INVENTORY

This page intentionally left blank.

1. INVENTORY OF EXISTING CONDITIONS

1.1. Introduction

The purpose of this Airport Master Plan Update is to present guidelines for development of the Avi Suquilla Airport to meet the needs of the Colorado River Indian Tribes (CRIT), the City of Parker, La Paz County and the surrounding trade area over the next 20 year period. Forecasts of aviation demand will provide the basis for recommended future physical development of airport facilities, including terminal development, instrument approach minimum improvements, future land needs, access requirements, and other infrastructure requirements for 5, 10, and 20 year planning periods. Economic feasibility, funding mechanisms, and timing of proposed developments will be reviewed so that the recommendations are economically practical. Environmental conditions will be documented and considered in the identification and analysis of airport development alternatives.

An inventory of present airport facilities, usage, and local economic factors, along with input from airport users, will provide the necessary data and information required to forecast aviation activity and existing and future facilities requirements. Alternatives Development and Evaluation, Chapter 4, will identify and evaluate alternatives for meeting existing and future facilities requirements. Recommended development alternatives will be selected in Chapter 4. The existing airport layout plan drawings will be updated to show the recommended development alternatives in accordance with current FAA criteria.

The latest Avi Suquilla Airport Master Plan was completed in April 1997. Numerous changes have occurred at the Airport since completion of the 1997 Master Plan. Major changes include the construction of a relocated Runway 1-19 and connecting taxiways, apron expansion, drainage improvements, and installation of security fencing surrounding airport property.

The Runway 1-19 Relocation Project was identified in an Airport Layout Plan Narrative Report and Airport Layout Plan (ALP) drawings update completed in December 2003. The Runway 1-19 Relocation and Extension Environmental Assessment was approved by the FAA and a Finding of No Significant Impact (FONSI) issued in May 2006.

Improvements that have been undertaken from the inception of the current FAA Airport Improvement Program (AIP) in 1982 and since completion of the 1997 Master Plan are listed in **Table 1-1**.

This Master Plan update is primarily intended for use by the aviation community and those authorities and public agencies, which are charged with the approval, promotion, and funding of the proposed improvements. All of those involved in the airport planning process, especially federal and state aviation officials, airport management, members of the Colorado River Indian Tribes, local government officials and planners, state and regional planning personnel, and the general public, are urged to review this study periodically to compare future aviation developments with those forecast.

1.2. Airport Management

The Avi Suquilla Airport is owned and operated by the Colorado River Indian Tribes (CRIT). CRIT includes four distinct tribes, the Mohave, Chemehuevi, Hopi and Navajo. CRIT tribal government is overseen by a nine-member Tribal Council, led by a Chairman and selected by bi-annual votes of the membership. The Avi Suquilla Airport is an enterprise department of the tribal government.

The department, known as CRIT Air, also fulfills functions often undertaken by a Fixed Base Operator (FBO) such as fuel sales, and collection of hangar rental and tie-down fees. CRIT Air is not a full service FBO as it does not currently offer flight instruction or aircraft maintenance or repairs. The Airport Manager, as the Department Head, is responsible for the day to day operation of CRIT Air and the overall management of the airport.

1.3. Airport History

The Airport was originally established in its present location during the 1920's. It was utilized by two different flying Service companies which trained Navy pilots up until 1941, at which time both companies relocated their operations to Prescott, Arizona.

The first paved surface, consisting of asphaltic concrete, was placed on the runway in 1959, in the current 01-19 runway orientation.

During a 20-year period, from 1962 to 1982, the airport was leased by CRIT to the Town of Parker. During this time, numerous airport improvements were made which included the addition of a paved parallel taxiway and connector taxiways, a paved apron, a hangar, underground fuel tanks, medium intensity runway and taxiway lighting (MIRL and MITL), and a 2-box visual approach slope indicator (VASI) system at each end of the runway. In 1982, the lease agreement between the Town of Parker and CRIT was terminated, and the ownership and operational responsibility for the Airport was transferred to the Colorado River Indian Tribes.

In 1984, a Master Plan Update was prepared for the Airport and in 1993 the Airport received federal funding for reconstruction and overlay of the runway, drainage improvements, apron expansion, and the installation of a Precision Approach Path Indicator (PAPI) and a new lighted wind sock. The existing VASI's were abandoned.

The Master Plan was again updated in 1997. Following the 1997 update, an Airport Layout Plan Narrative Report and the ALP drawing set was updated to support the Relocation and Extension of Runway 1-19. The extension contemplated in the 1997 Master Plan was no longer valid due to changes in FAA lateral clearance and runway safety area criteria. Runway 1-19 was relocated 1,050' east of its former location and lengthened to a dimension of 6,250' X 100'. The former runway was converted to a taxiway. Connecting taxiways with medium intensity taxiway lighting (MITL) were constructed and land was acquired for the relocated runway and runway approach protection.

Table 1-1 shows the variety of capital projects undertaken at the Avi Suquilla Airport since the inception of the current federal Airport Improvement Program (AIP) 30 years ago in 1982. The airport undoubtedly benefited from several projects under both the original Federal Aid Airport Program (FAAP) 1946-1969 and the Airport Development Aid Program (ADAP) 1970-1981. Data in the 1984 and 1997 Master Plans concerning previous federal grants was sketchy, and a listing of previous FAAP and ADAP projects is not readily available. Table 1-1 shows that the majority of AIP projects have been undertaken since the 1997 Master Plan was completed.

Table 1-1: Capital Improvement Projects 1982-2012

CRIT Projects

Year	Description	Project Cost
1998 Est	Above Ground Fuel Farm (Av-Gas and Jet A)	$177,000 Est
2000 Est	Two Ten Unit T-Hangars	$300,000 Est
Total CRIT Projects		**$477,000 Est**

AIP Projects

Year	AIP No.	Description	Grant Amount
1985	01	Master Plan Update	$29,517
1987	02	Expand Apron, Construct Taxiway, Install apron Lighting	$382,338
1992	03	Runway 1-19 and Parallel Taxiway A Overlay and Extension; South Apron Extension	$868,052
1996	04	Master Plan Update	$60,000
2002	05 & 06	Apron Rehabilitation Project	$307,000 $400,231
2005	7	Design Runway 1-19 Relocation and Extension Project	$445,435
2006	09 & 10	Phase I Runway Relocation Project - Security (Perimeter) Fence Project (AIP 09) and Grading and Drainage Project (AIP 10)	$650,436 $1,995,048
2007	11	Phase II Runway Relocation Project including Grading and Runway/Taxiway Paving Phase I Erosion Control Project	$3,473,605
2008	12	Phase III Runway Relocation Project including Airfield Lighting and AWOS, Pavement Seal Coat and Marking High Speed Diesel Powered Runway Sweeper	$1,401,844
2009	13 & 14	Preliminary Design Taxiway A and B Rehabilitation (AIP 13) Taxiway A and B Rehabilitation Including Lighting (ARRA Funded AIP 14)	$68,073 $1,790,786
2010	16 & 17	Phase II Erosion Control (AIP 16) Phase II Taxiway B Rehabilitation (ARRA Funded AIP 17)	$369,984 $309,501
2011	18	Master Plan Update	$150,000
2012	19	GA Apron Rehabilitation and Reconstruction including Erosion Control and Vehicle Security Gate Upgrade	$909,234
Total AIP Projects			**$13,611,084**

From 1984 through 2004, the Federal Grant amount was 91.06% of the FAA eligible project cost, making the CRIT share 9.84%. In 2005, as part of the recovery from the 9/11 terrorism attack and subsequent recession, the Federal Grant was increased to 95% of the FAA eligible project cost. The 2009 and 2010 projects funded under the American Recovery and Reinvestment Act (ARRA) of 2009 were 100% reimbursable by the FAA. When the AIP program was reauthorized in 2012, the Federal Grant share returned to the 2004 levels.

The Federal Grant share for general aviation airports is 90% in the Act. However, Arizona is one a few states where the percentage is increased due to the large amount of federal land (including land held in trust for Indian reservations) in the state.

1.4. Airport Setting

The Avi Suquilla Airport is located on the Colorado River Indian Reservation in Southwestern Arizona, immediately east of the Town of Parker, which is the county seat of La Paz County.

Railroad Bridge Parker, AZ

Parker provides easy access to 16 miles of Colorado River, known as the Parker Strip. This stretch of river, with abundant fishing, boating and camping opportunities, brings an abundance of holiday and weekend visitors from the Phoenix area and Southern California. In addition, regular area annual events bring an influx of visitors throughout the year. These events include:

- January: Parker 250 Off Road Race
- February: BlueWater Resort & Casino Parker 425 Off Road Race
- February: Parker Rotary Desert Dash
- February: Big Bass Classic Tournament
- March: Parker Marathon IWSRA Ski Races
- April: SCSC Spring Powerboat Classic
- April: Annual Open Golf Tournament, Emerald Canyon Golf Course
- May: Annual Cinco de Mayo Golf Tournament
- May: BlueWater Resort & Casino Grand Prix
- June: The Great Western Tube Float
- October: Blue Water Desert Challenge Off Road Race
- October: Annual Colorado River Chili Cook-off and Classic Car Show
- October: Enduro Speed Boat Competition
- November: Triathlon
- November: Thanksgiving Boat Regatta
- December: Colorado River Outfitters Outdoor Expo

The business climate in the Town of Parker and La Paz County is geared toward services and agriculture with manufacturing / industry beginning to emerge. The service and retail business sectors are the major economic contributors to the area through recreation and tourism. Agriculture follows closely with hay, cotton, melons and lettuce as the main crops.

Mild winters bring out of state visitors, many of whom return each year for a 4 to 6 month stay.[1]

Figure 1-1 depicts the location of the airport in its regional setting. As shown, Avi Suquilla is located 164 miles west of Phoenix via Interstate 10 and SR 95, 120 miles north of Yuma and 38 miles south of Lake Havasu City via SR 95.

The Airport is situated on approximately 744 acres located near the east bank of the Colorado River. The Airport has relatively level terrain and an elevation of 458.4 feet above mean sea level (MSL). However, the Whipple and Buckskin Mountains are located to the northwest and northeast of the airport, respectively, with elevations in the range of 850 feet MSL. Due to their elevations, these desert mountains must be considered in the planning of future improvements to the airport.

Highway access to the Town of Parker is provided by Arizona State Routes 72 and 95, and California State Highway 62. In addition, the Arizona and California Railroad also runs through Parker, where they have a switching yard. Rail service is limited to the shipping of freight only.

The primary access to the Avi Suquilla Airport is provided by SR 95 which is a two-lane highway which connects the Town of Parker with Lake Havasu City to the North. Access to the terminal area is provided by Airport Road, a two lane road.

[1] Parker Area Chamber of Commerce

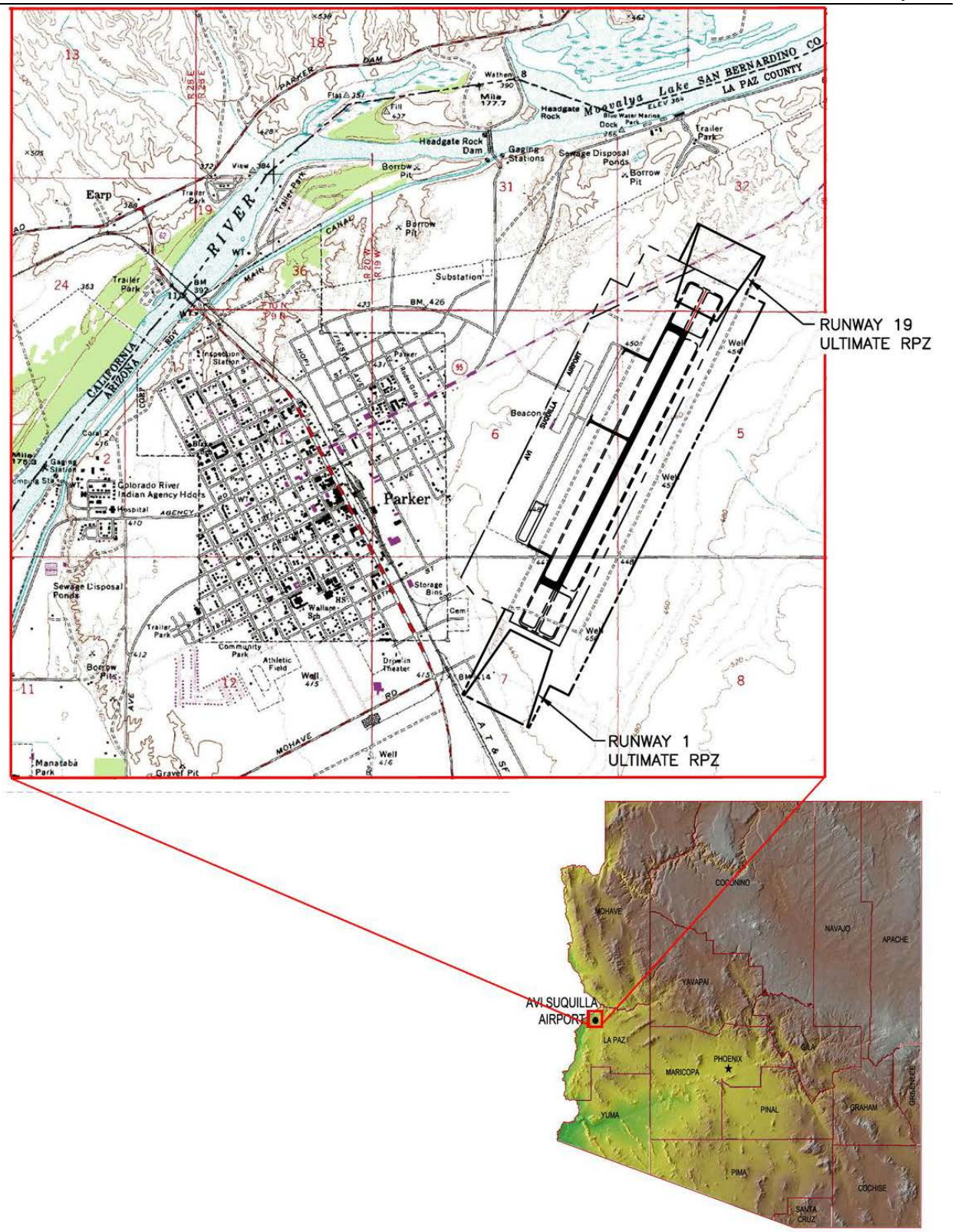


Figure 1-1 Location Map

1.5. Climate

Local weather conditions affect the daily operations of an airport and must be considered in planning future facilities. Most importantly, temperature and wind patterns must be considered in determining runway length and orientation requirements.

Parker's climate is that of an arid desert, characterized by mild winters and hot summers and low precipitation. The normal daily minimum temperature ranges from 41 degrees in December to 80 degrees in July. The normal daily maximum temperature ranges from 68 degrees in December to 109 degrees in July. The region averages approximately 5.11 inches of precipitation annually. On average, Parker experiences sunshine 82 percent of the year. The monthly average wind speed is 7.1 miles per hour (mph), and the predominant wind directions are from the north and the southwest. A summary of climactic data for Parker is presented in **Table 1-2**.

Table 1-2: Parker, AZ Climate Data

	Jan.	Feb.	Mar	Apr	May	Jun	Jul	Aug.	Sep.	Oct.	Nov.	Dec.
High Temp Avg. (F)	69	73	80	88	97	105	109	107	102	91	77	68
Low Temp Avg. (F)	42	45	50	56	65	73	80	79	72	61	49	41
Precip. Avg. (in.)	1.01	0.70	0.56	0.15	0.08	0.01	0.26	0.64	0.48	0.28	0.37	0.57
Wind Speed (mph)	6.0	6.5	7.6	8.0	8.1	8.0	8.0	7.5	7.1	6.5	6.0	5.8
Sunshine (%)	76	79	81	85	86	89	83	84	86	85	81	76

Source: www.weather .com and www.city-data.com

1.6. Airport System Planning Role

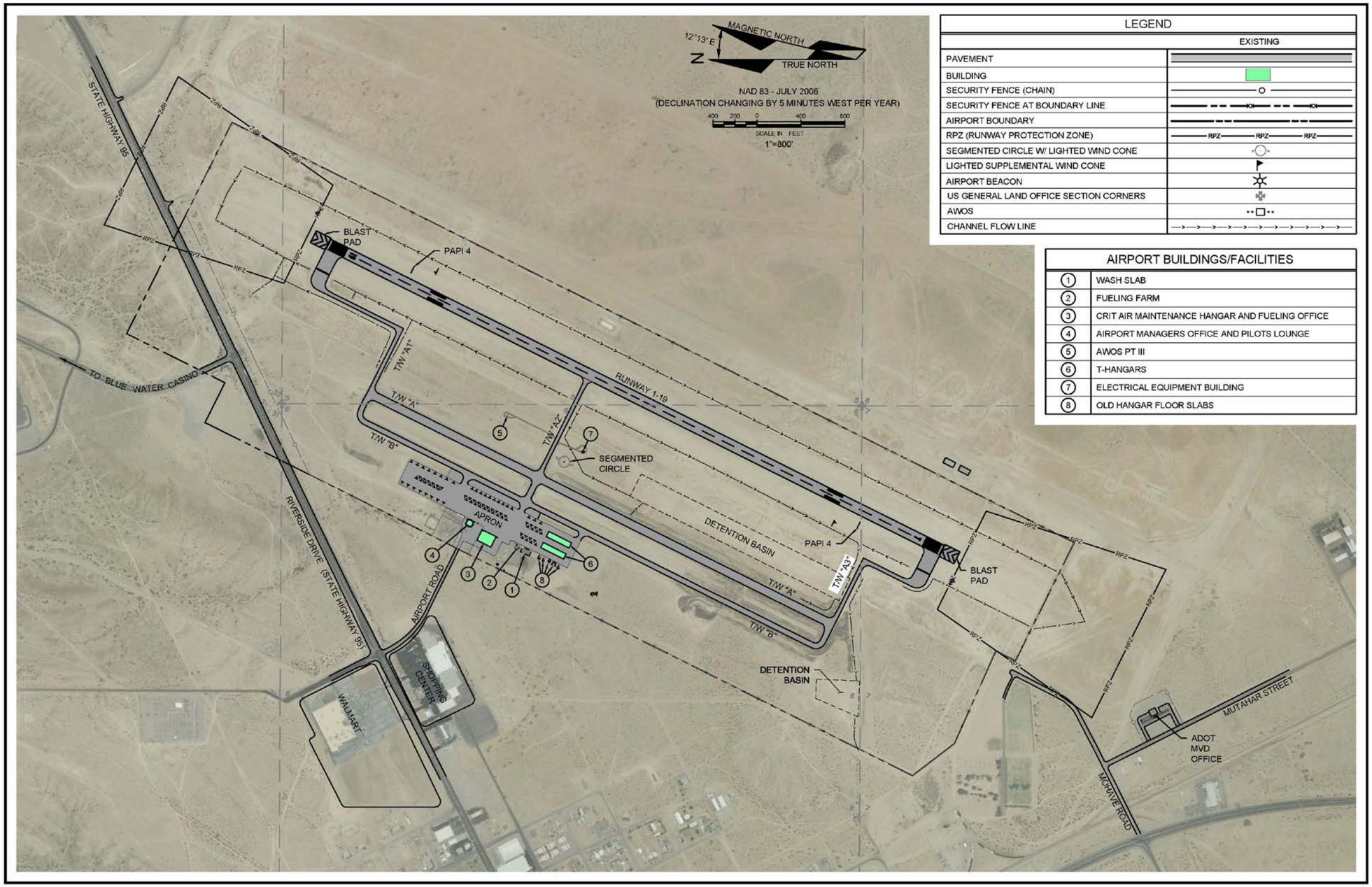
The National Plan of Integrated Airport Systems is a federal planning document which defines the service level and role of all airports in the federal airport system. NPIAS defines Avi Suquilla Airport's service level as a General Aviation General Utility Airport. According to the 2008 Arizona State Airports System Plan, the airport is one of 14 Native American, public-use airports open for use in the State of Arizona, and it is the only NPIAS General Aviation airport in La Paz County.

There is no commercial service activity at the airport. The nearest locations for commercial, scheduled air service are Bullhead City and Yuma located 100 miles and 120 miles from Parker respectively.

1.7. Airport Facilities

An essential element of the master planning process is identifying existing aviation facilities, noting the location of these facilities and analyzing the ability of these facilities to meet the airport's needs. The inventory of existing facilities at Avi Suquilla Airport was accomplished through physical inspection of the airport, discussion with airport staff, and review of existing airport layout drawings and related studies. An overview of the Airport layout is provided on **Figure 1-2**.

This page intentionally left blank.



LEGEND	EXISTING
PAVEMENT	
BUILDING	
SECURITY FENCE (CHAIN)	
SECURITY FENCE AT BOUNDARY LINE	
AIRPORT BOUNDARY	
RPZ (RUNWAY PROTECTION ZONE)	RPZ
SEGMENTED CIRCLE W/ LIGHTED WIND CONE	
LIGHTED SUPPLEMENTAL WIND CONE	
AIRPORT BEACON	
US GENERAL LAND OFFICE SECTION CORNERS	
AWOS	
CHANNEL FLOW LINE	

AIRPORT BUILDINGS/FACILITIES	
1	WASH SLAB
2	FUELING FARM
3	CRIT AIR MAINTENANCE HANGAR AND FUELING OFFICE
4	AIRPORT MANAGERS OFFICE AND PILOTS LOUNGE
5	AWOS PT III
6	T-HANGARS
7	ELECTRICAL EQUIPMENT BUILDING
8	OLD HANGAR FLOOR SLABS

Figure 1-2: Airport Layout

This page intentionally left blank.

1.8. Airside Facilities

Airside facilities consist of runways, taxiways and apron areas along with associated markings, lighting systems and instrumentation. The airport reference point, which defines the midpoint of the airfield is located at latitude 34˚08' 59.37" N and longitude 114˚16'04.23" W. The airport elevation, the highest point on the airfield pavement is 484.4' above Mean Sea Level (MSL).

1.9. Runway

The existing runway configuration consists of one active runway, Runway 1-19. Runway 1-19 is the Primary Instrument Runway (PIR) and is designed to accommodate C-II aircraft. Runway 1-19 is 6,250 feet long and 100 feet. A blast pad, also known as an overrun, extends 150 feet beyond the Runway 1 and 19 thresholds to protect the ground from erosion during aircraft departures; it also serves as an emergency stopway for aircraft landing on Runway 1 and 19. The runway elevation slopes up from 453.55 feet above MSL at the Runway 1 end to 458.75 feet above MSL at the Runway 19 end (a 0.08% slope).

Runway 1-19 consists of asphalt pavement over base material. The load bearing capacity of the runway is 30,000 pounds for single wheel aircraft and 50,000 pounds for dual wheel aircraft. The runway was newly constructed in 2009. Runway 1-19 is equipped with medium intensity runway lights (MIRL) and threshold lights that define the edges and ends of the runway.

To aid pilots in judging the correct approach slope of the aircraft toward the touchdown zone of the runway in conditions of poor visibility and at night, both ends of Runway 1-19 are equipped with four-light Precision Approach Path Indicators (PAPI). A PAPI aids pilots in judging the correct approach slope of the aircraft toward the touchdown zone of the runway in conditions of poor visibility and at night. The PAPI has four light boxes installed in a single row instead of the far and near bars characteristic of a VASI. On Runway 1, the light boxes are spaced approximately 764 feet from the runway threshold. On Runway 19, the light bars are spaced approximately 908 feet from the threshold.

Runway 1-19 is marked as a non-precision instrument runway.

Table 1-3: Runway Characteristics

Runway Data	1-19	
Length (feet)	6,250	
Width (feet)	100	
Pavement Type	Asphalt	
Pavement Strength (lbs.) **Single Wheel** **Dual Wheel**	 30,000 50,000	
Marking	Non-Precision Instrument	
	RW 1	**RW 19**
Lighting **Runway** **Runway end/approach** **Centerline** **Touchdown Zone**	 MIRL -- -- --	 MIRL -- -- --
Approach Aids **Visual** **Electronic**	 PAPI-4 VORTAC DME (GPS)	 PAPI-4 VORTAC DME (GPS)
Approach Visibility Minimums	>1 ¼ Mi.	>1 ¼ Mi.
FAR Part 77 Category	Visual	Visual
Approach Slope	20:1	20:1

1.10. Taxiways

Taxiway A2 from Terminal Apron

As shown on **Figure 1-2** the taxiway system at the airport is comprised primarily of two taxiways aligned with primary Runway 1-19 and several connecting taxiways. **Table 1-4** summarizes the features of all existing taxiways.

Taxiway A is a full length parallel taxiway to Runway 1-19 with a centerline-to-centerline spacing of 1,050 feet from the runway. Taxiway A was formerly a runway, but was converted to a taxiway when the runway was relocated and lengthened. Taxiway B is also a full length parallel taxiway to Runway 1-19. Taxiway B has a centerline-to-centerline spacing of 1,300 feet from the runway and 250 feet from Taxiway A. Taxiways A1, A2, and A-3 serve as connecting taxiways connecting parallel Taxiways A and B to Runway 1-19. Connecting Taxiways C1 and C2 connect the apron to Taxiway B.

Taxiway A is 75 feet wide and Taxiway B is 50 feet wide. Connecting Taxiways A1, A2 and A3 are all 35 feet wide. Taxiway C1 is 50 feet wide and taxiway C2 is 40 feet wide. All taxiways are constructed of asphalt pavement. All taxiways are equipped with medium intensity taxiway lights (MITL).

The configuration of taxiways necessitates several 90 degree turns as aircraft taxi from the ends of Runway 1-19 to the terminal area. Airport users with larger aircraft have indicated difficulty in maneuvering the 35 feet wide sections of taxiway.

Table 1-4: Existing Taxiway Data

Taxiway	Width (Design Group)	Safety Area Width	Pavement Strength
TW A	75'(IV)	79'	30S;50D
TW B	50'(III)	79'	30S;50D
TW A1	35'(II)	79'	30S;50D
TW A2	35' (II)	79'	30S;50D
TW A3	35' (II)	79'	30S;50D
TW C1	50' (III)	79'	30S;50D
TW C2	40' (II)	79'	7.5S

1.11. Apron Areas

Transient Apron – Avi Suquilla Airport

The Avi Suquilla Airport has one apron area for public use. The apron is divided into two categories, based aircraft and transient, based on usage. These apron areas are listed in **Table 1-5** and are depicted in **Figure 1-2**.

Table 1-5

	Apron Area (Square Yards)	Tie Downs
Based Aircraft Apron	9,450	19
Transient Apron	33,700	58
TOTAL	**43,150**	**77**

The pilots' lounge / General Aviation Terminal is located in the center of the airfield west of Runway 1-19. The transient apron extends from the east façade of the pilots' lounge to the north and south and provides access for transient air traffic to and from the taxiways. The transient apron is approximately 33,700 square yards with 58 tie downs and is constructed of asphalt pavement.

The based aircraft apron to the south of the transient apron is approximately 9,450 square yards. Currently the based aircraft apron has a total of 19 aircraft tie downs.

Apron lighting consists of automobile street lights mounted on weathered wooden poles. The lights are served by overhead power lines which run parallel with the edge of the apron.

1.12. Pavement Conditions

A detailed pavement inspection survey was completed at Avi Suquilla Airport in 2010. The survey was performed using the Pavement Condition Index (PCI) methodology developed by the U.S. Army Corps of Engineers during the 1970s. The PCI is a numerical representation of the condition of a pavement section at the time of its inspection. An index of "100" indicates new pavement, while an index of "0" indicates pavement that has failed. Indices that fall between these numbers indicate proportionate pavement conditions. The PCI rating is primarily based on the accurate identification of certain visual indications of pavement distress and deterioration. The procedures for conducting these investigations are outlined in AC 150/5380-6A.

Figure 1-3 shows the strength of the airfield pavement by section. **Figure 1-4** depicts the age of the various sections of pavement on the airfield by age. The oldest sections of pavement, the based aircraft apron and two portions of Taxiway B, are more than 20 years old, followed by the transient apron, which is currently 9 years old. The runway and portions of Taxiways A1, A2 and A3 between the Runway and Taxiway A were newly constructed in 2009. Taxiway A and the end portions of Taxiway B were reconstructed in 2010.

The results of the survey are shown on **Figure 1-5**. Runway and taxiway pavements were rated in excellent condition with the exception of two sections of Taxiway B, which were found to be at the lower end of good condition, and Taxiway C2, a small section of pavement connecting the south end of the apron to Taxiway B, which was found to be in poor condition. Two sections of apron, the based aircraft apron around the T-hangars and the section extending behind the large hangar, were rated "fair" and "failed" respectively. The remainder of the apron is aging and in need of maintenance in the near term. The study recommended continued routine crack sealing, fog sealing, and shoulder and ditch grading on all pavements rated "good" and better. For the sections of apron and taxiway rated "fair" and worse, the study recommended a more substantive rehabilitation effort.

This page intentionally left blank.

AVI SUQUILLA AIRPORT, PARKER ARIZONA
PAVEMENT STRENGTH SURVEY

PAVEMENT	BRANCH	SOIL CLASS	SUBGRADE CBR*2	BASE COURSE	SURFACE COURSE	OVERLAY	PAVEMENT STRENGTH, MAX. GROSS LOAD, SINGLE	DUAL	DUAL TANDEM	AIP 3-04-0026 AIP/YEAR
RW 1-19	R1	SM	11	8" P-208	3" P-401		30,000 lbs	50,000 lbs	-	AIP 011 / 2008
RW 1-19	R2	SM	11	8" P-208	3" P-401		30,000 lbs	50,000 lbs	-	AIP 011 / 2008
RW 1-19	R3	SM	11	8" P-208	3" P-401		30,000 lbs	50,000 lbs	-	AIP 011 / 2008
TW A	T10	SM	11	8" P-208	3" P-401		30,000 lbs	50,000 lbs	-	AIP 014 / 2010
TW A	T11	SM	11	*1	3" P-401		30,000 lbs	50,000 lbs	-	AIP 014 / 2010
TW A1	T7	SM	11	8" P-208	3" P-401		30,000 lbs	50,000 lbs	-	AIP 011 / 2008
TW A2	T1	SM	11	8" P-208	3" P-401		30,000 lbs	50,000 lbs	-	AIP 014 / 2010
TW A2	T8	SM	11	8" P-208	3" P-401		30,000 lbs	50,000 lbs	-	AIP 011 / 2008
TW A3	T9	SM	11	8" P-208	3" P-401		30,000 lbs	50,000 lbs	-	AIP 011 / 2008
TW B	T2	SM	11	8" P-208	3" P-401		30,000 lbs	50,000 lbs	-	AIP 014 / 2010
TW B	T3	SM	11	8" P-208	3" P-401		30,000 lbs	50,000 lbs	-	AIP 017 / 2011
TW B	T4	SM	11	8" P-208	3" P-401		30,000 lbs	50,000 lbs	-	AIP 017 / 2011
TW B	T5	SM	11	8" P-208	3" P-401		30,000 lbs	50,000 lbs	-	AIP 014 / 2010
TW C1	TWC1 HAS BEEN INCLUDED AS A PART OF A1								-	AIP 05-06 / 2003
TW C2	T6	SM	11	6" P-208	3" AC		12,500 lbs	-	-	AIP 017 / 2011
APRON	A1	SM	11	6" P-208	3" AC		30,000 lbs	-	-	AIP 05-06 / 2003
APRON	A2	SM	11	6" P-208	3" AC		30,000 lbs	-	-	AIP 05-06 / 2003
APRON	A3	SM	11	4" P-208	2" AC		4,000 lbs	-	-	AIP 003 / 1993
APRON	A4	SM	11	UNK	FAILED AC		4,000 lbs	-	-	1970±

REMARKS:
*1 - Base course consists of approx. 6" stabilized subgrade of soil cement (construction date unknown), underneath minimum 4" P-208 -2010 const. evaluated in pavement design as about 10" of P-208.
*2 - CBR's for AIP 011 varied from 11 to 26 and CBR's for AIP 005/006 varied from 8 to 20. A CBR of 11 has been used for pavement design and and evaluations for AIP 005 thru AIP 014.

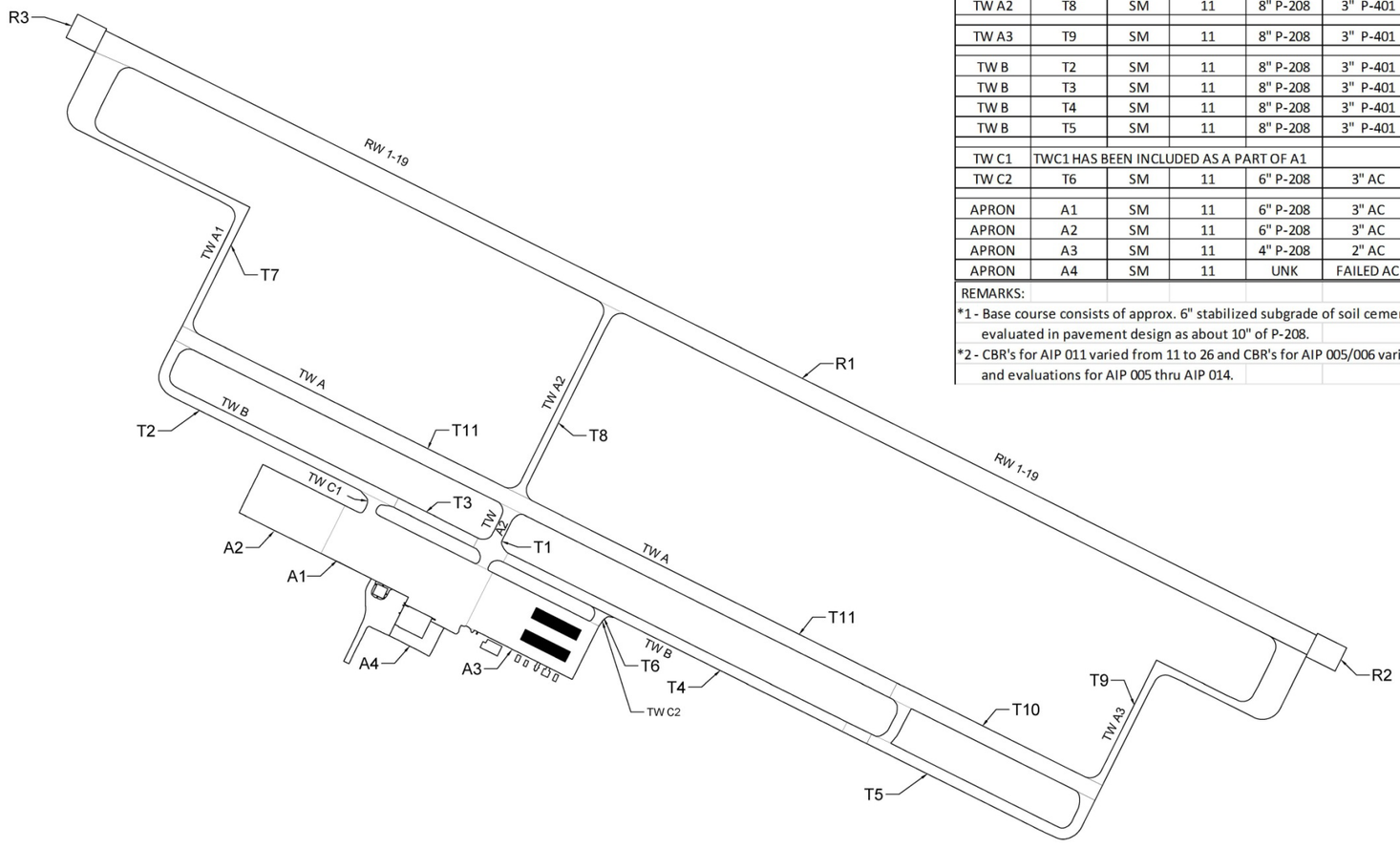


Figure 1-3 Pavement Strength

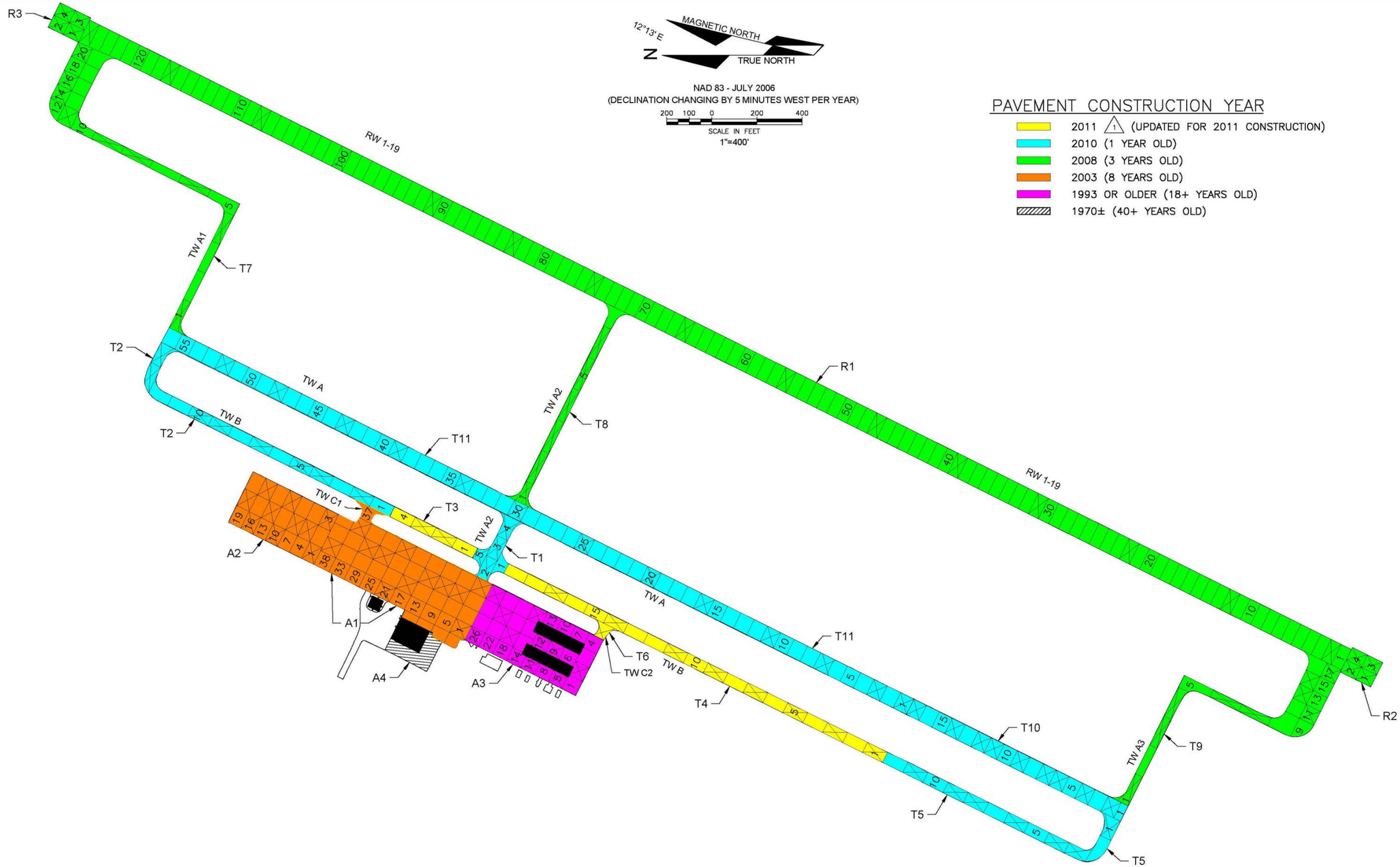
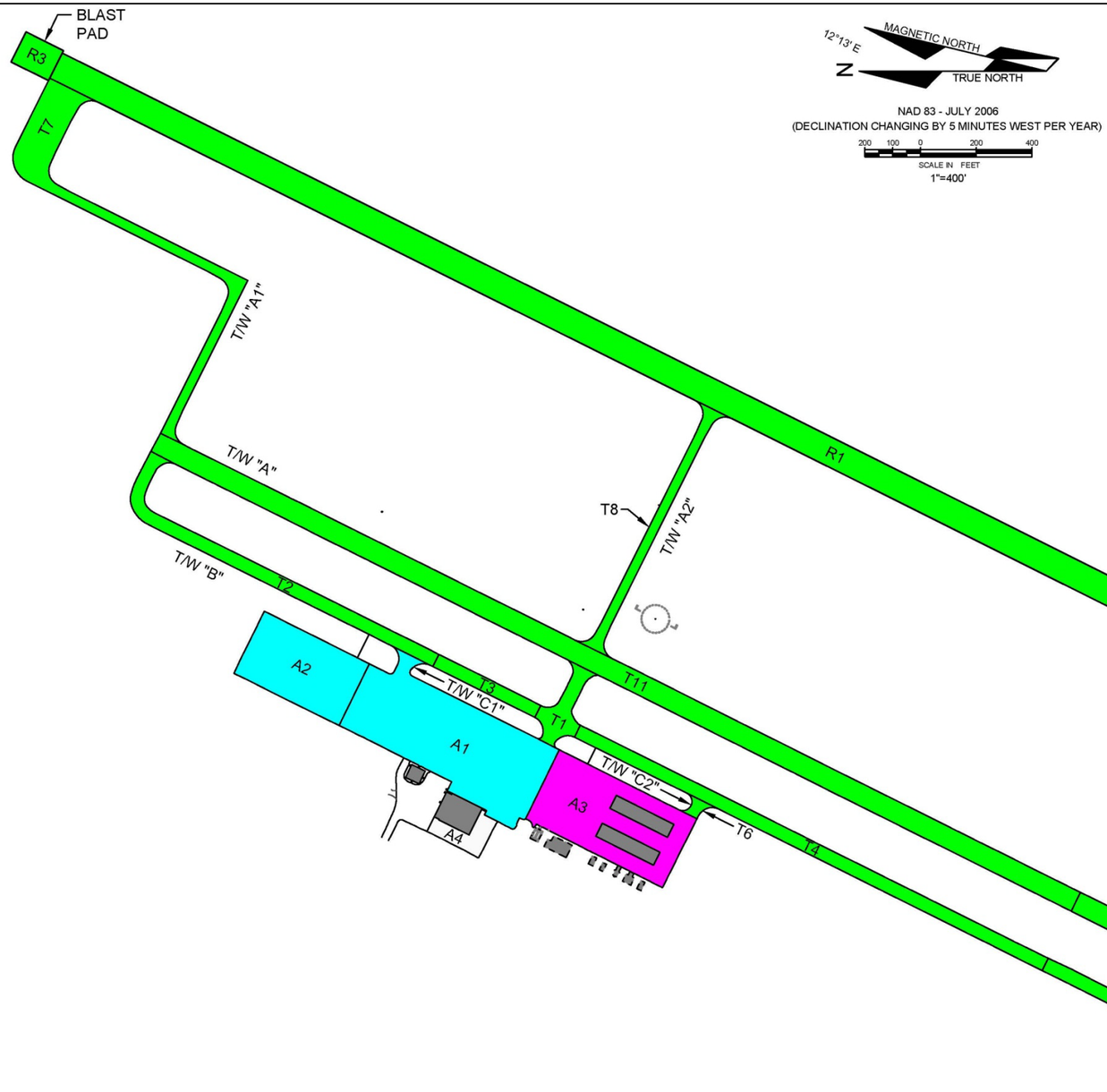


Figure 1-4 Pavement Age



2011 PCI Data				
BRANCH	SECTION	PCI	CONDITION	LAST CONSTRUCTION
RW 1-19	R1	100	EXCELLENT	2008
RW 1-19	R2	100	EXCELLENT	2008
RW 1-19	R3	100	EXCELLENT	2008
TW A	T10	100	EXCELLENT	2010
TW A	T11	100	EXCELLENT	2010
TW A1	T7	100	EXCELLENT	2008
TWA2	T8	100	EXCELLENT	2008
TWA2	T1	100	EXCELLENT	2010
TWA3	T9	100	EXCELLENT	2008
TW B	T2	100	EXCELLENT	2010
TW B	T3	100	GOOD	2011
TW B	T4	100	GOOD	2011
TW B	T5	100	EXCELLENT	2010
TW C1	INCLUDED IN A1			2003
TW C2	T6	100	EXELLENT	2011
APRON	A1	69	GOOD	2003
APRON	A2	70	GOOD	2003
APRON	A3	51	FAIR	1993
APRON	A4	10	FAILED	1970±

PCI LEGEND		
COLOR	PCI RANGE	RATING
	86 - 100	EXCELLENT
	71 - 85	VERY GOOD
	56 - 70	GOOD
	41 - 55	FAIR
	26 - 40	POOR
	11 - 25	VERY POOR
	0 - 10	FAILED

Figure 1-5 Pavement Condition

This page intentionally left blank.

1.13. Landside Facilities

Avi Suquilla Airport currently covers approximately 744 acres. Landside facilities at the airport include all areas not considered part of the previously discussed airfield system. Existing landside facilities include the GA terminal building/pilots lounge, automobile parking and vehicular access as well as general aviation, airport support, and non-aviation related commercial and industrial tenants.

The GA terminal and associated parking facilities are shown on **Figure 1-6**. Services associated with the GA terminal area include automobile parking, pilot services, fuel sales and aircraft storage.

1.14. Pilots' Lounge / GA Terminal / Administration Office

An approximately 1,500 square foot building serves the multiple functions of pilots' lounge, FBO office and airport administration office. The building is of block construction and was constructed in the early 1960's.

A sketch of the GA Terminal's layout is shown on **Figure 1-7**. The building consists of three primary functional areas within the 1,500 square foot space; a pilots' lounge, FBO counter and airport manager's office. Airport administration meetings involving groups must be conducted in the pilots' lounge space.

CRIT has plans to remodel the interior of the GA terminal to utilize the existing space more efficiently.

The building has no insulation except in the ceiling and its windows are all single pane. With summer temperatures frequently in excess of 110 degrees Fahrenheit, it is often impossible to cool the inside of the building below 90 degrees.

This page intentionally left blank.

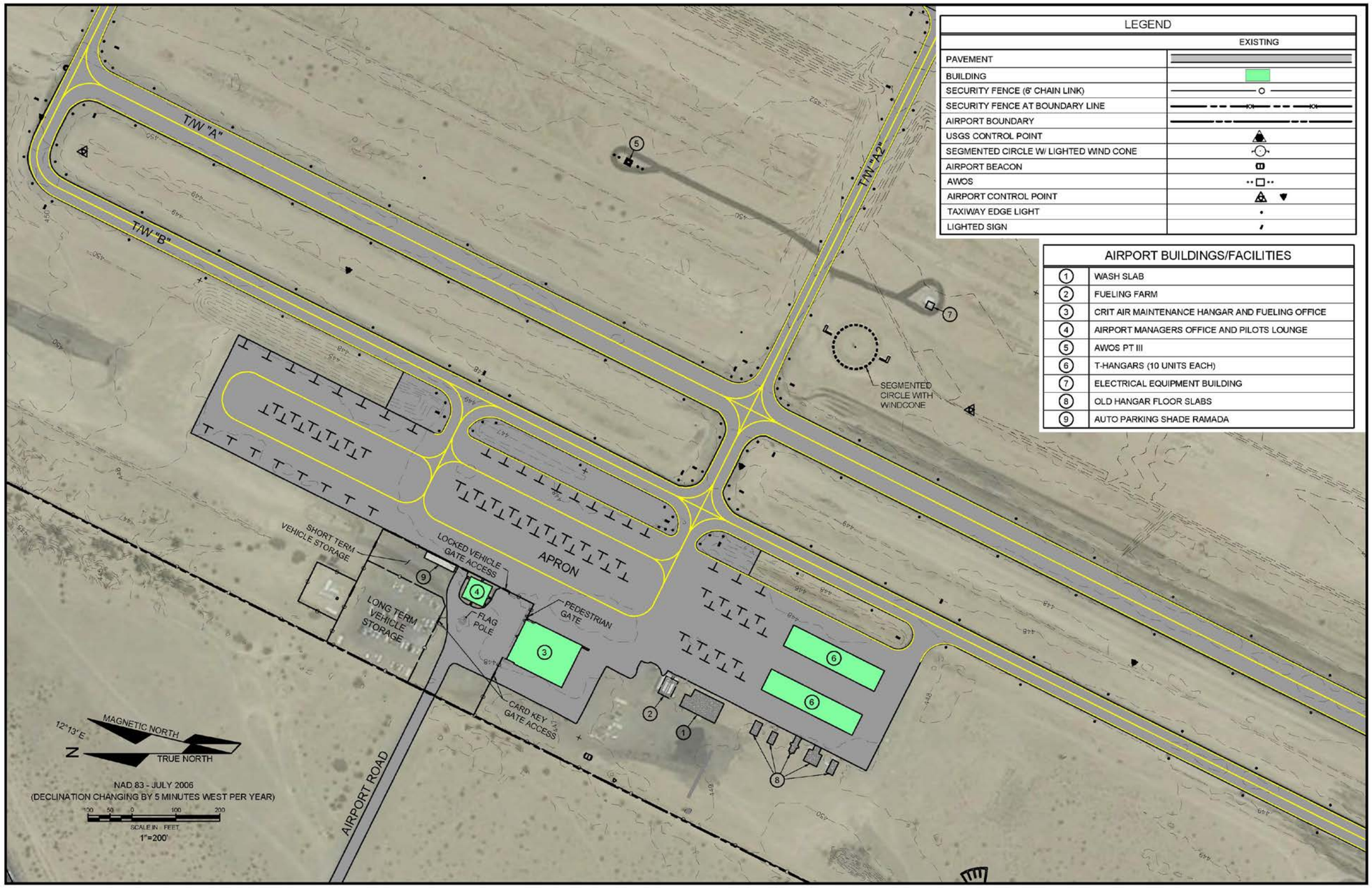


Figure 1-6: Terminal Area

This page intentionally left blank.

GA Terminal / Pilots Lounge Exterior

GA Pilots Lounge Area

FBO Office Administers Fuel Sales and Hangar/Tiedown Rentals

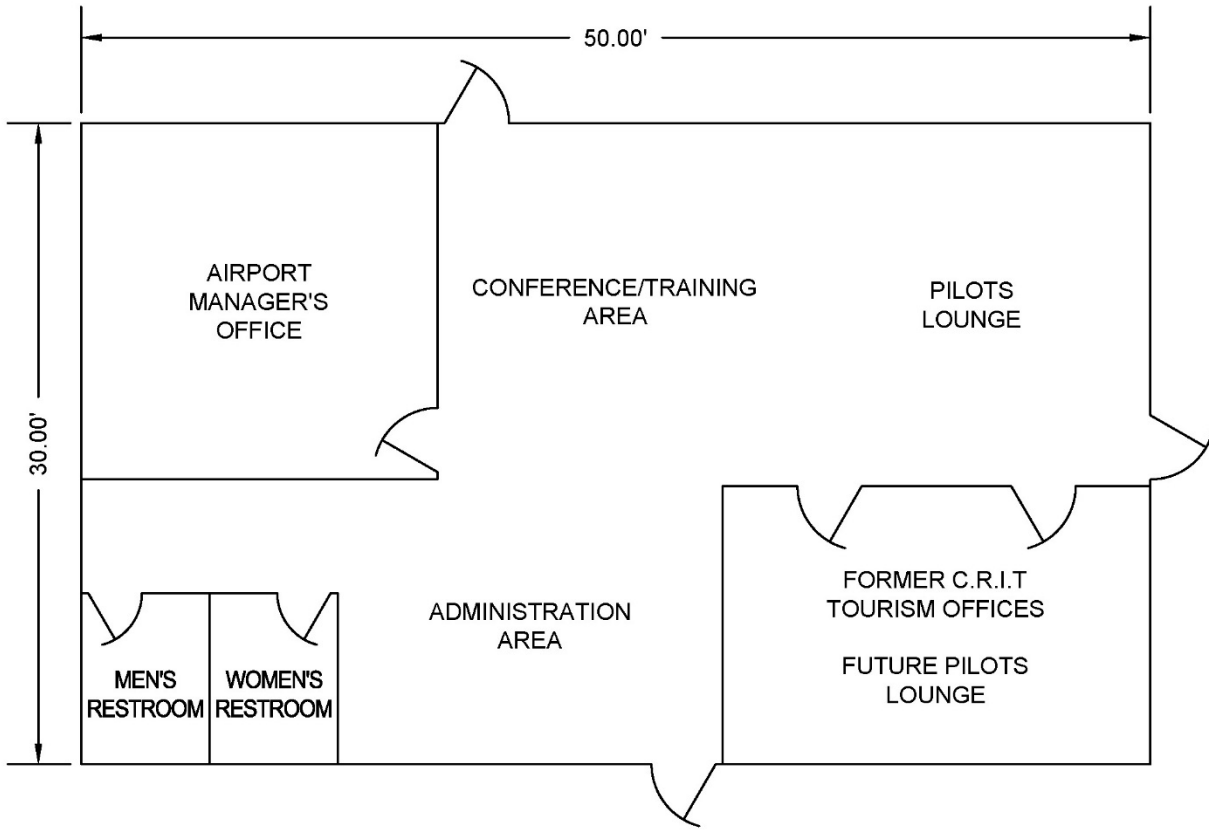


Figure 1-7, GA Terminal Floor Plan

1.15. Access and Parking

Access to the terminal is currently from Riverside Drive. Airport Road, approximately ¼ mile long, connects Riverside Drive with the GA terminal parking lot. The road is in poor condition. Signage to the airport from Riverside Drive is limited to a single 24" x 24" way finding sign.

A small visitors parking area is located north of the GA Terminal. Spaces are unmarked, however it is estimated that there is space for approximately 15 vehicles. At the present time, rainfall runoff from a portion of the aircraft apron and public parking lot floods the Terminal and main hangar buildings. Although average annual rainfall at the airport is in the two to four inch range, it is not uncommon for intense localized summer monsoon thunder storms to drop up to an inch of rainfall in less than an hour. An August, 2012 storm (3/4" in about 25 minutes) completely overwhelmed the capacity of the parking lot to the drain the surface runoff, resulting in flooding of the hangar and terminal buildings.

The airport also has two lots which it leases for vehicle storage at a market rate for revenue generation to support the airport's financial self-sufficiency; an unfenced, covered parking area for short term vehicle storage and an unpaved, fenced parking lot for long term vehicle storage. Spaces are not marked, however, it is estimated that the long term lot has space for 60 to 70 vehicles. The Ramada covering the short term parking area has space for eight vehicles.

Short Term Covered Parking

Long Term Parking

1.16. General Aviation Facilities

General Aviation facilities are located on the northwest side of the airfield fronting Taxiway B. CRIT Air, owned by the Colorado River Indian Tribes, is the airport's sole fixed base operator (FBO). CRIT Air offers fueling, hangar storage and tie-down storage and has personnel on duty seven days a week from 8:00am to 5:00pm. Limited maintenance services are available through a part time on-call contract provider.

Fuel Sales

As noted, CRIT Air provides fuel sales on the Avi Suquilla Airport. CRIT Air provides both avgas and jet fuel. The historic fuel sales since 2008 are summarized on **Table 1-6**.

Table 1-6: Historic Fuel Sales

YEAR	AV Gas	Jet A	TOTAL	% CHANGE
2008	23,669.9	39,176.5	62,846.4	
2009	25,837.5	41,952.5	67,790.0	7.9
2010	25,005.4	30,360.0	55,365.4	-18.3
2011	25,669.8	22,593.0	48,262.8	-12.8
****2012**	24,809.7	32,708.9	57,518.6	19.2

** Projected based on 5 months of sales

The fuel farm consists of two above ground tanks, one 12,000 gallon jet fuel tank and one 12,000 gallon avgas tank. The tank system was constructed to auto fueling standards with minimal engineering and is poorly designed for aviation use. The facility lacks a number of features typically standard to aviation fuel farms including spill containment facilities, inbound pumping, inbound filtration, proper low point sumping mechanisms, and design provisions for system maintenance (the canopy is too low to perform maintenance, there are no openings to pull pumps). Fueling capacity is 23 gallons per minute, which is very low for an aviation fueling facility. The fuel farm also lacks security fencing.

Fuel is delivered to aircraft with two fuel trucks, a 1,200 gallon capacity AvGas truck and a 1,000 gallon capacity truck for jet fuel. Both vehicles are designed for over wing fueling. The airport does not have the ability to provide underwing, or "single-point" fueling, which is needed to fuel larger capacity jet aircraft in a reasonable timeframe. CRIT Air staff indicates that limited capacities of the fuel truck tanks, together with the lack of single point fueling capability have turned away revenue from potential military and larger jet fuel customers. There is no spill containment in the fuel truck parking area.

Hangar and Tie-Down Leases

There are currently 3 hangar buildings on the airport. There are 2 units of nested T-hangars (approximately 12,000 sf. each), which each contain 10 units, for a total of 20 units. There is also one large hangar (approximately 12,000 sf. of hangar area with a 2,000 sf. one story lean-to office area), known as the CRIT hangar, that currently stores 4 aircraft. All hangars are of metal construction. The pavement around the CRIT hangar is higher than the floor of the building containing a hangar and airport office. Consequently, this structure floods whenever it rains with runoff from the parking lot.

The based aircraft ramp on general aviation ramp on the south side of the airfield has a total of 19 aircraft tie downs. 13 tie down spaces are currently leased on a monthly basis.

1.17. Support Facilities

Airport Rescue and Fire Fighting

The Avi Suquilla Airport does not currently have Airport Rescue and Fire Fighting (ARFF) facilities or equipment. Fire protection is provided by the CRIT Fire Department (primary response) and by the Parker Fire Department (secondary response). The Town of Parker Fire Department is located approximately 10 minutes from the airport. The CRIT Fire Department is located in Poston within a 20 minute drive of the airport. Currently, there are not any water mains or fire hydrants protecting the aircraft parking area, terminal or hangars at the airport. The closest fire hydrant is at a shopping center at the intersection of Airport Road and Highway 95, which is about 1,400 feet away from the closest aircraft parked on the GA Apron. The National Fire Protection Association (NFPA) provides guidance for the protection of structures on airports. The spacing of fire hydrants is governed by the capabilities of local fire departments with fire hydrant spacing's of 300 feet in commercial areas and 600 feet in single family residential areas generally accepted maximum distances. The Department of Defense Unified Facilities Criteria provides additional guidance for the spacing of fire hydrants in aircraft parking and fueling areas, generally using a 300 foot spacing and a minimum fire flow of 1000 gpm.

Airport Security

A 6 foot tall perimeter security fence was installed around the airport boundary in 2006. Access into the terminal area is made through a chain link swing gate on Airport Road, which is left unlocked. A 6 foot high chain link fence provides a physical barrier between the terminal and airfield areas. Access to the airfield can be made through this chain link fence via a vehicle gate and/or a pedestrian gate. The vehicle gate is locked with a keypad.

The CRIT Police Department provides police protection on the airport. The CRIT Police Department is also responsible for providing law enforcement on the reservation. Because limited police resources are committed to the entire reservation, routine surveillance of the airport is limited.

1.18. On-Airport Utilities

Water
Potable water is supplied to the west side of the Airport by the CRIT Utility Department. Water is distributed to the Airport via a two (2) inch water line which runs from its connection to the main CRIT transmission line at the Parker Cemetery to a meter box to the west of the CRIT Hangar. It was discovered by the airport during the construction of the AIP 019 project that portions of the water line are constructed of Schedule 40 electrical conduit which is not approved for domestic water use. In addition, the service line is undersized for domestic use and does not provide fire protection. The line provides domestic service to the GA Terminal, CRIT Hangar, a hose bib near the fuel farm and hose bibs at the T-Hangars for aircraft washing.

Sanitary Sewer
The airport is not served by a sanitary sewer service. Both the GA Terminal and the Hangar are on a joint septic tank and drain field. The nearest gravity sanitary sewer line is in the far southerly parking lot of the shopping center west of the airport. There is also a 16 inch force main line which parallels old SR 95 and connects to the gravity system in Wal-Mart parking lot west of the current alignment of SR 95.

Electricity
Electrical power is supplied to the Airport by the Bureau of Indian Affairs (BIA) Branch of Electrical Services. Although a single line feeds the west side of the airport, there are currently four electrical meters serving the office, hangar and other facilities. The Airfield Electrical Vault is served by a BIA electrical line located on the east side of the Airport.

Telephone
Telephone service to the Airport is provided by Verizon. Internet service is provided to the three computers in the GA terminal by use of Verizon wireless cards.

Gas
There is no natural gas service at the Airport; however, the Southwest Gas Corporation has a 6-inch gas line which formerly crossed airport property and now located at the south end of the airport outside of the future airport boundary. The BlueWater Casino has connected to the Southwest Gas line near the southwest corner of the Airport. The Casino gas line parallels the west airport property line and could be accessed for service in the future with the permission of the Casino.

1.19. FAR Part 77 Surfaces and Runway Protection Zones

FAR Part 77 Objects Affecting Navigable Airspace applies to all civil airports under the jurisdiction of the FAA and provides standards to determine obstructions in navigable airspace. **Figure 1-8** shows the existing Part 77 airspace surface structure at Avi Suquilla Airport.

Subpart C of FAR Part 77 defines obstruction standards and establishes imaginary surfaces with relation to an airport and each runway. The size of each imaginary surface is based on the category of each runway and the type of approach available or planned for that runway. Runway 1-19 at Avi Suquilla Airport is categorized as a visual runway for larger than utility aircraft by Part 77 definitions. The imaginary surfaces that apply to Avi Suquilla include the Primary, Approach, Horizontal, Transitional and Conical surfaces. The following paragraphs define these surfaces.

The Primary Surface is longitudinally centered on the runway. For runways with a specially prepared hard surface, it extends 200 feet beyond each runway end. For all other runways with no hard surface it ends at the end of the runway. The primary surface for Avi Suquilla Airport is 500 feet wide.

The Approach Surfaces are trapezoidal in shape, are longitudinally centered on the extended runway centerline and extend outward and upward from each end of the primary surface. The beginning width of the Approach Surfaces is the same width as the primary surface. The approach surfaces for Runways 1 and 19 extend to a width of 1,500 feet at a distance 5,000 feet from its beginning. The approach slope for Runways 1 and 19 extend outward and upward at a slope of 20:1.

The Horizontal Surface is a horizontal plane 150 feet above the established airport elevation or 608.4 feet MSL (458.4 + 150). The perimeter of the surface is constructed by swinging 5,000 foot arcs from the center of the end of the primary surfaces for Runway 1-19 and by connecting each arc with tangent lines.

The Transitional Surfaces extend outward and upward at right angles from the primary and approach surfaces at a slope of 7:1 to 150 feet AGL. The Conical Surface extends outward from the Horizontal Surface 4,000 feet at a slope of 20:1.

Each runway end has a “Runway Protection Zone” (RPZ) which is trapezoidal in shape and centered on the extended runway centerline. The RPZ’s function is to enhance the protection of people and property on the ground. Control is preferably exercised through the acquisition of sufficient property interest in the RPZ. The FAA recommends that the airport sponsor own these designated land areas in fee simple terms.

The RPZs for Runway 1-19 are depicted on **Figure 1-2**. The RPZ for Runway 1 is 1000 feet wide at its narrow end, 1510 feet wide at its wide end and is 1700 feet long. The RPZ for Runway 19 is the same as Runway 01.

AIRPORT SURFACE DATA

ITEM	DIMENSIONAL STANDARDS (FEET)					
	VISUAL RUNWAY		NON–PRECISION INSTRUMENT RUNWAY			PRECISION INSTRUMENT RUNWAY
	A	B	A	B		
				C	D	
WIDTH OF PRIMARY SURFACE AND APPROACH SURFACE WIDTH AT INNER END.	250	500	500	500	1,000	1,000
RADIUS OF HORIZONTAL SURFACE	5,000	5,000	5,000	10,000	10,000	10,000
	VISUAL APPROACH		NON–PRECISION INSTRUMENT APPROACH			PRECISION INSTRUMENT APPROACH
	A	B	A	B		
				C	D	
APPROACH SURFACE WIDTH AT END	1,250	1,500	2,000	3,500	4,000	16,000
APPROACH SURFACE LENGTH	5,000	5,000	5,000	10,000	10,000	a
APPROACH SLOPE	20:1	20:1	20:1	34:1	34:1	a

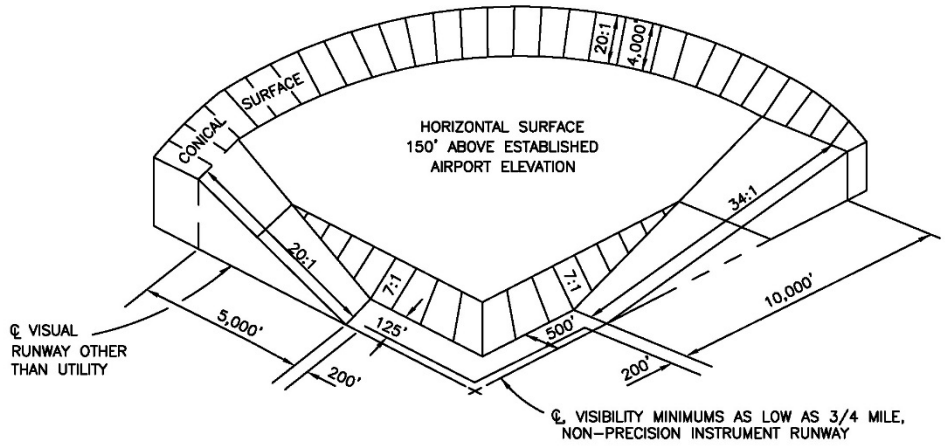
A– UTILITY RUNWAYS.

B– RUNWAYS LARGER THAN UTILITY (EXISTING VISUAL).

C– VISIBILITY MINIMUMS GREATER THAN 3/4 MILE.

D– VISIBILITY MINIMUMS AS LOW AS 3/4 MILE (ULTIMATE).

a PRECISION INSTRUMENT APPROACH SLOPE IS 50:1 FOR INNER 10,000 FEET AND 40:1 FOR AN ADDITIONAL 40,000 FEET.



TYPICAL CIVIL AIRPORT
IMAGINARY SURFACES DETAIL

Figure 1-8 FAR Part 77 Imaginary Airspace Surfaces

1.20. Airspace

Aircraft operating to or from an airport do so under either Visual Flight Rules (VFR) or Instrument Flight Rules (IFR). VFR governs the procedures for flying under visual conditions, when a pilot is able to safely control and navigate an aircraft by visual reference to the environment outside of the cockpit. Meteorological conditions that meet the minimum requirements for VFR flight are called visual meteorological conditions (VMC)[2] Conditions that do not meet the minimum requirements for VFR flight are called instrument meteorological conditions (IMC), under which a flight may only operate under IFR. IFR are a set of regulations and procedures for flying aircraft whereby navigation and obstacle clearance is maintained with reference to aircraft instruments only, while separation from other aircraft is provided by the air traffic control.

1.21. Air Traffic Control

No air traffic control facilities are available at the airport. There is no requirement for pilots to communicate with any air traffic control facility while operating at the airport.

1.22. Airport Traffic Patterns

The airport currently operates as a non-towered general aviation airport, and as such, has a single circular shaped airport traffic pattern which is situated above the airport. Runway 1 has a standard left-hand VFR airport traffic pattern. Runway 19, for overflight avoidance purposes, has a right-hand VFR airport traffic pattern. Airport pattern altitude is 800 feet above the airport's 458 foot MSL elevation.

1.23. VFR Operations

Operations to and from the airport during VMC conditions are conducted under basic VFR. The airport is depicted on the Phoenix Sectional Aeronautical Chart. **Figure 1-10**.

1.24. IFR Operations

One instrument approach is available to pilots operating under IMC when cloud ceiling heights are equal to or greater than 1448 feet above the airport elevation and/or horizontal visibility is equal to or greater than 1.25 miles. The details for the VOR/DME or GPS-A approach is summarized in **Table 1-7**. There is no straight-in instrument approach approved for the airport at this time. The VOR/DME or GPS-A approach is considered a circling approach only, which allows pilots to approach the airport and then land on the runway most closely aligned with the current winds.

1.25. Airspace Structure

Airspace in the United States is classified as controlled, uncontrolled, or special use. Controlled airspace encompasses those areas where there are specific certification, communication and navigation equipment requirements that pilots and aircraft must meet to operate in that airspace. Airspace is classified as Class A, B, C, D, E, G or special use airspace.

[2] AC 150/5060, Airport Capacity and Delay, defines VMC as a cloud ceiling height of at least 1,000 feet above ground level (AGL) and visibility greater than three nautical miles (nm). IMC is defined as a ceiling height less than 1,000 feet AGL and visibility less than three nm.

Avi Suquilla Airport is located under Class E, airspace with a floor 700 feet above the surface of the ground extending to 18,000 feet MSL. Class E airspace is controlled airspace that encompasses all instrument approach procedures and low altitude federal airways. Only aircraft conducting instrument flights are required to be in contact with air traffic control when operating in Class E Airspace.

Several Military Operating Areas (MOAs) are regionally associated with the Avi Suquilla Airport. MOAs consist of airspace of defined vertical and lateral limits established for the purpose of separating certain military training activities from Instrument Flight Rules (IFR) traffic. Whenever an MOA is being used, nonparticipating IFR traffic may be cleared through an MOA if IFR separation can be provided by Air Traffic Control (ATC). Otherwise, ATC will reroute or restrict nonparticipating IFR traffic.

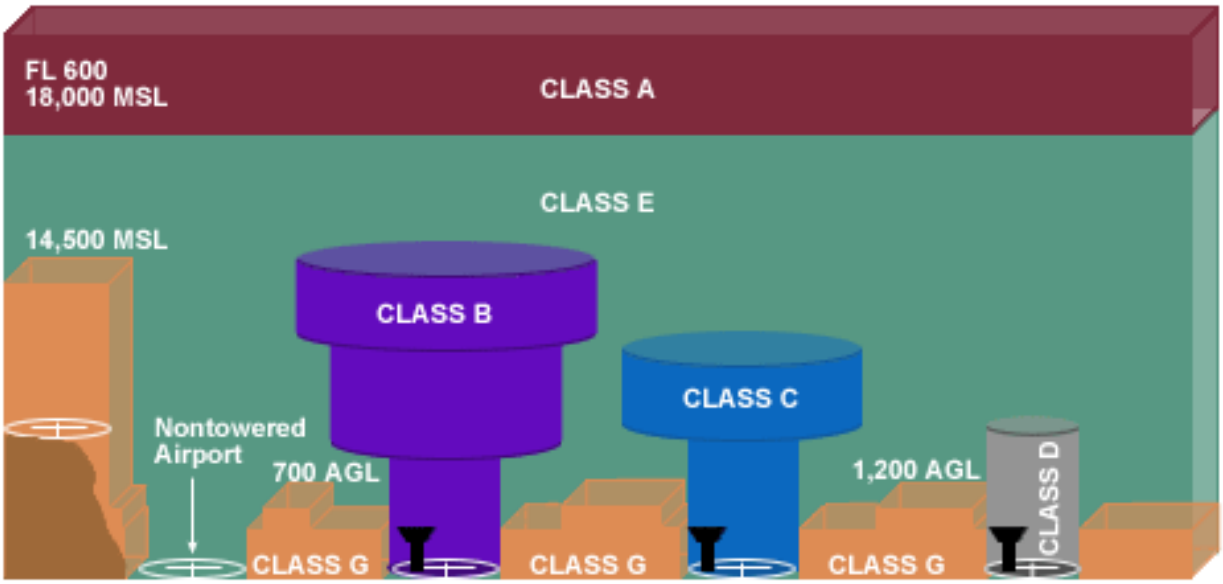
Most military training activities require acrobatic or abrupt flight maneuvers. Therefore, military pilots conducting flights in Department of Defense aircraft within a designated and active MOA are exempt from the provisions of FAR 91.71(c) and (d) which prohibit acrobatic flight within federal airways and control zones.

Pilots operating under Visual Flight Rules (VFR) should exercise extreme caution while flying within an MOA when military exercises are being conducted. Information regarding activity in MOAs may be obtained from Arizona or California Flight Service Stations (FSS) in the vicinity. Prior to flying through an MOA, FAA recommends that the pilot contact the controlling agency for traffic advisories. The south end of the runway at Avi Suquilla Airport is less than 1 mile north of the northern boundary of the Quail MOA. However, the Quail MOA begins at 10,000 feet MSL and continues upward to the floor of the positive control area at 18,000 feet MSL.

Three other MOAs are located near Parker, the Turtle MOA, approximately 10 miles north-northwest at the nearest point, Bagdad 1 MOA about 16 miles northeast and Gladden 1 Alpha MOA about 16 miles southeast.

Other controlled airspace associated with the airport are the federal “Victor” airways. A Victor airway is an imaginary corridor which is based on a centerline that extends from one navigational aid (NAVAID) or intersection to another NAVAID specified for that airway. The centerline is shown on aeronautic charts along with the magnetic course and the airway’s identity. Each airway includes airspace within parallel boundary lines which are normally 4 nautical miles each side of the centerline extending from 1,200 feet above ground level (unless a higher altitude is indicated) upward to, but not including, 18,000 feet MSL. In as much as a federal airway is controlled airspace, VFR flight within the airway requires distinct weather minimums. Acrobatic flight is not permitted in an airway or control zone.

The airway most closely associated with the Avi Suquilla Airport is Victor 135 located west of the Airport in a north-south fashion as described by the Blythe, Parker, and Needles VORTACs. Victor 135 has a designated ceiling of 9,000 feet MSL south of Parker VORTAC, and 10,000 feet MSL between the Parker and Needles VORTACs.



Airspace Features	Class A	Class B	Class C	Class D	Class E	Class G
ATC Facility	ARTCC	TRACON	TRACON or ATCT	ATCT	ARTCC	None
Operations Permitted	IFR	IFR & VFR	IFR & VFR	IFR & VFR	IFR & VFR	IFR & VFR
Entry Requirements	ATC Clearance	ATC Clearance	ATC Clearance for IFR. All require radio contact	ATC Clearance for IFR. All require radio contact	ATC Clearance for IFR. All require radio contact	None
VFR Minimum Distance from Clouds	N/A	Clear of clouds	500' below, 1,000' above, and 2000' horizontal	500' below, 1,000' above, and 2000' horizontal	500' below, 1,000' above, and 2000' horizontal	Clear of clouds
Aircraft Separation	All	All	IFR, SVFR, and runway operations	IFR, SVFR, and runway operations	IFR and SVFR	None

Courtesy of FAA

Figure 1-9 Airspace Classification

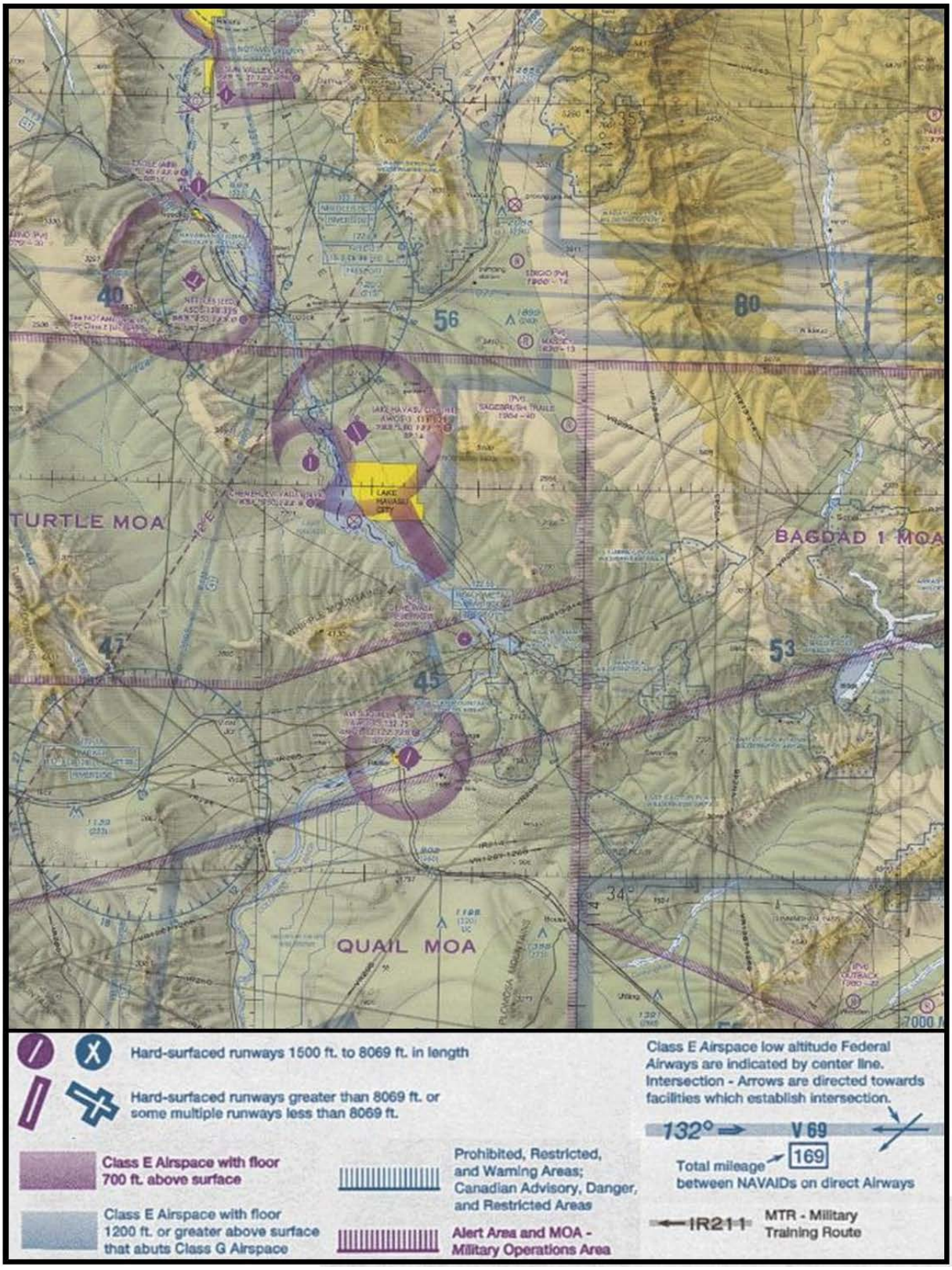


Figure 1-10 Sectional Chart

1.26. Navigational Aids, Radio Communication, Weather Aids

As noted above, the airport and terminal area navigational aids include Very-High-Frequency Omnirange Equipment (VOR) with Tactical Air Navigation (TACAN), commonly called a VORTAC. This ground based, electronic navigation system, provides both azimuth (directional) and distance information usable by both civilian and military aircraft. The Parker VORTAC is located approximately 20 nautical miles west of Avi Suquilla Airport and serves as the fix establishing a published circling approach to the airport.

Global Positioning Systems (GPS) is an additional navigational aid for pilots' enroute to the airport. GPS was initially developed by the United States Department of Defense for military navigation around the world. Increasing, over the last few years, GPS has been utilized more in civilian aircraft. GPS uses satellites placed in orbit around the globe to transmit electronic signals which properly equipped aircraft use to determine altitude, speed, and navigational information. With GPS, pilots can directly navigate to any airport in the country and are not required to navigate using a specific navigational facility.

Visual navigational aids are also provided at the airport. In addition to Medium Intensity Runway Lights (MIRL), Runway 1-19 has four box Precision Approach Path Indicators (PAPI) at both the Runway 1 and 19 approaches. A PAPI is a system of lights which indicate to pilots whether they are above, below or on the designated descent path to the runway.

The airport also provides a clear and green rotating beacon, compass calibration pad, lighted wind cone and segmented circle onsite.

CRIT Air operates the field UNICOM on a frequency of 122.725 MHZ. UNICOM is a non-government communications facility which may provide airport information for non-air traffic control purposes. Airport traffic advisories may be available to pilots via the use of the UNICOM radio frequency. All Pilots are encouraged by the FAA to utilize the UNICOM Radio service.

The airport is equipped with an Automated Weather Observation System III (AWOS-III). An AWOS automatically records weather conditions such as wind speed, wind gusts, wind direction, temperature, dew point, altimeter setting, and density altitude. In addition, the AWOS-III will record visibility, precipitation, and cloud height. This information is then transmitted at regular intervals on radio frequency 132.75 MHz. In addition, the same information is available through a dial-in telephone number (928-669-2160). The AWOS is located approximately 600 feet west of Runway 1-19 north of Taxiway A2.

1.27. Instrument Approach Procedures

One instrument approach has been approved for the Avi Suquilla Airport. The details for the VOR/DME or GPS-A approach is summarized in **Table 1-7**. There is no straight-in instrument approach approved for the airport at this time. The VOR/DME or GPS-A approach is considered a circling approach only, which allows pilots to approach the airport and then land on the runway most closely aligned with the current winds.

Table 1-7: Instrument Approach Data, Avi Suquilla Airport

	Category A		Category B		Category C		Category D	
Approach Speed (Knots)	0-90		91-120		121-140		141-165	
	Cloud Height (feet AGL)	Visibility (miles)	Cloud Height (feet AGL)	Visibility (miles)	Cloud Height (feet AGL)	Visibility (miles)	Cloud Height (feet AGL)	Visibility (miles)
Circling	1448	1.25	1448	1.5	1448	3	NA	NA

Source: U.S. Terminal Procedures, SW-4 (April 2012)

1.28. Community Profile

The Avi Suquilla Airport serves an area that includes the Town of Parker, La Paz County, the Colorado River Indian Reservation and San Bernardino County California. In order to provide a general look at the socioeconomic makeup of the community that utilizes the airport, the following sections will examine demographic and economic information from local, state and federal sources.

1.28.1 Population

La Paz County encompasses 4,499 square miles of land, of which 9 percent is the Colorado River Indian Tribes' reservation and 4 percent is privately held. The majority of the land, 87 percent, is controlled by various public agencies which include the Bureau of Land Management (BLM), and the State of Arizona. This fact, coupled with the region's rugged terrain, attributes to the relatively low growth in population in La Paz County over the last 20 years. As shown in **Table 1-8**, the population in La Paz County since 1990 has increased at an average annual rate of 2.4 percent versus 3.7 percent for the State of Arizona. The Town of Parker's average annual growth rate has been even less, at 0.3 percent, which may be attributable to the limitations of available land within the town limits. However, much of the growth in the Parker area is projected to take place outside the town limits. **Table 1-9**, shows the Arizona Department of Commerce projections for average annual growth over the next 20 years for Census Designated Places (CCPs) in the Parker Census County Division (CCD).

Most Native Americans residing within La Paz County belong to the Colorado River Indian Tribes (CRIT) and live on the reservation. The CRIT reservation spans three counties in two states (La Paz County in Arizona and Riverside and San Bernardino Counties in California) and was created in 1865 by the federal government for the Chemehuevi and the Mohave tribes who have lived in the region for centuries. In more recent years, the federal government relocated members of the Hopi and the Navajo tribes to the CRIT reservation. CRIT, therefore, actually consists of the four distinct tribes named above. CRIT has approximately 3,500 active members.[3] Additionally, many other people live on CRIT reservation land, including other Native Americans who are not registered as CRIT members, people of Hispanic or Latino ethnicity, and White persons.

[3] Colorado River Indian Tribes Website: http://www.crit-nsn.gov/crit_contents/about/

Table 1-8: Population Trends for the Years 1990-2035

	State of Arizona	La Paz County	CRIT Reservation (La Paz County Only)	CRIT Reservation (Arizona and California)	Town of Parker	State of California	San Bernardino County
Historical							
1990	3,680,800	13,900	7,865		2,900	29,758,213	1,418,380
1995	4,228,900	16,550			2,950	31,617,770	1,574,240
2000	5,175,581	19,903	7,466	9,201	3,139	34,000,835	1,763,780
2005	5,924,476	20,608			3,164	35,985,582	1,942,734
2010	6,401,569	20,495	7,077	8,764	3,088	37,318,481	2,038,771
Projected							
2015	7,915,629	24,070	7,967		3,553	38,926,281	2,146,336
2020	8,779,567	25,487	8,130		3,688	40,817,839	2,283,798
2025	9,588,745	26,837	8,226		3,816	42,721,958	2,433,574
2030	10,347,543	28,074	8,428		3,933	44,574,756	2,588,990
2035	11,049,577	29,054	8,541		4,026	46,330,221	2,746,645
Historical							
% Increase 1990-2010	73.9%	47.4%	-10.0%		6.5%	25.4%	43.7%
A.A.G.R. 1990-2010	3.7%	2.4%	-0.5%		0.3%	1.3%	2.2%
Projected							
% Increase 2015-2035	39.6%	20.7%	7.2%		13.3%	19.0%	28.0%
A.A.G.R. 2015-2035	2.0%	1.0%	0.4%		0.7%	1.0%	1.4%

A.A.G.R. = Average Annual Growth Rate
Sources: Arizona Department of Administration Office of Employment and Population Statistics (http://www.workforce.az.gov/population-estimates.aspx)
La Paz Economic Development Corporation (http://www.lapazedc.com/CRITPopulation.html)
US Census (Census Tracts 9402 & 9403)
US Census (Colorado River Reservation AZ-CA)
California County and State Population Estimates, California Department of Finance

Table 1-9: Arizona Department of Commerce La Paz County Population Projections

	2015	2020	2025	2030	2035
La Paz County	24,070	25,487	26,837	28,074	29,054
Parker CCD	24,070	25,487	26,837	28,074	29,054
BlueWater CDP	897	951	1,003	1,050	1,088
Bouse CDP	868	950	1,029	1,101	1,158
Cibola CDP	221	237	252	266	277
Ehrenberg CDP	1,454	1,486	1,516	1,543	1,565
Parker Town	3,553	3,688	3,816	3,933	4,026
Parker Strip CDP	4,531	4,930	5,311	5,660	5,937
Poston CDP	389	389	389	389	389
Quartzite Town	4,080	4,317	4,542	4,748	4,912
Salome CDP	2,785	3,141	3,480	3,791	4,038
Wenden CDP	730	787	841	890	930
Remainder of Parker CCD	4,562	4,611	4,659	4,702	4,736
Reservations					
Colorado River (AZ)	7,967	8,130	8,286	8,428	8,541
Total Reservation	7,967	8,130	8,286	8,428	8,541
Total Non-Reservation	16,103	17,357	18,551	19,646	20,513

CCD - Census County Division
CDP - Census Designated Place

Source: Arizona Department of Commerce Website (http://www.workforce.az.gov/population-projections.aspx)

By comparison, San Bernardino County, California encompasses 20,057 square miles of land. Also shown in **Table 1-8**, the population in San Bernardino County since 1990 has increased at an average rate of 2.2 percent versus 1.3 percent for the State of California. As shown in **Table 1-9**, the projected average growth rate is 1.0 percent for the State of California and 1.4 percent for San Bernardino County.

The age distribution within La Paz County and San Bernardino County is shown on **Table 1-10**, with the age group of 65+ having the highest percentage of the total in La Paz County and 25-44 having the highest percentage of the total in San Bernardino County.

The composition of the population in La Paz County is shown in **Table 1-11**, with 70 percent White (Anglo) and 15 percent Native American. The composition of the population in San Bernardino County is also shown in **Table 1-11,** with 58 percent White and 10 percent African American.

Table 1-10: Age Distribution Within La Paz and San Bernardino Counties

	La Paz		San Bernardino	
Age	**Number**	**Percent**	**Number**	**Percent**
0-14	3,012	15%	484,950	24%
15-24	1,822	9%	339,535	17%
25-44	3,266	16%	555,040	27%
45-64	5,706	28%	474,337	23%
65+	6,683	33%	181,348	9%

Source: US Census - 2010

Table 1-11: Population Composition of La Paz and San Bernardino Counties

	La Paz		San Bernardino	
Race	**Number**	**Percent**	**Number**	**Percent**
White	14,901	70%	1,236,552	58%
African American	243	1%	208,806	10%
Native American	3,118	15%	43,859	2%
Asian/Pacific Islander	187	1%	168,227	8%
Other	2,840	13%	488,471	23%
Total	21,289	100%	2,145,915	100%
Spanish Heritage*	4,806	23%	1,001,145	47%

* Persons of Spanish Heritage may be of any race.

1.28.2 Employment

The major industries in La Paz County are trade related to tourism, light manufacturing, agriculture and government. Trade services related to tourism and recreation activities rank high on the list, with the annual influx of winter visitors to the region, as well as the year-round visitors who enjoy the fishing, boating, and other water sports activities offered by the Lower Colorado River. The next largest source of employment in the county is government and public services which includes the Tribal, county and town governments; hospital and public health services; and public schools. Agriculture, mining, construction, and light manufacturing are also sources of employment although mining has declined in recent years.

In 1995, the Tribes opened the 18,000-square foot Blue Water Casino adjacent to the Moovalya Shopping Center on SR 95, in close proximity to the Avi Suquilla Airport. Today, the Casino employs approximately 400 people.

Table 1-12 provides recent statistics on the civilian labor force and unemployment levels in La Paz County and San Bernardino County. As shown, the unemployment levels increased in La Paz County between 2009 and 2010, but declined slightly in 2011. As shown, the unemployment levels have exhibited a similar pattern in San Bernardino County in recent years. This pattern is consistent with national unemployment rates tied to the slow recovery from the great recession.

Table 1-13 shows the employment by sector for La Paz County and San Bernardino County. **Tables 1-14** and **1-15** provide a listing of the major employers in La Paz County and San Bernardino County, respectively.

The major industries in San Bernardino County are related to trade, services and state-local government. Construction, manufacturing and transportation are also significant sources of employment.

Table 1-12: Civilian Labor Force and Unemployment Rate

	State of Arizona	La Paz County	CRIT Reservation	Town of Parker	State of California	San Bernardino County
2009						
Labor Force	3,130,407	7,701	3,520	1,663	17,162,949	858,298
Unemployment Rate	9.9	9.8	11.9	9.1	11.3	12.9
2010						
Labor Force	3,121,744	7,659	3,508	1,653	18,208,603	860,656
Unemployment Rate	10.5	10.6	12.9	9.9	12.4	14.2
2011						
Labor Force	3,061,756	7,394	3,383	1,596	18,358,135	860,571
Unemployment Rate	9.5	10.3	12.5	9.6	11.7	13.2

Sources: US Bureau of Labor Statistics (http://www.bls.gov/lau/tables.htm)
Arizona Department of Administration Office of Employment and Population Statistics
(http://www.workforce.az.gov/local-area-unemployment-statistics.aspx)

Table 1-13: Employment by Sector

	La Paz			San Bernardino		
	2008	**2009**	**2010**	**2008**	**2009**	**2010**
Trade, Transportation and Utilities	1,230	1,214	1,175	172,102	157,722	157,670
Education & Health Services	851	844	843	137,777	138,324	136,150
Leisure & Hospitality	1,012	912	924	62,796	60,041	59,421
Public Administration	1,155	1,096	1,141	29,943	30,121	30,764
Natural Resources & Mining	505	589	460	3,431	3,109	2,990
Construction	90	66	57	35,973	27,281	24,230
Manufacturing	187	134	126	65,175	57,197	52,296
Information	28	24	22	512	492	464
Financial Activities	110	126	127	24,796	23,035	22,032
Professional and Business Services	196	228	242	79,093	74,347	71,807

Source: Bureau of Labor Statistics

Source: Bureau of Labor Statistics

Table 1-14: Major Employers in La Paz County

Employer	Employment Type
Arizona / California Railroad, Parker	Railroad
Bashas, Parker	Grocery Store
Colorado River Indian Tribes, Parker	Government / General business
Blue Water Casino, Colorado River Indian Tribes, Parker	Casino / Gambling
Dayton Superior Corp, Parker	Miscellaneous Fabrication / Wire Products
Flying J Trucks, Ehrenberg	Service Center
Growers Oil Co., Salome	Wholesale Trade
K.D. and Vicksburg Farms, McMullen Valley	Fresh Produce
Kofa Café, U.S. 60 between Wenden and Quartzite	Restaurant
La Paz County, Parker	Government
La Paz Regional Hospital, Parker	Government
Loves Travel Stop, Quartzsite	Travel Center
Morgan Corp. , Ehrenberg	Truck Bodies
Parker Indian Hospital, U.S. Public Health Service, Parker	General Medical Hospital
Parker Unified School District, Parker	Elementary and Secondary Schools
Pilot Travel Center, Quartzite	Travel Center
River Medical Inc., Parker	Ambulance Service
Safeway Stores, Inc., Parker	Grocery Stores
Salome Elementary and High School	Elementary and Secondary Schools
Tomahawk Auto / Truck Stop, Salome	Travel Center
Town of Parker	Government
Town of Quartzsite	Government
U.S. Bureau of Indian Affairs, Parker	Government
Wenden Elementary	Elementary School

Source: Arizona Department of Commerce

Table 1-15: Major Employers in San Bernardino County

Employer, City	Number of Employees
County of Riverside, Riverside	18,291
Stater Bros. Markets, San Bernardino	18,000
Arrowhead Regional Medical Center, Colton	18,000
County of San Bernardino, San Bernardino	17,395
National Training Center, Fort Irwin	13,805
U.S. Marine Corps Air, Twenty-nine Palms	12,486
Abbott Vascular, Temecula	12,000
March Air Reserve Base, Moreno Valley	8,750
San Bernardino City Unified School District, San Bernardino	8,574
Ontario International Airport, Ontario	7,510
University of California, Riverside	6,657
Claremont Colleges, Claremont	6,500
University of California, Riverside	6,294
Kaiser Permanente, Fontana	5,682
Riverside Unified School District, Riverside	5,099
Pechanga Resort & Casino, Temecula	4,800
Loma Linda University Medical Center, Loma Linda	4,676
Guidant Corp (now Abbot Labs), Temecula	4,500
San Bernardino City Unified School District, San Bernardino	4,055
Fontana Unified School District, Fontana	3,953
Loma Linda University, Loma Linda	3,906
Riverside Community College, Riverside	3,753
Kaiser Permanente Medical Center, Riverside	3,200
Chino Valley Unified School District, Chino	3,200
City of Riverside, Riverside	3,261
San Manuel Band of Mission Indians	3,261
California State University, San Bernardino	3,012
Morongo Casino, Resort & Spa, Cabazon	3,000
Southern California Edison, Rosemead	2,804
Temecula Unified School District, Temecula	2,667
Cal Poly Pomona, Pomona	2,640
California Institution for Men, Chino	2,327
Hemet Unified School District, Hemet	2,270

Table 1-15 (Continued): Major Employers in San Bernardino County

Pomona Unified School District, Pomona	2,267
Colton Joint Unified School District, Colton	2,257
Jerry L. Pettis Veterans Hospital, Loma Linda	2,100
Eisenhower Medical Center, Rancho Mirage	2,053
Riverside County Office of Education, Riverside	2,000
Hemet Valley Medical Center, Hemet	2,000
Patton State Hospital, Highland	2,000
Fender, Corona	2,000
Alvord Unified School District, Riverside	2,000
Hesperia Unified School District, Hesperia	1,946
San Antonio Community Hospital, Upland	1,900
Fleetwood Enterprises Inc., Riverside	1,875
Marine Corps Logistics Base, Barstow	1,868
Redlands Unified School District, Redlands	1,824
City of San Bernardino, San Bernardino	1,760
Riverside Community Hospital, Riverside	1,600
Environmental System Research Institute (ESRI), Redlands	1,600
Lake Elsinore Unified School District, Lake Elsinore	1,577
Jurupa Unified School District, Riverside	1,548
City of San Bernardino, San Bernardino	1,500
Watson Pharmaceuticals, Corona	1,500
Riverside Community College, Riverside	1,436
The Press-Enterprise, Riverside	1,400
United States Postal Service, Redlands	1,400
Starcrest, Perris	1,400
Saint Bernadine Medical Center, San Bernardino	1,400
Apple Valley Unified School District, Apple Valley	1,390
Chaffey Community College District, Rancho Cucamonga	1,385
North American Medical Management, Ontario	1,304
Redlands Community Hospital, Redlands	1,300
Community Hospital of San Bernardino, San Bernardino	1,200
State of California Rehabilitation Center, Norco	1,169
Fantasy Springs Resort Casino, Indio	1,100
Etiwanda School District, Etiwanda	1,094

Table 1-15 (Continued): Major Employers in San Bernardino County

City of Ontario, Ontario	1,075
Corona Regional Medical Center, Corona	1,011
Agua Caliente Casino, Rancho Mirage	1,000
California Steel Industries Inc., Fontana	956
Naval Surface Warfare Center, Corona	926
Trinity Child and Family Services, Colton	900
City of Corona, Corona	875
San Bernardino Community College District, San Bernardino	862
Rockwell Collins, Pomona	850
Mag Instruments, Ontario	850
Spotlight 29 Casino, Coachella	800
Amphastar Pharmaceuticals Inc., Rancho Cucamonga	729
John F. Kennedy Memorial Hospital, Indio	725
Citizens Business Bank, Ontario	718
Perris Union High School District, Perris	643
Robert E. Bush Naval Hospital, Twenty-nine Palms	660
Renaissance Esmeralda Resort and Spa Indian Wells	600
The Sun Newspaper, San Bernardino	526
Edge Development Inc., Temecula	500
Wal-Mart Stores, Inc., Ontario	500
Doctor's Hospital Medical, Montclair	500
Wells Fargo Home Mortgage, Riverside	500
Victor Valley Community Hospital, Victorville	495
Hi-Dessert Medical Center, Joshua Tree	450
Lewis Group of Cos., Upland	450
HMC Architects	408
Farmer Boys Food Inc., Riverside	400
Casa Colina Hospital, Pomona	390
Chemicon, Temecula	380
Moreno Valley Community Hospital, Moreno Valley	375
Park Place GMAC Real Estate, Riverside	350
Menifee Valley, Sun City	350
Fullmer Construction, Ontario	350
Blood Bank of San Bernardino, San Bernardino	340

Table 1-15 (Continued): Major Employers in San Bernardino County

Classic Containers Inc., Ontario	335
Al's Garden Art Inc., Colton	331
Classic Containers Inc., Ontario	325
Kindred Hospital Ontario, Ontario	325
J.D. Deffenbaugh Inc., Riverside	320
Mervyn's, Ontario	300
Mark Christopher Auto Center, Ontario	279
Robert H. Ballard Rehabilitation Hospital, San Bernardino	250
Barstow Community Hospital, Barstow	250
Epic Management LP, San Bernardino	250
Moore Maintenance, San Bernardino	250
Claremont Toyota, Claremont	221
Big League Dreams, Chino Hills	220
Best, Best & Krieger LLP, Riverside	210
Fritts Ford, Riverside	201
FFF Enterprises Inc., Temecula	160
Mountains Community Hospital, Lake Arrowhead	150
Canyon Ridge Hospital, Chino	150
Hemborg Ford, Riverside	130
Elite Electric, Riverside	120
Toyota of Riverside, Riverside	120
Martinez & Turek Inc., Rialto	115
Jack Jones Trucking Inc., Ontario	104
M.K. Smith Chevrolet, Chino	100

Source: San Bernardino Area Chamber of Commerce

1.28.3 Income

Another important economic indicator is the Effective Buying Income (EBI) for the region. As shown in **Table 1-16**, the median household income levels for Arizona are slightly higher than for the United States, and the income levels for La Paz County are lower than the State of Arizona. This can be attributed to the fact that La Paz County is a remote, rural area and the primary sources of employment are related to tourism and government / public service.

Table 1-16 shows median household income levels for the United States, California and San Bernardino County. The median household income is less than the State of California, but greater than the Unites States figures.

Table 1-16 Effective Buying Income per Median Household, $

	United States	Arizona	La Paz County	California	San Bernardino County
2008	41,792	42,157	29,841	48,759	44,276
2009	42,303	43,328	29,910	49,589	45,814

1.29. Land Use

1.29.1 Existing Land Use

The Avi Suquilla Airport is located on the CRIT Reservation, immediately east of the Town of Parker. Adjacent land uses have historically been undeveloped land and agricultural uses in addition to the commercial / industrial uses on the east side of Parker. Today, the land uses adjacent to the airport include new commercial and recreational uses from the development of the Moovalya Shopping Center and an 80,000 square foot casino, 200 room hotel and a marina by the Tribes. The shopping center and casino are located on the south side of SR 95 between the eastern boundary of the Town of Parker and Airport Road. The land immediately north of Avi Suquilla is still principally undeveloped land and the land east of the airport that was under agricultural use is no longer being farmed. Land use on the north side of SR 95 has been, and continues to be, principally undeveloped except adjacent to Lake Moovalya, where there are recreational facilities, RV trailer parks, mobile home developments, and single-family residences in the Blue Water Drive area. **Figures 1-11 and 1-12** show generalized existing land uses.

1.29.2 Future Land Use

Figure 1-13 is a composite of Site Plans and Land Use Plans for CRIT in and around the Town of Parker compiled for the 2008 Transportation Planning Study by THK Associates. The plan shows commercial and industrial uses planned adjacent to the airport on the south side of SR 95.

On the north side of SR 95, the tribes have implemented the first phase of a mixed-use development of the “Blue Water Resort Area” located along the Colorado River off of SR 95 along Blue Water Drive. This includes an 80,000 square foot casino, a 200 room hotel and a marina. The plans for the second phase comprise the entire area between SR 95 and the Colorado River and include several residential subdivisions, shops, and a golf course. The specific components of the second phase of the project have not yet been proposed.

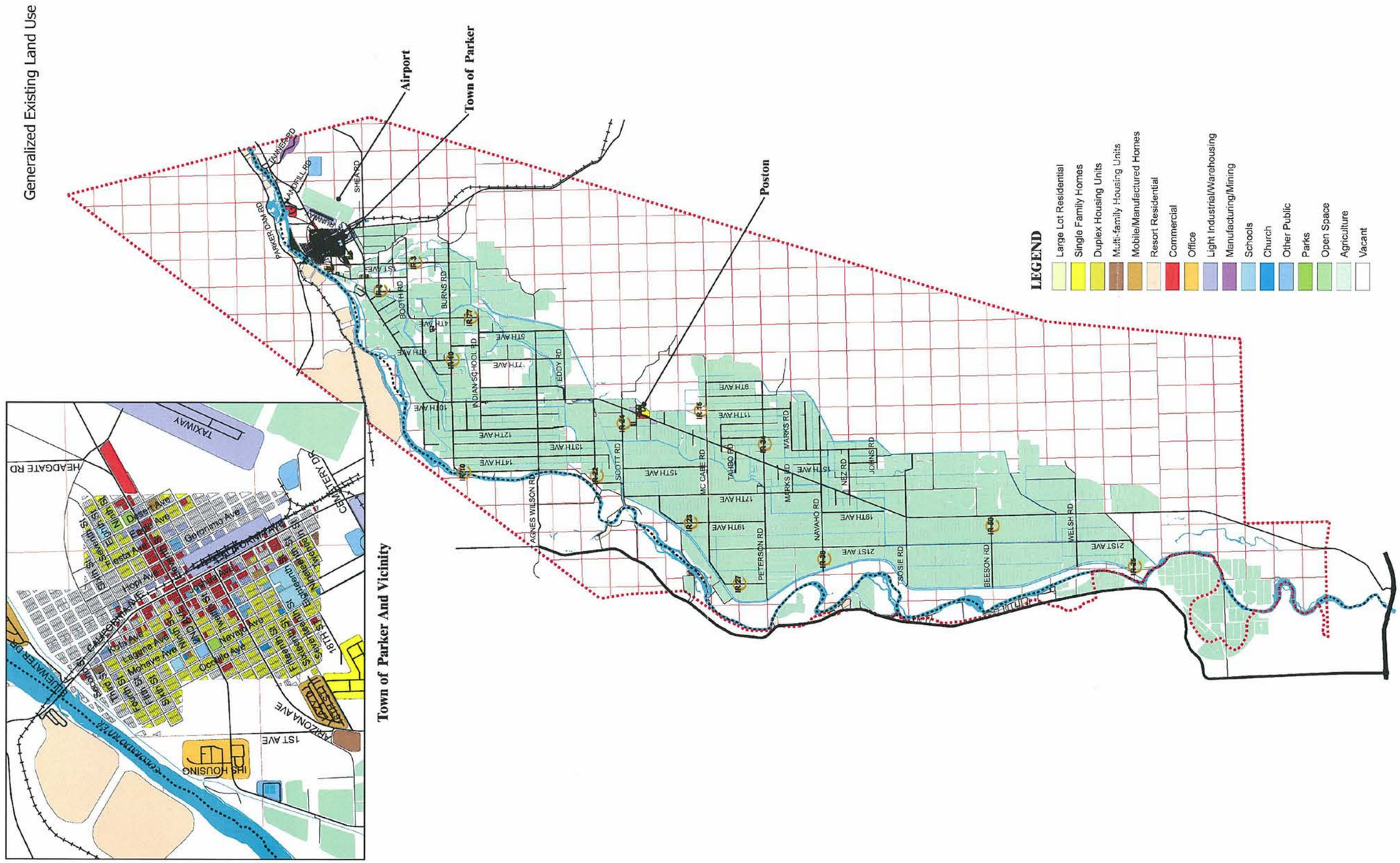


Figure 1-11: Generalized Existing Land Use

Figure 1-12: Generalized Existing Land Use (Parker Town Limits)

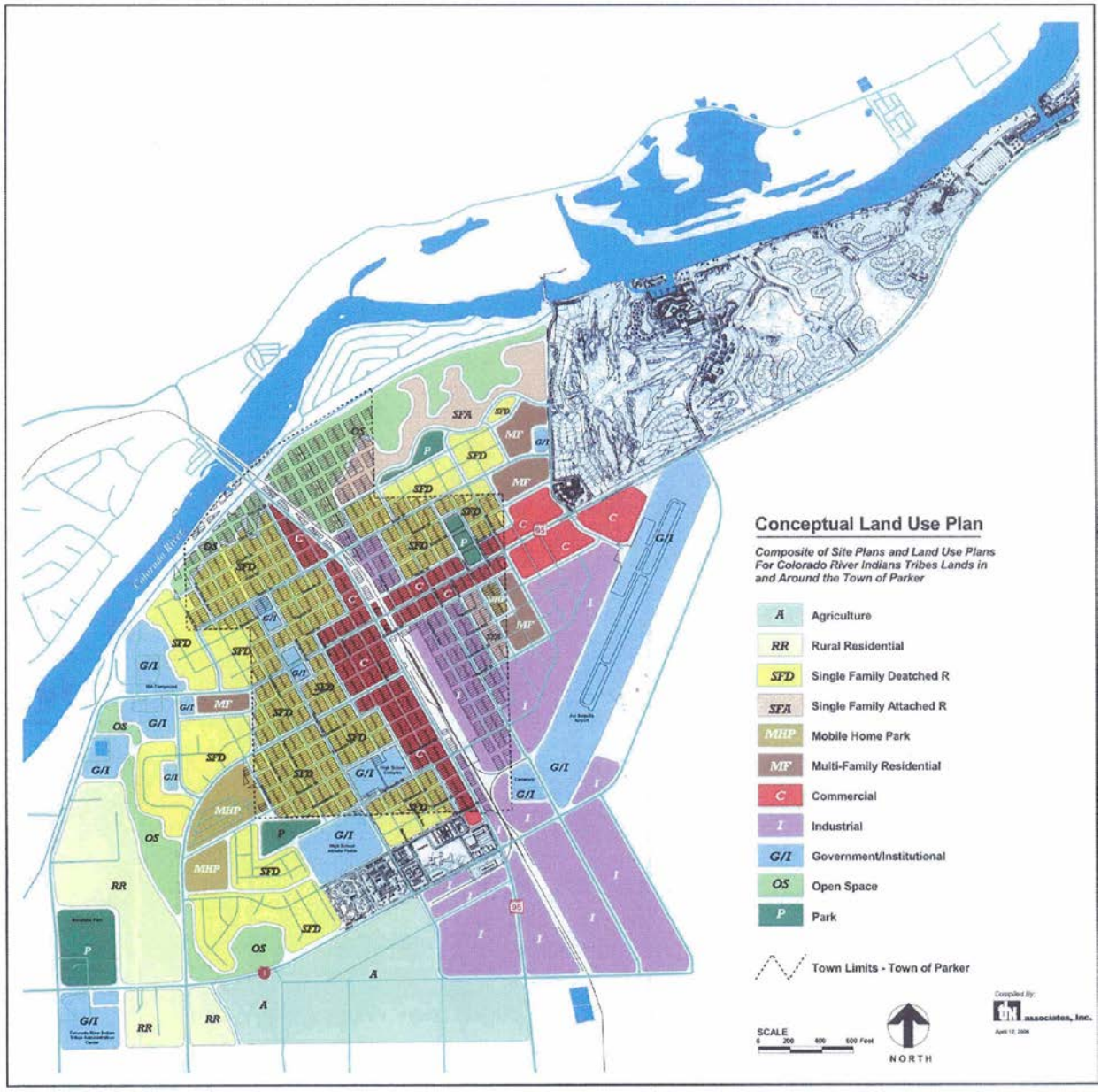


Figure 1-13: Conceptual Land Use

This page intentionally left blank.