligible for a minimum one million dollars in annual entitlement funds. The graph on **Exhibit 1C** depicts historical enplanements at the Sunport since 1970. In 2014, there were 2,446,388 enplanements. Airline passenger activity interrelates with the number of airlines serving the airport, frequency of daily departures, size and type of aircraft used, and the number of non-stop destinations.

The Sunport is currently served by eight regularly scheduled airlines offering an average of 38 daily departures (as of January 2015). The airlines providing daily non-stop flights and their destination are as follows:

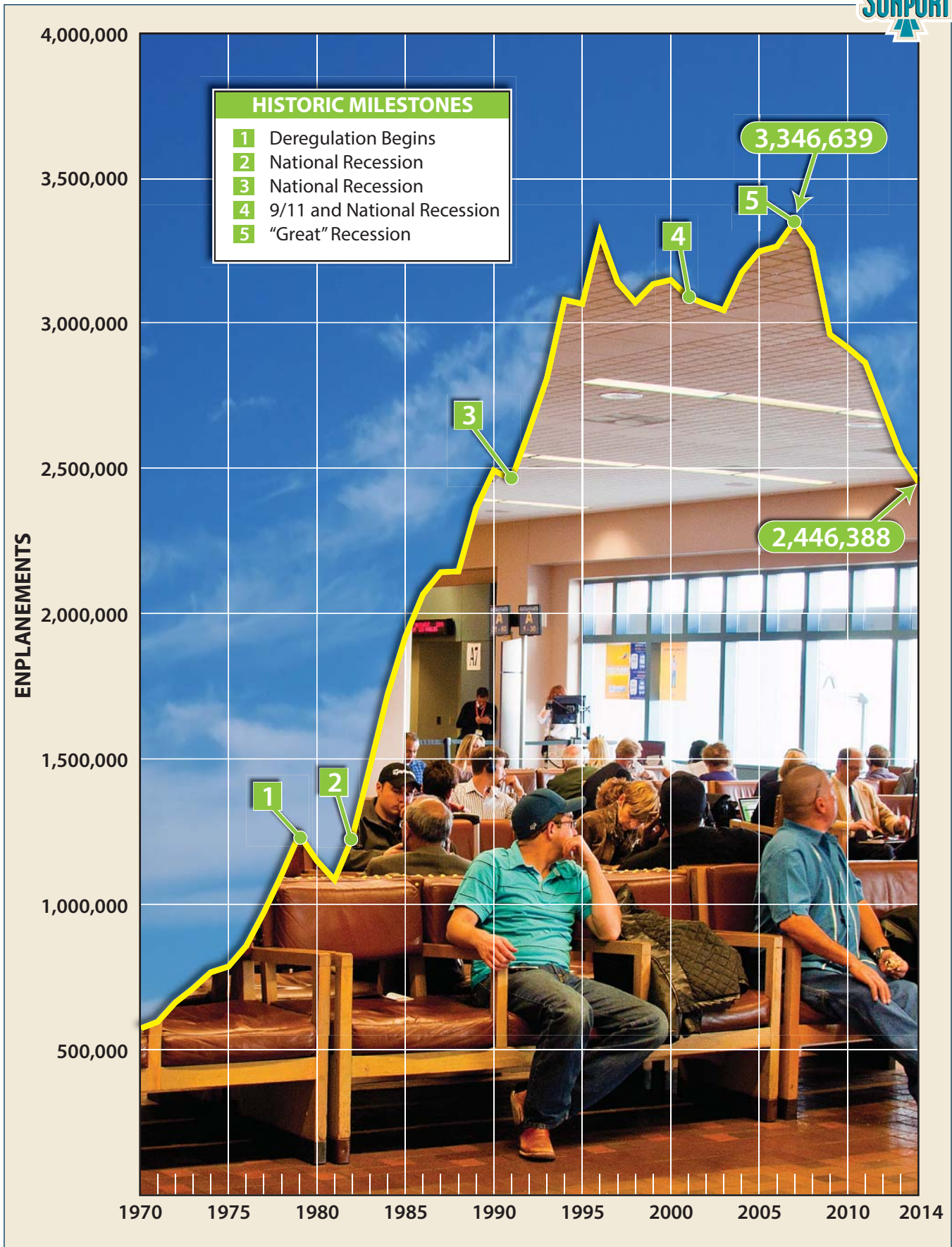
- Alaska Airlines (Seattle)
- American Airlines (Chicago, Dallas, Los Angeles)
- Delta (Atlanta, Salt Lake City, Minneapolis-St. Paul)
- Boutique Air (Silver City, NM)
- Jet Blue (New York City – JFK)
- Southwest (Baltimore-Washington, Chicago-Midway, Dallas Love Field, Denver, Houston - Hobby, Kansas City, Las Vegas, Los Angeles, Oakland, Orlando, Phoenix, Portland, San Diego, Seattle, St. Louis, Tucson)
- United (Chicago, Denver, Houston, Los Angeles, San Francisco)
- U.S. Airways (Phoenix)

## AIR CARGO

Air cargo activity at the Sunport consists of three categories: air cargo, belly freight, and U.S. mail. The following five airlines currently operate at the airport for air cargo purposes.

- FedEx utilizes a variety of aircraft including Airbus A-300, A-310, and MD-10.
- United Parcel Service (UPS) uses Boeing 757, 767, and A-300.
- Empire Air provides express feeder service for FedEx. Routes to and from the Sunport include Durango, Gallup, and Farmington utilizing the Cessna Caravan 208 aircraft.





- AmeriFlight, Inc. provides express service for FedEx to and from Phoenix. AmeriFlight has a variety of aircraft in its fleet, but primarily utilizes a Piper Chieftain turboprop.
- South Aero, Inc. utilizes both a Cessna 210 Centurion single engine piston and a Cessna 402 light twin piston aircraft for charter cargo express service. South Aero is a feeder airline to UPS.

**Table 1C** presents the historical air cargo activity at the airport from 2004 through 2014. As can be seen, total air cargo as measured in tons was relatively steady from 2004 through 2007. Since that time, cargo has declined by nearly 29 percent.

**TABLE 1C**  
**Historical Air Cargo - Total Freight, Express, Mail**  
**Albuquerque International Sunport**

Year	Freight (lbs.)	Express (lbs.)	Mail (lbs.)	Total (lbs.)	Total (tons)
2004	148,019,203	582,957	9,691,960	158,294,120	79,147
2005	156,831,214	544,849	8,966,579	166,342,642	83,171
2006	161,801,374	553,883	5,624,215	167,979,472	83,990
2007	150,881,181	836,052	1,746,584	153,463,817	76,732
2008	133,716,362	500,125	2,028,041	136,244,528	68,122
2009	120,927,312	501,032	1,608,013	123,036,357	61,518
2010	122,478,325	478,325	1,104,484	124,061,134	62,031
2011	120,000,671	489,235	923,977	121,413,883	60,707
2012	128,119,584	480,908	141,992	128,742,484	64,371
2013	112,120,176	479,420	37,042	112,636,638	56,318
2014	111,012,539	342,978	48,949	111,404,466	55,702

Source: Airport records

## AIRCRAFT OPERATIONS

Aircraft operations are classified as either local or itinerant. Itinerant operations are arriving or departing aircraft which have an origin or destination away from the airport. Aircraft operations are further sub-classified into four general categories: air carrier, air taxi, general aviation, and military. Air carrier operations are defined as those conducted commercially by aircraft having a seating capacity of 60 or more and/or a maximum payload capacity of 18,000 pounds. Air taxi operations can include small commercial service aircraft operations as well as general aviation type aircraft for the “on-demand” commercial transport of persons and property in accordance with 14 Code of Federal Regulations (CFR) Part 135 and Subchapter K of 14 CFR Part 91.



Local operations consist mostly of aircraft training flights conducted in the airport traffic pattern, such as touch-and-go training and practice instrument approaches, or other flights to and from a designated practice area within 20 nautical miles of the airport.

**Exhibit 1D** presents the annual aircraft operations as counted by the air traffic control tower (ATCT) at the Sunport since 1995. The exhibit includes two categories of itinerant operations: IFR and VFR operations. IFR operations are those conducted during instrument weather conditions or during VFR but under a completed instrument flight plan.

Commercial service operations at the Sunport fall under both air carrier and air taxi categories. Air carrier operations typically include mainline passenger and cargo airlines. Commercial service operations



counted as air taxi are represented by regional airlines utilizing small regional jets or turboprop aircraft while hauling under the banner of the mainline carriers. General aviation operations include a wide array of aircraft use ranging from personal to business and corporate uses. Military aircraft also operate extensively at the Sunport, as detailed on **Exhibit 1D**.

### BASED AIRCRAFT

Identifying the current number of based aircraft is important to master plan analysis, yet it can be challenging because of the transient nature of aircraft storage. The airport maintains a record of aircraft based on the airport. There are currently 165 aircraft based at the Sunport, which includes 60 single engine piston, 49 multi-engine, 30 business jets, 19 helicopters, and seven classified as “other.” Historical based aircraft information is also presented on **Exhibit 1D**.

***There are currently 165 aircraft based at the Sunport.***

### AIRPORT ADMINISTRATION

Albuquerque International Sunport is owned and operated by the City of Albuquerque. Albuquerque has an elected mayor and city council form of government. The Aviation Department is responsible for the management, operation, and development of the Sunport. The Director reports directly to the Mayor and City Council. **Exhibit 1E** presents the airport organizational chart. There is a total of 288 Aviation Department employees.

The Airport Advisory Board acts in an advisory capacity to the Director of Aviation, Mayor, and City Council. The Advisory Board is comprised of nine members who are appointed by the Mayor with the advice and consent of the City Council. Each Advisory Board appointment is for a three-year term, and no board member may serve more than two consecutive terms or until an expired appointment is filled. The Advisory Board typically meets monthly.



## AIRPORT SYSTEM PLANNING ROLE

Airport planning exists on many levels: national, state, and local. Each level has a different emphasis and purpose. On the national level, the Albuquerque International Sunport is included in the *National Plan of Integrated Airport Systems* (NPIAS). On the regional and state levels, the airport is included in the *New Mexico Airport Systems Plan*, last updated in 2009. The local planning document is the Airport Master Plan, which was last updated and approved in 2003.

## FEDERAL AIRPORT PLANNING

Many of the nation's existing airports were either initially constructed by the federal government, or their development and maintenance was partially funded through various federal grant-in-aid programs to local communities. The system of airports existing today is due, in large part, to the existence of federal policy that promotes the development of civil aviation. As part of a continuing effort to develop a national airport system to meet the needs of civil aviation and promote air commerce, the United States Congress has continually maintained a national plan for the development and maintenance of airports.

On the national level, the Albuquerque International Sunport is included in the NPIAS as a medium hub, primary commercial service airport. This designation includes 36 airports nationwide that provide regularly scheduled passenger commercial service and record between 0.25 and 1.0 percent of total U.S. passenger enplanements annually. Overall, the NPIAS identifies 3,330 existing airports which are considered significant to the national air transportation system. The NPIAS is published and used by the FAA in administering the AIP, which is the source of federal funds for airport improvement projects across the country. The program is funded exclusively by user fees and user taxes, such as those on fuel and airline tickets. The 2013-2017 NPIAS estimates that \$42.5 billion worth of needed airport improvements are eligible for AIP funding across the country over the next five years. An airport must be included in the NPIAS to be eligible for federal funding assistance through the AIP.

***Albuquerque International Sunport is included in the NPIAS as a medium hub, primary commercial service airport.***

The NPIAS supports the goals identified in the FAA strategic plan, entitled "Destination 2025," for safety, efficiency, access, and environmental sustainability by identifying airport improvements that will help achieve these goals. The current issue of the NPIAS identifies approximately \$95.13 million in development needs at Albuquerque International Sunport for the five-year planning horizon. This figure is not a guarantee of federal funding; instead, this figure represents development needs as presented to the FAA by the airport administration in the annual airport capital improvement program. Of the \$42.5 billion in airport development needs identified by the NPIAS nationally, approximately 12 percent, or \$5.1 billion, is identified for the 36 medium hub commercial service airports, which includes the Sunport.

Airports that apply for and accept AIP grants must adhere to various grant assurances. These assurances include maintaining the airport facility safely and efficiently in accordance with specific conditions. The duration of the assurances depends on the type of airport, the useful life of the facility being developed,



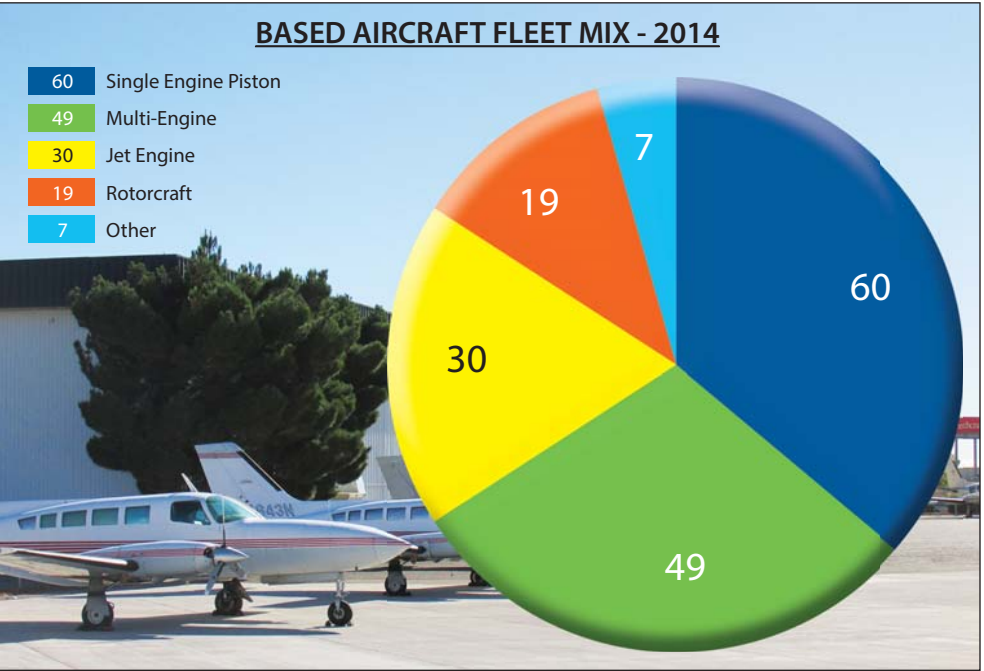
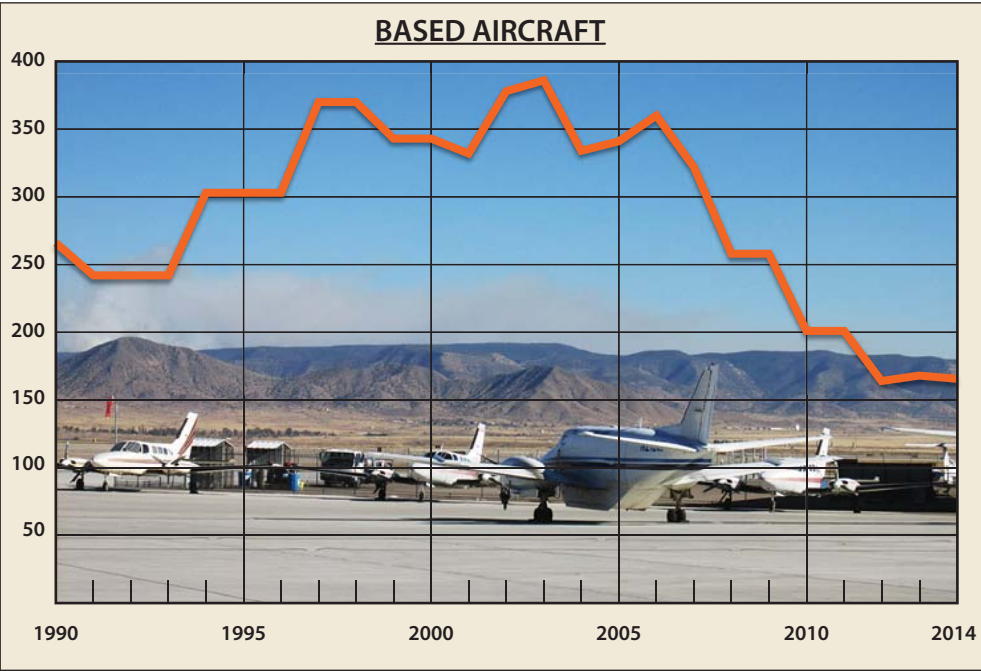
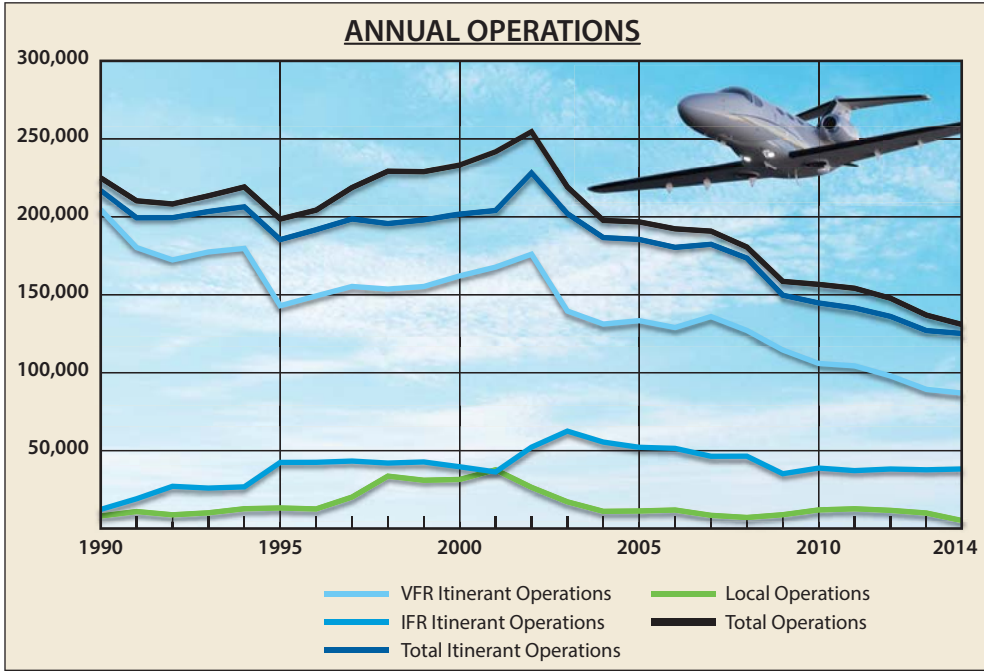
Year	IFR Itinerant Operations					VFR Itinerant Operations					Total Itinerant Operations					Local Operations			Total Operations	Based Aircraft
	AC	AT	GA	MIL	SUB	AC	AT	GA	MIL	SUB	AC	AT	GA	MIL	SUB	GA	MIL	SUB		
1990	65,128	37,695	73,971	27,820	204,614	4,717	2,006	3,176	2,352	12,251	69,845	39,701	77,147	30,172	216,865	2,564	5,497	8,061	224,926	266
1991	55,804	33,201	66,532	24,698	180,235	8,017	2,583	5,359	3,133	19,092	63,821	35,784	71,891	27,831	199,327	3,420	7,483	10,903	210,230	242
1992	54,473	35,296	62,732	19,799	172,300	11,871	3,440	8,009	3,771	27,091	66,344	38,736	70,741	23,570	199,391	2,876	5,928	8,804	208,195	242
1993	65,752	34,690	58,111	18,857	177,410	9,012	4,402	7,608	4,918	25,940	74,764	39,092	65,719	23,775	203,350	3,546	6,540	10,086	213,436	242
1994	70,622	36,994	53,611	18,461	179,688	8,386	3,691	10,069	4,587	26,733	79,008	40,685	63,680	23,048	206,421	4,636	8,066	12,702	219,123	303
1995	73,468	33,481	23,526	12,458	142,933	7,312	4,171	23,902	7,022	42,407	80,780	37,652	47,428	19,480	185,340	4,776	8,416	13,192	198,532	303
1996	81,150	29,704	29,224	9,137	149,215	7,012	2,939	25,187	7,329	42,467	88,162	32,643	54,411	16,466	191,682	5,022	7,543	12,565	204,247	303
1997	79,661	29,528	34,485	11,623	155,297	5,567	3,082	24,807	9,813	43,269	85,228	32,610	59,292	21,436	198,566	7,887	12,278	20,165	218,731	370
1998	77,300	29,142	34,805	12,363	153,610	4,649	3,449	24,387	9,516	42,001	81,949	32,591	59,192	21,879	195,611	12,606	21,001	33,607	229,218	370
1999	81,462	24,959	35,453	13,390	155,264	2,883	3,176	26,617	10,023	42,699	84,345	28,135	62,070	23,413	197,963	10,622	20,348	30,970	228,933	343
2000	78,473	30,493	39,772	13,336	162,074	3,358	3,948	23,412	8,896	39,614	81,831	34,441	63,184	22,232	201,688	11,409	20,076	31,485	233,173	343
2001	78,502	37,201	38,488	13,509	167,700	2,345	3,986	21,149	8,829	36,309	80,847	41,187	59,637	22,338	204,009	14,224	23,440	37,664	241,673	332
2002	79,577	41,361	39,933	15,096	175,967	2,358	7,909	27,714	14,202	52,183	81,935	49,270	67,647	29,298	228,150	8,819	17,599	26,418	254,568	378
2003	74,145	35,542	21,666	8,167	139,520	158	10,965	37,619	13,740	62,482	74,303	46,507	59,285	21,907	202,002	5,372	11,753	17,125	219,127	386
2004	72,479	37,992	14,277	6,426	131,174	1,887	11,868	27,076	14,627	55,458	74,366	49,860	41,353	21,053	186,632	3,343	7,682	11,025	197,657	334
2005	74,904	36,355	14,691	7,386	133,336	5	11,544	24,262	16,297	52,108	74,909	47,899	38,953	23,683	185,444	4,698	6,557	11,255	196,699	341
2006	73,800	32,106	15,462	7,573	128,941	13	11,258	24,215	15,936	51,422	73,813	43,364	39,677	23,509	180,363	4,620	7,258	11,878	192,241	271*
2007	77,102	35,031	16,615	7,225	135,973	82	10,178	24,361	11,731	46,352	77,184	45,209	40,976	18,956	182,325	3,740	4,715	8,455	190,780	265*
2008	75,730	29,350	15,427	6,557	127,064	40	12,769	22,041	11,548	46,398	75,770	42,119	37,468	18,105	173,462	3,261	3,830	7,091	180,553	210*
2009	68,287	25,494	14,036	6,692	114,509	3	8,127	15,828	11,199	35,157	68,290	33,621	29,864	17,891	149,666	3,665	5,198	8,863	158,529	201*
2010	66,095	23,091	10,701	6,011	105,898	0	10,689	17,226	10,867	38,782	66,095	33,780	27,927	16,878	144,680	4,398	7,538	11,936	156,616	175*
2011	65,479	23,994	10,097	4,760	104,330	21	10,305	16,047	10,774	37,147	65,500	34,299	26,144	15,534	141,477	5,420	7,243	12,663	154,140	201
2012	60,665	21,714	10,371	5,135	97,885	5	9,854	16,308	12,012	38,179	60,670	31,568	26,679	17,147	136,064	4,444	7,216	11,660	147,724	175*
2013	55,544	18,944	10,438	4,367	89,293	15	10,534	15,984	11,142	37,675	55,559	29,478	26,422	15,509	126,968	4,650	5,297	9,947	136,915	165*
2014	51,728	18,350	11,784	4,912	86,774	2	9,598	16,764	11,771	38,135	51,780	27,948	28,548	16,683	124,909	2,930	2,230	5,160	130,069	165*

Source: FAA Operational Network (OPSNET)  
database access on 2.16.15 at - <https://aspm.faa.gov/>

**Key:**  
**AC** - Air Carrier (commercially operated aircraft having seating capacity more than 60 seats or a maximum payload capacity of 18,000 pounds)  
**AT** - Air Taxi (commercially operated aircraft having 60 or fewer passenger seats or less than 18,000 pounds maximum payload capacity)

**GA** - General aviation  
**MIL** - Military  
**SUB** - Subtotals

\* Airport records of based aircraft



This page intentionally left blank



ALBUQUERQUE INTERNATIONAL SUNPORT  
ORGANIZATION CHART PROPOSED 03/30/18

288 Full-time permanent positions\*



\* Total position count subject to change based on the development of the ACE Project and projected growth within the Aviation Department.

This page intentionally left blank



and other factors. Typically, the useful life for an airport development project is a minimum of 20 years. Thus, when an airport accepts AIP grants, they are obligated to maintain that facility in accordance with FAA standards for at least that long.

## STATE AIRPORT PLANNING

The primary planning document for the State of New Mexico is the *New Mexico Airport Systems Plan* (NMAASP). The most recent plan was completed in 2009. The plan provides the NMDOT – Aviation Division with a tool to identify and monitor performance metrics; assess the needs of the state’s airports; help justify funding for airport improvements; and provide information to airport sponsors and others concerning the value, use, and needs of the state’s public use airports.

The NMAASP identified six airport classifications as serving varying roles for the New Mexico airport system and are defined as follows:

**Primary Commercial Service:** These airports have scheduled major/national or regional/commuter commercial air service, more than 10,000 annual enplanements, and a full range of general aviation activity, including business jets.

**Non-Primary Commercial Service:** These commercial service airports average between 2,500 and 10,000 annual enplanements and also serve general aviation needs.

**Limited Commercial Service:** These airports average less than 2,500 annual enplanements and include those airports participating in the FAA’s Essential Air Service (EAS) program. While these airports in this category have a commercial service element, they also serve high levels of general aviation needs.

**Regional General Aviation:** These airports primarily serve general aviation activity with a focus on business aviation needs including jet and multi-engine operations. These airports support the system of commercial service airports and are intended to provide significant coverage to the State’s population.

**Community General Aviation:** These airports serve a supplemental contributing role for the local economy in which they are located. Community GA airports focus on providing aviation access for small business, recreation, and personal flying activities.

**Low Activity General Aviation:** These airports provide a limited economic contribution due to lower activity levels. These airports are considered to provide emergency or remote access and primarily serve recreational and personal flying activities.

Albuquerque International Sunport is classified as a Primary Commercial Service Airport in the NMAASP. The minimum facility and service requirements are listed in **Table 1D**. The current airport layout and available services at the Sunport meet and/or exceed the minimum recommendations of the system plan for all criteria.

**TABLE 1D****Facility and Service Criteria****NMASP - Primary Commercial Service Airports**

<b>Airport Criteria</b>	<b>Minimum Objectives</b>
Airport Reference Code	C-III or greater
Runway Length	75 percent of large aircraft at 90 percent useful load
Runway Width	100'
Runway Strength	60,000 lbs. single wheel loading
Taxiway	Full parallel
Instrument Approach	Precision or Near-Precision (LPV)
Visual Aids	Rotating beacon, lighted windcones, REILs, VGSi, MALSR
Lighting	HIRL, MIRL
Weather Reporting Aids	AWOS, ASOS
Wind Coverage	95% combined coverage
Services	Phones; restrooms; FBO - full service; 24/7 Av-Gas and Jet A fuel; rental cars; maintenance - full service; public transportation; perimeter fencing.
Facilities	Terminal with public restrooms; conference rooms; pilot lounge; hangar storage for 80% of based aircraft and 25% of transient; auto parking; emergency response plan.

REIL: Runway End Identification Lights

VGSi: Visual Glide Slope Indicator

MALSR: Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights

HIRL/MIRL: High/Medium Intensity Runway Lights

AWOS/ASOS: Automated Weather Observation System/Automated Surface Observation System

FBO: Fixed Base Operator

*Source: New Mexico Airport System Plan (2009)*

## 14 CFR PART 139 CERTIFICATION

An airport must have an Airport Operating Certificate (AOC) if it is serving air carrier aircraft with more than nine seats or serving unscheduled air carrier aircraft with more than 30 passenger seats. 14 CFR Part 139 (Part 139) describes the requirements for obtaining and maintaining an AOC. This includes meeting various Federal Aviation Regulations (FARs) now codified under the CFR.

Airports are classified in the following categories based on the type of air carrier operations served:

- **Class I Airport** – an airport certificated to serve scheduled operations of large air carrier aircraft that can also serve unscheduled passenger operations of large air carrier aircraft and/or scheduled operations of small air carrier aircraft.
- **Class II Airport** – an airport certificated to serve scheduled operations of small air carrier aircraft and the unscheduled passenger operations of large air carrier aircraft. A Class II airport cannot serve scheduled large air carrier aircraft.



- **Class III Airport** – an airport certificated to serve scheduled operations of small air carrier aircraft. A Class III airport cannot serve scheduled or unscheduled large air carrier aircraft.
- **Class IV Airport** – an airport certificated to serve unscheduled passenger operations of large air carrier aircraft. A Class IV airport cannot serve scheduled air carrier aircraft regulated under CFR Part 121.

The Sunport is currently classified as a Class I CFR Part 139 commercial service airport. This designation supports the regularly (or irregularly) scheduled operations of large and/or small air carrier aircraft conducting commercial passenger services at the airport.

***The Sunport is currently classified as a Class I CFR Part 139 commercial service airport.***

Part 139 regulations (which implemented provisions of the *Airport and Airway Development Act of 1970*, as amended on November 27, 1971) set standards for: the marking and lighting of areas used for operations; firefighting and rescue equipment and services; the handling and storing of hazardous materials; the identification of obstructions; and safety inspection and reporting procedures. It also required airport operators to have an FAA-approved Airport Certification Manual (ACM).

The ACM is a required document that defines the procedures to be followed in the routine operation of the airport and for response to emergency situations. The ACM is a working document that is updated annually as necessary. It reflects the current condition and operation of the airport and establishes the responsibility, authority, and procedures as required. There are required sections for the ACM covering administrative detail and procedural detail. Albuquerque International Sunport has a current, approved ACM. The ACM includes the following information:

- General Information
- Organization and Management
- Airport Information
- Maintenance and Inspection Program
- Operational Safety
- Hazardous Materials
- Aircraft Rescue and Firefighting
- Snow and Ice Control
- Airport Emergency Plan
- Wildlife Hazard Management
- Maintenance of Certification Manual

## **AIRFIELD FACILITIES**

Airfield facilities are those that facilitate aircraft movements between the air and ground. Generally, these facilities include runways, taxiways, airport lighting and markings, and navigational aids. **Exhibit 1F** summarizes and depicts airfield facility information atop an aerial photograph for visual reference.



## RUNWAYS

Albuquerque International Sunport has three runways. Runway 8-26 is the airport's primary runway. Runway 3-21 is the crosswind runway, and Runway 12-30 is the other crosswind runway primarily serving general aviation operations. Runways 8-26 and 3-21 are capable and certified to accommodate air carrier aircraft operations.

### Primary Runway 8-26

Runway 8-26 is 13,793 feet long by 150 feet wide and oriented east-west. The concrete pavement has a grooved surface treatment and is reported as being in good condition by official FAA publications. Runway 8-26 has precision markings providing threshold bars, runway end designations, touchdown zone, aiming point, centerline, and edge markings. As the airport's longest runway and served by a precision instrument landing system (ILS), Runway 8-26 is the primary runway. The landing threshold on Runway 8 is displaced 1,000 feet.

Runway 8-26 has a pavement strength of 100,000 pounds single wheel loading (S), which refers to the design of certain aircraft landing gear that has a single wheel on each main landing gear strut. The runway pavement has also been strength-rated at 210,000 pounds dual wheel (D), 360,000 pounds for dual tandem wheel (DT), and 720,000 pounds for double dual tandem wheel (DDT).

### Commercial Crosswind Runway 3-21

Oriented northeast-southwest, crosswind Runway 3-21 is 10,000 feet long and 150 feet wide. The concrete runway has a grooved surface treatment, precision runway markings, and is reported in FAA publications to be in good condition. The published pavement strength is 100,000 pounds S, 210,000 pounds D, 360,000 pounds DT, and 720,000 pounds DDT. Runway 3-21 intersects Runway 12-30 approximately 2,000 feet from the Runway 21 threshold.

### General Aviation Crosswind Runway 12-30

Oriented northwest-southeast, crosswind Runway 12-30 is 6,000 feet long and 150 feet wide. The runway is also concrete with a grooved surface treatment and is reported in FAA publications to be in good condition. Runway 18-36 has non-precision markings, which include threshold bars, runway end designations, touchdown zone, and centerline

***Runway 8-26 is 13,793 feet long by 150 feet wide; Runway 3-21 is 10,000 feet long and 150 feet wide; and Runway 12-30 is 6,000 feet long and 150 feet wide.***



This page intentionally left blank

markings. The published pavement strength is 65,000 pounds S, 120,000 pounds D, and 155,000 pounds DT. Runway 12-30 intersects Runway 3-21 approximately 2,600 feet from the Runway 30 threshold.

## TAXIWAYS

The taxiway system at the Sunport consists of parallel, connector, and entrance/exit taxiways. The width of each taxiway varies based on aircraft design and usage, with each listed on **Exhibit 1F**. The taxiway safety area extending from the centerline of each taxiway meets the design standard for the design aircraft type using the taxiway.

Parallel taxiways are primarily designed to efficiently and quickly route aircraft between the runway and the originating/destination location. Taxiway A extends the full length of primary Runway 8-26. In front of the commercial terminal, the Taxiway A centerline is separated from the runway centerline by 450 feet. Farther to the east, the separation is 550 feet, and the eastern portion is 600 feet from the runway centerline.

Taxiway B also runs parallel to Runway 8-26 and Taxiway A for a distance of approximately 4,200 feet west from the commercial terminal apron. Taxiway B provides for dual circulation in this area.

Taxiway E is parallel to and south of Runway 8-26. The western portion is 680 feet from the runway centerline, the central portion is at 600 feet separation, and the eastern portion is 550 feet from the runway centerline.

Taxiway F is a partial parallel taxiway to Runway 3-21. It is separated from the runway centerline by a distance of 450 feet. Taxiway G is parallel to Runway 12-30 is separated from the runway centerline by a distance of 350 feet on the western end and 300 feet on the eastern end.

A variety of connector and entrance/exit taxiways connect the parallel taxiways with the runway system. All taxiways with the "M" designator are available for the exclusive use of the military, as is Taxiway H.

## PAVEMENT MARKINGS

All three runways have pavement marking in accordance with FAA regulations. A Modification of Standards (MOS) for runway hold lines on taxiways leading to/from both Runways 8-26 and 3-21 was granted on September 8, 2004. The MOS permits these hold lines to remain at a separation distance of 250 feet from the runways and does not require that they be further separated due to the elevation of the airport. The MOS is to remain in effect for the life of the runways or until rescinded by the FAA.





Taxiway and taxilane centerline markings are provided to assist pilots in maintaining proper clearance from pavement edges and objects near the taxiway/taxilane edges. Enhanced taxiway centerline markings begin 150 feet out from all runway holding position markings. Each runway holding position marking is accompanied with appropriate surface painted holding position signs indicating the approaching runway intersection.

Aircraft movement areas on various ramps are identified with centerline markings. Aircraft tie-down positions are identified on various ramp surfaces.

## PAVEMENT HISTORY AND CONDITION

**Appendix B** presents the condition and rehabilitation history of the major pavements at the Sunport. The FAA generally classifies pavement condition as excellent, good, fair, or poor. Excellent and good conditioned pavements are fully suitable for use provided that routine maintenance is performed. Fair condition pavement may be in need of short-term maintenance, and poor condition pavements are generally in need of full rehabilitation in the short-term.

Primary Runway 8-26 is considered to be in good condition and was last reconstructed in 1995. Major pavement sections were replaced in 1999, 2012, and 2015. Commercial crosswind Runway 3-21 is also in good condition. It was last reconstructed when it was lengthened, widened, and strengthened in 1994. Runway 12-30 is in good condition, having been reconstructed when it was lengthened in 1999.

Through the years, the Sunport has maintained an ongoing pavement rehabilitation and maintenance program. Most of the taxiways are in good to excellent condition. Portions of Taxiways B, C, C-5, D, E, E-1, E-6, E-7, E-8, E-9, E-10, E-11, and E-12 are in fair to poor condition.

Several taxiways have been closed over the years due to redundancy or for safety design reasons. Of particular note was the closure of Taxiway E-5 in 2014. This was closed in order to keep taxiing aircraft from encroaching on the Runway 21 protection zone (RPZ). Taxiways C-1, C-2, C-3, C-4, D-1, D-2, and D-3 were closed in association with the closure of Runway 17-35 in 2012.

Note: As part of this Sustainable Master Plan project, all airfield pavements will be analyzed in accordance with FAA AC 150/5320-6e, *Airport Pavement Design and Evaluation* and ASTM D5340, *Standard Test Method for Airport Pavement Condition Index Surveys*. The result of this effort will be a Pavement Condition Index (PCI) report, a summary of which will be included as an appendix to this Master Plan.

## AIRFIELD SAFETY

The FAA Runway Safety Action Plan (RASP) is a program of inspections at airports with the intent of identifying any potential safety related issues on the airfield. The goal of the RASP is to improve airfield safety and to reduce/eliminate runway incursions.

## Hot Spots

The FAA defines an "airport surface hot spot" as a location on an airport movement area with a history or potential risk of collision or runway incursion, and where heightened attention by pilots/drivers is necessary. A hot spot is a runway safety related problem area on an airport that presents increased risk during surface operations. Typically, it is a complex or confusing taxiway/taxiway or taxiway/runway intersection. The area of increased risk has either a history of or potential for runway incursions or surface incidents, due to a variety of causes, such as but not limited to: airport layout, traffic flow, airport marking, signage and lighting, situational awareness, and training. Hot spots are depicted on airport diagrams as open circles or polygons designated as "HS1," "HS2," etc.

There are four hot spots identified at the Sunport. They are depicted on **Exhibit 1F** and described as follows:

1. HS1: The hold position marking on Taxiway E1 is the hold short position for both Runways 8 and 12. When instructed by the tower to move beyond this point, pilots must ensure the proper alignment on the correct runway.
2. HS2: Taxiways G and G1 are adjacent to the general aviation apron. Pilots must be alert not to inadvertently enter Runway 12-30 without tower authorization.
3. HS3: This area has the convergence of three taxiways and a runway. Pilots must be alert for the hold short line for Runway 3-21.
4. HS4: Taxiway E5 is permanently closed. Hold short lines for Runway 3-21 on Taxiways E, H, and Hot Pad 2. The concern is the potential for pilots travelling on Taxiway E to confuse Taxiway H and Runway 3-21.

## AIRFIELD LIGHTING

Airfield lighting systems extend an airport's usefulness into periods of darkness and/or poor visibility. A variety of lighting systems are installed at the airport for this purpose. These lighting systems, categorized by function, are summarized as follows.

**Identification Lighting:** The location of the airport at night is universally identified by a rotating beacon. The rotating beacon projects two beams of light, one white and one green, 180 degrees apart. The rotating beacon at Albuquerque International Sunport is situated on top of a 55-foot tall pole in the center of the general aviation vehicle parking complex in the southwest area of the Sunport.

**Runway and Taxiway Lighting/Signage:** Runway and taxiway edge lighting utilize light fixtures placed near the edge of the



Airport Beacon

pavement to define the lateral limits of the pavement. This lighting is essential for safe operations during night and/or times of low visibility in order to maintain safe and efficient access to and from the runways and aircraft parking areas.

Runways 8-26 and 3-21 are equipped with high intensity runway lights (HIRL) to include runway edge and centerline lighting. The touchdown zones for Runways 8 and 3 are equipped with high intensity touchdown zone lighting. Runway 12-30 is served by medium intensity runway lights (MIRL). All runway edge light lenses are split white-yellow to mark the caution zone on the last 2,000 feet of each runway end. All taxiways are equipped with medium intensity taxiway edge lighting (MITL) except for that portion of Taxiway A between Taxiway A1 and A4, which is high intensity (HITL).

The airport also has a runway/taxiway signage system. The presence of runway/taxiway signage is an essential component of a surface movement guidance control system necessary for the safe and efficient operation of the airport. The signage system installed at Albuquerque International Sunport includes runway and taxiway designations, holding positions, instrument landing system (ILS) critical areas, routing/directional, runway end and exits, and runway distance remaining. All airfield signs are lit with LED lights. **Exhibit 1G** depicts the existing airfield signage system for the Sunport on an aerial base map.

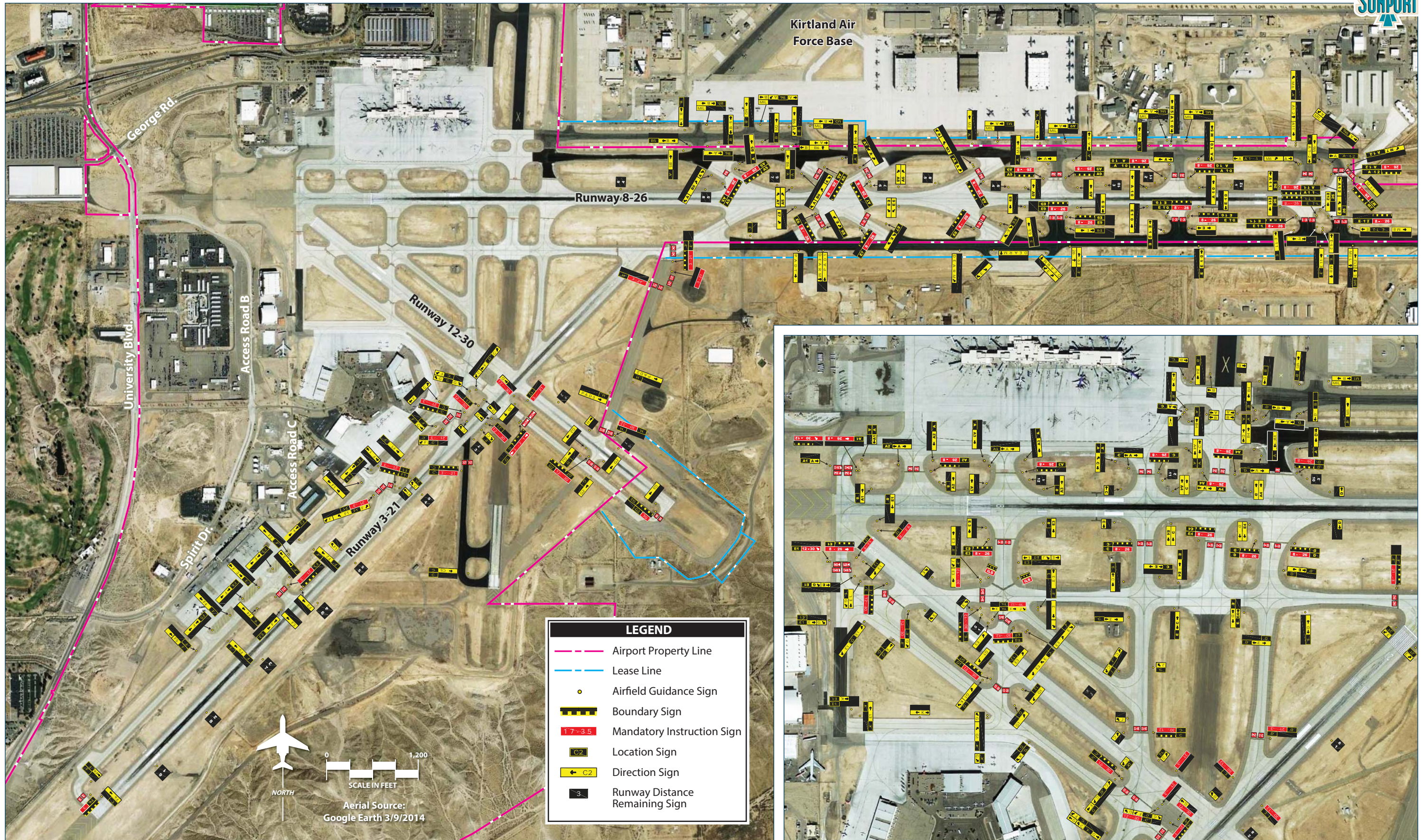
At the Runway 12 threshold, there are special warning lights similar to elevated runway guard lights. These lights are intended to further alert pilots that they are approaching a runway end in this area.

**Visual Glide Slope Approach Aids:** Visual glide slope approach aids provide a visual cue to pilots alerting them to whether they are on the correct glide path to landing. The approach to Runway 8 is outfitted with a visual approach slope indicator lighting system (VASI). The approach path angle is set at 2.95°. Runway ends 26, 3, 21, and 30 are each outfitted with precision approach path indicator lights (PAPI) with 3.00° a glide path. While configured differently than the VASI system, the PAPI provides the same visual cue to pilots. The VASI and PAPIs at the Sunport are owned and maintained by the FAA. All other lighting systems are owned by the Sunport.

**Approach Light Systems (ALS):** Runways 8 and 3 are equipped with a medium intensity approach light system (MALS) which offers a lighted, visual grid for pilots to identify the runway end while on final approach. The MALS is supplemented with runway alignment indicator lights (RAIL). The combined MALS and RAIL is referred to as a MALSR. The RAIL portion of the MALSR is a linear progression of strobe lights which provides pilots with a rapid, visual cue of the runway centerline.

The MALS serving Runway 8 is embedded in the pavement leading to the displaced landing threshold. The RAIL portion extends an additional





This page intentionally left blank



1,400 feet to the west of the runway pavement end. The MALSR system serving Runway 3 is situated on fixtures leading to the landing threshold. No other runway ends have approach lighting systems.

Runway end identifier lights (REILs) are strobe lights placed at the edge of the landing thresholds of certain runways. REILs provide rapid identification of the landing threshold for a distance of up to 20 miles. The approaches to Runways 26, 3, 21, and 30 are equipped with REILs.

**After-Hours Lighting:** Airfield lighting is controlled by the ATCT. The airfield lights are typically off during the day, weather permitting, and on at night.

**Emergency Generators:** Airfield lighting is powered through two electrical vaults. Generally, the “north vault” powers Runway 8-26, its parallel taxiways, and the circuits on the north side of the airfield. The “south vault” powers Runway 3-21, Runway 2-30, and the circuits on the south side of the airfield. There is an independent commercial feed to each vault, and the vaults are interconnected. If either commercial feed fails, the remaining feed will provide power to both vaults. If both commercial feeds fail, emergency generators, one located in each vault, will provide emergency power to the runways and taxiways.

## WEATHER AND COMMUNICATION AIDS

Runway visual range (RVR) is the distance over which a pilot of an aircraft on the centerline of the runway can see the runway surface markings delineating the runway or identifying its centerline line. RVR is expressed in feet and is used as one of the main criteria for minima on instrument approaches. The maximum RVR reading is 6,000 feet, above which the reading becomes insignificant and does not need to be reported. RVR sensor equipment has been installed near the touchdown zone for Runways 8 and 3. The RVR equipment measures visibility, background luminance, and runway light intensity to determine the distance a pilot should be able to see down the runway. The RVR data is interfaced with the on-airport Automated Surface Observing System (ASOS), as well as other FAA databases.

Albuquerque International Sunport is equipped with five lighted wind cones. The wind cones provide information to pilots regarding wind conditions, such as direction and intensity, and are rated for 30-knot winds. The windsocks are located in proximity to the approach end of Runways 8, 26, 3, 21 and 30.

Albuquerque International Sunport is served by an ASOS. An ASOS automatically records weather conditions such as temperature, dew point, wind speed, altimeter setting, visibility, sky condition, and precipitation. The ASOS updates observations each minute, 24 hours a day, and this information is transmitted to pilots in the airport vicinity via an FAA very high frequency (VHF) ground-to-air radio transmitter. Pilots can receive these broadcasts on the automated terminal information service (ATIS) frequency or via a dedicated ASOS local telephone number (505-242-4044), where a computer-generated voice will present airport weather information. ATIS broadcasts are updated hourly and provide arriving and departing pilots the current surface weather conditions, communication frequencies, and other important airport-specific information. The ATIS frequency at Albuquerque International Sunport is 118.0 MHz.



The Albuquerque International Sunport Universal Communication Frequency (UNICOM) is available for pilots to receive information pertaining to the airport. The frequency is 122.95 MHz.

## AREA AIRSPACE AND AIR TRAFFIC CONTROL

The *Federal Aviation Administration Act of 1958* established the FAA as the responsible agency for the control and use of navigable airspace within the United States. The FAA has established the National Airspace System (NAS) to protect persons and property on the ground and to establish a safe and efficient airspace environment for civil, commercial, and military aviation. The NAS covers the common network of U.S. airspace, including: air navigation facilities; airports and landing areas; aeronautical charts; associated rules, regulations, and procedures; technical information; and personnel and material. The system also includes components shared jointly with the military.

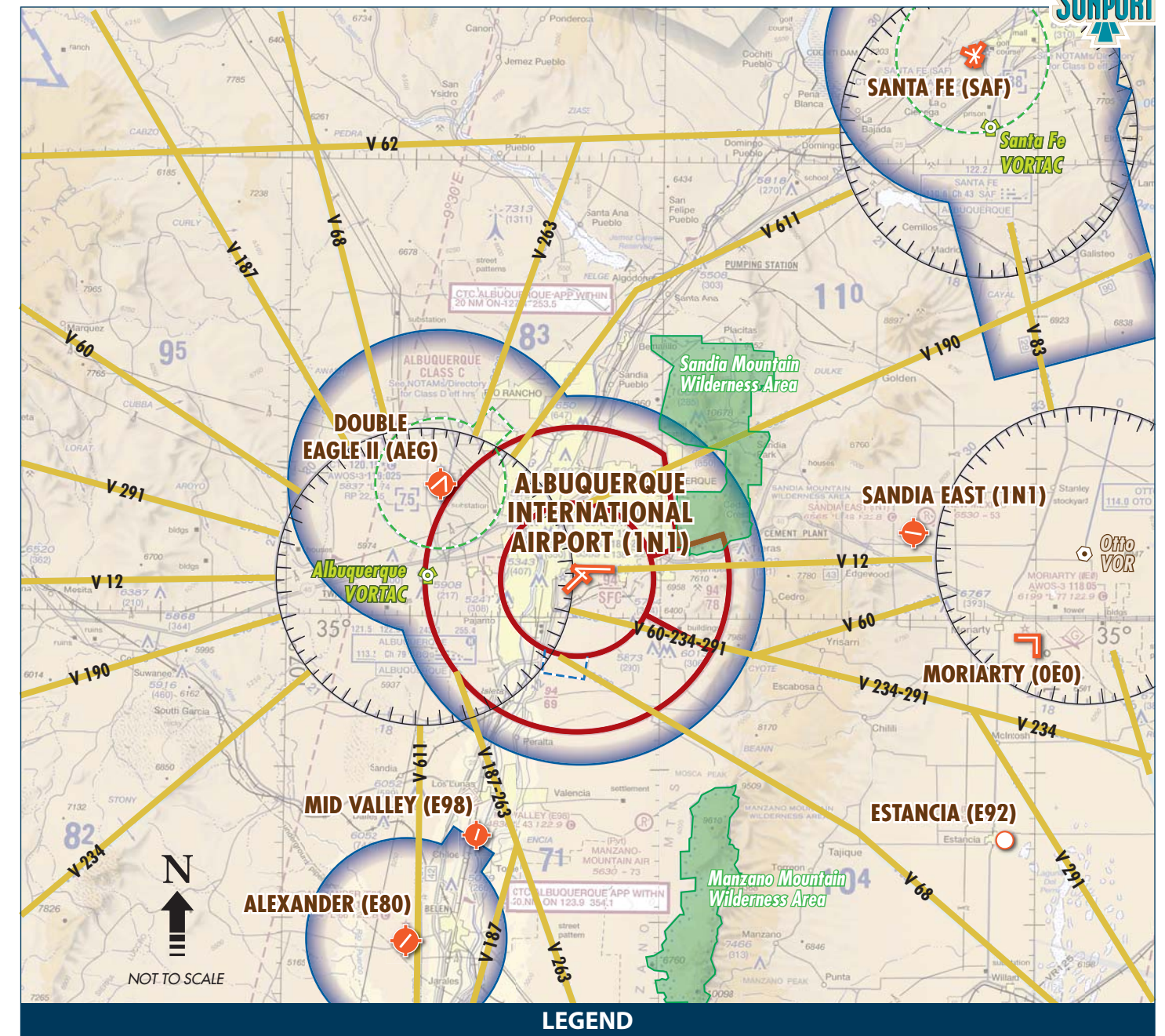
### AIRSPACE STRUCTURE

Airspace within the United States is broadly classified as either “controlled” or “uncontrolled.” The difference relates primarily to requirements for pilot qualifications, ground-to-air communications, navigation and air traffic services, and weather conditions. Six classes of airspace have been designated in the United States, as shown on **Exhibit 1H**. Airspace designated as Class A, B, C, D, or E is considered controlled airspace. Aircraft operating within controlled airspace are subject to varying requirements for positive air traffic control.















**Class A Airspace:** Class A airspace includes all airspace from 18,000 feet mean sea level (MSL) to flight level (FL) 600 (60,000 feet MSL). This airspace is designated in FAR Part 71.193, for positive control of aircraft. The Positive Control Area (PCA) allows flights governed only under IFR operations. The aircraft must have special radio and navigation equipment, and the pilot must obtain clearance from an ATC facility to enter Class A airspace. In addition, the pilot must possess an instrument rating.

**Class B Airspace:** Class B airspace has been designated around some of the country’s busiest commercial service airports, such as the Phoenix Sky Harbor Airport. Class B airspace is designed to regulate the flow of uncontrolled traffic, above, around, and below the arrival and departure airspace required for high-performance, passenger-carrying aircraft at busy commercial service airports. This airspace is the most restrictive controlled airspace encountered by pilots operating under VFR.

In order to fly within Class B airspace, an aircraft must be equipped with special radio and navigation equipment and must obtain clearance from air traffic control. Moreover, a pilot must have at least a private pilot’s certificate or be a student pilot who has met the requirements of FAR Part 61.95, which requires special ground and flight training for Class B airspace. Helicopters do not need special navigation equipment or a transponder if they operate at or below 1,000 feet and have made prior arrangements in the form of a Letter of Agreement with the FAA controlling agency. Aircraft are also required



<b>CLASS A</b>	Generally airspace above 18,000 feet MSL up to and including FL 600.
<b>CLASS B</b>	Generally multi-layered airspace from the surface up to 10,000 feet MSL surrounding the nation's busiest airports.
<b>CLASS C</b>	Generally airspace from the surface to 4,000 feet AGL surrounding towered airports with service by radar approach control.
<b>CLASS D</b>	Generally airspace from the surface to 2,500 feet AGL surrounding towered airports.
<b>CLASS E</b>	Generally controlled airspace that is not Class A, Class B, Class C, or Class D.
<b>CLASS G</b>	Generally uncontrolled airspace that is not Class A, Class B, Class C, Class D, or Class E.

- |   |   |   |   |
|---|---|---|---|
|  | Airport with other than hard-surfaced runways   |  | Victor Airways  |
|  | Airport with hard-surfaced runways 1,500' to 8,069' in length                                     |  | Class C Airspace  |
|  | Airports with hard-surfaced runways greater than 8,069' or some multiple runways less than 8,069' |  | Class D Airspace  |
|  | VORTAC  |  | Class E Airspace  |
|  | VOR   |  | Class E (sfc) Airspace with floor 1200 ft. or greater above surface that abuts Class G Airspace |
|  | Compass Rose  |  | Class E Airspace with floor 700' above surface  |
|  | Prohibited, Restricted, Warning and Alert Areas   |   |   |
|  | Wilderness Areas  |   |   |

DRAFT Chapter One - 33

This page intentionally left blank



to have and utilize a Mode C transponder within a 30-nautical mile (nm) range of the center of Class B airspace. A Mode C transponder allows the ATCT to track the altitude of the aircraft.

**Class C Airspace:** The FAA has established Class C airspace at 120 airports around the country, including the Sunport, as a means of regulating air traffic in these areas. Class C airspace is designed to regulate the flow of uncontrolled traffic above, around, and below the arrival and departure airspace required for high-performance, passenger-carrying aircraft at some commercial service airports. In order to fly inside Class C airspace, the aircraft must have a two-way radio, an encoding transponder, and have established communication with the ATCT. Aircraft may fly below the floor of the Class C airspace, or above the Class C airspace ceiling without establishing communication with ATC. Class C airspace surrounds Albuquerque International Sunport.

*Class C airspace surrounds Albuquerque International Sunport.*

**Class D Airspace:** Class D airspace is controlled airspace surrounding airports with an ATCT, such as at Double Eagle II Airport to the northwest. The Class D airspace typically constitutes a cylinder with a horizontal radius of five miles from the airport, extending from the surface up to a designated vertical limit, typically set at approximately 2,500 feet above the airport elevation. If an airport has an instrument approach or departure, the Class D airspace sometimes extends along the approach or departure path. During periods when the airport's ATCT is closed, Class D airspace typically reverts to Class E airspace.

**Class E Airspace:** Class E airspace consists of controlled airspace designed to contain IFR operations near an airport, and while aircraft are transitioning between the airport and enroute environments. Unless otherwise specified, Class E airspace terminates at the base of the overlying airspace. Only aircraft operating under IFR are required to be in contact with air traffic control when operating in Class E airspace. While aircraft conducting visual flights in Class E airspace are not required to be in radio communications with air traffic control facilities, visual flight can only be conducted if minimum visibility and cloud ceilings exist.

**Class G Airspace:** Airspace not designated as Class A, B, C, D, or E is considered uncontrolled, or Class G, airspace. Air traffic control does not have the authority or responsibility to exercise control over air traffic within this airspace. Class G airspace lies between the surface and the overlaying Class E airspace (700 to 1,200 feet above ground level [AGL]).

**Exhibit 1H** shows the Class C and underlying Class E airspace surrounding Albuquerque International Sunport. The inner ring of Class C airspace consists of controlled airspace extending upward from the surface to and including 9,400 feet MSL within a five-mile radius of Albuquerque International Sunport. The outer ring generally extends for a 10-nautical mile radius and from 6,900 feet to 9,400 feet MSL. A portion of the outer ring to the east (extending over the Sandia Mountains) has a floor of 7,800 feet MSL.



## SPECIAL USE AIRSPACE

Special use airspace is defined as airspace where activities must be confined because of their nature or where limitations are imposed on aircraft not taking part in those activities. The designation of special use airspace identifies for other users the areas where military activity occurs, provides for segregation of that activity from other fliers, and allows charting to keep airspace users informed. These areas are depicted on **Exhibit 1H**.

**Military Operating Areas (MOAs):** This special use airspace is established outside positive control areas to separate/segregate certain nonhazardous military activities from IFR traffic and to identify for VFR traffic where these activities are conducted. MOAs are established to contain certain military activities such as air combat maneuvers, air intercepts, acrobatics, etc. The Cato and Smitty MOAs are the closest to the Sunport and are approximately 80 miles to the southwest. These MOAs encompass airspace from 500 feet AGL to 13,500 feet MSL (Smitty) and from 13,500 to 17,999 feet MSL (Cato). The MOAs are in effect is from 6:00am to 10:00pm and other times by a Notice to Airmen (NOTAM). These MOAs are relatively distant from the Sunport and have little effect on air traffic in the area.

**Military Training Routes:** Military training routes (MTRs) are designated airspace that has been generally established for use by high performance military aircraft to train below 10,000 feet AGL and in excess of 250 knots. There are VR (visual) and IR (instrument) designated MTRs. MTRs with no segment above 1,500 feet AGL will be designated with the VR or IR, followed by a four-digit number (e.g., VR1257). MTRs with one or more segments above 1,500 feet AGL are identified by the route designation followed by a three digit number (e.g., VR540). The arrows on the route show the direction of travel. The MTRs are not in close proximity to the Airport. VR1195 is approximately 40 miles to the east, and VR176 is approximately 60 miles to the south.

**Victor Airways:** For aircraft arriving or departing the regional area using very high frequency omni-directional range (VOR) facilities, a system of Federal Airways, referred to as Victor Airways, has been established. Victor Airways are corridors of airspace eight miles wide that extend upward from 1,200 feet AGL to 18,000 feet MSL and extend between VOR navigational facilities. There are numerous Victor Airways leading to and from the Albuquerque VORTAC facility located approximately 10 miles west of the Sunport.

**Wilderness Areas:** While not specifically considered part of the U.S. airspace structure, the boundaries of National Parks, Wildlife Service areas, Forest Wilderness, and Primitive areas are noted on aeronautical charts. Aircraft operations are not specifically restricted over these areas; however, pilots are requested to maintain a minimum altitude of 2,000 feet above the surface. FAA Advisory Circular 91-36C defines the “surface” as the highest terrain within 2,000 feet laterally of the route of flight or the uppermost rim of a canyon or valley. The Sandia Mountain and Manzano Mountain wilderness areas are in proximity of the Sunport.

**Restricted Airspace:** No person may operate an aircraft within a restricted area between the designated altitudes and during the time of designation without advanced permission of the using and controlling



agency. The closest Restricted Airspace is R-5107 C &H which is approximately 70 miles to the south. R-5123 is approximately 70 miles to the southwest and R-5101, which covers the Los Alamos area, is to the north.

## AIRSPACE CONTROL

The FAA has established 22 Air Route Traffic Control Centers (ARTCCs) throughout the continental United States to control aircraft operating under IFR within controlled airspace and while enroute to a destination. The primary responsibility of the ARTCC is the assignment of specific routes and altitudes along Federal Airways to maintain proper separation and orderly traffic flow. Albuquerque Center, located approximately 10 miles north of the Sunport, controls enroute airspace in most of Arizona, New Mexico and parts of California, Colorado, Oklahoma, and Texas.

The Albuquerque TRACON (Terminal Radar Approach Control) is an air traffic control facility that provides safety alerts, aircraft separation, and sequencing of aircraft arriving, departing, and transitioning the airspace and airports in the New Mexico region. Albuquerque TRACON is the step between local control (on-airport control tower) and Albuquerque Center ARTCC. The Albuquerque TRACON is co-located at the base of the Sunport's airport traffic control tower (ATCT). Flight plans can be opened or closed utilizing the Albuquerque Service Station (FSS).

The Sunport ATCT operates 24 hours a day, seven days a week. The tower is owned and operated by the FAA and it is located on the Kirtland Air Force Base north of the airfield and east of the terminal building. The tower is 225 feet high. Tower controllers provide services to aircraft operating on the airfield and generally within a five-mile radius of the Sunport. Primary air traffic services for the airport are provided within the airport's Class C airspace. The ATCT also provides terminal radar coverage.

## ELECTRONIC NAVIGATIONAL AIDS

Navigational aids are electronic devices that transmit radio frequencies, which pilots of properly equipped aircraft can translate into point-to-point guidance and position information. The types of electronic navigational aids available for aircraft flying to or from Albuquerque International Sunport include a very high frequency omni-directional range (VOR) facility and the global positioning system (GPS).

The VOR, in general, provides azimuth readings to pilots of properly equipped aircraft transmitting a radio signal at every degree to provide 360 individual navigational courses. Frequently, distance measuring equipment (DME) is combined with a VOR facility (VOR-DME) to provide distance as well as direction information to the pilot. Military tactical air navigation aids (TACANs) and civil VORs are commonly combined to form a VORTAC. The VORTAC provides distance and direction information to both civil and military pilots. The Albuquerque VORTAC is located approximately 10 miles to the west, and the Otto VOR is located approximately 40 miles to the east of the Sunport.



GPS is an additional navigational aid for pilots. GPS was initially developed by the United States Department of Defense for military navigation around the world. GPS differs from a VOR in that pilots are not required to navigate using a specific facility. GPS uses satellites placed in orbit around the earth to transmit electronic radio signals, which pilots of properly equipped aircraft use to determine altitude, speed, and other navigational information. With GPS, pilots can directly navigate to any airport in the country and are not required to navigate to a specific ground-based navigation facility.

Many commercial service airports are equipped with an Instrument Landing System (ILS). Runways 8 and 3 are both served by an ILS system. The ILS systems at the Sunport are comprised of dual transmitter localizer equipment and dual transmitter glideslope equipment. The localizers provide an instrument approach course for horizontal alignment with runway centerline. The glideslopes provide vertical guidance for landing aircraft. Additionally, the MALSRs serving Runways 8 and 3 provide for visual alignment the aircraft with the extended course centerline.

## INSTRUMENT APPROACH PROCEDURES

Instrument approach procedures are a series of predetermined maneuvers established by the FAA, using electronic navigational aids that assist pilots in locating and landing at an airport, especially during instrument flight conditions. There are currently 13 published instrument approach procedures at the Sunport, including ILS precision instrument approaches to Runways 8 and 3. Precision instrument approaches provide vertical descent information and course guidance information to the pilot. Non-precision approaches only provide course guidance to the pilot.

*There are currently 13 published instrument approach procedures*

The capability of an instrument approach procedure is defined by the visibility and cloud ceiling minimums associated with the approach. Visibility minimums define the horizontal distance the pilot must be able to see in order to complete the approach. Cloud ceilings define the lowest level a cloud layer (defined in feet above the ground) can be situated for the pilot to complete the approach. If the observed visibility or cloud ceilings are below the minimums prescribed for the approach, the pilot cannot complete the instrument approach. **Exhibit 1J** summarizes FAA approved and published instrument approach procedures, including associated weather minimums for Albuquerque International Sunport.

The most sophisticated instrument approach procedures at Albuquerque International Sunport are associated with the ILS to Runways 8 and 3. The ILS to Runway 8 provides visibility minimums as low as ½-mile (2,400 feet RVR) and cloud ceilings of 200 feet AGL (referred to as a Category I approach). Generally, this type of approach is considered the minimum for a commercial service airport. The Hi-TACAN instrument approach to Runway 8 has ¾-mile visibility minimums; however, this procedure is available only to military aircraft.

Instrument approaches based on GPS have become very common across the country. GPS does not require a significant investment in ground based systems by the airport or FAA. Runways 8-26 and 3-21 are served by GPS approaches with associated minima presented on **Exhibit 1J**. A variant of GPS referred

	WEATHER MINIMUMS BY AIRCRAFT TYPE				
	Category A	Category B	Category C	Category D	Category E
HI-ILS or LOC Rwy 8					
ILS Straight-In 8	NA		209'½-mile		
LOC Straight-In 8	NA		405'½-mile		
Circling	NA		545'/1½-mile	565'/2-mile	
HI-TACAN Rwy 8					
Straight-In 8	NA		385'⅔-mile		
Circling	NA		545'/1½-mile	565'/2-mile	
ILS or LOC Rwy 3					
ILS Straight-In 3	200'½-mile				NA
LOC Straight-In 3	288'½-mile			288'¾-mile	NA
Circling	485'/1-mile		545'/1½-mile	565'/2-mile	NA
ILS or LOC Rwy 8					
ILS Straight-In 8	207'½-mile				NA
LOC Straight-In 8	400'½-mile		400'¾-mile		NA
Circling	485'/1-mile		545'/1½-mile	565'/2-mile	NA
RNAV (RNP) Y Rwy 21					
RNP 0.30 DA	442'/1½-mile				NA
RNAV (RNP) Y Rwy 26					
RNP 0.15 DA	373'/1¼-mile				NA
RNAV (RNP) Z Rwy 3					
RNP 0.30 DA	259'½-mile				NA
RNAV (RNP) Z Rwy 8					
RNP 0.30 DA	299'½-mile				NA
RNAV (RNP) Z Rwy 21					
RNP 0.30 DA	400'/1½-mile				NA
RNAV (RNP) Z Rwy 26					
RNP 0.17 DA	400'/1¼-mile				NA
RNAV (GPS) Y Rwy 3					
LNAV/VNAV DA	268'½-mile				NA
LNAV MDA	315'½-mile				
Circling	485'/1-mile		545'/1½-mile	585'/2-mile	NA
RNAV (GPS) Y Rwy 8					
LNAV MDA	425'½-mile		425'¾-mile		NA
Circling	485'/1-mile		545'/1½-mile	585'/2-mile	NA
VOR or TACAN Rwy 8					
Straight-In 8	860'¾-mile		860'/2-mile	860'/2¼-mile	860'/2½-mile
Circling	825'/1-mile	825'/1¼-mile	825'/2½-mile	825'/2¾-mile	825'/3-mile
	EYECE FIX MINIMUMS				
Straight-In 8	380'½-mile			380'/1-mile	860'/2½-mile
Circling	485'/1-mile		545'/1½-mile	565'/2-mile	825'/3-mile

**Aircraft categories are based on the approach speed of aircraft, which is determined as 1.3 times the stall speed in landing configuration. The approach categories are as follows:**

- Category A: 0-90 knots (e.g., Cessna 172)  
 Category B: 91-120 knots (e.g., Beechcraft KingAir)  
 Category C: 121-140 knots (e.g., B-737, Regional Jets, Canadair Challenger)  
 Category D: 141-166 knots (e.g., B-747, Gulfstream IV)  
 Category E: Greater than 166 knots (e.g., Certain large military or cargo aircraft)

**Abbreviations:**

DA - Decision Altitude (Used for vertically-guided approaches)      ILS - Instrument Landing System  
 MDA - Minimum Descent Altitude (Used for non-precision approaches)      LOC - Localizer  
 LNAV/RNAV/VNAV - A technical variant of GPS (Lateral, Area, Vertical Navigation)      GPS - Global Positioning System

**Note:** (xxx'/ x-mile) = Visibility (in feet)/Cloud ceiling height (in miles)

**Source:** U.S. Terminal Procedures, Southwest Region (Effective Nov. 13, 2014)





to as RNP (required navigation performance) allows an aircraft to fly a specific path between two 3D-defined points in space. RNP instrument approaches allow for more efficient curved flight paths through congested airspace, around noise sensitive areas, or through difficult terrain. The Sunport has RNP instrument approaches to each runway except Runway 12-30.

## **TERMINAL ARRIVAL AND DEPARTURE PROCEDURES**

The Airport has a variety of terminal arrival and departure procedures available. Standard terminal arrival routes (STARs) is a published procedure to be followed by aircraft on an IFR flight plan just before reaching a destination airport. The purpose of a STAR is to simplify clearance delivery procedures and facilitate transition between enroute and instrument approach procedures. STARs are usually assigned to an aircraft during the enroute phase of an IFR flight plan so that local factors such as weather or runway usage can be taken into account for an approaching aircraft. There are nine STARs procedures utilized at the Sunport.

Standard instrument departure (SID) routes, also known as simple departure procedures, are published flight procedures followed by pilots on an IFR flight plan immediately after takeoff from an airport. SIDs have been developed in order to optimize the route of flight when considering a variety of factors such as terrain, obstacles, noise abatement, and overall airspace management. There are 12 SIDs available for use at the Sunport.

## **LOCAL OPERATING PROCEDURES**

Albuquerque International Sunport is situated at 5,355 feet MSL. The traffic pattern altitude for all aircraft is 7,000 feet MSL (1,645 feet AGL). Runways 26, 21, and 30 utilize a standard left traffic pattern; thus, most aircraft approaching the desired runway end follow a series of left-hand turns. Runways 8, 3, and 12 utilize a right traffic pattern.

Other local operating procedures of note include:

- The aircraft ramp north of Runway 8-26 is closed to helicopters and general aviation aircraft.
- Taxiway D north of Taxiway B is closed indefinitely.
- Air carrier ground handling is not available between the hours of 1:00am and 4:30am.
- Pilots are advised to use extreme care when taxiing north on Taxiway E1 to Runway 8 because the holding position for Runway 8-26 is co-located with the Runway 12-30 holding position prior to the Runway 12 threshold.
- Pilots are alerted to the potential for increased bird hazard from October-December and from March-May.
- Taxiway H is for military use only.
- Fighter aircraft are to turn south only on departure.
- Departures on Runway 3 are restricted and require coordination with the ATCT.



- Taxiway E5 is closed.
- Pilots are alerted to the possibility of high levels of student helicopter traffic.
- A controlled firing range area is located south of the airport.
- ARFF protection is provided by the U.S. Air Force.

## Noise Abatement

The Sunport is located in proximity to residential areas; therefore, the Sunport has maintained an active and continual effort to mitigate noise generated by commercial, private, cargo, and military users. ABQ has a staff person who oversees the collection of noise complaints via a published telephone number.

For years, the most sensitive noise issue was the use of Runway 17-35, particularly approaches from and departures to the north which would place low flying aircraft over long established residential areas. In 2012, Runway 17-35 was permanently closed, primarily for safety and efficiency reasons, but as a side benefit, to also address noise-related concerns.

Current noise abatement procedures include the following:

- Departing Runway 8, all aircraft are requested to delay any turns until reaching the east end of the airport, and then climb through 6,500 feet as rapidly as possible.
- All military fighters and heavy military aircraft are asked to turn south, away from the city, when departing from Runway 8.
- Between 9:00pm and 7:00am, all aircraft departing Runway 8 are issued a right turn, weather permitting.
- From 7:00am to 9:00pm, pilots of jet aircraft departing on Runway 8 and desiring a left turn are requested to delay their turn until 13.5 nautical miles from the Albuquerque VORTAC. This procedure is only used when the cloud ceiling is 5,000 feet MSL and visibility is greater than seven miles, due to the proximity of the Sandia Mountains to the east.
- Maintenance-related or other engine testing/run-ups are only permitted in remote areas of the airport.

## REGIONAL AIRPORTS

There are four public-use airports within a 35-mile radius. Information pertaining to each airport was obtained from FAA records, with a summary provided on **Exhibit 1K**. None of these airports offer a comparable level of facilities and/or aviation services to the Sunport. The next closest commercial service airport is in Santa Fe, approximately 50 miles to the northeast. In addition to the public-use airports, there are several private landing strips in the region, including Manzano-Mountain Air Ranch (NM89) located 19 miles to the southeast, Biplane Ranch Airport (NM02) located 26 miles to the southeast, and

New Mexico Soaring Ranch Airport (NM61) located 26 miles to the northeast. Each of these has an unpaved landing surface, few based aircraft, and no instrument approach capability.

In addition to the Sunport, the Aviation Department also operates Double Eagle II Airport. It is the policy of the Aviation Department to encourage the use of Double Eagle II Airport by general aviation operators. Double Eagle II Airport was specifically constructed to serve as a general aviation reliever airport for the Sunport. In fact, it is the only reliever airport in the state of New Mexico. As a reliever airport, Double Eagle II Airport is expected to relieve traffic at the Sunport by providing an alternate landing area for general aviation aircraft.

## **PASSENGER TERMINAL COMPLEX**

The passenger terminal complex is the most prominent element of a commercial service airport. It provides that critical link between air travel and ground travel. The terminal complex includes the terminal building, access to the terminal building, and parking as well as access to passenger aircraft and the aircraft parking apron.

### **TERMINAL BUILDING HISTORY**


The first terminal built for scheduled airline service was constructed in 1939 as part of a Works Projects Administration (WPA) project. This genuine adobe structure still exists and is listed in the National Register of Historic Buildings. It was renovated in 1999. The majority of the building is leased to the TSA with a portion remaining open to the public. The original terminal building is located to the west of the current terminal building and adjacent to the air freight building.





A new and larger terminal was constructed in 1965 to accommodate growing demand for air service. This terminal, also built in the southwest style, consisted of a passenger handling building one level below the apron. After ticketing, passengers would circulate to the center of the building, then up to the Great Hall passenger holdroom or by tunnel under the apron to a "satellite building" common passenger holdroom. Aircraft were ground-boarded from both the Great Hall and the satellite. Surface parking was located immediately across the road north of the terminal. Baggage claim was adjacent to ticketing with baggage make-up behind, accessed via a ramp from the apron. Concessions were located on both sides of the Great Hall.


The current Sunport terminal design was initiated in 1985 and construction was completed 1989. The project included modification and additions to the 1965 terminal. Ticketing and departures processing were moved to a remodeled and expanded second level at the apron level on both sides of the Great




Double Eagle II (AEG) - 12 miles NW of ABQ		
<div><div><b>Airport Classification: Publically Owned/Public Use</b> NPIAS ..... Reliever FAA GA Asset Study ..... Regional NMASP ..... Regional General Aviation Elevation ..... 5,837' Weather Reporting ..... WX-AWOS-3PT ATCT ..... Yes (6:00am-7:00pm) Annual Operations ..... 131,400 Based Aircraft ..... 125</div><div></div></div>		
RUNWAYS	4-22	17-35
Length	7,398'	5,993'
Width	100'	100'
<b>Pavement Strength (lbs.)</b>		
SWL	30,000	30,000
DWL	NA	NA
DTWL	NA	NA
Lighting	MIRL	MIRL
Marking	Precision	Non-precision
Approach Aids	PAPI-4L (4); MALSR (22)	PAPI-4L (17)
Instrument Approach Procedures	ILS (22); RNAV-GPS (22)	None
<b>Services Provided.</b> ..... Fuel, Maintenance and Repair, Hangar Storage, Tiedowns, Charter, Flight Training, Aircraft Rental, Aircraft Sales.		

Mid Valley Airpark (E98) - 21 miles S of ABQ	
<div><div><b>Airport Classification: Privately Owned/Public Use</b> NPIAS ..... NA FAA GA Asset Study ..... NA NMASP ..... NA Elevation ..... 4,836' Weather Reporting ..... None ATCT ..... None Annual Operations ..... 20,100 Based Aircraft ..... 238</div><div></div></div>	
RUNWAYS	18-36
Length	4,340'
Width	37'
<b>Pavement Strength (lbs.)</b>	
SWL	12,500
DWL	NA
DTWL	NA
Lighting	LIRL
Marking	Basic
Approach Aids	NA
Instrument Approach Procedures	NA
<b>Services Provided.</b> ..... Fuel (Avgas)	

Alexander Municipal Airport (E80) - 30 miles SW of ABQ	
<div><div><b>Airport Classification: Publically Owned/Public Use</b> NPIAS ..... General Aviation FAA GA Asset Study ..... Local NMASP ..... Regional General Aviation Elevation ..... 5,194' Weather Reporting ..... WX-AWOS-3PT ATCT ..... None Annual Operations ..... 17,500 Based Aircraft ..... 53</div><div></div></div>	
RUNWAYS	3-21
Length	6,601'
Width	60'
<b>Pavement Strength (lbs.)</b>	
SWL	12,500
DWL	NA
DTWL	NA
Lighting	MIRL
Marking	Non-precision (21); Basic (3)
Approach Aids	PLASI (21)
Instrument Approach Procedures	RNAV-GPS (21)
<b>Services Provided.</b> ..... Fuel, Maintenance and Repair, Hangar Storage, Tiedowns, Flight Training, Aircraft Rental.	

Moriarity Airport (0E0) - 35 miles E of ABQ		
<div><div><b>Airport Classification: Publically Owned/Public Use</b> NPIAS ..... General Aviation FAA GA Asset Study ..... Local NMASP ..... Community General Aviation Elevation ..... 6,199' Weather Reporting ..... WX-AWOS-3PT ATCT ..... None Annual Operations ..... 29,600 Based Aircraft ..... 137</div><div></div></div>		
RUNWAYS	8-26	18-36
Length	7,700'	6,200'
Width	75'	75'
<b>Pavement Strength (lbs.)</b>		
SWL	30,000	12,500
DWL	60,000	NA
DTWL	NA	NA
Lighting	MIRL	NA
Marking	Non-Precision	Basic
Approach Aids	NA	NA
Instrument Approach Procedures	NA	NA
<b>Services Provided.</b> ..... Fuel, Maintenance and Repair, Hangar Storage, Tiedowns, Aircraft Sales, Glider Activity.		

Santa Fe Municipal (SAF) - 50 miles NE of ABQ			
<div><div><b>Airport Classification: Publically Owned/Public Use</b> NPIAS ..... Primary Commercial Service FAA GA Asset Study ..... NA NMASP ..... Primary Commercial Service Elevation ..... 6,348' Weather Reporting ..... WX-ASOS ATCT ..... Yes (6:00am-10:00pm) Annual Operations ..... 71,900 Based Aircraft ..... 207</div><div></div></div>			
RUNWAYS	2-20	15-33	10-28
Length	8,366'	6,316'	6,301'
Width	150'	100'	75'
<b>Pavement Strength (lbs.)</b>			
SWL	48,000	48,000	30,000
DWL	65,000	65,000	NA
DTWL	105,000	105,000	NA
Lighting	MIRL	MIRL	MIRL
Marking	Precision	Non-precision	Non-precision
Approach Aids	VASI-4L	PLASI(15); VASI-4R(33)	NA
Instrument Approach Procedures	ILS or LOC (2); RNAV-GPS	RNAV-GPS	RNAV-GPS (28); VOR (33)
<b>Services Provided</b>	Fuel, Maintenance and Repair, Hangar Storage, Tiedowns, Charter, Flight Training, Aircraft Rental, Aircraft Sales.		

KEY	
ASOS	- Automated Surface Observation System
ATCT	- Airport Traffic Control Tower
AWOS	- Automated Weather Observation System
DME	- Distance Measuring Equipmenet
DWL	- Dual Wheel Loading
DTWL	- Dual Tandem Wheel Loading
HIRL	- High Intensity Runway Lighting
ILS	- Instrument Landing System
LIRL	- Low Intensity Runway Lights
LOC	- Localizer
MALSR	- Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights
MIRL	- Medium Intensity Runway Lighting
NMASP	- New Mexico Airport System Plan (2009)
NPIAS	- National Plan of Integrated Airport Systems
ODALS	- Omnidirectional Approach Lighting System
PAPI	- Precision Approach Path Indicator
PLASI	- Pulsating Light Approach Slope Indicator
REIL	- Runway End Identifier Lights
RNAV	- Area Navigation (GPS variant)
SWL	- Single Wheel Loading
VASI	- Visual Approach Slope Indicator
VOR	- VHF Omnidirectional Range

This page intentionally left blank

Hall, and an adjacent upper Departures Drive was added to improve curb frontage. The existing on-grade terminal was modified and expanded to accommodate additional baggage claim capacity. The



Great Hall was retained as the central feature and primary circulation node. The tunnel and the satellite building were abandoned and replaced by an above-grade circulation link to a nineteen-gate concourse. Commuter carriers are accommodated in expanded facilities to the south of the Great Hall. The \$120 million renovation, including the two level drives and parking structure, more than doubled the size of the terminal and provided second level loading for major carrier jet aircraft.

## CHANGES AND ADDITIONS

In 1997, four new gates were added to the east end of Concourse A with supporting restroom and additional concessions space. The project included 20,055 square feet at level two, and 2,385 square feet of enclosed space plus 17,670 square feet of covered unenclosed space at apron level.

In 1998, the Observation Deck and Food Court were added between concourse A and B. The project area included 4,570 square feet of new observation space on a mezzanine with access from the concourse by a glass sided elevator and two open stairs. The food court and seating area at the concourse total 6,670 square feet of remodeled space.

In 2000, the C Concourse at the west end of the terminal was decommissioned. Four gates were removed, the passenger hold room on Level 3 was converted to Planning & Development offices for the Aviation Department, and the western portion concourse was abandoned. The airline operations offices on Level 2 were repurposed for the Aviation Police. The western portion of the C Concourse was subsequently demolished in 2008.

In response to the events of 9/11, security screening at the terminal was expanded with the addition of a centralized passenger security checkpoint constructed in 2004. Located on Level 3 between the terminal Level 3 Lobby and the A & B Concourses and adjacent to the circulation crossover, the 37,000 square foot facility incorporated 8 screening stations, passenger queuing, and TSA operations offices. It also included 5 sophisticated revolving security doors, security gates, and a holding area for individuals waiting for arriving passengers. Gate B2 was decommissioned to accommodate the checkpoint. TSA screening operations were also incorporated into the commercial air carrier's Outbound Baggage make-up areas in conjunction with the ticketing process. In one instance, existing space adjacent to the Great Hall was repurposed for this use.



The FIDS/BIDS project was completed in 2007. It updated the flight information display system and baggage information system throughout the terminal. It included new LED displays, the architectural supporting structure for them, new airline boarding casework at each of the gates, as well as systems software upgrades.

During 2009-2012, the A & B Concourses hold rooms and restrooms were repositioned and enlarged at strategic locations to better accommodate the traveling public and the commercial air carriers. This was accomplished with small building additions and phased construction, and it also included removal of Gate B2. Many of the concourse restrooms were completely remodeled with new fixtures, finishes, and accessories. Several retail and food & beverage concessions spaces were similarly repositioned and refurbished during this period.

Between 2003 and 2014, numerous smaller remodeling projects were undertaken to further optimize the terminal and accommodate operational changes within the airline industry. They typically included replacement of mechanical units, ductwork, plumbing fixtures and service lines, power, lighting and special systems wiring. Projects include the following:

- The existing retail concessions spaces on Level 3 were enlarged and refurbished on several occasions to increase their visibility and sales volume, with more square footage devoted to them, and with 3 spaces on the non-secured and 3 spaces on the secured side of the terminal. This project also included 2 small retail kiosks in the Great Hall, Level 2, and 5 within Concourses A & B on Level 3.
- The food & beverage concessions spaces throughout the terminal on Level 3 were similarly refurbished and/or expanded, including the main restaurant off the Level 3 Lobby and the Food Court at the confluence of the A and B Concourses by the observation deck.
- The centralized kitchen west of the restaurant on Level 3 was decommissioned and removed.
- The commuter airline ticketing area at the south end of the Great Hall was decommissioned as was the D Concourse. Portions of it were repurposed for airport operations, including the Communications Center, Security Badging Office, and IT Office Suite.
- All public restrooms throughout the terminal were completely remodeled with new fixtures, finishes, and accessories during this period, either as stand-alone projects or in conjunction with other projects. The scope included upgrades such as the ADA requirement for family restrooms and hands-free fixture actuation.
- The Level 2 Airport Operations/Emergency Response Center was renovated with new restrooms, break area and new finishes throughout.
- Out on the Level 2 ramp, the airline ground operations common service corridors and restrooms were also renovated.



- The terminal Level 2 West End was also renovated to enhance several airport operations. Several projects enlarged and reconfigured the U.S. Customs and Border Patrol suite and created the Sandia Vista conference center.
- Light fixtures in many of the public spaces have been replaced with LED fixtures.
- The fire/smoke detection and alarm system has been recently upgraded.
- Wi-Fi has also been installed throughout the terminal.
- The existing terminal roofs have been replaced. The roofing system consists of a new single-ply, 80mil EPDM membrane with a light-colored UV coating over R-30 rigid insulation and includes an extended warranty.
- The parking structure has been upgraded with new photovoltaic arrays on the upper deck parking canopies. The long-term parking lot was also fitted with structurally supported photovoltaic arrays above the parking stalls.

There are several terminal building improvement projects which are being designed and constructed in 2015-2016. The major project is to the ticketing, baggage, departures and arrivals areas. There are several smaller projects in process as well.

The ticketing areas on Level 2 and the baggage areas on Level 1 are being remodeled, refreshed, and updated to accommodate industry changes to these processes, to enrich the passenger experience, and to enhance the airport terminal's uniquely New Mexico architectural vernacular. The work includes new ticketing casework, baggage handling equipment, skylights, ceiling finishes, lighting, HVAC distribution and way finding signage from the entrance/exit vestibules to the Great Hall. In conjunction with the ticketing and baggage enhancements, the terminal's exterior function and appearance at Departure Level 2 and Arrival Level 1 are also being upgraded.

At Departure Level 2, the exterior curbside check-in is being rearranged to streamline the process while minimizing pedestrian congestion at the terminal entrances, and to make the entrances more visible and inviting. A canopy is being added to the trellis, with integral drainage and lighting, to provide cover for the sidewalk and check-in queuing areas.

On Arrival Level 1, various elements are being incorporated to improve arrival passengers' movement and experience from the baggage claim areas to private and commercial pick-up areas. The project includes stepped ceiling projections at the exit vestibules similar to the entrance porticos, wider passenger pick-up sidewalks with enhanced lighting, an exposed and well lighted elevated roadway deck, and defined crosswalks to the commercial pick-up area with a covered terminus at each. The commercial pick-up area includes a covered trellis similar to the Departures level, windscreens, seating and landscaping. In conjunction with this work, the Parking Structure is also being refreshed with repairs to brick pavers, Stairs 1 and 2, and other cosmetic upgrades including painting and cleaning.



The smaller remodeling projects being undertaken to further optimize the terminal are as follows:

- Changes in the information technology industry and heightened security necessitated additional spatial needs for the IT Offices and Security Badging. IT Offices are being relocated to the vacated former Kitchen on Level 3 and the Security Badging Offices will expand in to the area formerly occupied by the IT Offices. The former D Concourse holding room is also being repurposed for an employee fitness center.
- The Aviation Police Suite at the west end of Terminal Level 2 is being completely remodeled, which includes minor remodeling on both Level 1 and Level 3.
- The HVAC equipment in 11 mechanical penthouses serving the landside portion of the terminal are being refurbished and upgraded with larger more efficient coils, fans and ductwork, as are the spaces themselves.
- The Central Utility Plant (CUP) project is replacing the boilers within the existing Boiler Room with new hybrid type units.
- The Shared Tenant Services (STS) project expands and unifies the Aviation Departments' telephone and data system throughout the terminal to allow access by its tenants.
- Forty-four (44) apron light poles about the terminal have been inspected and are being repaired where damaged, or replaced, reconditioned, and refinished.
- The Apron Concrete Reconstruction Phase III project will be completed in 2015-2016.
- The parking structure is being upgraded with new lighting on each level. A new fire/smoke detection and alarm system will also be installed in the Parking Structure.
- The Parking Office Building is being refreshed with new finishes including, a new roof and LED lights at the exit booths.
- The Parking Exit Plaza is being reconfigured with the six existing lanes reduced to five lanes and realigned, removal of the existing toll booths and canopy, and their replacement with new toll booths and canopy. Installed west of the original location, this will create space for additional vehicle queuing and improve the exiting process.
- Deficiencies with the exterior directional signage on the building and to the airport roadways and parking signage at the Sunport are being upgraded.
- Finally, the four employee parking lots are being reconstructed in 2015-2016. The existing asphalt paving is being removed, the lots re-graded and resurfaced, with new entrance/exit gates and lighting.

With the completion of these projects, the public spaces within the terminal will have been renovated, remodeled, refreshed or otherwise upgraded within the last five to 10 years. With routine maintenance, these spaces should remain attractive and serviceable for another 10 to 20 years. In the coming years, the Aviation Department anticipates minor projects to continuously upgrade the terminal as the needs arise and in response to changes within the industry.

## TERMINAL ARCHITECTURE

**Form and Massing:** The terminal is composed of rectangular volumes decreasing in size at each level. The building elements are detailed to recall traditional adobe construction, and the overall stacking of the building is a contemporary interpretation of the Southwest Pueblo architectural style.

**Color and Materials:** The colors of the terminal are inspired by the colors of the natural environment. The colors used include shades of blue, green, lavender, and pink. The exterior of the airport is a buff color, inspired by the earth native to the area. Blue and turquoise accents are used throughout the terminal and its signage system. These colors strongly evoke the southwest, the wide expanse of sky, and regional turquoise jewelry. Blue is used on doors, railings, and windows throughout the airport. Turquoise is used on the loading bridges and in the airport signage.



The interior walls in the terminal are finished with plaster and painted off-white with a hint of red/brown adobe (Sunport Doeskin). In contrast to the solidity of the walls, the ceilings are articulated in textured wood slat ceiling panels inspired by regional beam and latilla construction and the floors are done in a brick pattern inspired by Indian weavings.



**Furnishing and Interiors:** Seating areas, both in the ticketing & baggage claim lobbies, are denoted by the placement of woven rugs. Seating in these areas consist of low cube-like cushioned ottomans, with similarly designed tables. The ottomans and tables are made of precast concrete. The ottoman's cushions are covered in patterned blue fabric, and the table has a matching blue plastic laminate top.

The seating in the Great Hall and passenger hold rooms incorporated original wood frame and leather cushion chairs as were designed for the airport in 1965. The original chairs were reconditioned and newer furniture has been fabricated to match. The chairs come in units of two and four. Four chairs typically make up a row and the chairs are placed back to back.

The geometry of Indian motifs and patterns also appear throughout the airport in the detailing for case-work, flight information displays, railings, signage and advertising framework. The wing form inspired the design of light fixtures, balcony railings and the signage gateway located in the Great Hall as well as the current Sunport logo.

**Wayfinding and Signage:** The airport terminal is divided into three basic circulation spines. The ticketing and baggage avenues, which run east/west, are stacked one above the other on Levels 2 and 1, respectively. The ticketing/baggage functions are located to the south side, waiting/support alcoves and the entrance/exit vestibules to the north side, with departures/arrival lanes beyond. They connect to the main north/south boulevard which extends from the parking structure tunnel, through the baggage claim lobby, the Great Hall, upper Level 3 lobby, and seamlessly flows into the security checkpoint/crossover. The latter connect at the confluence of the A & B Concourses which run east/west. The concourses contain a mix of passenger gates, hold rooms, restrooms, and concessionaires on both sides of the passenger street.



For the most part, the ceilings of these elements share a similar treatment. Wood slat ceiling panels were used throughout to define all paths of public circulation. Adjacent areas, such as ticketing, baggage, and the hold rooms, have an acoustical ceiling tile treatment and somewhat lower height. At the juncture of the three circulation elements, the areas of intersection are emphasized with taller and wider spaces, often with stepped ceilings. At the intersection of the ticketing and baggage avenues with the main boulevard, passengers find themselves in the midst of the Great Hall and upper Level 3 lobby, bathed in natural light from clerestory windows with the airport's art collection, retail, and food & beverage concessions readily visible. The boulevard splays out laterally to form the security checkpoint and crossover. The checkpoint itself is a large open hall with stepped ceilings. Where the main boulevard intersects with the A and B Concourses, passengers move into a taller and wider space which opens up to reveal the observation lounge, the food court, retail concessionaires, and a major sculptural piece, bathed in natural light from a large skylight above.

These points of intersection are also reinforced by the terminal's floor pattern. The floor is paved with brick, a material common with contemporary southwest architectural styles. At locations where the paths of circulation cross, the intersection is expressed with a change in the brick pattern.

Through the use of these materials and volumes, the architecture helps signify to passengers the major pathways and wayfinding decision points.

The signage in the terminal installed with the 1989 terminal expansion is extremely legible. The directional and identification signage has a turquoise background, with large white lettering and three small pink squares designed into each corner of the signs. The serified font suggests an ornamental flourish

typical of the metal work of the region. Signage is located high in the circulation spaces and is typically lighted from linear fixtures above. The Aviation Department entertained an updated signage template, turquoise text on a white translucent background, which was partially implemented. It was found to be less visible than the 1989 template. The updated template has been incorporated but limited to room identification signage (restrooms). The updated template incorporates English and Spanish text and conforms to accessibility requirements. Interior directional and identification signage is generally consistent throughout the terminal, and the Aviation Department has no immediate plans to further update it.

The 1989 template extends to the exterior directional signage on the building and to the airport roadways and parking signage at the Sunport. The Aviation Department has identified several deficiencies with airport roadway and parking signage, has a plan in place to replace/reconfigure and enhance site signage, and is in the process of implementing it.

## TERMINAL ORGANIZATION

As mentioned previously, the terminal is organized into four major elements. The first element is a land-side passenger departure and arrivals processing element which runs east/west adjacent to and level with their corresponding driveways. The second element is a circulation spine which runs north/south from the center of the processing element extending south to the center of the third element. The third element, the airside concourse, also runs east/west, parallel to the first element. The fourth element, the four level parking structure, also runs east/west, parallel to and north of the first element and driveways.

### Terminal Level 1

Level 1 is dedicated to the passenger arrivals functions of baggage claim and ground transportation and is connected to and parallel with the arrivals roadway. Level 1 is located below the apron level and passenger access is from the Great Hall above by way of escalators, elevators and stairs to its center point. Baggage is delivered to the south side of the claim space by way of a baggage tug tunnel accessible from the apron. Delivery of baggage from the tunnel to each claim device is by way of a conveyor below the claim level floor. From baggage claim, arrival passengers exit the terminal north to the vehicle pick-up area and ground transportation area, or continue downward by way of escalators, elevators and stairs to the access tunnel and parking structure beyond. Rental car services have been consolidated at a remote location and are accessed by shuttle from the ground transportation area. The west end of Level 1 is devoted to airport operations including the main receiving dock and building maintenance functions. The floor area of Level 1 is approximately 135,000 square feet including the tug tunnel and the tunnel access to the parking structure. **Exhibit 1L** depicts the Level 1 floor plan.

*Level 1 is dedicated to the passenger arrivals functions of baggage claim and ground transportation.*

## Terminal Level 2

Level 2 of the terminal, located at the apron elevation, is linked to the second level of the structured departures roadway by seven vestibule bridges. The northern landside portion is dedicated to the processing of departing passengers and their baggage, otherwise known as ticketing. The Great Hall, at the center of landside functions, was the major common hold room for the 1965 terminal configuration. Currently, all passengers and the general public circulate to and through the Great Hall. In addition to being the terminal's primary circulation element, the Great Hall also functions as a major public space used for waiting, entertainment, and art display. The airside functions on this level are devoted to out-bound baggage handling and airline operations space. Airport operations in the vicinity of the Great Hall include the press room, family assistance center, security badging, the communications center, fitness center, and the airport operations/emergency response center. The far west end of Level 2 contains the U.S. Customs and Border Patrol offices and arrivals gate, the Aviation Police office, and other airport operations functions. Level 2 below the A and B Concourses contain airline ground service operations offices, equipment, and concessions storage. The floor area of Level 2 is approximately 258,000 square feet including covered unenclosed areas and tug drives under the building. **Exhibit 1M** depicts the Level 2 floor plan.

## Terminal Level 3

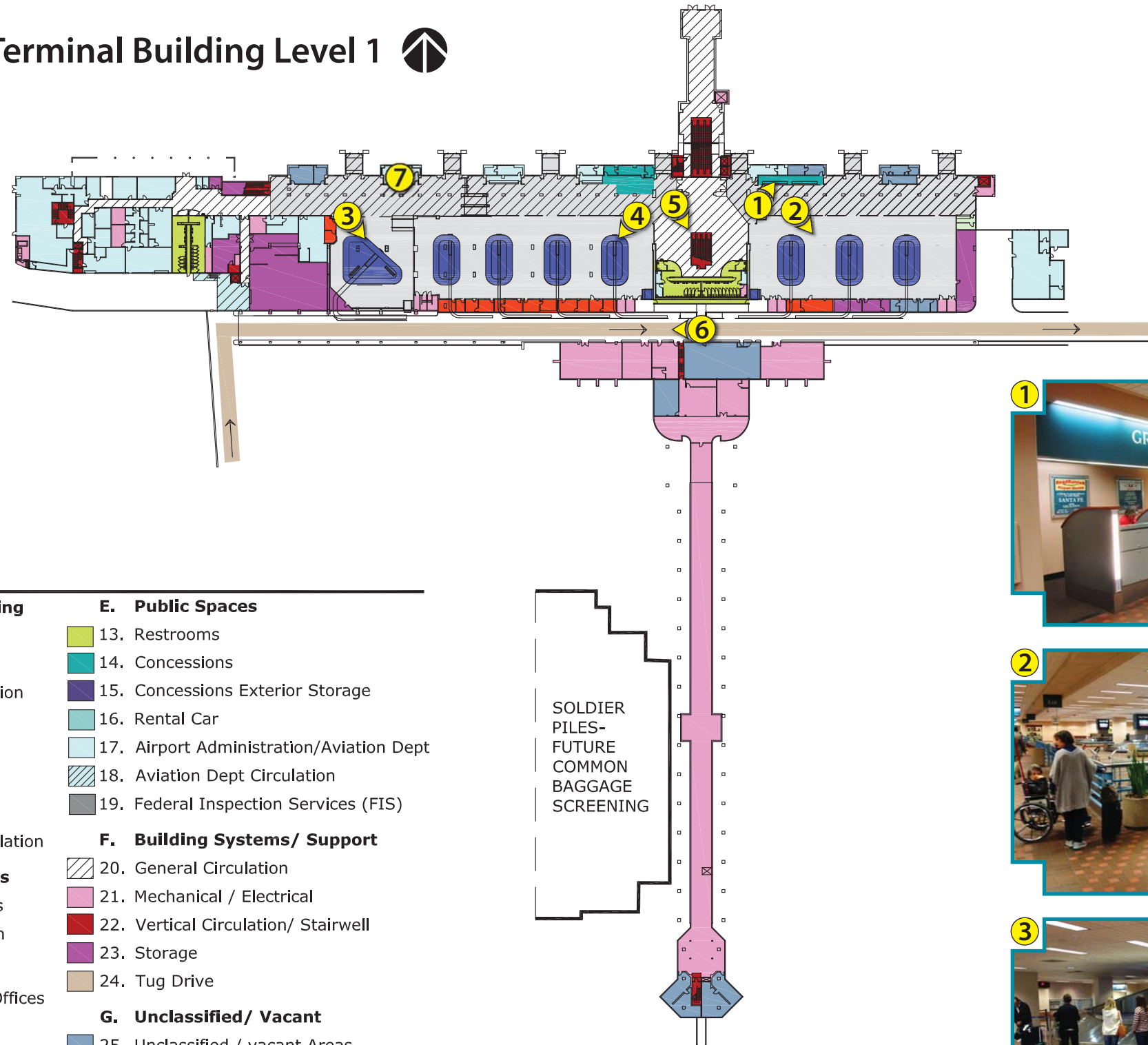
Level 3 consists of four distinct areas: the Level 3 lobby (non-secured), the security checkpoint and crossover (secured), the A & B Concourses (secured), and the terminal west end (non-secured).

The Level 3 lobby is the southern extension of the Great Hall and is connected to it by escalators, elevators and stairs. The lobby is flanked on the east by retail concessions, restrooms, and the airport administrative offices. The west side is predominantly food and beverage services, restrooms, and access to secured airport operations farther west. At the south end of the lobby, departing passengers flow south-west into the security checkpoint. Arriving passengers move from the crossover through the security exit directly into the lobby. From there, passengers are reunited with family and friends waiting in a special hold room immediately to the east of the security exit and/or continue north and downward to the baggage level.

The security checkpoint and crossover form the connecting bridge between the non-secured landside and secured airside of the terminal, one story above the apron level. The security checkpoint is itself a large open hall with gracious space for departing passenger queuing, the 8 screening stations, post-screening functions and TSA operations. This space feeds back into the crossover and the A and B Concourses just north of their confluence. The crossover for arriving passengers extends from the A and B Concourses to the security exit at the south end of the Level 3 lobby. It is essentially a pedestrian corridor with a moving walkway and windows to the east side, windows into the checkpoint to the west side, and a wide walking area between them.

The A and B Concourses branch out in an east/west direction perpendicular to the crossover at their confluence. This terminus is a focal point for secured airside retail and food & beverage concessions.

## Terminal Building Level 1






### Lease Area Legend

### A. Departure Processing

- 1. Ticket Counters
- 2. Ticket Lobby
- 3. Ticket Lobby Circulation
- 4. Security Stations




### B. Arrival Processing

-  5. Baggage Claim
-  6. Claim Lobby
-  7. Baggage Lobby Circulation

### C. Concourse Facilities

8. Passenger Holdrooms
9. Concourse Circulation






#### D. Airline Operations

-  10. Back Office / Ramp Offices
-  11. Baggage Outbound
-  12. Unenclosed Storage

## E. Public Spaces

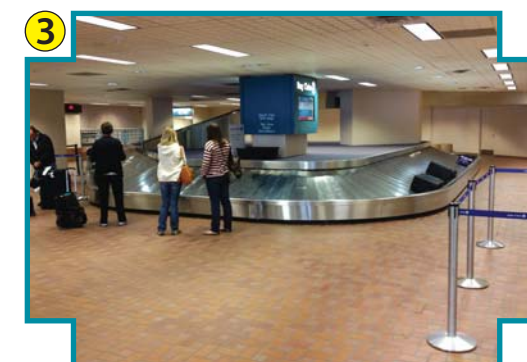
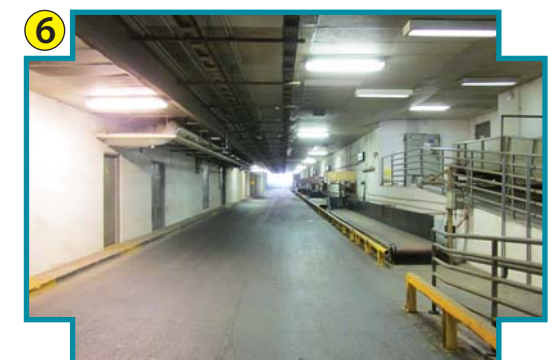
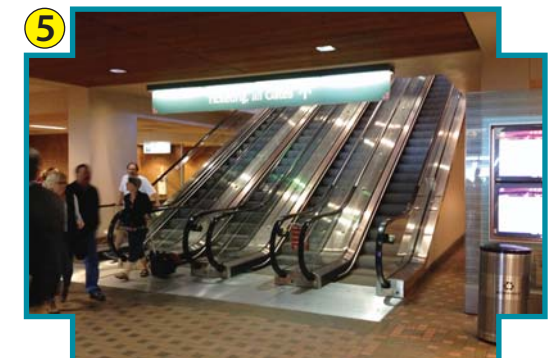
- 13. Restrooms
- 14. Concessions
- 15. Concessions Exterior Storage
- 16. Rental Car
- 17. Airport Administration/Aviation Dept
- 18. Aviation Dept Circulation
- 19. Federal Inspection Services (FIS)

## F. Building Systems/ Support

-  20. General Circulation
-  21. Mechanical / Electrical
-  22. Vertical Circulation/ Stairwell
-  23. Storage
-  24. Tug Drive

### G. Unclassified/ Vacant

-  25. Unclassified / vacant Areas

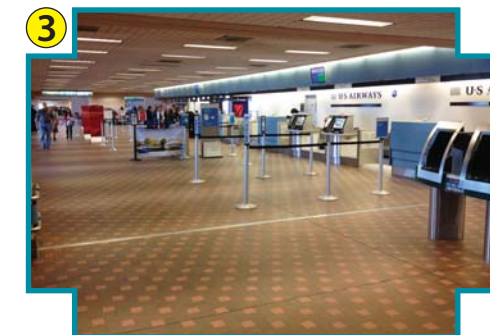
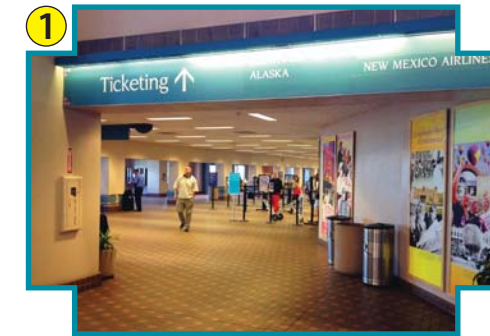


This page intentionally left blank

## Lease Area Legend

- A. Departure Processing**
  - 1. Ticket Counters
  - 2. Ticket Lobby
  - 3. Ticket Lobby Circulation
  - 4. Security Stations
- B. Arrival Processing**
  - 5. Baggage Claim
  - 6. Claim Lobby
  - 7. Baggage Lobby Circulation
- C. Concourse Facilities**
  - 8. Passenger Holdrooms
  - 9. Concourse Circulation
- D. Airline Operations**
  - 10. Back Office / Ramp Offices
  - 11. Baggage Outbound
  - 12. Unenclosed Storage
- E. Public Spaces**
  - 13. Restrooms
  - 14. Concessions
  - 15. Concessions Exterior Storage
  - 16. Rental Car
  - 17. Airport Administration/Aviation Dept
  - 18. Aviation Dept Circulation
  - 19. Federal Inspection Services (FIS)
- F. Building Systems/ Support**
  - 20. General Circulation
  - 21. Mechanical / Electrical
  - 22. Vertical Circulation/ Stairwell
  - 23. Storage
  - 24. Tug Drive
- G. Unclassified/ Vacant**
  - 25. Unclassified / vacant Areas

## Terminal Building Level 2



This page intentionally left blank

Each concourse consists of a central passenger street flanked on each side by groupings of airline gates and hold rooms, with restrooms and concession services between them. There is a total of 22 gates, with 13 on the A Concourse and 9 on the B Concourse.

The terminal west end, accessed by stairs and an elevator, contains the Aviation Department Planning and Development office suite and a mechanical air handling room.

The floor area of Level 3 is approximately 243,000 square feet, excluding the mezzanine observation lounge and mechanical penthouses. **Exhibit 1N** depicts the Level 3 floor plan.

#### Terminal Level 4

At the confluence of the A and B Concourses, the observation lounge is a mezzanine located above the food and beverage concessions with views to the south side apron and runway beyond. It is accessed by an elevator, which is a prominent architectural feature, as well as an adjacent stair. The observation lounge is approximately 3,800 square feet.



There is a total of 20 mechanical penthouses serving the terminal. There are six units on the roof over Level 2: two units to the east of the Great Hall and four to the west. These penthouses serve both the baggage claim at Level 1 and ticketing at Level 2. There are 14 mechanical penthouses located on the roof above Level 3. Five of these penthouses serve the areas on Level 2 and Level 3 located south of the Great Hall. Two of these penthouses serve the security checkpoint. Seven of these penthouses serve the enclosed operations spaces at Level 2 and the A and B Concourses at Level 3. Each penthouse contains multiple air handling units, filtration and other associated

equipment. Hot and cold water is supplied to the rooftop units from the central boiler and chiller rooms located at the south side of the baggage tunnel at Level 1. In total, the penthouses are approximately 60,500 square feet. **Exhibit 1P** presents the floor plan of the level four elements.

#### Terminal Building Summary

The terminal building encompasses nearly 700,000 square feet of space. **Table 1E** shows how much space is dedicated to the major element of the facility.

**TABLE 1E**  
**Terminal Building Space Allocation**  
**Albuquerque International Sunport**

Functional Area	Level 1	Level 2	Level 3	Level 4	Total
Ticket Counter	0	3,770	0	0	3,770
Ticket Lobby	0	5,515	0	0	5,515
Ticket Lobby Circulation	0	25,301	0	0	25,301
Security Station	211	598	26,696	0	27,505
Bag Claim Area	8,181	0	0	0	8,181
Bag Claim Lobby	43,656	0	0	0	43,656
Passenger Hold Room	0	3,803	55,049	3,286	62,138
Concourse Circulation	0	1,228	32,568	0	33,796
Airline Back Office	2,508	29,872	0	0	32,380
Baggage Outbound	0	21,714	0	0	21,714
Airline Unenclosed Storage	0	24,928	0	0	24,928
Restrooms	3,609	4,228	17,620	0	25,457
Concessions	1,495	6,779	43,928	475	52,677
Concession Exterior Storage	0	1,693	0	0	1,693
Rental Car	0	0	0	0	0
Airport Administration	15,559	34,316	25,245	0	75,120
Airport Department Circulation	902	2,804	8,853	0	12,559
Federal Inspection Services	0	7,639	0	0	7,639
General Circulation	11,055	21,668	16,654	0	49,377
Mechanical/Electrical	21,306	9,404	1,670	55,187	87,567
Vertical Circulation	3,234	12,475	10,893	1,293	27,895
Aviation Storage	6,862	3,626	1,057	267	11,812
Tug Drive	10,726	20,696	0	0	31,422
Unclassified/Vacant Areas	5,859	15,590	2,527	0	23,976
<b>TOTAL</b>	<b>135,163</b>	<b>257,647</b>	<b>242,760</b>	<b>60,508</b>	<b>696,078</b>

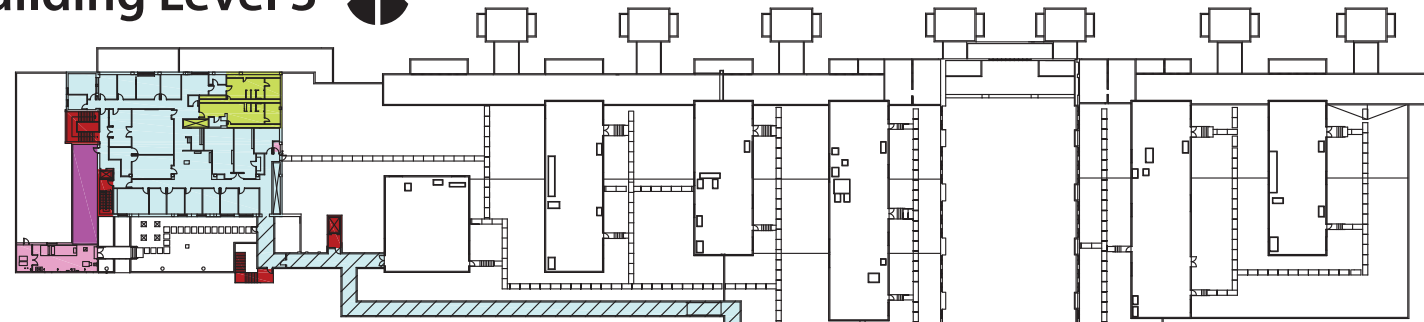
Source: SMPC Architects

## TERMINAL BUILDING SYSTEMS

### HVAC Systems

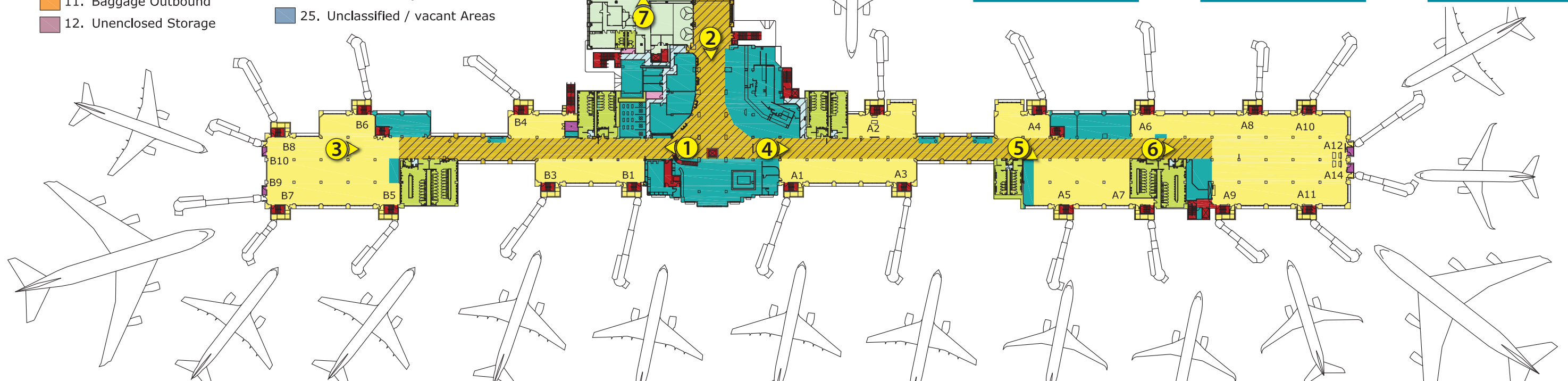
The air conditioning system is a piped hot and cold water system. There are four gas-fired boilers, two 300 HP units and two 125 HP units, to supply the required hot water. There are three large chillers each with a 700-ton capacity which, when combined, provide efficient energy use. The boilers, chillers, and other mechanical equipment rooms are located on Level 1 in a line along the south side of the baggage tunnel. The cooling towers for the chillers are located on the apron, sandwiched between tug drives southwest of the ticketing area. Air handling equipment is located in 20 rooftop mechanical penthouses over the main portion of the terminal building and the A and B Concourses.

# Terminal Building Level 3



## Lease Area Legend


























- |                                |  |
|--------------------------------|--|
| <b>A. Departure Processing</b> | <b>E. Public Spaces</b>                  |
| 1. Ticket Counters             | 13. Restrooms                            |
| 2. Ticket Lobby                | 14. Concessions                          |
| 3. Ticket Lobby Circulation    | 15. Concessions Exterior Storage         |
| 4. Security Stations           | 16. Rental Car                           |
| <b>B. Arrival Processing</b>   | 17. Airport Administration/Aviation Dept |
| 5. Baggage Claim               | 18. Aviation Dept Circulation            |
| 6. Claim Lobby                 | 19. Federal Inspection Services (FIS)    |
| 7. Baggage Lobby Circulation   | <b>F. Building Systems/ Support</b>      |
| <b>C. Concourse Facilities</b> | 20. General Circulation                  |
| 8. Passenger Holdrooms         | 21. Mechanical / Electrical              |
| 9. Concourse Circulation       | 22. Vertical Circulation/ Stairwell      |
| <b>D. Airline Operations</b>   | 23. Storage                              |
| 10. Back Office / Ramp Offices | 24. Tug Drive                            |
| 11. Baggage Outbound           | <b>G. Unclassified/ Vacant</b>           |
| 12. Unenclosed Storage         | 25. Unclassified / vacant Areas          |

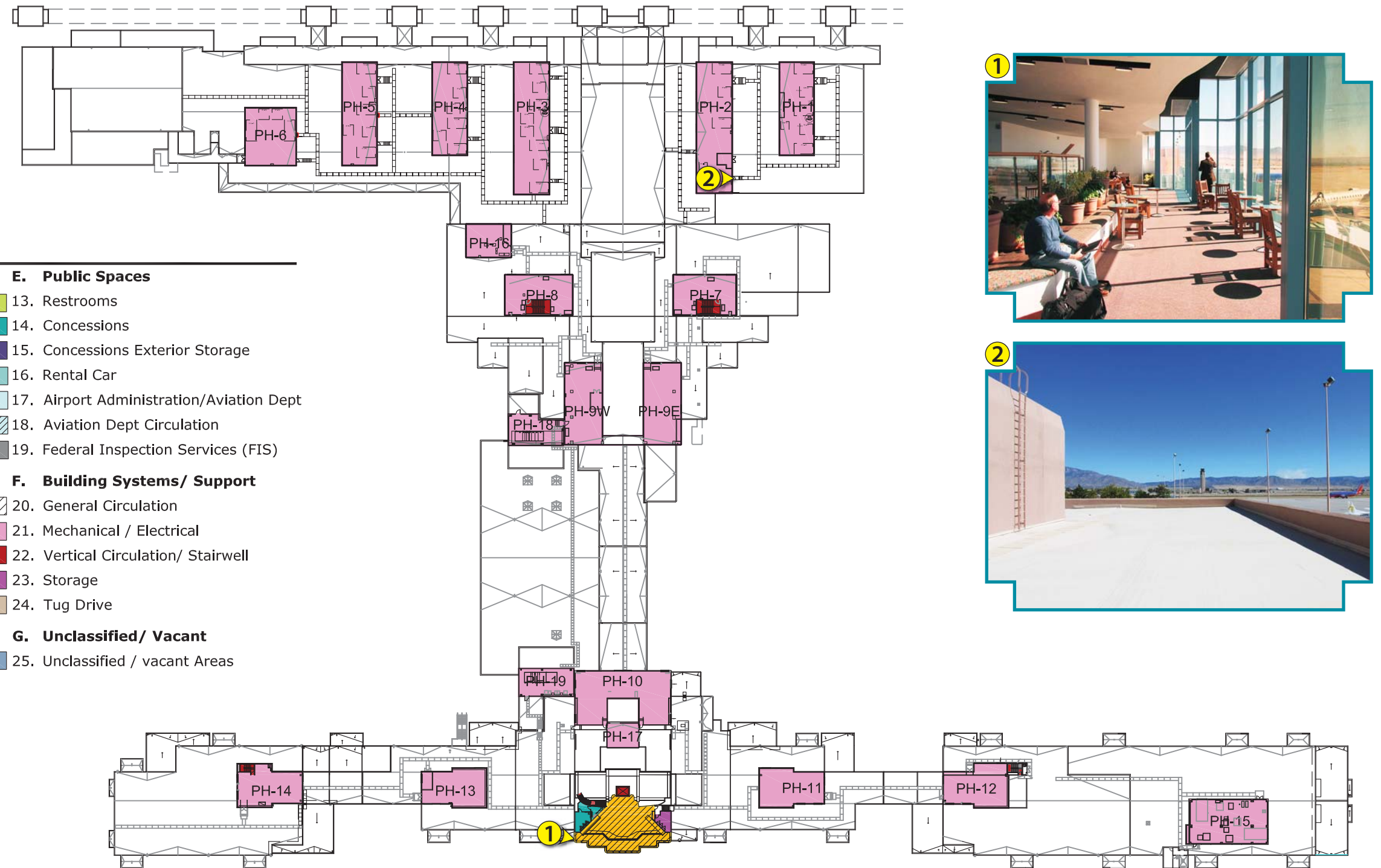


This page intentionally left blank

## Terminal Building -Penthouse Roof Plan

### Lease Area Legend

<b>A. Departure Processing</b>		<b>E. Public Spaces</b>	
	1. Ticket Counters		13. Restrooms
	2. Ticket Lobby		14. Concessions
	3. Ticket Lobby Circulation		15. Concessions Exterior Storage
	4. Security Stations		16. Rental Car
<b>B. Arrival Processing</b>			17. Airport Administration/Aviation Dept
	5. Baggage Claim		18. Aviation Dept Circulation
	6. Claim Lobby		19. Federal Inspection Services (FIS)
	7. Baggage Lobby Circulation	<b>F. Building Systems/ Support</b>	
<b>C. Concourse Facilities</b>			20. General Circulation
	8. Passenger Holdrooms		21. Mechanical / Electrical
	9. Concourse Circulation		22. Vertical Circulation/ Stairwell
<b>D. Airline Operations</b>			23. Storage
	10. Back Office / Ramp Offices		24. Tug Drive
	11. Baggage Outbound	<b>G. Unclassified/ Vacant</b>	
	12. Unenclosed Storage		25. Unclassified / vacant Areas



This page intentionally left blank

## Electrical Systems

The major electrical substation and transformers are located to the south of the commuter gates on the E Concourse. Power is distributed to six power centers which, in turn, feed the terminal. The supplier of electric power to the terminal has sufficient redundancy with three alternate sources.

## Emergency Electrical Power

There are four gas-fired emergency electrical generators. The first pair is located at apron Level 2 just to the south of the fitness center, (formerly D Concourse gates). A second pair of generators is located at apron Level 2 below Gate A4. The four generators have a combined output of 800 amps.

## TERMINAL LOADING BRIDGES

As presented on **Exhibit 1Q**, there are 22 aircraft gates with airport-owned loading bridges extending from the main terminal building. Concourse A has 13 gates and Concourse B has nine gates. In the A Concourse, United leases three gates and Southwest leases five gates. The remaining five gates are available for lease and can be utilized for single charter flights. In the B Concourse, American and Delta each lease three gates, Alaska and JetBlue each lease one gate, and the remaining gate is unleased.

All bridges are two or three tunnel apron drive bridges providing maximum flexibility. All bridges are equipped with ground power packs but do not have conditioned air.



*There are 22 aircraft gates with airport-owned loading bridges extending from the main terminal building.*

Concourse E provides for ground level commuter aircraft boarding.

## TERMINAL AIRCRAFT APRON

The terminal apron encompasses approximately 150,000 square yards of pavement. Two major pavement sections are connected to the terminal apron and are designated for aircraft to remain overnight (RON). There is a 40,000 square yard apron attached, located south of the main terminal apron which is marked for nine RON positions. A 20,000 square yard apron section is immediately west of the main apron with four RON positions marked. An additional 8,000 square yard apron area in the northwest

corner of the main apron (former C gates) can accommodate two additional parked aircraft. Terminal gate and apron detail is presented on **Exhibit 1Q**.



### TERMINAL ACCESS

Passenger terminal facilities at Albuquerque International Sunport are accessed via Sunport Boulevard, Yale Boulevard, and Girard Boulevard. Sunport Boulevard was constructed in the mid-1990s. Sunport Boulevard is a four-lane divided arterial roadway connecting to Interstate 25. A diamond interchange is located at Interstate 25 and University Boulevard. Yale Boulevard is a four-lane divided arterial. Yale Boulevard extends north from the airport across Gibson Boulevard to Central Avenue. Gibson Boulevard

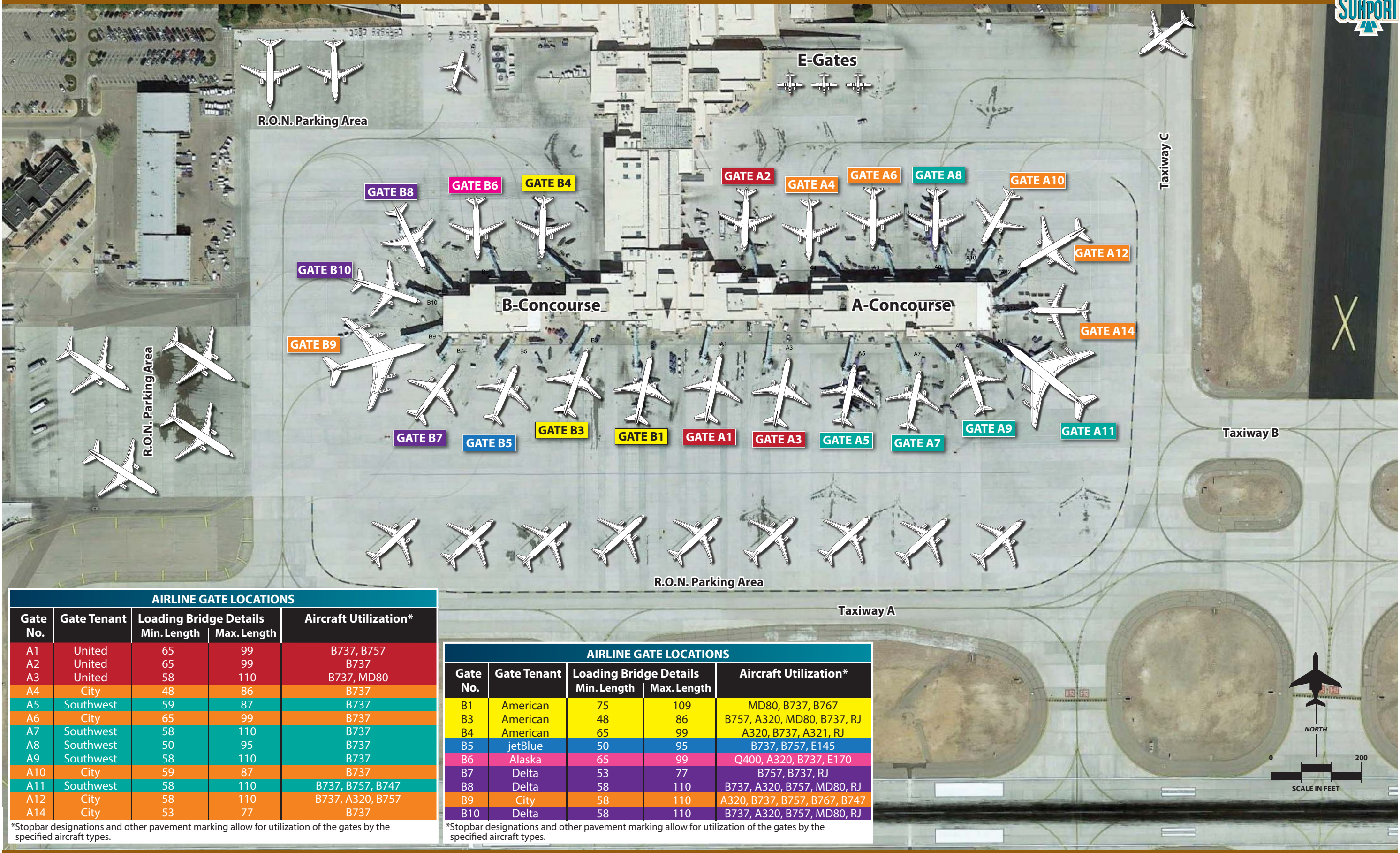
connects with Interstate 25. Signals are utilized at the Randolph Road and Gibson Boulevard intersections. Girard Boulevard is a two-lane connector, extending to Gibson Boulevard to the north. The Girard Boulevard/Gibson Boulevard intersection is signalized. **Exhibit 1R** shows the primary access points to the Sunport.

### TERMINAL LOOP ROAD AND CURBFRONT

The 1989 expansion of the terminal area roadways extended from Yale Blvd. to provide structured elevated drives to serve the new Level 2 departure facilities and the expanded at-grade Level 1 arrivals facilities. In addition, access was provided to the parking structure and to at-grade parking within the road loop and to other perimeter parking lots. The terminal drives extend from Yale Boulevard west to an interchange at Highway I-25 and is called Sunport Boulevard. Sunport Boulevard becomes the one-way terminal loop road at Yale Boulevard. **Exhibit 1S** presents the terminal curb layout.

The eastbound lanes of Sunport Boulevard split west of Yale Boulevard to segregate arrival and departure traffic. Vehicles bound for the departure curb and ticketing counters (enplaning passengers) follow two lanes to the south of Sunport Boulevard to the second-level departure curb roadway which extends the length of the passenger terminal building. As shown in **Exhibit 1S**, there are three lanes on this section of the roadway, including two through lanes and one over-sized curb lane for passenger unloading. The departure curb is approximately 630 feet in length.

Vehicles approaching the terminal building from the west on Sunport Boulevard bound for the arrivals curb for passenger pick-up follow two lanes of Sunport Boulevard to the lower level. Six lanes are provided along the arrival curb. Three lanes are located under the second-level departure curb roadway. These lanes are dedicated to arriving passenger pick-up. There are two through lanes and one over-sized curb lane. Designated taxi staging points, accommodating two taxis each, have been established in three locations along the arrival curb.



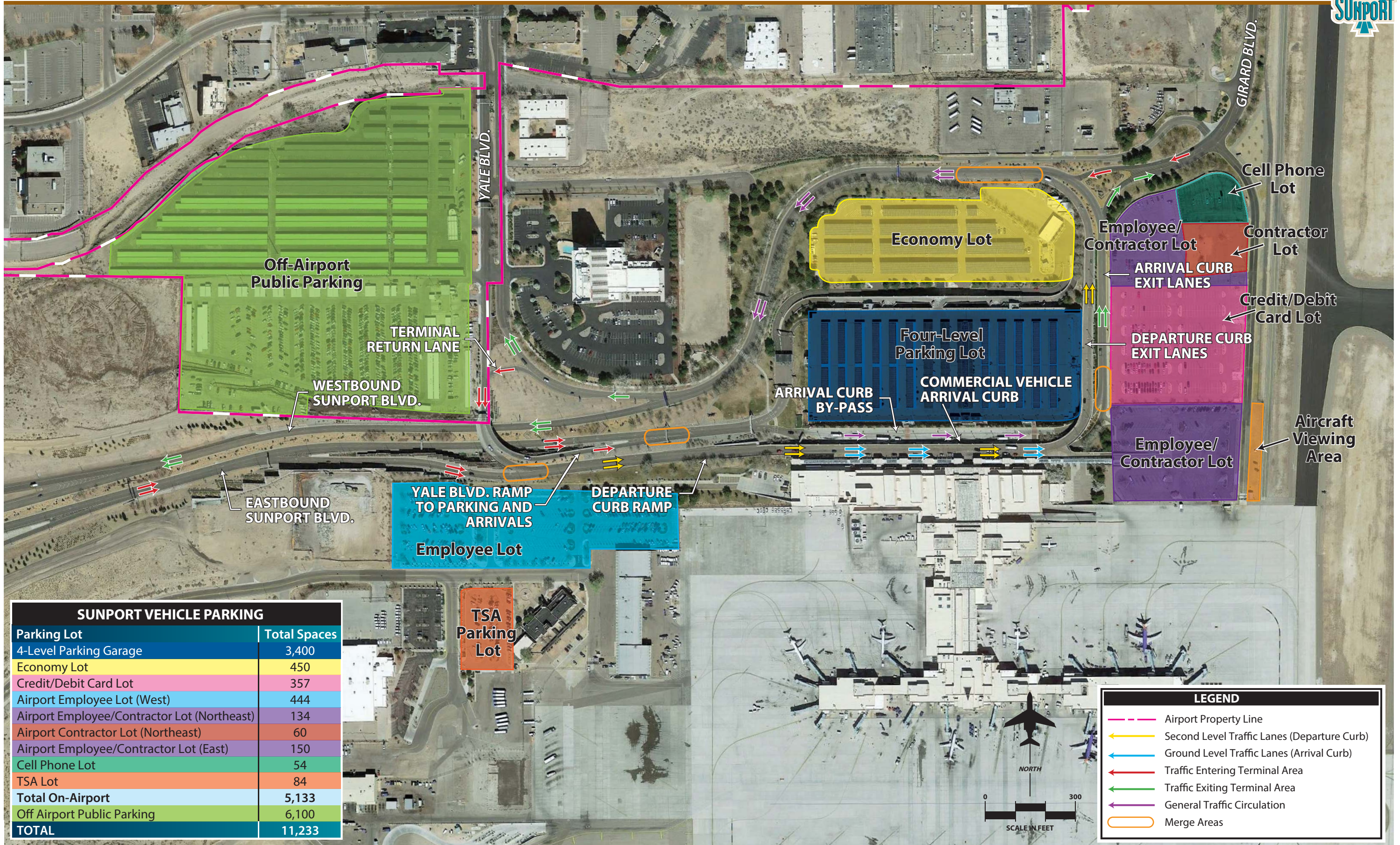
AIRLINE GATE LOCATIONS				
Gate No.	Gate Tenant	Loading Bridge Details		Aircraft Utilization*
		Min. Length	Max. Length	
A1	United	65	99	B737, B757
A2	United	65	99	B737
A3	United	58	110	B737, MD80
A4	City	48	86	B737
A5	Southwest	59	87	B737
A6	City	65	99	B737
A7	Southwest	58	110	B737
A8	Southwest	50	95	B737
A9	Southwest	58	110	B737
A10	City	59	87	B737
A11	Southwest	58	110	B737, B757, B747
A12	City	58	110	B737, A320, B757
A14	City	53	77	B737

\*Stopbar designations and other pavement marking allow for utilization of the gates by the specified aircraft types.

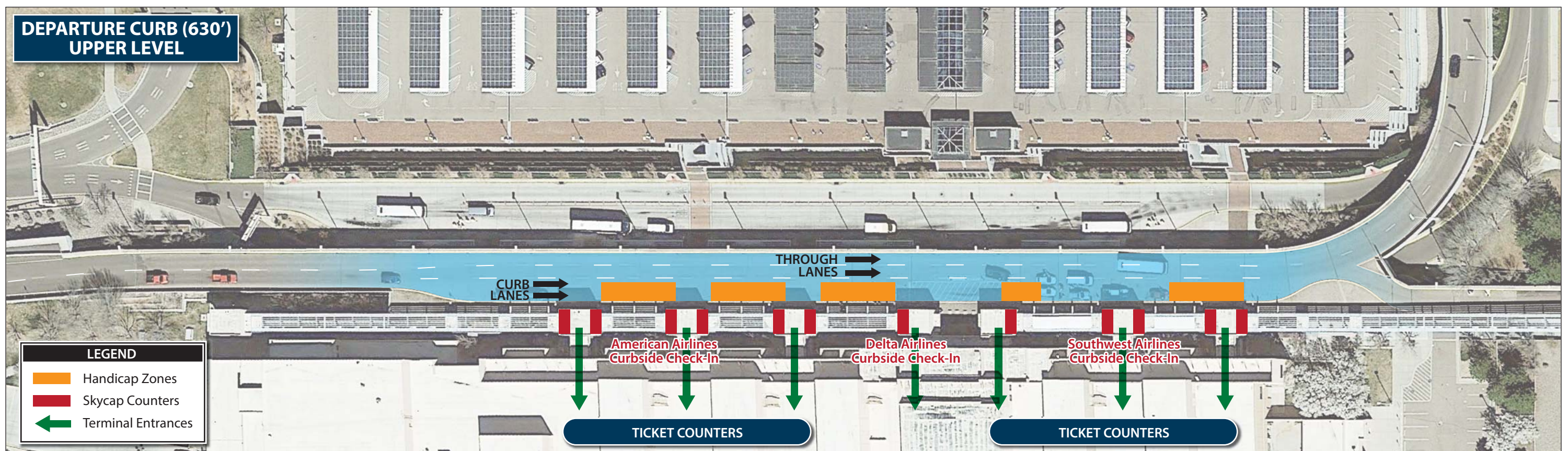
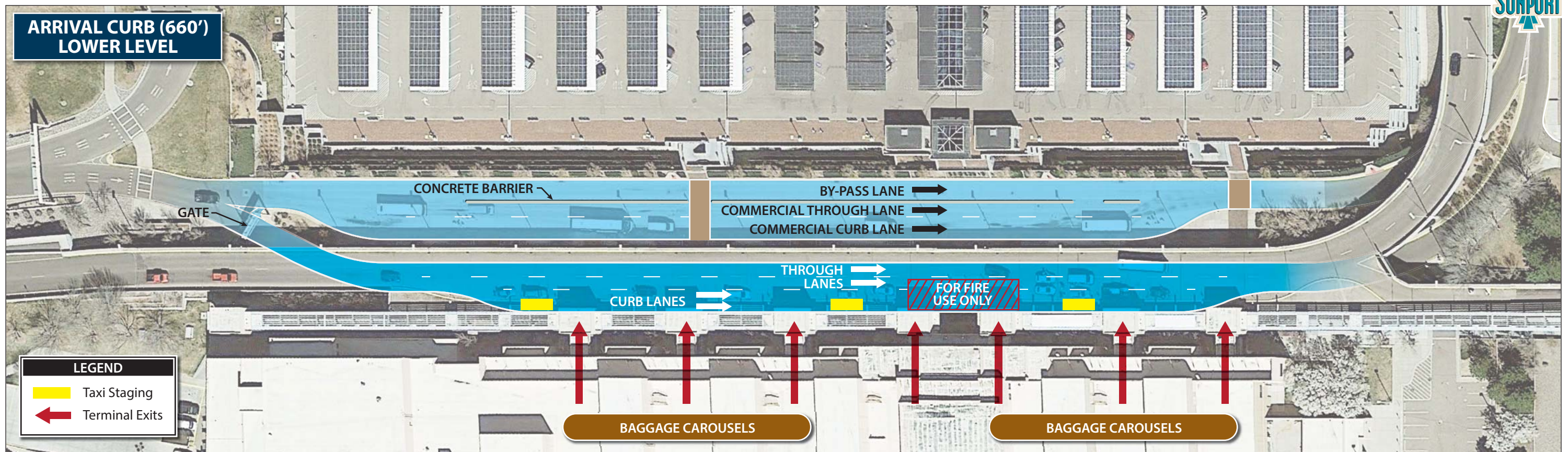
AIRLINE GATE LOCATIONS				
Gate No.	Gate Tenant	Loading Bridge Details		Aircraft Utilization*
		Min. Length	Max. Length	
B1	American	75	109	MD80, B737, B767
B3	American	48	86	B757, A320, MD80, B737, RJ
B4	American	65	99	A320, B737, A321, RJ
B5	jetBlue	50	95	B737, B757, E145
B6	Alaska	65	99	Q400, A320, B737, E170
B7	Delta	53	77	B757, B737, RJ
B8	Delta	58	110	B737, A320, B757, MD80, RJ
B9	City	58	110	A320, B737, B757, B767, B747
B10	Delta	58	110	B737, A320, B757, MD80, RJ

\*Stopbar designations and other pavement marking allow for utilization of the gates by the specified aircraft types.

This page intentionally left blank



This page intentionally left blank



This page intentionally left blank

The two outside lanes are dedicated to commercial vehicles, which are separated from the three arrival curb lanes by a median surrounding the pylons supporting the second-level roadway. Commercial vehicles include hotel courtesy vehicles, off-site parking shuttles, rental car shuttles, buses and charter services. Access to the commercial vehicle curb is restricted by a gate. Each commercial vehicle is required by the City of Albuquerque to carry a transponder. The transponder in the commercial vehicle is used to open the gate and track the number of times a vehicle has accessed the commercial lane and the length of time the vehicle remains along the curb. Fees have been established and are charged to the commercial vehicle operators based on the data collected through this process. The northernmost lane, farthest from the terminal building, is a through lane. The arrivals curb is estimated at 660 feet in length.



At the east end of the passenger terminal, the departure lanes turn north. A ramp returns traffic to ground level and directs traffic towards the west to exit the terminal roadway system via Yale Boulevard or Sunport Boulevard. Vehicles can return to the terminal area via the terminal return lane at Yale Boulevard. Vehicles from the departure curb cannot access Girard Boulevard. Prior to turning north, authorized vehicles can enter a ground level employee/contractor parking lot via a bridge extending from the departure curb roadway.

After exiting the arrival curb, vehicles are directed along two ground level lanes to the north. Vehicles can exit the terminal area via Girard Boulevard or follow the terminal loop roadway to exit via Yale Boulevard or Sunport Boulevard. Vehicles can return to the terminal via Yale Boulevard. The Yale Boulevard Bridge across Sunport Boulevard provides access to both the arrival and departure curbs. At the bridge, the two southbound Yale Boulevard lanes split, one lane leads to the departure curb and one lane leads to the arrivals curb.

Vehicles approaching the terminal building via either Yale Boulevard or Sunport Boulevard access the parking garage and economy lot from the roadway leading to the ground level arrivals curb. Prior to entering the arrivals curb, the road splits with the north two lanes leading to parking. To access the credit card, employee/contractor, and cell phone lots, east of the terminal building, vehicles utilize the arrivals curb through lane and turn onto Girard Boulevard after passing the terminal building.

## VEHICLE PARKING

Parking facilities at Albuquerque International Sunport include areas for the public and for terminal employees as delineated on **Exhibit 1R**. A four-story parking structure with 3,400 stalls is located immediately north of the terminal building. The parking structure is connected to the terminal by a tunnel, which extends under the arrivals drive. On axis with the tunnel is a central four-story atrium that runs

the width of the parking structure. The atrium space is enclosed by skylights. North of the parking structure is a 450-stall surface economy lot.

To the east of the terminal is the former rental car parking lot, which has been segregated into several designated parking areas. The credit/debit car lot provides 357 spaces. The cell phone waiting lot provides 54 spaces. The two employee/contractor lots combined provide 284 spaces. The dedicated contractor lot provides 60 spaces. Each of these parking lots is accessible via Girard Boulevard.



The primary terminal employee parking is located south of Sunport Boulevard along George Road to the west of the terminal building. There are approximately 444 parking spaces for terminal employees. The TSA parking lot is located adjacent to the original terminal building and provides 84 spaces.

There are four primary off-airport commercial parking operators. Two are located to the immediate northwest of the terminal and are accessible via Yale Boulevard. A third commercial parking lot is located at the southwest corner of Sunport Boulevard and University Boulevard. This lot is accessible from Aircraft Avenue

extending from University Boulevard. The fourth commercial parking lot is at the corner of Yale and Gibson Boulevard approximately one mile from the terminal building. Each of the commercial parking lot operators provides shuttle service to and from the airport. Combined, these commercial public parking lots provide approximately 6,100 spaces. In total, it is estimated that available parking for terminal employees and the public is 11,233 spaces.

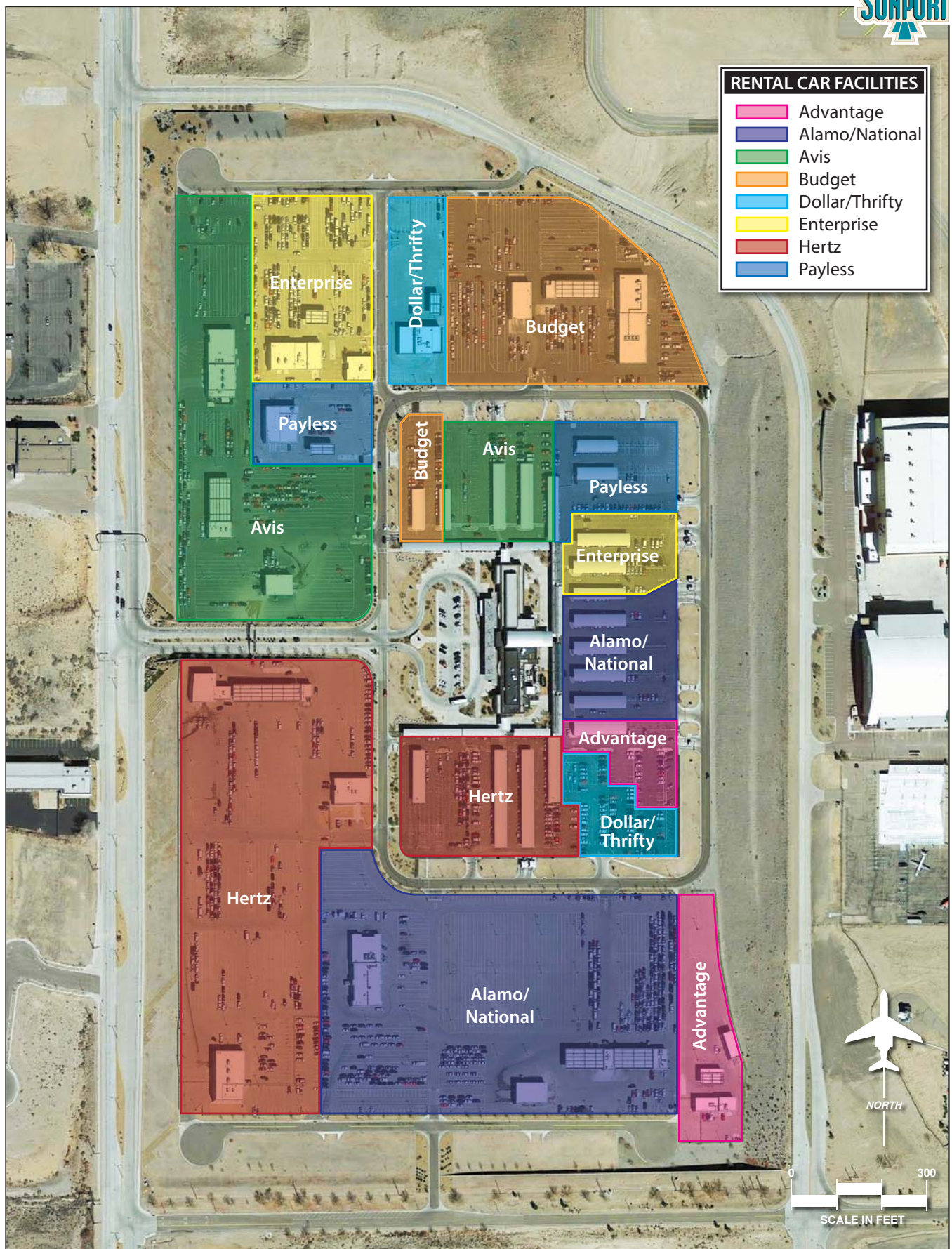
### Aircraft Viewing Area

An aircraft viewing area has been established at the south end of Girard Boulevard. There are approximately 30 vehicle parking spaces. A picnic table is available that is covered with an open-sided structure.



### RENTAL CAR FACILITY

In 2004, the Sunport opened its consolidated rental car facility, which is located on University Boulevard immediately west of the Sunport. Airport-operated shuttle busses provide free transportation to and from the rental car facility. The busses drop off at the departure curb, then utilize the loop road to pick up at the arrivals curb for the short five-minute ride to the facility. Occupying approximately 55 acres of land, the facility consists of a central terminal facility, ready/return parking, and prep/service facilities and parking lots. **Exhibit 1T** shows the rental car site plan. As of January 2015, there were 10 companies



providing rental car services. The rental car terminal is approximately 22,100 square feet and maintains the southwest-style architecture of the passenger terminal. The surface parking lots provide for approximately 1,200 spaces to accommodate maintenance, storage, and ready/ return functions.

## **TERMINAL TENANTS AND SERVICES**

### **AVIATION DEPARTMENT**

As outlined earlier, the Aviation Department of the City of Albuquerque manages and operates Albuquerque International Sunport. On Level 1, the Aviation Department occupies approximately 16,500 square feet, which includes the airport police offices. On Level 2, a total of approximately 37,100 square feet is occupied by the Aviation Department, including a pressroom and the Sunport Planning and Development offices, plus other spaces devoted to airport and airfield operations and maintenance. On Level 3, the main Aviation Department offices are adjacent to the concessions mezzanine and there are two assembly spaces on the west side behind the restaurant. These spaces total approximately 34,100 square feet. In total, the Aviation Department occupies approximately 75,100 square feet of space.



### **AIRLINES**

Each airline leases certain space within the terminal building. This space includes the ticket counters, ticket lobby, airline offices, outbound baggage, bag claim lobby, gate positions, hold rooms, and various office and storage space. In total, airlines occupy approximately 202,300 square feet of terminal building space.

### **FEDERAL INSPECTION SERVICES & SECURITY STATIONS**

#### **U.S. Customs and Border Patrol**

The U.S. Customs and Border Patrol operate out of the Albuquerque International Sunport terminal on Level 2 just west of the ticketing lobby. Occupying approximately 7,600 square feet, they provide security services for all arriving international flights as well as support for border patrol operations.

## TSA Passenger Security Checkpoint and Baggage Screening

The Department of Homeland Security through the TSA manages the screening of all departing passengers and their baggage at the Albuquerque International Sunport. The TSA occupies a portion of the Old Terminal Building for their administrative offices. The security checkpoint for passenger screening occupies approximately 26,700 square feet on terminal Level 3 adjacent to the crossover. It includes space for queuing, eight checkpoint stations, private screening, detention rooms, post-screening activities, staff offices, and break area. Baggage screening is provided by the TSA within each airline's outbound baggage makeup area. There is a small security station on Level 1 at the east end of the baggage claim area which occupies approximately 200 square feet. There is also a 600-square-foot security station on Level 2 adjacent to the Great Hall for commuter airline baggage screening.

## CONCESSIONS

**Food/Beverage:** There is a variety of food and beverage services ranging from four moderately expensive, full-service restaurants, lounges and bars to five short-order food establishments. There are five snack bars with pre-packaged snacks and hot/cold beverages distributed throughout the terminal, three of which are gourmet coffee and pastry shops.

On Level 3, prior to the security checkpoints, there is a full-service restaurant and bar featuring New Mexican cuisine with ample seating and an adjacent meeting area for catered events. There is also a gourmet coffee and pastry shop.

On Level 3, after the security checkpoint, there is a food court at the confluence of the crossover and A and B concourses featuring four types of cuisine, an adjacent brew pub and grill, an ice cream shop, and other snack foods. Tables and seating are available in the immediate area and in the observation lounge on the mezzanine above. In addition to these establishments, there is a lounge, a bar and short-order restaurant on the A Concourse, and another lounge and grill on the B Concourse.



**Retail Shops:** The range of retail concessionaires has been expanded to six shops and seven kiosks of various sizes. On Level 3, prior to the security checkpoint, there is a grouping of three retail shops. They include a specialty shop featuring southwestern jewelry, pottery, and other gift items, a traditional airport news shop which sells books, magazines, souvenirs, candy, etc., and a New Mexico-themed shop



carrying local and regional items. On Level 3, after the security checkpoint, there is another grouping of three retail stores. They include a more traditional book store, and two more specialty gift shops. In addition to the larger stores, there are seven kiosks which sell a variety of books, magazines, specialty gifts, and snacks on the concourses and in the Great Hall.

The 14 food service facilities, six retail shops and seven kiosks occupy approximately 52,700 square feet, which includes approximately 1,700 square feet of storage space on Level 2 below the A and B Concourses. **Table 1F** summarizes the available concessions as of January 2015.

**TABLE 1F**  
**Food and Retail Shops**  
**Albuquerque International Sunport**

Food and Beverage	Retail Shops
<b>Pre Security</b>	
Black Mesa Coffee/Bakery	Hudson News
Tia Juanitas New Mexican Food	Sundancer Trading Co.
-	Greetings from NM
<b>Post Security - Food Court Area</b>	
Panda Express	Earth Spirit
Tia Juanitas Pronto	Thunderbird Curio
Comida Buena	Hudson Booksellers
La Trattoria	-
Ria Grande Brew Pub & Grill	-
Keva Juice	-
<b>Post Security - A Concourse</b>	
Quiznos Sandwich Shop	ABQ 2 Go
Route 66 Lounge	Hudson News
Black Mesa Coffee/Bakery	ABQ Style
<b>Post Security - B Concourse</b>	
Snack Attack	Sunport Boutique
Baskins Robins Ice Cream	Hudson News
Watch! Sports Lounge and Grill	-

Source: Sunport Administration

## GROUND TRANSPORTATION

Regional shuttle van information and tickets are available on Level 1, just east of the escalator lobby. The regional shuttle loading area is located to the east of the terminal within a controlled parking lot.

Arrival passengers and visitors access city buses, rental car shuttles, off-site parking lot shuttles, and hotel shuttles from the separate commercial lanes adjacent to the private vehicle and taxi lanes at the Level 1 driveway. There are no rental car counters within the terminal building.

## PUBLIC SPACES AND CIRCULATION

Public general circulation spaces consist of the parking tunnel, lobby and baggage claim avenues on Level 1; the Great Hall, ticketing, and Concourse E avenues on Level 2; and the Level 3 lobby, crossover, A and



B Concourse streets, and the Observation Lounge which together total approximately 132,000 square feet of floor area.

## **PUBLIC SERVICE CONCESSIONS**

There are ATM machines strategically located throughout the terminal, including the Great Hall, Level 3 Lobby, and several on the A and B Concourses.

Public telephones are more than adequate and are generally located along circulation paths on all three levels and adjacent to building exit/entrance points. In addition, both accessible and paging telephones are provided throughout the terminal. Special hotel and rental car telephone are located on Level 1 within the baggage lobby circulation spaces.

The Aviation Department provides wireless connectivity throughout the terminal free of charge. In addition, there are free charging stations available in the passenger hold rooms.

Defibrillators are strategically located on all three levels of the terminal building.

Smart Cartes are also available for any passenger with a large quantity of luggage.

## **PUBLIC RESTROOMS**

As stated earlier, the public restrooms throughout the terminal have been completely remodeled with new fixtures, finishes, and accessories, and, in many cases, expanded over the past 10 years. Each restroom group appears to be adequately sized, includes a family restroom, and is easily accessed with a maximum travel distance between them of 250 feet.

On Level 1, the restrooms are centered and to the south of the escalators within the lobby. These restrooms are somewhat remote from the farthest active baggage claim area at the east end. There is a second restroom group at the west end of the terminal that is readily available but beyond the active passenger areas of the terminal.

On Level 2, there is a restroom group at the west end of the ticket avenue and another group at the southeast corner of the Great Hall leading to the E Concourse gates.

Most of the public restrooms are on Level 3. There are two restroom groups off the Level 3 Lobby, three groups serving the A Concourse, and two groups serving the B Concourse.

In addition, there are common restroom groups within restricted areas for airline, concessions, TSA, and Aviation Department use. Three groups are accessible from the Level 2 apron, one group is in the Security Checkpoint office suite, and one group is located at the Planning & Development Offices. The total area occupied by public restrooms is approximately 25,500 square feet.

## AMENITIES

**Art Program:** The airport's art program currently maintains a 113-piece permanent art collection assembled by the City of Albuquerque's Public Art Program, established in 1988. The collection represents the finest in artwork from over 70 New Mexican artists. Artwork can be found within the A and B Concourses, at the E Concourse gates, within the Great Hall, at the Baggage Claim areas, and directly outside of the ticketing level.

**Entertainment:** In 1998, the Sunport Arts Program expanded to include a year-round series of concerts in the Great Hall. The Sunport Serenades features an array of local talent ranging from classical, to mariachi, to jazz and polka. Each year, over 85 concerts free to the public are produced to welcome visitors to the area.

**The Meditation Room:** The Meditation Room is located on Level 1, on the west side of the baggage lobby circulation area. It provides the busy traveler with a place to collect his/her thoughts and to get away from the hustle and bustle of the airport.

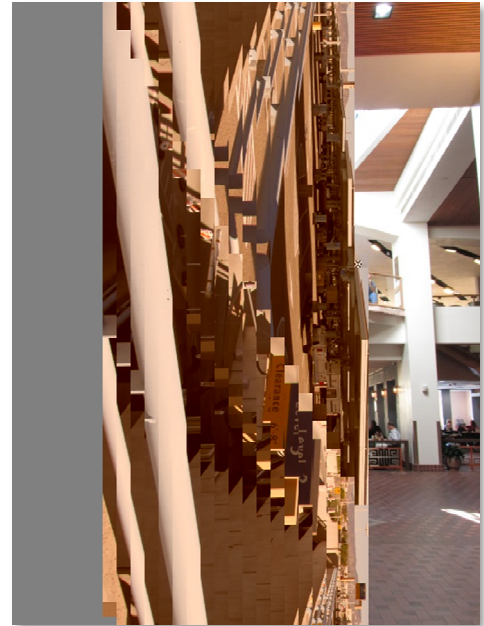
**The Sandia Vista Room:** Located at the west end of Level 2 of the terminal building, the Sandia Vista Room is a leasable meeting space. The room has a kitchenette, large meeting table, modern audio visual equipment, and projection screen. The space is architecturally designed in the southwest motif.

**Observation Lounge:** The Observation Lounge is located on a mezzanine accessible from Level 3 at the confluence of the crossover with the A and B Concourses. With floor to ceiling windows, the lounge provides passengers with an unobstructed view to the airfield activities.

**Public Information:** The public information counters are located on Level 1, immediately west of the escalators in the baggage lobby circulation area. The individuals that work at the counters provide invaluable information about hotels, car rentals, sightseeing, etc. The counter is staffed by the Greater Albuquerque Chamber of Commerce.

**Sunport Ambassadors:** The Sunport has initiated a successful program to aid the travelling public. The Sunport Ambassadors are volunteers who meet and greet travelers with welcoming smiles and direct them to flight gates, bag claim, ground transportation, and other airport facilities. The Ambassador program has more than 30 volunteers who represent what is great about the community.

**Cavalcade of Wings:** The Cavalcade of Wings is a permanent public display of hundreds of model aircraft. The display is adjacent to the ticketing area and the Great Hall.





## LANDSIDE FACILITIES

Landside facilities are those airport elements that are not directly related to the airfield system. Landside elements include the terminal complex (previously discussed), general aviation and air cargo facilities, support facilities, such as fuel storage, airport maintenance, and aircraft rescue and firefighting. **Exhibit 1U** presents an overview of the various landside facilities at the Sunport.

### TERMINAL AREA FACILITIES

The area to the immediate west of the terminal building and apron is primarily dedicated to support services for the main terminal complex. Much of this area is constructed on a former landfill and subsidence is common throughout. New construction requires significant earthwork to ensure structural integrity. Access to the west terminal area is via George Road, which extends east from University Boulevard. **Exhibit 1V** identifies the location of the facilities and buildings in the west terminal area, as well as those facilities located north of the terminal building.

**Historic Old Terminal Building (TSA Offices):** The historic original terminal building was constructed in 1939 and utilized as the primary terminal until 1965 when the replacement terminal was opened. The building was added to the National Register of Historic Places in 1989. In 1997, the building was restored and all post-1945 additions were removed. The facility is approximately 28,900 square feet (sf) of floor space.

The Transportation Security Administration (TSA) leases space in the facility occupying the basement, second floor, and most of the first floor. By agreement with the City of Albuquerque, the Great Hall, a meeting space, and restrooms on the first floor are open to the public.

**Freight Facility:** The freight facility, immediately adjacent to the terminal apron, is used primarily to process air freight carried by scheduled passenger airlines. The building encompasses approximately 29,700 sf of space. As dedicated all cargo airlines (e.g., FedEx, UPS) have grown, the demand for airlines to carry freight has diminished. As a result, much of the facility is not leased to the airlines, while other space is leased for non-aviation uses. Other unleased space is utilized by airport maintenance.

Previous planning for the Sunport has included removal of the freight facility in order to make room for extension of Concourse B.

**Provisioning Facility:** The provisioning building is a prefabricated steel building constructed in the late 1980s. The facility encompasses approximately 10,600 sf of space. Most of the facility is utilized by Southwest Airlines. The provisioning building is on the secure side of the airport.

**Aircraft De-icing Facility:** De-icing is necessary to ensure the safety of aircraft when operating in cold or freezing conditions. Aircraft Service International Group (SIG) manages three (3) 12,000 gallon tanks of de-icing fluid which are located on the west terminal ramp. Two of the tanks store Type I Propylene



Glycol and the third is for Type IV Propylene Glycol. Each airline contracts individually with ASIG for de-icing services.

Operationally, each aircraft will push back from the gate where ASIG will de-ice the aircraft, as long as they are clear of all the storm drains. The aircraft will then proceed to the runway for takeoff. The aviation department's airfield maintenance crew uses a sweeper to collect the spent de-icing fluid from the ramp and disposes of it at the triturator station, where the airlines dump lavatory waste.

**Remote Fueling Station:** Fueling of commercial aircraft at the Sunport is from tanker trucks that pull alongside aircraft as they are parked at the terminal gate. The tanker trucks are refilled primarily at the remote fueling station. Fuel is delivered to the remote fueling station via underground piping leading from the large fuel storage tanks located in the southwest quadrant of the Sunport.

**Triturator Station, Pathogen Destructor, Waste Collection Station:** Aircraft lavatory waste is disposed of at the triturator station which connects to the City of Albuquerque's sanitary sewer system. The pathogen destructor is used to destroy waste from international flights. The waste collection station is a compacting waste dumpster.

**Wash Station:** The wash station is an open canopy structure with a floor drain. This facility is primarily used to wash ground support equipment. This facility drains to the City's sanitary sewer system.

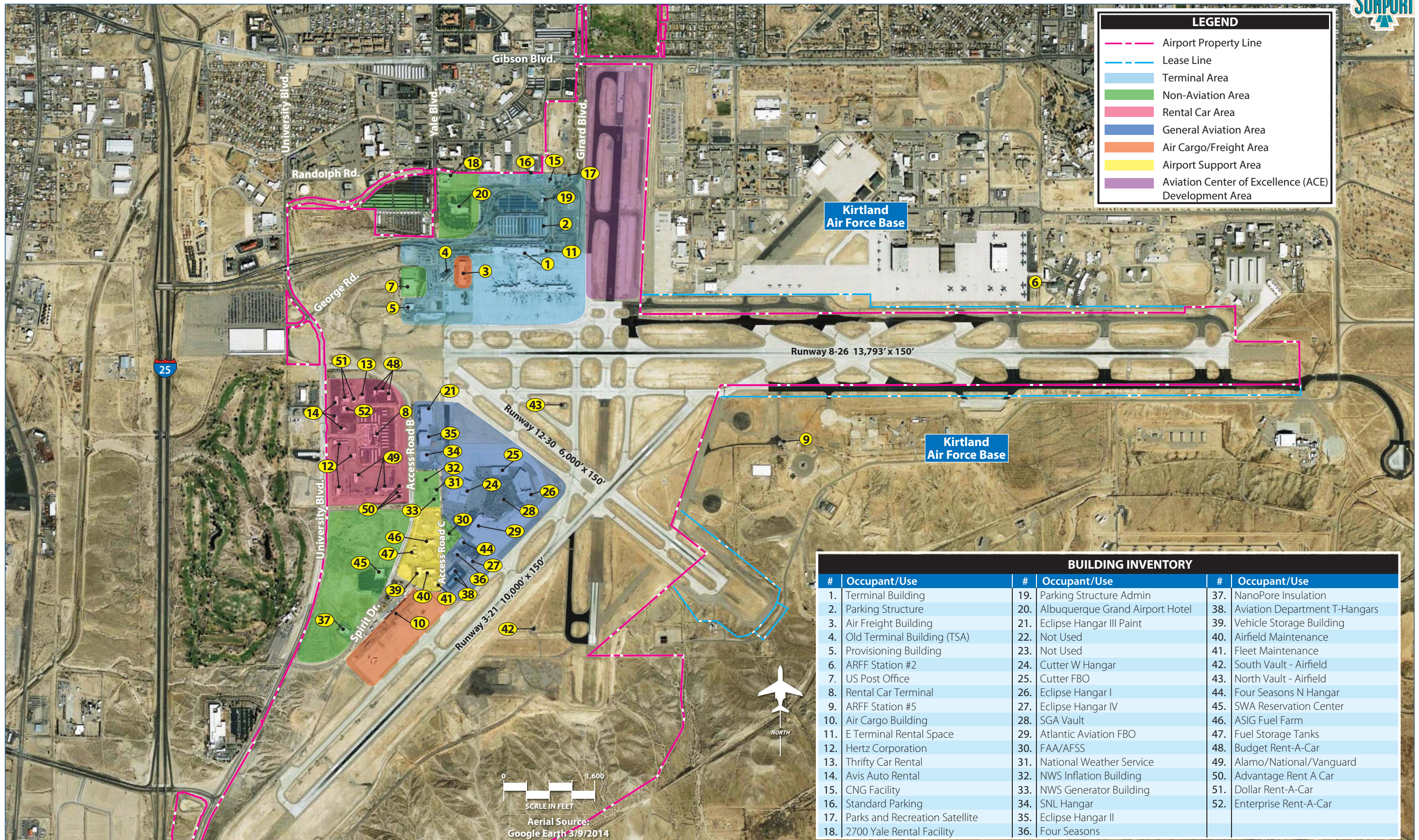
**Terminal Loading Dock:** The terminal loading docks are located at the far west end of the terminal building. Vendors making deliveries to businesses within the terminal building utilize this loading and unloading location.

**North Service Facilities:** There are three support facilities located just north of the economy parking lot which are accessible via Girard Boulevard. The Standard Parking facility is where the rental car shuttle buses are serviced. The compressed natural gas (CNG) facility is where City vehicles that operate on natural gas are fueled. The Department of Parks and Recreation has a satellite facility in this location as well.

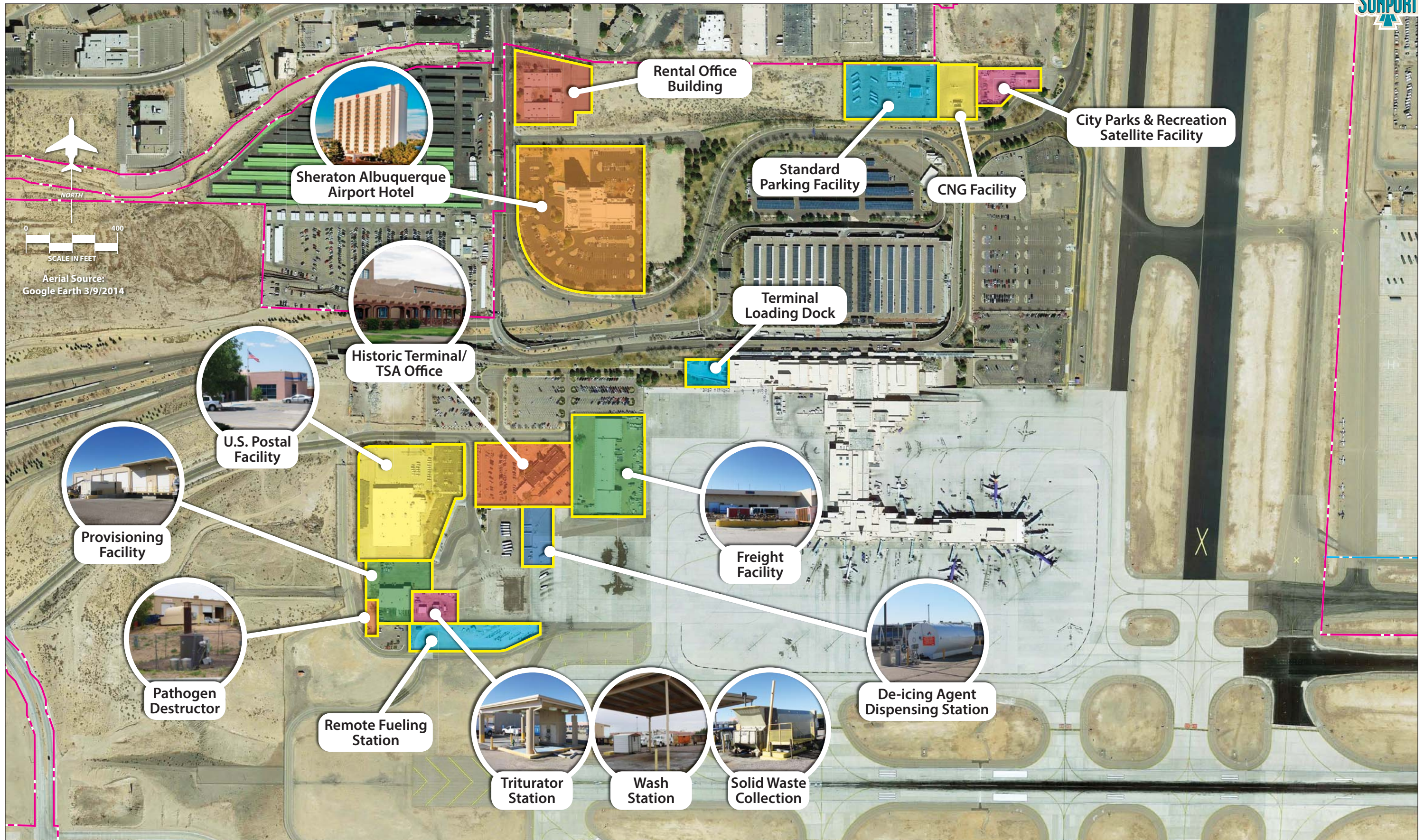
**Hotel:** The Sheraton Albuquerque Airport Hotel is located to the northwest of the terminal building on the north side of Sunport Boulevard. The hotel is within walking distance of the Sunport terminal. The 14-story tall hotel features 276 rooms and is approximately 525,000 sf in size. The owner of the building is VWI Albuquerque LLC and Easley, McCaleb and Associates, and the Aviation Department owns the land.

**U.S. Postal Facility:** The U.S. Postal Service maintains a facility in this location. The role of this facility has diminished greatly as air mail is not flown out of this facility. The facility is approximately 49,800 sf and there are approximately 48 parking spaces. The Aviation Department owns the land and the U.S. Postal Service owns the building.

**Rental Office Building (2700 Yale Boulevard SE):** This office building is owned by the Aviation Department which offers lease space for non-aviation tenants. This single story building encompasses approximately 24,600 sf of space. This property is located in the northwest corner of the Sunport property, on



This page intentionally left blank



This page intentionally left blank



the east side of Yale Boulevard just north of Sunport Court and north of the Sheraton Albuquerque Airport Hotel. A local business that provides technical consultation to its clients is located on the property. The owners of the property are Ormond, Alfred, Curtis, and Etal and Craddock Companies. Property just east of this lot is vacant.

## SOUTHWEST AREA FACILITIES

The development in the southwest area of the Sunport includes the primary general aviation facilities, air cargo operations, airport maintenance facilities and other support facilities, as well as several non-aviation uses. Access to the southwest area is from Spirit Drive, which loops to connect at two points with University Boulevard. **Exhibit 1W** identifies the location of these facilities.

### General Aviation Hangars

Enclosed hangar space is essential to house the significant investments owners have made in aircraft. It is estimated there is 343,600 sf of hangar space at the Sunport. Of this total, approximately 25,300 sf is represented by T-hangars. The remaining 318,300 is contained in conventional and box hangars. Two hangars, the Sandia National Laboratories (SNL) hangar and the Eclipse Aerospace III hangar are not utilized for aircraft storage. The total hangar area available for aircraft storage is approximately 270,000 sf. The following discusses the general aviation hangars at the Sunport.

*It is estimated there is 343,600 sf of hangar space at the Sunport.*

**ONE Aviation (Eclipse Aerospace Hangars):** Eclipse Aerospace has merged with Kestrel Aircraft to become ONE Aviation. The Eclipse is a light jet and the Kestrel is a small single engine turboprop. The Eclipse 550 twin engine and the Kestrel 350, both of which seat up to six, are the models currently in production. ONE Aviation occupies four hangars at the Sunport. Hangar I is the main hangar and houses the headquarters office. The facility is approximately 95,500 sf of space, of which approximately 41,500 sf are hangar space. Hangar II is the main manufacturing hangar which has approximately 35,000 sf of hangar space and an additional 14,000 sf of office space. Hangar III is the paint hangar, which has approximately 52,000 sf of hangar area and an additional 13,600 sf of office space. Hangar IV, located farther to the south near Taxiway F, has 8,200 sf of hangar space and 1,200 sf of office space.

**Cutter Aviation (FBO):** Cutter is one of two full service FBOs at the Sunport. The main Cutter hangar is approximately 40,000 square feet. Attached to the main hangar are the pilot service areas and business offices which are approximately 25,500 sf of space. The Cutter West hangar is approximately 53,600 sf with an additional 3,600 sf of space for offices.

**Atlantic Aviation (FBO):** Atlantic Aviation is the other full service FBO at the Sunport. The main Atlantic hangar is approximately 50,500 sf in size. Their offices and pilot function area encompass an additional 17,000 sf of space.

**Four Seasons Hangars:** There are two hangars occupied by Four Seasons Aviation. One is approximately 10,200 sf and the other is approximately 6,300 sf.

**Sunport T-Hangars:** The Aviation Department owns and leases space in two T-hangar units. The larger structure is approximately 16,200 sf with 10 units and the smaller is 9,100 sf with six units.

### General Aviation Apron Area

Apron space is essential to accommodate both transient general aviation aircraft, as well as a portion of locally based aircraft that are stored utilizing an aircraft tie-down position. In total, there are approximately 131,900 square yards of apron pavement available.



In 2011, the Sunport completed a project to reconstruct two portions of the FBO apron areas to provide additional strength so that larger and heavier general aviation aircraft could be accommodated. The heavy load apron pavements are approximately 5,000 sy and are situated in front of each FBO. Restrictions are in place for the use of the heavy load apron in order to preserve its useful life. Currently, heavy aircraft can be parked on the heavy load pavement a limited number of times based upon a formula accounting for aircraft weight and use repetitions.

Even with this improved apron, the largest aircraft that might utilize the FBO aprons are unable to do so. In agreement with the ATCT and the Sunport administration, that portion of Taxiway K between Taxiways E1 and G1, which has higher pavement strength, is closed and used to park these aircraft.

### Air Cargo

Dedicated air cargo operators utilize the facilities which are located in the far southwest portion of the Sunport. In this area is a cargo building encompassing approximately 52,000 sf. The aircraft apron serving the sort facility is approximately 89,700 sy. Ground servicing equipment (GSE) used by the all-cargo airlines to load and unload air freight from aircraft is stored outside along the northwest portions of the apron. The cargo carriers utilizing the facility as of January 2015 were FedEx, UPS, 10 Tanker Air Carrier, and Matheson Flight Extenders, Inc. Empire Airlines, Ameriflight, South Aero, and Kalitta Charters are additional air cargo carriers that utilize the general aviation apron areas.



This page intentionally left blank



## Other Facilities

There are several facilities located on the southwest side of the Sunport. Many have aviation-related functions, but do not necessarily require aviation access to the runway and taxiway system.

**FAA/AANC NDI Validation Center (SNL Hangar):** In 1991, the Federal Aviation Administration (FAA) established an Airworthiness Assurance NDI Validation Center (AANC) at SNL. Its primary mission is to support technology development, validation, and transfer to industry in order to enhance the airworthiness and improve the aircraft maintenance practices of the U.S. commercial aviation industry. The Center conducts projects in a myriad of engineering disciplines. The results are placed in the public domain so that the industry at-large can reap the benefits of FAA-funded Research and Development efforts. To support the Center's goals, the FAA/AANC has set up a hangar facility at the Albuquerque International Sunport which contains a collection of transport and commuter aircraft as well as other test specimens. The facility replicates a working maintenance environment by incorporating both the physical inspection difficulties as well as the environmental factors which influence maintenance reliability. The SNL hangar is immediately south of the Eclipse hangar II. The hangar space is approximately 21,600 sf of space plus an additional 3,800 sf of office space.

**FAA Automated Flight Service Station (AFSS):** The FAA/AFSS is located on the airport and is one of five facilities serving the continental U.S., Hawaii, and the Caribbean. The AFSS is an air traffic facility that provides information and services to pilots before, during, and after flights. Unlike an air traffic control tower, the AFSS is not responsible for giving instructions, clearances, or for providing separation. Information available to pilots includes enroute communication and meteorological and aeronautical briefings, such as weather conditions and Notices to Airmen (NOTAMSs). The AFSS has primary responsibility for filing flight plans. The building is approximately 12,500 square feet.

**NMDOT – Aviation Division:** The New Mexico Department of Transportation – Aviation Division offices are located in a modular building west of Access Road C. The building encompasses approximately 1,700 square feet.

**National Weather Service:** The National Weather Service leases space at the Sunport. Their facility encompasses approximately 6,600 sf of space. Also on-site is its weather balloon inflation building which has a footprint of approximately 300 sf.

**Southwest Airlines Call Center:** The Southwest Airlines Call Center is a building of approximately 23,800 sf. It is located on the west side of Spirit Drive. The land and facility are owned by the Aviation Department and leased to the tenant.

**NanoPore Insulation:** This private company occupies a 17,600 sf facility located on the west side of Spirit Drive. NanoPore develops high porosity/high surface area materials for a wide range of applications, including adsorption, gas separation, advanced thermal insulation, low-K dielectrics, and optics. NanoPore leases the facility from the Aviation Department.

## AIRPORT SUPPORT FACILITIES

### Airport Rescue and Firefighting (ARFF)

14 CFR Part 139 airports are required to provide aircraft rescue and firefighting (ARFF) services during air carrier operations that require a Part 139 certificate. Each certificated airport maintains equipment and personnel based on an ARFF index established according to the length of aircraft and scheduled daily flight frequency. There are five indices, A through E, with A applicable to the smallest aircraft and E the largest (based on length). Albuquerque International Sunport falls within ARFF Index C. As such, the Sunport is required to maintain a fleet of equipment and properly trained personnel consistent with this standard.

Kirtland Air Force Base Fire Department provides ARFF services and equipment in accordance with a Memorandum of Agreement dated August 24, 1984, and the deed transferring the runways to the City of Albuquerque dated March 16, 1970. The service and equipment provided by the Air Force meet standards required by military aircraft utilizing the facilities at the airport. These standards exceed the requirements of Index C of 14 CFR Part 139.

*Kirtland Air Force Base Fire Department provides ARFF services and equipment.*

The Air Force maintains two fire stations that serve the Sunport. Station No. 2 was constructed in 2004 and is in excellent condition. It is located on Air Force property immediately north of Taxiway A, between Taxiways A9 and A10. Station No. 5 was constructed in 1956 and is in relatively poor condition. Current planning is considering replacement of this facility. Station No. 5 is located south of Taxiway E and east of Taxiway H on Air Force property.

**Table 1G** is an itemized list of the airport's ARFF equipment including firefighting agent capacities.

### Airport Maintenance and Snow Removal

Sunport personnel handle most airport maintenance and all snow removal operations. These functions are co-located at the airport maintenance facility located in the southwest quadrant of the airport adjacent to the air cargo apron. The airport maintenance facility includes a 14,000 square-foot maintenance building, 13,100 square-foot equipment storage building, 2,500 square-foot fleet maintenance building, and paved yard for additional equipment storage and circulation. There is a dedicated snow removal equipment (SRE) building and a dedicated maintenance equipment storage building. **Table 1H** is the current SRE inventory.

**TABLE 1G**  
**Aircraft Rescue and Firefighting Equipment**  
**Albuquerque International Sunport**

Vehicle	Year	Location	Condition	Extinguishing Agents	Discharge Rate
<b>PRIMARY RESPONSE FOR AIRCRAFT EMERGENCIES</b>					
P-23, Crash Truck (C-11, E-1)	1995	Station 5	Excellent	3,300 gal. water 500 gal. AFFF 500 lbs. dry chemical	2,000 gal. water/minute
P-19, Crash Truck (C-16)	1985	Station 5	Excellent	1,000 gal. water 130 gal. AFFF	750 gal. water/minute
P-19, Crash Truck (C-15)	1986	Station 2	Excellent	1,000 gal. water 130 gal. AFFF	750 gal. water/minute
P-22, Structural Pumper (E-25)	1996	Station 2	Excellent	750 gal. water 30 gal. AFFF 30 gal. Class A Foam	1,250 gal. water/minute
P-26, Heavy Rescue (R-4)	1998	Station 2	Excellent	NA	NA
<b>ADDITIONAL EQUIPMENT AVAILABLE THROUGH KIRTLAND AIR FORCE BASE</b>					
P-18, Water Tanker (T-9)	1987	Station 1	Excellent	2,000 gal. water	500 gal. water/minute
P-23, Crash Truck (C-10)	1995	Station 2	Excellent	3,300 gal. water 500 gal. AFFF 500 lbs. dry chemical	2,000 gal. water/minute
P-23, Crash Truck (C-12)	1995	Station 2	Excellent	3,300 Gal. water 500 Gal. AFFF 500 lbs. dry chemical	2,000 gal. water/minute
P-19, Crash Truck (C-14)	1985	Aux Field	Excellent	1,000 gal. water 130 gal. AFFF	750 gal. water/minute
P-24, Structural Pumper (E-22)	1994	Station 1	Excellent	750 gal. water 30 gal. AFFF 30 gal. Class A Foam	1,250 gal. water/minute
P-24, Structural Pumper (E-23)	1994	Station 3	Excellent	750 gal. water 30 gal. AFFF 30 gal. Class A Foam	1,250 gal. water/minute
P-18, Tanker Truck (T-8)	1987	Station 3	Excellent	2,000 gal. water	500 gal. water/minute
P-26, Tanker Truck (T-7)	1993	Station 2	Excellent	5,000 gal. water	1,000 gal. water/minute
Ford Mini-pumper Wildland	2004	Station 2	Excellent	250 gal. water	500 gal. water/minute
Ladder 5 Aerial	1999	Off-Airport	Excellent	300 gal. water	2,000 gal. water/minute
P-20 Medium Rescue (R-3)	2000	Station 1	Excellent	NA	NA

Source: Airport Certification Manual; Airport staff

**TABLE 1H**  
**Snow Removal Equipment**  
**Albuquerque International Sunport**

Vehicle	Equipment
Snowplow/Broom 1	20' Broom/Blade
Snowplow/Broom 2	20' Broom/Blade
Snowplow 3	20' Blade
Snowplow 4	20' Blade
Snowplow 5	11' Blade
Blower 6	Blower/14' Broom
Blower 15	Blower/Loader
Pick-up 7	7.5' Blade/Spreader
Pick-up 8	7.5' Blade/Spreader
Truck 16	De-icer
Truck 11	10' Blade
Truck 12	10' Blade
Truck 14	10' Blade/Spreader
Pick-up 9	7.5' Blade/Spreader
Pick-up 10	7.5' Blade/Spreader

Source: Airport Certification Manual



## Fuel Storage

Under revised 14 CFR Part 139.321, *Handling and Storing of Hazardous Substances and Materials*, the FAA has clarified the airport operator's responsibility for fuel storage areas owned or operated by tenant air carriers. Specifically, the FAA has deleted paragraph (h), which exempted the airport operator from overseeing Part 121 or 135 air carrier fueling operations to ensure compliance with Part 139 fuel fire safety requirements. Accordingly, the FAA holds airport operators responsible for protecting against fire and explosion in air carrier fuel storage facilities. This will ensure that all fuel storage facilities at Part 139 airports are inspected in the same manner and held to the same fuel fire safety standards.

A wide range of fuel types are stored on the airport in tanks ranging from small personal containers to large bulk storage tanks. The significant facilities are listed in **Table 1J**.

**TABLE 1J**

**Fuel Storage Capacity (gallons)**  
**Albuquerque International Sunport**

	Jet A		100LL		Unleaded		Diesel	
	Static	Truck	Static	Truck	Static	Truck	Static	Truck
Atlantic Aviation	45,000	10,000	15,000	1,000	-	-	-	-
Cutter Aviation	60,000	14,400	20,000	4,700	500	-	500	-
Swissport	-	62,000	-	-	-	1,800	-	1,000
ASIG	1,200,000	-	-	-	10,000	500	10,000	500
TOTAL	1,305,000	86,400	35,000	5,700	10,500	2,300	10,500	1,500
TOTAL Jet A	1,391,400							
TOTAL 100LL	40,700							
TOTAL Unleaded	12,800							
TOTAL Diesel	12,000							

ASIG: Aircraft Service International Group

Source: Airport records

The most prominent of the fuel storage facilities is that owned and operated by ASIG. They have three large aboveground tanks with a combined capacity of 1.2 million gallons. Underground piping from these tanks leads to the remote fueling station located in the terminal area. The ASIG facility is accessible via Access Road C. The office building at the facility encompasses approximately 12,800 sf.

In addition to the storage capacity above, there is a fuel station in the airport maintenance yard located in the southwest area of the Sunport. There are two fuel pumps, one each for Unleaded and Diesel. Each pump has two hose nozzles. The pumps are supplied by underground tanks, both with a 6,000-gallon capacity. The City of Albuquerque (City Fleet) maintains the pumps and tanks including annual inspections and fuel deliveries. The Aviation Department is then billed for fuel used.

## Security Fencing

The airport operations area (AOA) and other areas required to be secure on the airport property are enclosed with security fencing topped with three strands of barbed/razor wire.



## UTILITIES

Albuquerque International Sunport is served by electrical, sewer, water, and natural gas services. The following provides a summary of these systems at Albuquerque International Sunport. **Exhibit 1Y** presents the primary utility lines at the Sunport.

**Water:** The City of Albuquerque supplies the Sunport with potable water. The terminal apron is served by three water mains. A 14-inch main enters the apron area from the north on Girard Blvd. An 8-inch line enters near the east end of the parking facility, and a 12-inch main enters the apron area from the west near the Historic Old Terminal Building. These lines are interconnected and are fed through mains located in Girard Blvd. and Yale Ave.

The general aviation area and consolidated rental car facility are served by a 14-inch waterline installed in University Blvd. and a 20-inch water main that crosses the west end of the airfield. The 20-inch main crosses the airfield off the end of Runway 8, through the General Aviation Area and Air Cargo Freight Facility. These lines are interconnected.

**Sanitary Sewer:** The City of Albuquerque owns the sanitary sewer system that collects wastewater from Albuquerque International Sunport. The collection system enters the terminal area from two locations: an 8-inch main east of the facility and an 8-inch main on the west end of the facility. Both of these lines connect to a 12-inch main that runs to the north in Yale Blvd. The triturator (dump station for airline waste) is located near the west side of the ramp area. The triturator discharge is collected in the Yale Blvd. main.

The general aviation area and the consolidated rental car facility are served by an 8-inch sanitary sewer main located in University Blvd. and Clark Carr Blvd. This line crosses the University of New Mexico Golf Course to the west.

An 8-inch sewer line serves the property adjacent to the southern portion of Spirit Drive. The Clark Carr/University sewer lines serve the northern portion of Spirit Drive, including the Air Cargo Freight Facility and Southwest Airlines Reservation Facility.

**Storm Sewer:** The Sunport has an extensive storm sewer system that drains over 2,200 acres. The storm sewer system divides the airport and a portion of Kirtland Air Force Base into drainage basins that drain to outfalls to the Tijeras Arroyo to the south and the South Diversion Channel to the west. The areas located east of former Runway 17-35 and north of Taxiway E flow to three outfalls located on Kirtland Air Force Base (KAFB) property. The drainage basins located within KAFB north of Taxiway A also flow to these outfalls. A large detention basin, 85-acre-ft. capacity, is located on the largest outfall to lower the peak flow into the arroyos feeding the Tijeras Arroyo.

The basins south of Taxiway E flow either to an outfall located south of the MIT site or to the west to an outfall through the UNM Golf Course. The southern outfalls lead to the Tijeras Arroyo, while the west outfalls lead to the Southern Diversion Channel.



The areas north of Taxiway E and east of former Runway 17-35, all drain to storm drain pipes leading to outfalls to the South Diversion Channel. Most notable of the outfalls from these basins are the systems that drain to the west terminal apron and western portion of the airfield, the east portion of the terminal apron, former Runway 17-35, and the landside area of the terminal building and parking structure. Two major outfalls serve these systems. One exits the airfield off the end of Runway 8 and crosses I-25 near the Sunport Interchange. The second system exits airport property north of the terminal loop road to Yale Blvd. and eventually to the Kirtland Channel.

Additionally, a storm drainage system was constructed with Sunport Blvd. This system drains the area in front of the terminal and Sunport Blvd. This system discharges under I-25 adjacent to the system that comes from the west end of the airfield.

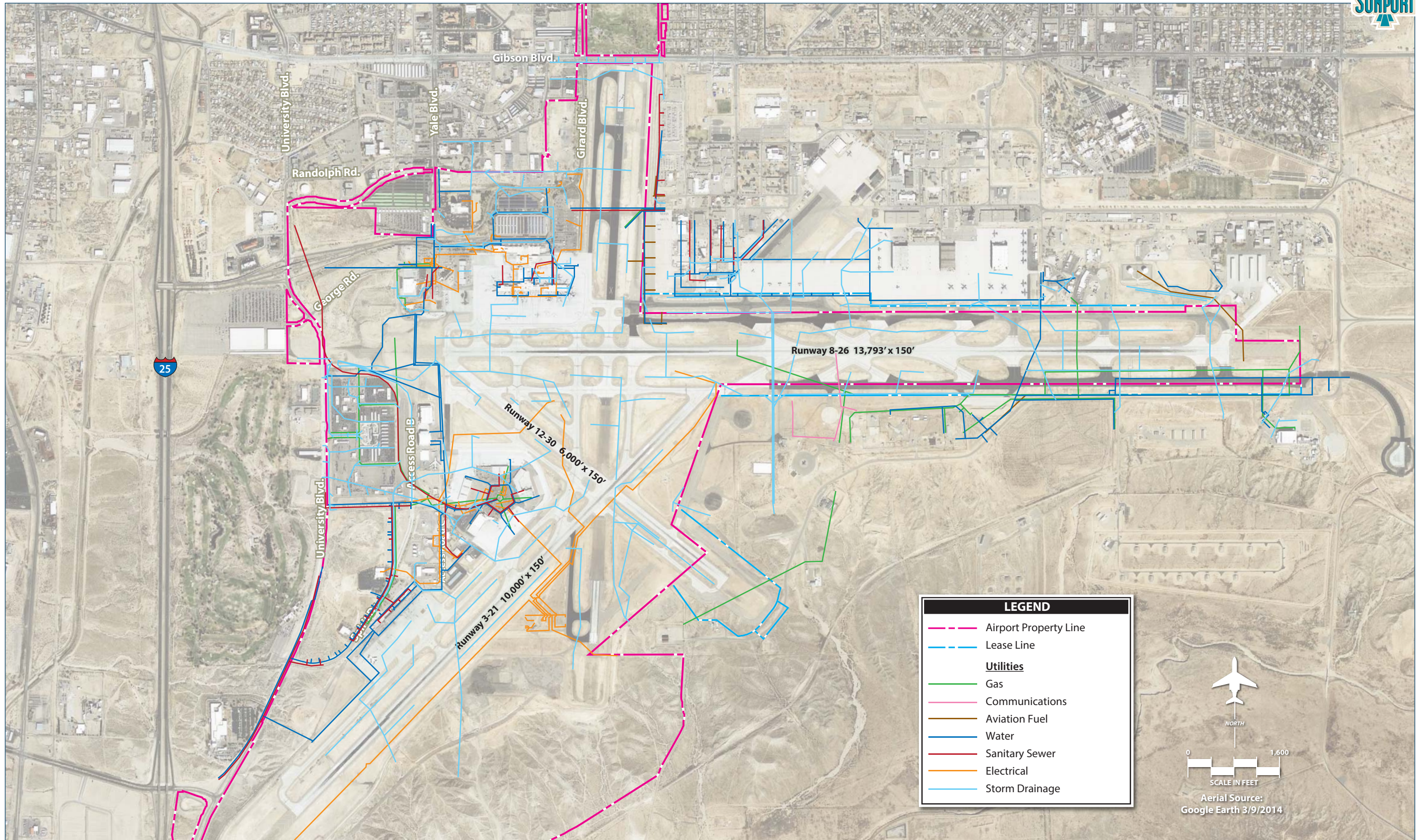
The City of Albuquerque Public Works Department and Aviation Department maintain the storm drain system located on City or Airport property. The Tijeras Arroyo and the South Diversion Channel maintenance are the responsibility of the Albuquerque Metropolitan Arroyo and Flood Control Authority (AMAFCA). Kirtland Air Force Base is responsible for maintenance of the storm drain systems on Air Force property.

**Electrical Power:** The Public Service Company of New Mexico provides electrical power to the Sunport. The terminal building is fed from the Miles Substation located northwest of the airport. The airfield is fed from the Wesmeco Substation and the Sewer Plant Substation through two electrical control vaults located on the airfield. The terminal building has back-up generators that automatically switch online if there is a failure in the PNM feed. The parking structure is fed from an emergency generator located near the toll booths and the terminal building is fed from two generators located adjacent to the operations office. PNM can switch the terminal feed from the Miles Substation to the Wesmeco Substation if there is a need by closing a pole-mounted switch located west of the airport.

The airfield has backup utility feeds through automatic transfer switches located at the North and South Electrical Vaults. The South Electrical Vault uses the Sewer Plant feed as its preferred source and the North Electrical Vault uses the Wesmeco feed as its preferred feed. If one of the PNM feeds fails, the automatic transfer switch will bring the other PNM feed on-line. If both PNM feeds fail, emergency generators located at each vault will come online and will provide power for the runway and taxiway lights and the FAA nav aids on Runways 8-26 and 3-21. The control of the airfield lighting and sign system is provided through a redundant radio link with the Air Traffic Control Tower. Each electrical vault has control equipment to also control the system. The airfield lighting and control system is a fail-safe system where all of the lights and signs on the airfield will come on if the control system fails.

## AREA LAND USE

Albuquerque International Sunport is located in a relatively mature area towards the south end of the City of Albuquerque. Not unlike many urban airports in the United States, area land use surrounding the



This page intentionally left blank



Sunport can have a significant impact on airport operations and growth. **Exhibit 1Z** illustrates the generalized existing land uses in the vicinity of the airport. Understanding the land use issues surrounding the airport will assist in making appropriate recommendations for the future sustainability of the airport in the way of both environmental compatibility and economic development.

Land surrounding the Sunport falls primarily within three jurisdictions: The City of Albuquerque, KAFB, and Unincorporated Bernalillo County. KAFB is north, east, and southeast of the Sunport. There are more mature residential land uses to the north, northwest, and southwest. South of the Sunport are newer residential developments. Commercial and retail land uses are primarily located along the arterial streets, such as Yale Blvd. and Gibson Blvd. in the vicinity of the Sunport. Industrial, manufacturing, and warehousing land uses are primarily located west of I-25.

***Land surrounding the Sunport falls primarily under three jurisdictions: The City of Albuquerque, KAFB, and Unincorporated Bernalillo County.***

**Exhibit 1AA** presents the generalized zoning surrounding the Sunport. Areas directly to the west are generally zoned for industrial/wholesale/manufacturing uses. Properties to the immediate north of the terminal area and south of Gibson Blvd. are also zoned for industrial/wholesale/manufacturing uses; however, an established neighborhood south of Gibson and east of I-25 zoned for residential uses. Areas north of Gibson Blvd. are more established residential zones.

There are several parcels on Sunport property that have specific zoning. The rental office space at 2700 Yale Blvd. is zoned for commercial uses. The property west of Girard Blvd. and north of the Sunport Blvd. Loop Road is zoned for industrial/wholesale/manufacturing uses. A small parcel west of University Blvd. and south of Sunport Blvd. is zoned for institutional/government uses as is a parcel in the southwest corner of Sunport property, west of University Blvd.

## OTHER LAND USES

Several parcels, both on- and off-Sunport property, are noted below because of their potential influence on current or future Sunport development plans. **Exhibit 1BB** identifies the location of these areas.

**Aviation Center of Excellence:** With the closure of Runway 17-35, approximately 75 acres of land just northeast of the terminal complex became available for redevelopment. The City of Albuquerque has initiated a project called Destination Sunport to promote the area as an emerging business hub supporting collaboration among Albuquerque's research and development community and the global marketplace. The centerpiece of Destination Sunport is the Aviation Center of Excellence (ACE). ACE is planned to accommodate strategic aerospace and aviation innovations and partnerships. Destination Sunport

will also host The Landing, a convenience retail and restaurant development at the north end of the site adjacent to Gibson Boulevard.

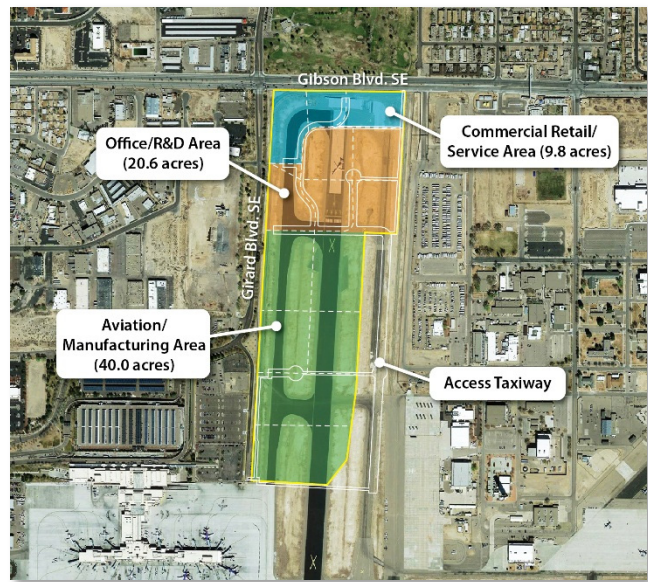
The property is bounded on the west by Girard Boulevard, to the north by Gibson Boulevard, to the east by Kirtland Air Force Base, and the Sunport to the south. The existing zoning for the subject property is SU-1 for Airport and Related Facilities and is within the Established Urban area as designated by the *Albuquerque/Bernalillo County Comprehensive Plan*.

The Site Plan for Subdivision (Project# 1000270; 14EPC-40024) for the property was approved in 2014 by the Environmental Planning Commission. All development on the ACE property will be subject to the Design Standards contained in the Site Plan for Subdivision, which addresses elements, including site design, signage, lighting, permissive uses, utilities, architecture, sustainability, and landscaping. Lot lines on the Site Plan are illustrative and future projects have been delegated to the Design Review team (DRT) for approval. Development is intended to create an employment center that offers a variety of jobs ranging from entry level to highly skilled.

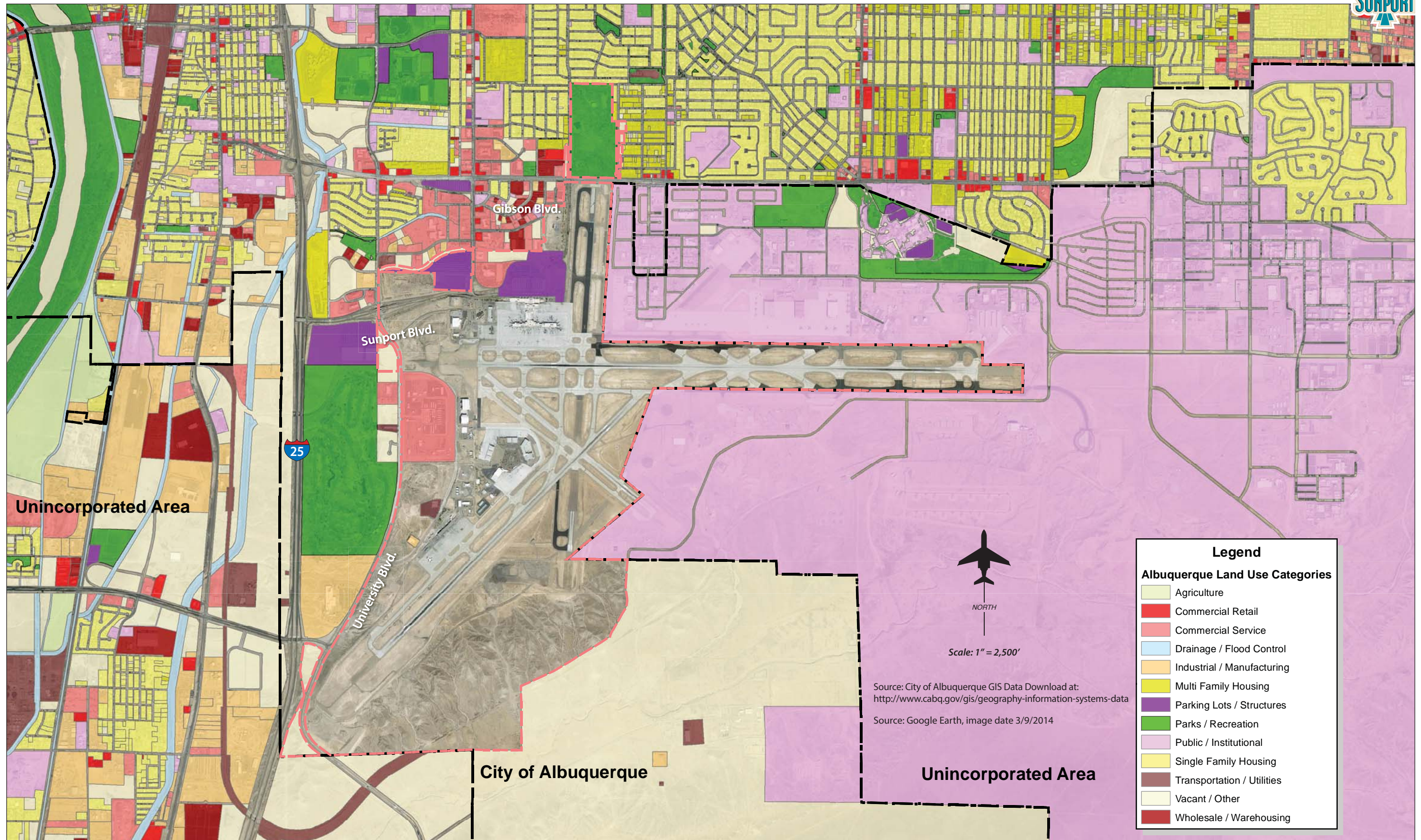
The City Aviation Department has determined that the highest and best use for this property is to lease for commercial, office/R&D, and aviation-related development. The City Aviation Department plans to enter into long-term ground leases with developers, which provides the benefit of lower upfront capital requirements. The property has direct access to the Sunport's airfield, which will provide tenants with access and connectivity. Commercial uses are strategically located along Gibson Boulevard to serve surrounding communities, as well as ACE workers, Kirtland Air Force Base, and others commuting along Gibson Boulevard. The office/R&D and aviation-related development will be located farther south on the property.

**Sunport Business and Technology Center:** This 65-acre property is owned by the City Aviation Department and is referred to as the Sunport Business and Technology Center. The property is located on University Boulevard, between Clark Carr Road and Spirit Drive. The northern portion of the property is within the Established Urban area as designated by the *Albuquerque/Bernalillo County Comprehensive Plan*, while the southern portion of the property is within the Developing Urban area.

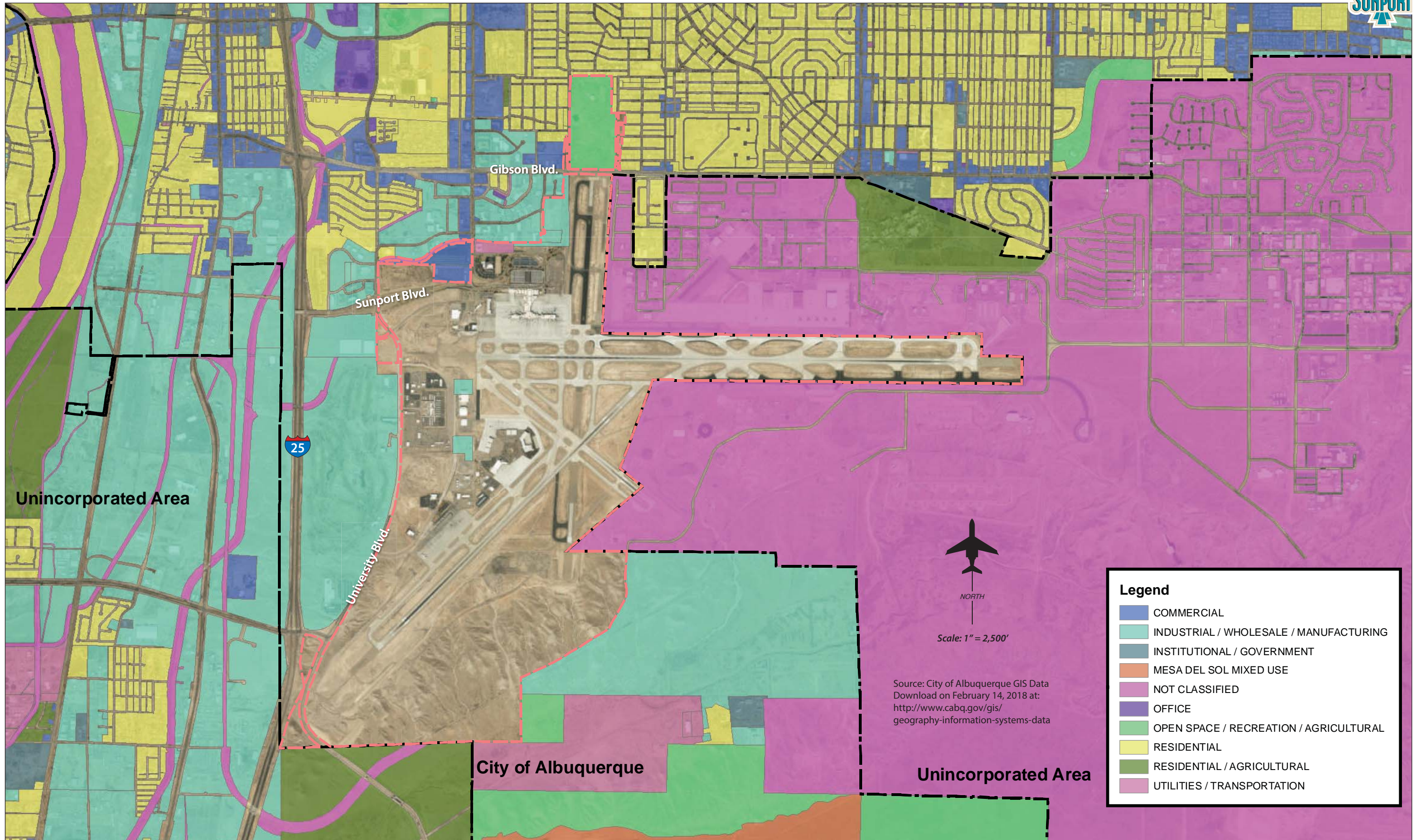
In 2000, the site was authorized as a Foreign Trade Zone (FTZ) by City Council (Enactment# R-2000-119). The FTZ designation allows companies to bring in raw materials or finished goods, which they can store, assemble, re-



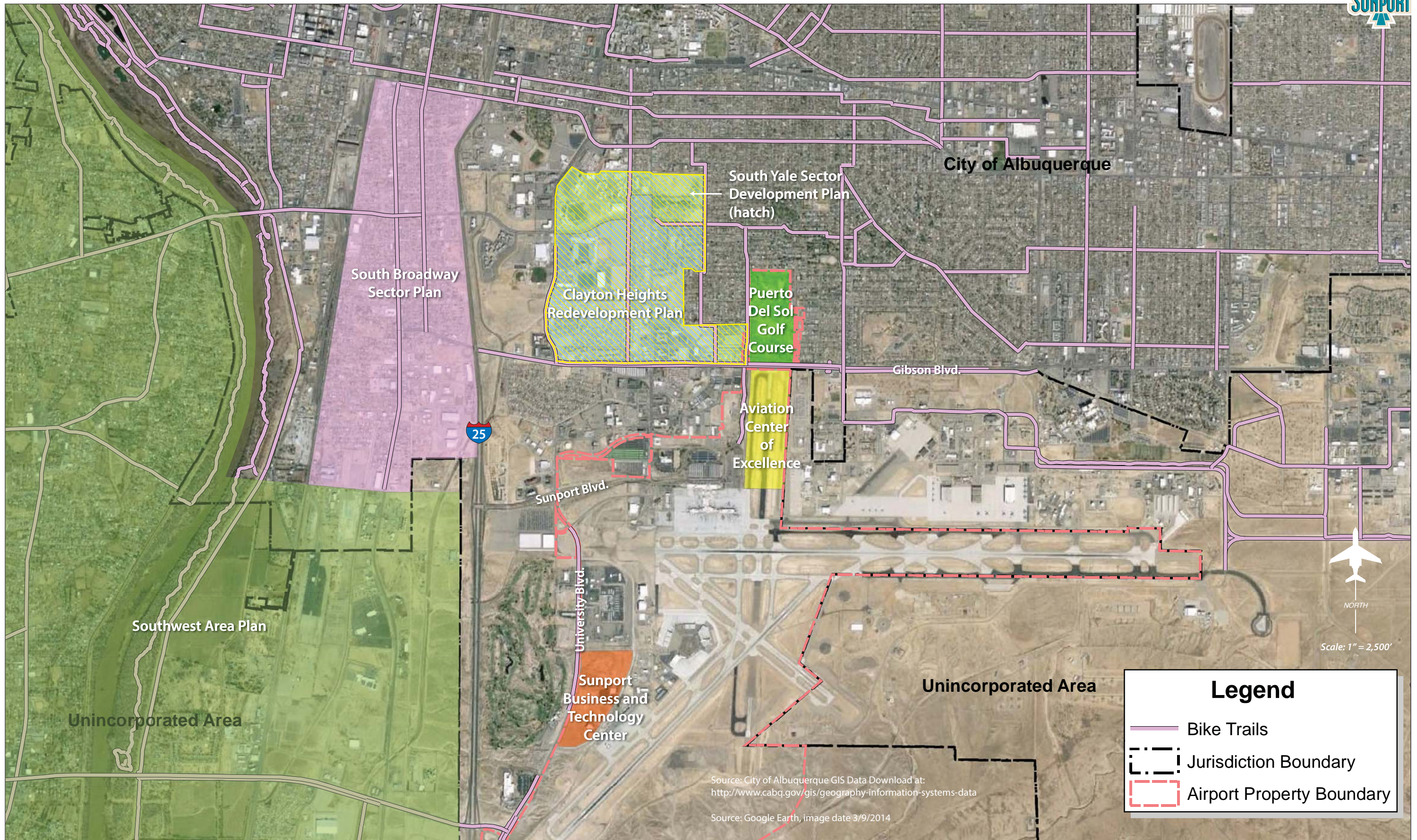
***The Sunport business and Technology Center is a designated Foreign Trade Zone.***



This page intentionally left blank



This page intentionally left blank



This page intentionally left blank



package, grade, manufacture, or re-export, without paying duty, thus lowering the cost of production and incentivizing relocation to Albuquerque. The existing zoning for the subject property is SU-1 for Airport and Related Facilities.

The Site Plan for Subdivision (Project# 1001157; 08EPC - 40002) for the property was approved in 2008 by the Environmental Planning Commission. No zoning changes were proposed. Development for the site is intended to include a wide range of commercial, office, warehouse, manufacturing, hotel/motel and incidental uses, institutional, educational, laboratory, and industrial uses, which are all allowable under the site's current zoning. The property will locate employment in an area complementary to future residential areas at Mesa Del Sol and will be designated as a "Certified Site" (i.e., a site that has already obtained many of the necessary approvals for development). With the provision of the Design Standards included in the Site Plan for Subdivision, future Site Plan for Building Permits have been delegated to the City Planning Director and shall not require a public hearing, provided they are consistent with the Site Plan for Subdivision and Design Standards. Lot lines on the Site Plan for Subdivision are illustrative and shall be determined in subsequent platting and Site Plans for Building Permit. This designation will remove obstacles to economic development efforts, thus incentivizing development through a streamlined development process.

**Puerto Del Sol Golf Course:** The Puerto Del Sol Golf Course covers approximately 72 acres. The property is owned by the Aviation Department and operated through a lease/agreement with the City of Albuquerque Parks and Recreation Department. It is bounded by Gibson Boulevard on the south, Girard Boulevard on the west, Wellesley Drive on the east, and the Kathryn Avenue alignment on the north. The existing zoning for the subject property is SU-1 for Golf Course and Related Facility.

**Open Space:** Over 100 acres of undeveloped open space land exists within the Sunport property area. This open space is located in the southeast portion of the property. Access to this portion of the Sunport area property is limited as it is just southeast of an existing runway. Additional constraints to development of this property include the existing topography and drainage considerations. Local streets that border this open space are Ira Sprecher Road to the east and Los Picaros Road to the south. Future development of this property would be subject to the Sunport Master Plan and the City's development approval process.

## LOCAL PLANNING DOCUMENTS AND POLICIES

The City of Albuquerque has a multi-tiered planning process that includes three levels of plan ranking. The Rank I Plan is the *Albuquerque/Bernalillo County Comprehensive Plan*, which provides overarching policies for both the City of Albuquerque and Bernalillo County. The City Planning Department started the process of updating the Comprehensive Plan and creating a unified development code in February 2015. The planning process took two years for completion. The overall intent of the unified development code is to streamline and clarify the development process. The Comprehensive Plan was recently updated and adopted in March of 2017. Additionally, the City adopted the Integrated Development Ordinance (IDO) in November 2017. The IDO will become effective on May 17, 2018. The IDO was created as



a new zoning code for the City. As part of this effort, all existing lower-level Rank II and III plans have been consolidated. Prior to the IDO, those plans addressed sub-regions of the City and specific City-wide system plans. Rank III Plans included Sector Development Plans that address specific planning issues for individual neighborhoods. These are now all included under the umbrella of the IDO. There are a couple of sector plans that fell within the Sunport area. These addressed zoning and development concerns that may or may not include infrastructure and storm drainage issues and are now covered by IDO provisions and regulations. Other types of Rank III Plans that have not been consolidated as part of the IDO effort include Corridor Plans and Metropolitan Redevelopment Area Plans (MRAs). MRA plans target specific properties or areas that are considered “blighted” and Corridor Plans develop design overlay zones for the plan area and sometimes view preservation policies.

## ALBUQUERQUE/BERNALILLO COUNTY COMPREHENSIVE PLAN

The Albuquerque Sunport is nearby the Sunport/Airport Employment Center, as designated by the Comprehensive Plan. The Sunport and surrounding properties are designated as both areas of consistency and change by the Comprehensive Plan. As noted in the Comprehensive Plan, areas of consistency include “Airport runways and fly-in zones,” and areas of change include “parcels within Metropolitan Redevelopment Areas (MRAs)” and “properties within approved Master Development Plans (site development plans with detailed design standards), such as business and industrial parks and master planned communities” (5-24). More specifically, the properties surrounding and owned by the airport (which will be discussed in detail in later chapters) are primarily designated as areas of change by the Comprehensive Plan. Applicable policies from the Comprehensive Plan are provided below:

### 5.1 Centers & Corridors

*The Goal is to capture regional growth in Centers and Corridors to help shape the built environment into sustainable development pattern.*

Centers and Corridors are designated by the Comprehensive Plan to attract private investment and protect rural areas, while offering people housing and easy access to services, employment, and arts and entertainment. The Sunport owns several property parcels that have been developed or identified for future non-aviation revenue support functions. These properties fall nearby the Sunport/Airport employment center and will serve as opportunities for economic development. As contributing properties to the Sunport/Airport employment center, these properties will prioritize opportunities for industrial and business districts supported by retail and residential uses. Employment centers are also typically auto-oriented and provide excellent access for trucks and connections to freight networks. Per Policy 5.1.1 of the Centers & Corridors, Desired Growth, the intent is to “capture regional growth in Centers and Corridors to help shape the built environment into a sustainable development pattern” (5-27).

The Comprehensive Plan stipulates that Centers and Corridors are most appropriate for “employment density, compact development, redevelopment, and infill” (5-27). This policy relates to the creation of jobs through the implementation of the proposed Sustainable Airport Master Plan. Policy 8.1.3, of the



Economic Development Goal states that, “Focus economic development strategies, programs, and activities to support existing and emerging economic base industry clusters that are important to the region” (8-28).

The Sunport/Airport Employment Center provides a unique attraction that serves regional and statewide needs. The intent is for all Employment Centers to be accessible by all modes of travel, depending on the nature of uses, located on or accessible by major roadways, and served mainly by off-street parking. The interior of an Employment Center should be accommodating to the pedestrian, even within off-street parking areas. The Employment Centers description provided in the Comprehensive Plan Land Use Chapter states that “Employment Centers tend to be auto-oriented and need to provide excellent access for trucks and connections for freight. For this reason, Employment Centers should be located near major intersections or along highways or major arterial.” This highlights the characteristics of the Sunport and supporting services (5-15).

### 5.3 Efficient Development Patterns

*The Goal is to promote development patterns that maximize the utility of existing infrastructure and public facilities and the efficient use of land to support the public good.*

The Comprehensive Plan notes the importance of energy management techniques and use of alternative and renewable energy sources, such as solar, wind, solid and liquid waste, and geothermal supplies. The Comprehensive Plan identifies the need for development and management of public services/facilities in an efficient and equitable manner.

### 5.6 City Development Areas

*The goal is to encourage and direct growth to Areas of Change where it is expected and desired and ensure that development in and near areas of Consistency reinforces the character and intensity of the surrounding area.*

The Albuquerque Sunport is a designated Center and Corridor, Metropolitan Redevelopment Area, and governed by this Sustainable Airport Master Plan, whose surrounding properties have been mapped as areas of change. Areas of changes are noted to be prime locations for redevelopment and new development. These areas would also benefit from infill or revitalization. The growth anticipated for these areas will be served with transit and other infrastructure.

### 6.2 Multi-Modal System

*The Goal is to encourage walking, biking, and transit, especially at peak-hour commuting times, to enhance access and mobility for people of all ages and abilities.*

As stipulated in Policy 6.2.10.2, the Comprehensive Plan calls for the “Study and plan the future of the Albuquerque Sunport, including roadway alignments, interface with the Kirtland Air Force Base, economic development impacts, environmental impacts, and selection for other reliever airport sites on a regional basis”(6-46).



The Comprehensive Plan identifies the need for a multidisciplinary study of this aviation facility. This Sustainable Airport Master Plan addresses this policy and falls within the Comprehensive Plan implementation plan.

### 8.1 Placemaking

The goal is to create places where business and talent will stay and thrive.

The Sunport and surrounding properties can contribute to the overall economic development of the City and County by continuing to exist and expand as a regional hub for employment, services, and urban living. Current and future public-private partnerships will help cultivate new local businesses that leverage our local and cultural assets and existing industrial clusters. These partnerships will “strengthen and diversify the economic base to help reduce reliance on government spending” (8-28).

### 11.3 Cultural Landscapes

*The Goal is to protect, reuse, and/or enhance significant cultural landscapes as important contributors to our heritage and rich and complex identities.*

The Comprehensive Plan identifies policies that address the need to promote the efficient placement of housing, employment, and services to foster a balanced land use/transportation system.

## **Bikeways & Trails Facility Plan**

The Bikeways & Trails Facility Plan, a Rank II Plan, was adopted by the City Council in May 2015. The primary goal of the Bikeways & Trails Facility Plan is to “ensure a well-connected, enjoyable, and comfortable non-motorized transportation and recreation system throughout the metropolitan area”. The Plan is intended to guide the development, maintenance, upgrades, and administration of trails, bicycle lanes, bike routes, and bicycle boulevards throughout the City. The Plan updated, consolidated, and replaced the Trails and Bikeways Facility Plan (1993) and the Comprehensive On-Street Bicycle Plan (2000).

A multi-use paved trail exists along the north side of Gibson Boulevard and will eventually extend south on Girard Boulevard. There is a dedicated bicycle lane within the Gibson right-of-way. The Bikeways & Trails Facility Plan proposes to add a bike lane just south of Sunport Boulevard along George Road and north of Sunport Boulevard along Randolph Road. It would connect to the existing trail on Yale Boulevard, just south of Gibson Boulevard. A paved trail is also proposed for University Boulevard that would connect to the George Road and Randolph Road proposed bike lanes.

## **South Yale Area**

The South Yale Sector Development Plan Goals and Policies have been incorporated as part of the updated Comprehensive Plan and covers the area south of St. Cyr Avenue and north of Gibson Avenue,



between University Boulevard and Columbia Drive, north of the Sunport Master Plan Area and the University of New Mexico. Yale Boulevard is an established entryway into the City from the Sunport. Small Area Regulations provided in the IDO apply to the South Yale Area. These regulations cover use regulations related to prohibited uses and design standards.

### **Clayton Heights Metropolitan Redevelopment Area (MRA) Plan**

The Clayton Heights MRA Plan encompasses South Yale Boulevard and is surrounded by the Sunport, Kirtland Air Force Base, Nob Hill shopping district, University of New Mexico, and UNM Science and Technology Park. The Clayton Heights MRA Plan area falls within the South Yale SDP area boundaries. The South Yale SDP is a form-based code that creates a walkable mixed use environment that supports the revitalization of the area. The Clayton Heights MRA Plan incorporates the higher intensity mix uses permitted in the South Yale SDP.

The Clayton Heights MRA Plan identifies three major goals:

- Establish a viable commercial environment,
- Revitalize area into walkable safe neighborhoods, and
- Improve housing conditions and increase homeownership.

The Plan identifies a number of traffic issues and calls for improvements to roadways, including channelization changes, creating signalized intersections, and proposed lane reductions. The suggested improvements apply to the intersections of Kathryn Avenue and Yale Boulevard, Avenida Cesar Chavez and Buena Vista Drive, and propose the redevelopment of Yale Boulevard.

Other Plan recommendations include the rehabilitation of deteriorated homes in the Clayton Heights area through perpetual deferred loans and low-interest fixed-rate loans. The Plan also encourages the development of numerous vacant lots along Yale Boulevard as retail, office, and residential uses, and those closer to Gibson Boulevard as hotel/restaurant uses. A “gateway neighborhood concept” is proposed for Clayton Heights. The Plan calls for this design element as a way to establish a portal to the Sunport, Isotope Park, UNM’s sports facilities, as well as UNM’s southern entrance on Yale Boulevard. Three gateway locations are proposed by the Plan, one of which is just north of the Sunport, on Gibson Boulevard.

### **South Broadway Area**

The South Broadway Sector Development Plan Goals and Policies have been incorporated as part of the updated Comprehensive Plan and is bounded by Coal Avenue to the north, Woodward Avenue to the south, railroad tracks on the west, and Interstate 25 to the east. The South Broadway area is home to some of the oldest neighborhoods in the City. In 1986, the South Broadway Neighborhoods Plan Area was designated as a Metropolitan Redevelopment Area. As a designated MRA, the City’s Metropolitan Redevelopment Agency is responsible for infill development within the designated area. The Agency is



also responsible for promoting the development of neighborhoods through housing and commercial revitalization.

Small Area Regulations provided in the IDO apply to the South Broadway Area. These regulations cover use regulations related to prohibited uses and design standards.

### **Roadway Functional Classification System**

The Mid-Region Council of Governments (MRCOG) identifies the functional classifications of roadways. Gibson Boulevard and Sunport Boulevard are classified as Limited-Access Principal Arterials and Girard Boulevard is classified as an Urban Collector. Proposed access points must be sponsored by the owner of the facility (City of Albuquerque) and approved by the Transportation Coordinating Committee of MRCOG.

### **2035 Long Range Metropolitan Transportation Plan**

The 2035 MTP is a long-range transportation plan for the greater Albuquerque area. The Plan includes short- and long-range strategies and action items for the development of a multimodal transportation system that improves mobility for people and goods throughout the region. The Plan is developed by the Mid-Region Metropolitan Planning Organization (MRMPO) who is the transportation arm of MRCOG. The MTP is a federally required document for urban areas with a population of more than 50,000. It is a living document, intended to be updated and continually revisited as urban areas grow and change, funding situations evolve, new analysis methods become available and different transportation needs and priorities are identified.

The 2035 MTP identifies planned transportation improvements. Yale, University, and Sunport Boulevards are identified as priority transportation improvement corridors, as well as future bikeway and trail projects. The MTP also recommends a Bus Rapid Transit Route that would run north-south along San Mateo Boulevard, just northeast of the Sunport.

The MTP lists several planned projects for the Sunport area:

- **Sunport Boulevard Extension**- The construction of a new four-lane divided facility with bike lanes, which includes signage, drainage, and other necessary appurtenances. This project will extend from Broadway to I-25, Exit 221, at the Sunport. The lead agency for this project is Bernalillo County and is estimated to cost approximately \$17M.
- **Sunport Area Roads Improvements**- The rehabilitation and/or resurfacing of Sunport Boulevard, Airport Loop, Girard Boulevard from Sunport Boulevard to Gibson Boulevard, sections of University Boulevard between Sunport Boulevard and Rio Bravo Boulevard, Spirit Drive, and Clark Carr Boulevard. The lead agency for this project is the City of Albuquerque Aviation Department. The project cost is estimated at \$7M.



- Sunport Boulevard Pavement Rehabilitation- The City of Albuquerque Aviation Department is the lead for this \$2M dollar project that will mill and repave Sunport Boulevard from I-25 to Girard Boulevard.

## Sunport Boulevard Area

The Sunport Boulevard area is included in the IDO Small Area Regulations that intend to provide specialized sign controls for the area surrounding Sunport Boulevard between Interstate 25 and Yale Boulevard. Specifically, no off-premise signs are allowed, and on-premise signs shall be limited to wall signs and free-standing signs.

The IDO requires that free-standing signs in the Sunport Boulevard Area shall not exceed 75 square feet and shall not be greater than 12 feet in height, except that properties over five acres may have one freestanding sign up to 26 feet in height within 200 feet of Sunport Boulevard. The base of freestanding signs shall be surrounded by a landscaped area of at least 36 square feet with minimum of 75 percent vegetative cover.

The size of wall signs is regulated by the maximum size of 15 percent of the façade area, inclusive of door and window openings.

## SOCIOECONOMIC CHARACTERISTICS

Socioeconomic information related to the approximate airport service area is an important consideration in the master planning process by providing an understanding of the demographic dynamics of the area. As the major commercial service airport in the state, certain elements of aviation demand, such as air cargo, may be related to the demographic trends across the whole state. Other elements may be more directly related to regional demographics.

The historic demographic trends in population, employment, and income provide insight into the long-term socioeconomic condition of the region. This information is essential in determining aviation service level requirements, as well as forecasting aviation demand elements for airports. Aviation forecasts are typically related to the population base, economic strength of the region, and the ability of the region to sustain a strong economic base over an extended period of time.

Historical population data was obtained from the U.S. Census Bureau, Population Division. Employment and income figures were obtained from Woods & Poole Economics - *Complete Economic and Demographic Data Source*, 2014. Woods & Poole utilizes information from the U.S. Census Bureau, as well as other national and state organizations for historic data and for future projections. Woods & Poole is an FAA-approved source for socioeconomic data. The historic socioeconomic information is presented on **Table 1K**.



**TABLE 1K**  
**Historical Socioeconomic Data**

	1970	1980	1990	2000	2010	AAGR
<b>Population</b>						
New Mexico	1,016,000	1,302,894	1,515,069	1,819,046	2,059,179	1.78%
Six-County Area <sup>1</sup>	448,049	616,064	716,459	877,284	1,049,197	2.15%
Albuquerque MSA <sup>2</sup>	379,095	523,105	599,416	729,649	887,077	2.15%
<b>Employment</b>						
New Mexico	398,903	597,035	761,394	964,673	1,060,445	2.47%
Six-County Area	184,230	300,256	424,042	556,091	599,061	2.99%
Albuquerque MSA	152,997	248,761	347,243	455,184	492,631	2.97%
<b>Per Capita Personal Income (PCPI - \$2009)</b>						
New Mexico	14,268	18,948	21,980	27,363	32,404	2.07%
Albuquerque MSA	15,417	20,289	24,563	31,360	33,231	1.94%

<sup>1</sup>Bernalillo, Sandoval, Torrance, Valencia, Santa Fe, Los Alamos Counties

<sup>2</sup>Bernalillo, Sandoval, Torrance, Valencia Counties

MSA: Metropolitan Statistical Area

AAGR: Average Annual Growth Rate

Source: Historical population from the U.S. Census Bureau - Population Division

Source: Employment and Income from Woods & Poole Complete Economic and Demographic Data Source (CEEDS) 2014

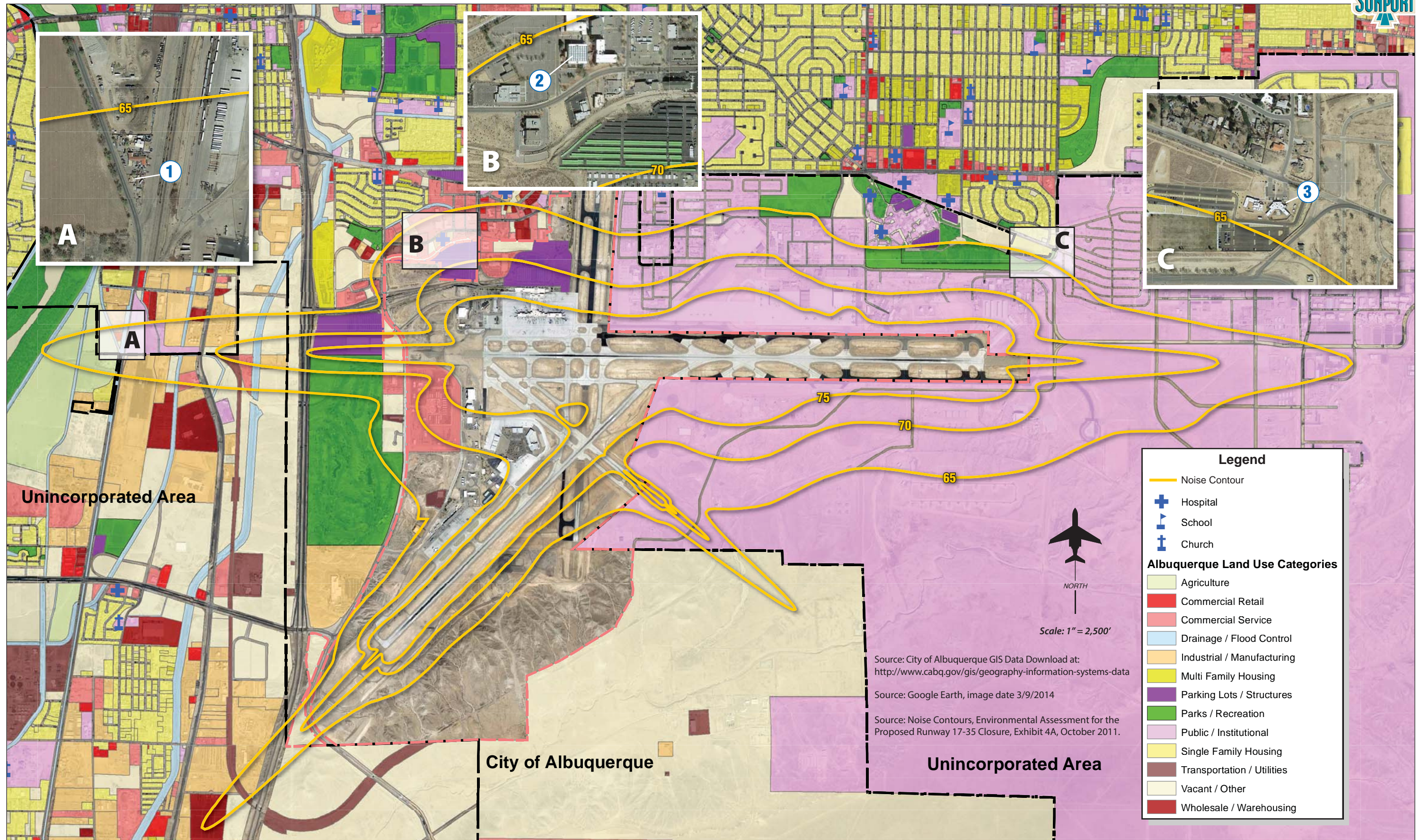
## ENVIRONMENTAL INVENTORY

The purpose of the following environmental inventory is to identify potential environmental sensitivities that might affect future improvements at the Sunport. For the purposes of this inventory, lands and resources within one-quarter mile of the Sunport boundary are considered. The resource categories listed below are based on guidance provided within the FAA's Order 1050.1E, *Environmental Impacts: Policies and Procedures*. Resources not present within the vicinity, but included in FAA environmental guidance, are not included in this inventory. The information contained in this section was obtained from internet resources, agency maps, and existing literature.

## LAND USE AND NOISE

### Existing Land Use

As previously stated, the Sunport is co-located with Kirtland Air Force Base. Combined, these two facilities encompass approximately 55,000 acres on the southeast side of the City of Albuquerque. Of the total acreage, the Sunport utilizes approximately 2,750 acres. The remaining portion of the base, located southeast of the Sunport is largely undeveloped with scattered military structures. As indicated on **Exhibit 1CC**, a City of Albuquerque-owned golf course is located immediately north of the Sunport as are several residential neighborhoods and a number of public and private grade schools and parks. Much of



This page intentionally left blank



the area immediately northeast and east of the Sunport facilities is developed with Kirtland Air Force Base facilities, including administration buildings, training facilities, and base housing. Two medical facilities are surrounded by base facilities, including the Albuquerque Veteran's Administration Medical Center, which is a registered historic district, and the Lovelace Healthcare Center. The historic Old Airport Terminal Building, located west of the current passenger terminal building, is included on the National Register of Historic Places.

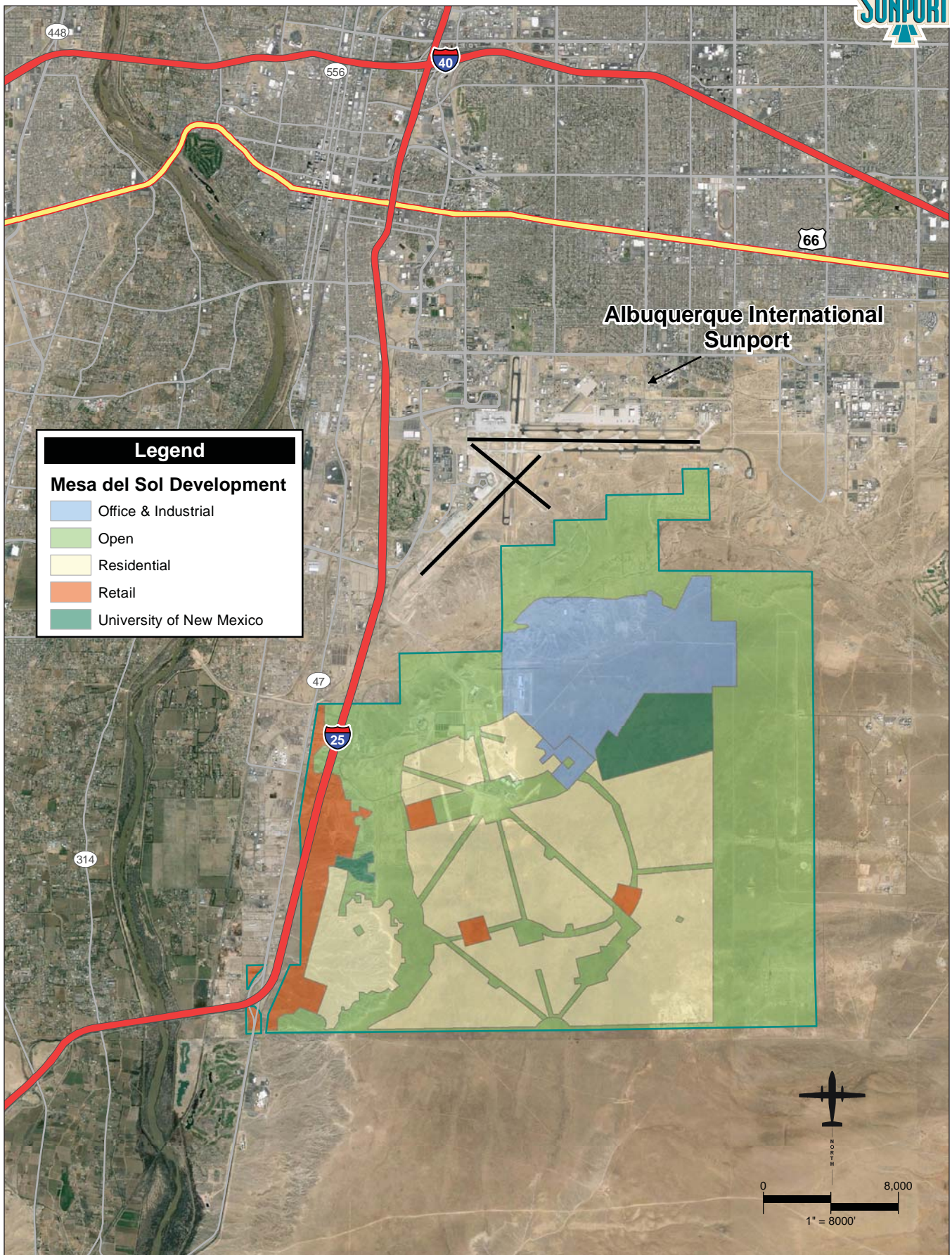
The areas northwest and west of the Sunport are developed with industrial, commercial, office, and support facilities (hotels, long-term parking, car rental facilities), and residential land uses. Southwest of the Sunport is the Championship Golf Course at the University of New Mexico, beyond which is Interstate 25. Much of the area south of the Sunport is undeveloped, with the exception of the Albuquerque International Dragway, Journal Pavilion amphitheater, and scattered industrial/office uses in the Mesa del Sol planned development. The unincorporated Isleta Pueblo community is located south of the Mesa del Sol development approximately 13 miles from the Sunport.

### Future Land Use

Much of the area north, east, and west of the Sunport is fully developed. Future land uses in these areas will likely mirror the existing land uses. Immediately south of the Sunport, a large development is under construction. The Mesa del Sol community, which comprises approximately 12,900 acres, is planned to include residential, commercial, and industrial land uses. The Mesa del Sol project is a joint venture between Forest City Enterprises and Covington Capital, in conjunction with the New Mexico State Land Office, the University of New Mexico, the City of Albuquerque, Bernalillo County, and the State of New Mexico. As shown on **Exhibit 1DD**, the master planned community is bound on the north by the Tijeras Arroyo, on the east by Kirtland Air Force Base, on the south by the Isleta Pueblo, and on the west by Broadway Boulevard. At build-out, the community is planned to house 100,000 residents and provide 18 million square feet of office, industrial, and retail space. Numerous schools and educational facilities are also planned.

### Airport Noise

**Exhibit 1CC** depicts the noise exposure contours prepared as part of the environmental assessment for the closure of Runway 17-35. These contours are overlaid on the existing land use map. Portions of the 65, 70, and 75 DNL contours extend beyond Sunport property. Three properties considered as noise-sensitive land uses are within the 65 DNL contour. The first property identified on **Exhibit 1EE (#1)** is located west of the Sunport and is a single family residential land use. Location #2 is the Presbyterian Healthcare System Hospital located immediately northwest of the Sunport. Location #3 is a multi-family residential land use located northeast of the Sunport. This location is a youth and family services facility, which has 16 residential living units.





## BIOTIC RESOURCES

Section 7 of the *Endangered Species Act* (ESA), as amended, applies to federal agency actions and sets forth requirements for consultation to determine if the airport development projects “may affect” a federally endangered or threatened species. If an agency determines that an action “may affect” a federally protected species, then Section 7(a)(2) requires each agency to consult with the U.S. Fish and Wildlife Service (USFWS) to ensure that any action the agency authorizes, funds, or carries out is not likely to jeopardize the continued existence of any federally listed endangered or threatened species, or result in the destruction or adverse modification of critical habitat. If a species has been listed as a candidate species, Sec. 7 (a)(4) states that each agency must confer with the USFWS.

The Sunport is located in the Albuquerque Basin, which is a sub-unit of Arizona/New Mexico Plateau ecoregion. Land cover within the study area consists of three major types: developed, ruderal, and scrub vegetation. Ruderal areas include those that have been disturbed and are now sparsely vegetated, such as infield areas between taxiways.

A Trust Resources List for the project area was prepared using the USFWS *Information, Planning, and Conservation* System (IPaC). The IPaC report indicates that six species, listed in **Table 1L**, should be considered in future effects analyses for projects at the Sunport. As indicated in the table, several of the species rely on riparian habitat associated with the Rio Grande located west of the Sunport.

**TABLE 1L**  
**Federally Listed Threatened and Endangered Species**  
**Bernalillo County, New Mexico**

Common Name	Habitat	Federal Status
Mexican spotted owl	Found in mature, montane forests and woodlands and steep, shady, wooded canyons. Can also be found in mixed-conifer and pine-oak vegetation types. Generally nests in older forests of mixed conifers or ponderosa pine–Gambel oak. Nests in live trees on natural platforms (e.g., dwarf mistletoe brooms), snags, and canyon walls at elevations between 4,100 and 9,000 feet msl.	Threatened
Rio Grande silvery Minnow	The silvery minnow critical habitat designation in the Rio Grande extends from Cochiti Dam, Sandoval County, New Mexico (NM) downstream to the utility line crossing the Rio Grande, a permanent identified landmark in Socorro County, NM, a total of approximately 157 miles.	Endangered
Southwestern willow flycatcher	Found in dense riparian habitats along streams, rivers, and other wetlands where cottonwood, willow, boxelder, saltcedar, Russian olive, buttonbush, and arrowweed are present. Habitat occurs at elevations below 8,500 feet msl.	Endangered
Yellow-billed Cuckoo	Typically found in riparian woodland vegetation (cottonwood, willow, or saltcedar) at elevations below 6,600 feet msl. Dense understory foliage appears to be an important factor in nest site selection.	Threatened
New Mexico meadow jumping mouse	Found in two riparian community types: persistent emergent herbaceous wetlands or crub-shrub wetlands (i.e., riparian areas along perennial streams that are composed of willows and alders. It especially uses microhabitats of patches or stringers of tall dense sedges on moist soil along the edge of permanent water.	Endangered
Sprague’s Pipit	Strong preference to native grasslands with vegetation of intermediate height and lacking woody shrubs.	Candidate



In addition to the ESA, the *Migratory Bird Treaty Act* (MBTA) is also applicable at the Sunport as much of the study area constitutes habitat for birds protected under the MBTA. The IPaC report for the airport lists 25 bird species that may be affected by projects at the Sunport.

Birds protected under the MBTA may nest, winter, or migrate throughout the area, including those protected by the ESA. Under the requirements of the MBTA, all project proponents are responsible for complying with the appropriate regulations protecting birds when planning and developing a project. Migratory birds known to occur in the study area are listed in **Table 1M**.

The only designated critical habitat area within the vicinity of the airport is for the Rio Grande silvery minnow. The critical habitat is the Rio Grande, located 2.5 miles west of the Sunport terminal building.

**TABLE 1M**  
**Birds Protected Under the *Migratory Bird Treaty Act***  
**Bernalillo County, New Mexico**

Bald Eagle	Juniper Titmouse
Bendire's Thrasher	Lewis's Woodpecker
Black-chinned Sparrow	Loggerhead Shrike
Brewer's Sparrow	Lucy's Warbler
Brown-capped Rosy-Finch	Mountain plover
Burrowing Owl	Olive-Sided flycatcher
Chestnut-collared Longspur	Pinyon Jay
Costa's Hummingbird	Prairie Falcon
Flammulated Owl	Red-headed Woodpecker
Fox Sparrow	Swainson's hawk
Golden Eagle	Williamson's Sapsucker
Grace's Warbler	Willow Flycatcher
Gray Vireo	

## WATER QUALITY

The Sunport and the associated study area for this inventory are located within the City of Albuquerque (HUC #130202030304) and the Lower Tijeras Arroyo (HUC #130202030203) watersheds.<sup>1</sup> According to the US EPA's EJView website, the proposed project area does not contain any waters listed in the *Clean Water Act*, Section 303(d) list (Impaired Waters List).<sup>2</sup>

The only water supply source to the project area is the Santa Fe Group Aquifer. In 2002, the New Mexico Environment Department (NMED) conducted a Source Water Assessment to determine how susceptible the Santa Fe Group aquifer wells are to contamination. NMED concluded that the wells are well-maintained and operated and are generally protected from potential sources of contamination. Wells near known contamination sites are ranked highly susceptible to contamination. Potential sources of con-

<sup>1</sup> National Hydrography Dataset, <http://viewer.nationalmap.gov/viewer/nhd.html>, accessed February 2015

<sup>2</sup> U.S. EPA EJView, <http://epamap14.epa.gov/ejmap/ejmap.aspx>, accessed February 2015



tamination include businesses that use hazardous chemicals, such as automotive repair shops, gas stations, dry cleaners, paint and hardware stores, car washes, construction sites, golf courses, interstate highways and city streets, military facilities, sewer lines and septic tanks, and unlined arroyos, ditches, and drainage canals.

The Albuquerque area uses water obtained through the San Juan-Chama Drinking Water Project. This project diverts San Juan-Chama river water to a treatment plant north of Albuquerque. The finished water is distributed to customers for drinking water and is blended with groundwater supplies during the summer or in times of drought.

## WETLANDS

The U.S. Fish and Wildlife Service's National Wetlands Inventory indicates that there are no wetlands located within the study area.<sup>3</sup> Further investigation of soil types at the Sunport also indicates the absence of wetlands. In general, wetlands exhibit three characteristics: hydrology, hydrophytes (plants able to tolerate various degrees of flooding or frequent saturation), and poorly drained soils. A review of the Natural Resource Conservation Service's Web Soil Survey indicates that no hydric soils are located on airport property.<sup>4</sup>

*There are no wetlands located within the study area.*

## FLOODPLAIN AND FLOODWAYS

As defined in FAA Order 1050.1E, agencies are required to "make a finding that there is no practicable alternative before taking action that would encroach on a base floodplain based on a 100-year flood." E.O. 11988, *Floodplain Management*, directs federal agencies to reduce the risk of flood loss, minimize the impact of floods on human safety, health and welfare, and restore and preserve the natural and beneficial values served by the floodplains. Natural and beneficial values of floodplains include providing groundwater recharge, water quality and maintenance, fish, wildlife and plants, open space, natural beauty, outdoor recreation, agriculture, and forestry. FAA Order 1050.1E (9.2b) indicates that "if the proposed action and reasonable alternatives are not within the limits of, or if applicable, the buffers of a base floodplain, a statement to that effect should be made"; no further analysis is necessary. The limits of base floodplains are determined by Flood Insurance Rate Maps (FIRMs) prepared by the Federal Emergency Management Agency (FEMA).

As indicated on **Exhibit 1FF**, much of the Sunport property is designated as Zone X, which is an area of minimal flood hazard. Immediately south of the Sunport are areas designated as Floodway and 100-year floodplain. In one area, the 100-year floodplain is located on Sunport property; this is located at the

<sup>3</sup> National Wetlands Inventory, <http://www.fws.gov/wetlands/Data/Mapper.html>, accessed February 2015

<sup>4</sup> NRCS web soil survey, <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>, accessed February 2015



extreme southern boundary of the airport. Areas within the Kirtland Air Force Base property are designated as Zone D, which is described as an area where there are possible but undetermined flood hazards, as no analysis of flood hazards has been conducted.

## GEOLOGY AND SOILS

Based on a review of the Geologic Map of New Mexico, 2003, published by the New Mexico Bureau of Geology and Mineral Resources, the Sunport is underlain by two geologic units: Upper Santa Fe group (QTs) and Alluvium (Qa).<sup>5</sup> The Upper Santa Fe group is described as basin fill of the Rio Grande rift and locally represents upper Miocene formations of the middle Santa Fe Group in the northern Albuquerque Basin. The southern portion of the airport is described as alluvium, which is unconsolidated or loose soil associated with the Tijeras Arroyo.

Information available from the U.S. Department of Agriculture, Natural Resources Conservation Service Web Soil Survey indicates that much of the Sunport and surrounding area is classified as sandy loam associated with the Tijeras Arroyo to the south and the Rio Grande to the west. This soil type is associated with alluvial flats and floodplains.

## SOLID AND HAZARDOUS WASTE SITES

The two statutes of most importance to the FAA when implementing airport development projects are the *Resource Conservation Recovery Act* (RCRA) (as amended by the *Federal Facilities Compliance Act of 1992*) and the *Comprehensive Environmental Response, Compensation, Liability Act* (CERCLA), as amended (also known as Superfund). RCRA governs the generation, treatment, storage, and disposal of hazardous wastes. CERCLA provides for cleanup of any release of a hazardous substance (excluding petroleum) into the environment.

SNL, located on Kirtland Air Force Base, is a multi-purpose engineering and science laboratory owned by the Department of Energy (DOE) and co-operated by Sandia Corporation, a subsidiary of Lockheed Martin, and the DOE. SNL designs non-nuclear components for the nation's nuclear weapons, performs a wide variety of energy research and development projects, and works on assignments that respond to national security threats. SNL generates wastes that are regulated under the *Resource Conservation and Recovery Act* (RCRA), the *New Mexico Hazardous Waste Act*, and implementing regulations.

Solid waste at the Sunport is collected by the City of Albuquerque and transported to the Cerro Colorado Landfill, located approximately 25 miles west of the airport. This landfill has a 20-year operating permit, which was renewed in April 2001 for 180 acres of waste disposal. Cerro Colorado has a life expectancy of 50 years and complies with all state solid waste management regulations.

<sup>5</sup>Geologic Map of New Mexico, <https://geoinfo.nmt.edu/publications/maps/geologic/state/home.cfm>, accessed February 2015



There are no open landfills located within the study area. A transfer station (convenience center) is located in Montesa Park south of the Sunport, just over 600 feet southeast of the south end of Runway 17-35.

A review of the EPA's EJView website indicates that there are no CERCLA sites or sites on the National Priorities List within the study area.

## HISTORIC AND CULTURAL RESOURCES

A search of the National Park Service's National Register of Historic Places (NRHP) indicates two properties listed on the NRHP are within the study area: the Old Albuquerque Terminal Building (SR# 482) and the Albuquerque Veterans Administration Medical Center Historic District, located immediately northeast of Kirtland Air Force Base. Additionally, the Sunport is located within the vicinity of the Pueblo of Isleta religious and cultural sites.

Additionally, as part of the 1994 *Environmental Assessment for the Improvements to Runway 3-21*, a literature search and field survey was conducted in 1993 to identify cultural resources in the vicinity of

***The Old Airport Terminal Building is on the National Register of Historic Places.***

the proposed runway extension project. Two archaeological sites with the "potential to yield information important to the prehistory of the region and which have possible National Register significance" were located. A "prehistoric cultural locality" was also identified during

the survey. This site was identified as an old Anasazi site. This site was excavated, mapped, artifacts removed, and cataloged by Mariah Associates.

The first archaeological site contained a scatter of ceramic and lithic artifacts. The site area was located between the extended runway and its taxiway and had been leveled and extensively disturbed. The original site was likely confined to a smaller area and the artifacts later scattered as the result of a grading operation. No structural features are visible, but the surveyor noted that subsurface structures and cultural sediments may exist. The surveyor hypothesized the site was probably a small hamlet settlement of Socorro Phase affinity.

The second archaeological site contained a scatter of lithic artifacts and fire-cracked rock debris. The fire-cracked debris indicated the presence of a hearth structure(s). The surveyor noted that it was probable that the site area was buried by low dune formation. According to the surveyor, the site was probably Late Archaic Period encampments and may contain hearths and possible shelter basins or shallow pit houses. The prehistoric cultural locality contained six obsidian flakes. No associated structural features or cultural sediments were located.



## DOCUMENT SOURCES

A variety of sources were used during the inventory process. The following listing reflects a partial compilation of these sources. In addition, considerable information was provided directly to the consultant by staff at Albuquerque International Sunport.

*Airport/Facility Directory, Southwest*, U.S. Department of Transportation, Federal Aviation Administration, National Aeronautical Charting Office, effective November 13, 2014.

*Albuquerque Sectional Aeronautical Chart*, U.S. Department of Transportation, Federal Aviation Administration, National Aeronautical Charting Office, effective October 16, 2014.

*National Plan of Integrated Airport Systems (NPIAS)*, U.S. Department of Transportation, Federal Aviation Administration, 2013-2017.

*U.S. Terminal Procedures, Southwest*, U.S. Department of Transportation, Federal Aviation Administration, National Aeronautical Charting Office, effective November 13, 2014.

*New Mexico Airport System Plan Update 2009*. Prepared by Wilbur Smith Associates.

*Airport Master Plan, 2003*. Prepared by Coffman Associates.

*West Area Support Plan, 2011*. Prepared by Coffman Associates.

A number of internet websites were also used to collect information for the inventory chapter. These include the following:

U.S. Census Bureau  
<http://www.census.gov>

U.S. Bureau of Labor Statistics  
<http://www.bls.gov>

Bureau of Economic Analysis, U.S. Department of Commerce  
<http://www.bea.gov>

FAA 5010 Data:  
<http://www.airnav.com>  
<http://www.gcr1.com/5010Web>

New Mexico Department of Transportation – Aviation Division  
<http://nmshtd.state.nm.us/main.asp?secid=10871>



City of Albuquerque:

<http://www.cabq.gov/>

Bernalillo County:

<http://www.bernco.gov/>

Mid-Region Council of Governments of New Mexico:

<http://www.mrcog-nm.gov/>

U.S. Fish and Wildlife Service Information, Planning, and Conservation System:

<http://ecos.fws.gov/ipac/>

FEMA Map Service Center:

<https://msc.fema.gov/portal/>

EPA MyWaters Mapper:

<http://watersgeo.epa.gov/>