Airport Background Data and Assumptions Report – Santa Ynez Airport

Santa Barbara County
Airport Land Use Compatibility Plan Update

1.0 Introduction

This report provides a summary describing the Santa Ynez Airport (IZA or the Airport) and the surrounding area. This summary is derived from the 2013 Santa Ynez Airport Airport Layout Plan (ALP), the Final Mitigated Negative Declaration (MND) prepared by Santa Barbara County in September 2012 for Santa Ynez Airport Improvements included on the 2011 ALP, the 2011 ALP Airport Airspace Drawing, the 2002 ALP (revalidated in 2008), the 2001 ALP Narrative Report (prepared for the 2002 ALP), and supplemental analyses, the Airport's website (http://santaynezairport.com/), and airport records and the Terminal Area Forecast for IZA maintained by the Federal Aviation Administration (FAA). Information provided includes a description of the airport location, the surrounding land uses, the existing and proposed airport facilities, and the existing and projected operational activity at the Airport.

2.0 Airport Background

The Airport is located in south-central Santa Barbara County, approximately 0.25 mile southeast of the community of Santa Ynez and approximately four miles northeast of the City of Solvang. The City of Santa Barbara is located approximately 25 miles to the southeast of the Airport. The Santa Ynez Band of Chumash Indians reservation is located approximately 0.30 mile to the west of the Airport. In January 2017, several parcels known as the Camp 4 site located approximately a mile northeast of the Airport were placed into federal trust for the Chumash by the Bureau of Indian Affairs. An aerial photo showing the Airport and surrounding areas is provided in **Exhibit A-1**.

The Airport was established in October 1947 by Santa Barbara County on land purchased using a grant issued by the FAA. The Airport is owned by Santa Barbara County and is operated by the Santa Ynez Valley Airport Authority. The Santa Ynez Valley Airport Authority was created in 1993 for the purpose of taking over management of the Airport from Santa Barbara County.

Land use around the Airport is primarily agricultural to the north, east, and south. The commercial center of the Town of Santa Ynez lies to the immediate northwest of the Airport across Highway 246 and the Chumash Casino and Resort lies approximately 0.35 mile from the Runway 8 end. The closest existing residential land uses are located approximately 0.30 mile to the northwest of the Airport. The Chumash plan to develop residential uses on the Camp 4 site. The Santa Ynez Valley Community Plan was adopted in October 2009, and is considered an element of the Santa Barbara County Comprehensive Plan. Existing land use is depicted in **Exhibit A-2**. Planned land use is depicted in **Exhibit A-3**.

The planned improvements to the Airport described on the 2013 ALP include addition of Runway End Identifier Lights (REIL) and Precision Approach Path Indicators (PAPI) at both the Runway 8 and Runway 26 ends. The PAPI at the Runway 26 end would be added alongside the existing Visual Approach Slope Indicator (VASI). Other improvements include the addition of T- and box hangars, a new Fixed Base Operator (FBO), ramp expansion, relocation of the airport beacon, a second wind cone, two new security stations, and installation of perimeter fencing and a security gate. The Airport also plans to reconstruct the existing ramp and service road.

The 2000 ALP Narrative Report includes a forecast of operations at the Airport through 2019. The forecast indicates that while operations would continue to grow from 27,000 annual operations at IZA in 1999 to 30,000 operations by 2019, the Airport will continue to primarily serve general aviation (GA) activity and that its role in this capacity will not significantly change. The FAA's Airport Master Record for IZA indicates that the Airport had 30,400 operations for the 12 month period ending November 8, 2016. While slightly higher than the number of operations anticipated for 2019 in the 2000 ALP Narrative Report, this number is consistent with the forecast. **Table A-1** provides a summary of Airport background information.

Table A-1 - Airport Background Summary – Santa Ynez Airport

General Information	**Description**
Airport Ownership	Santa Barbara County
Year Opened	1949
Airport Property Size	124 Acres
Airport Classification	General Aviation
Airport Elevation	671 feet MSL
Airport Planning Documents	**Description**
Airport Master Plan	Santa Ynez Airport Layout Plan Narrative Report, November 2000.
Airport Layout Plan	Santa Ynez Airport Layout Plan, July 2013.
Planned Facility Improvements	**Description**
Airside	REIL and PAPI at Runway 8 and 26 ends, ramp expansion, beacon relocation, second wind cone, reconstruction of ramp and service road.
Landside	Fencing around the entire perimeter of the airport with security gate, T-hangars, box hangars, FBO, security stations.

Notes: MSL = Mean Sea Level
Source: Santa Ynez Airport Airport Layout Plan, 2013.

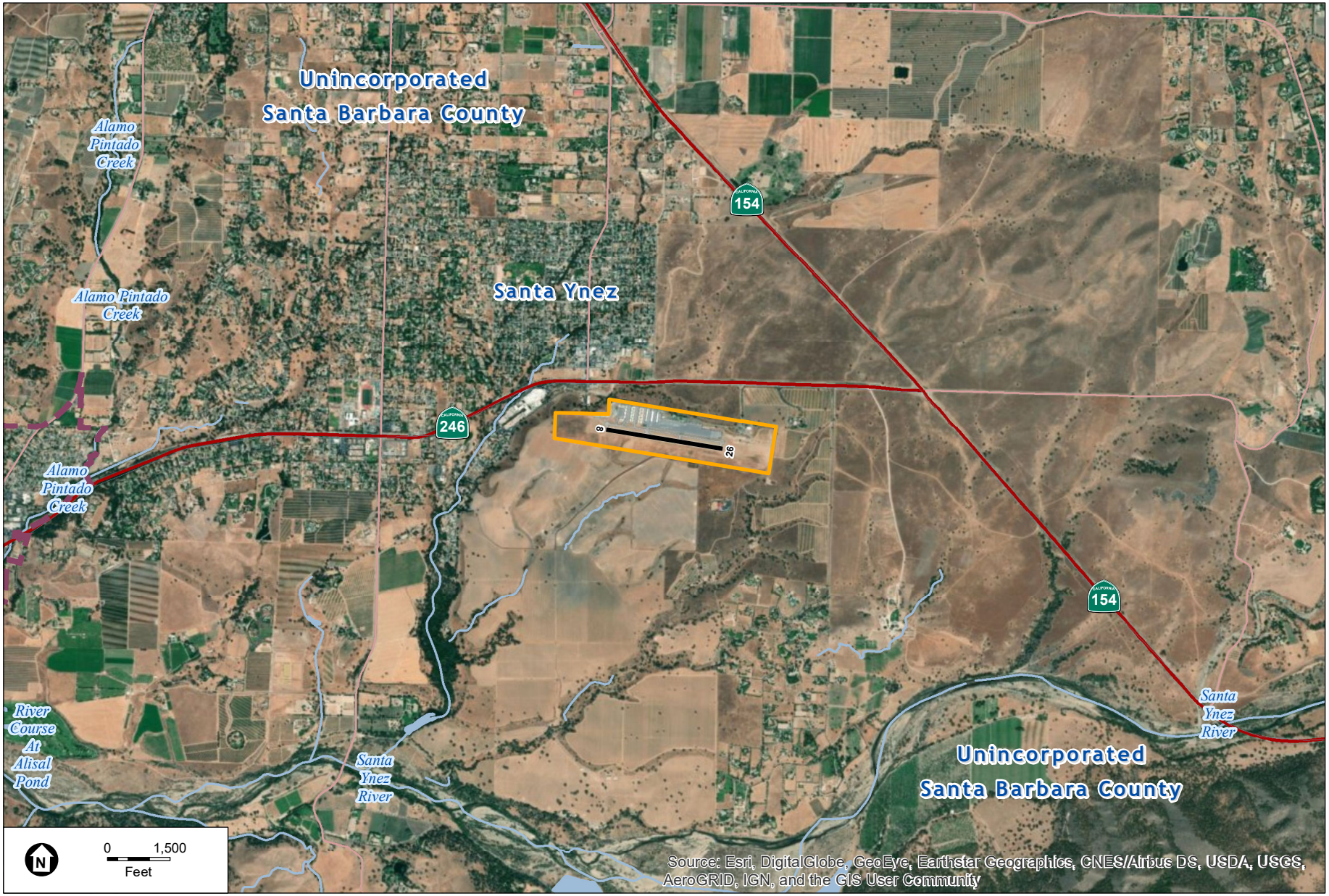
3.0 Airport Characteristics

The following section provides a brief description of the Airport characteristics. Airside facilities described include runways, taxiways, and aprons. Landside facilities include the terminal building, administrative offices, and general aviation and Airport support facilities. The ALP is provided in **Exhibit A-4**.

Santa Ynez Airport is designated by FAA as an ARC B-I facility. The Airport property is 124 acres in size and the Airport has one runway, Runway 8-26. Runway 8-26 is an asphalt runway, 2,804 feet long and 75 feet wide. The runway pavement strength is 12,500 pounds, suitable for generic light twin aircraft.

The runway is served by one parallel taxiway, Taxiway A, 2,803 feet long and 30 feet wide. The taxiway has four exit taxiways; Taxiways B through E. Taxiway B serves the Runway 26 end and Taxiway E serves the Runway 8 end. Taxiways B and C are located towards the center of the runway.

The Airport is a self-controlled airport and does not operate an Air Traffic Control Tower (ATCT). The airfield is attended between 7:00 a.m. and 7:00 p.m. weekdays and 8:00 a.m. and 7:00 p.m. on weekends. Visual aids at the Airport include a lighted beacon, a segmented circle and wind cone, medium intensity runway lights (MIRL), and a visual approach slope indicator (VASI) to the left of Runway 26.



SOURCE: ESRI, Inc., 2019.

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Exhibit A-1
Santa Ynez Airport
Airport and Surrounding Areas

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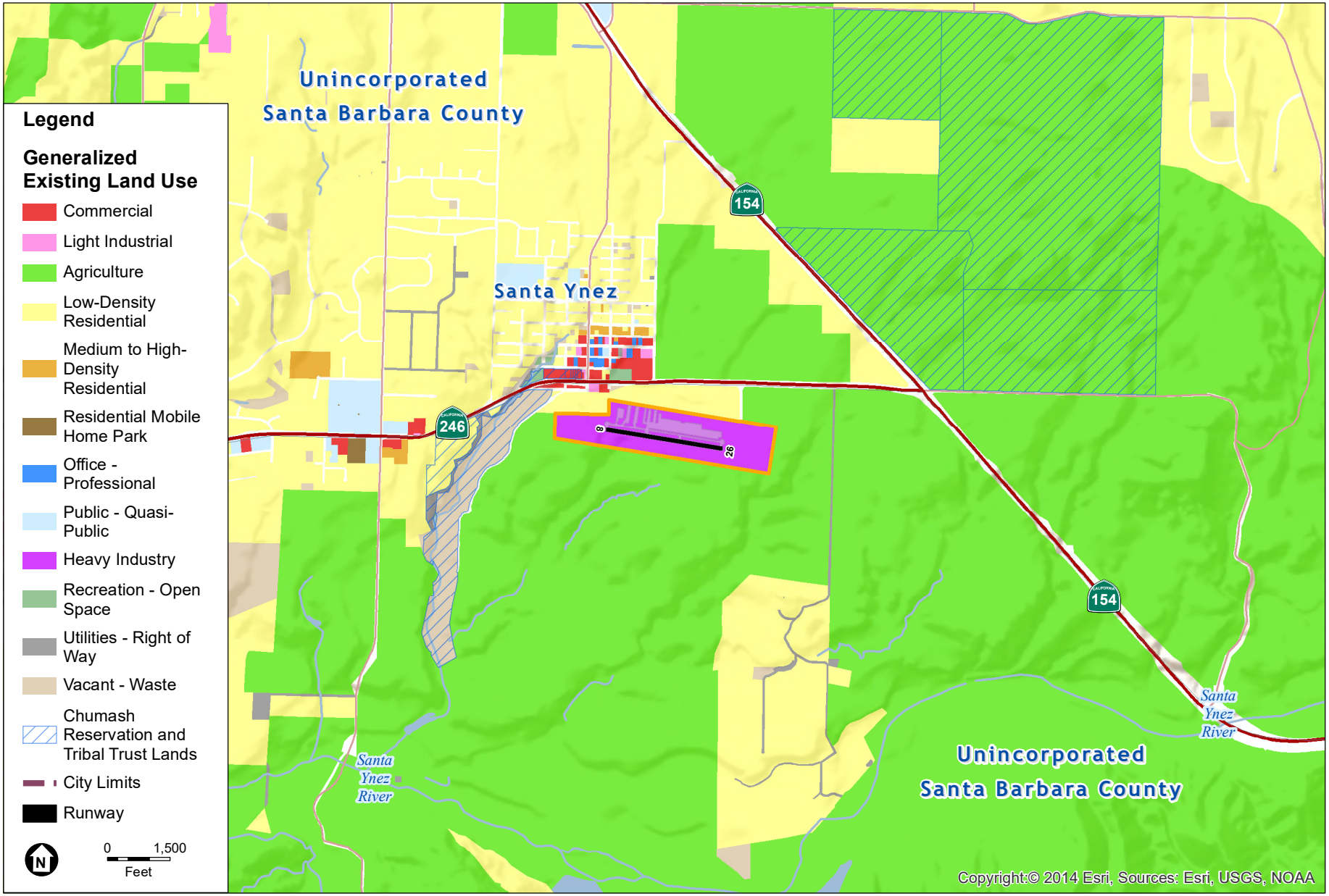

SOURCE: Santa Barbara County Tax Assessor, July 2017.

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Exhibit A-2
Santa Ynez Airport
Generalized Existing Land Use

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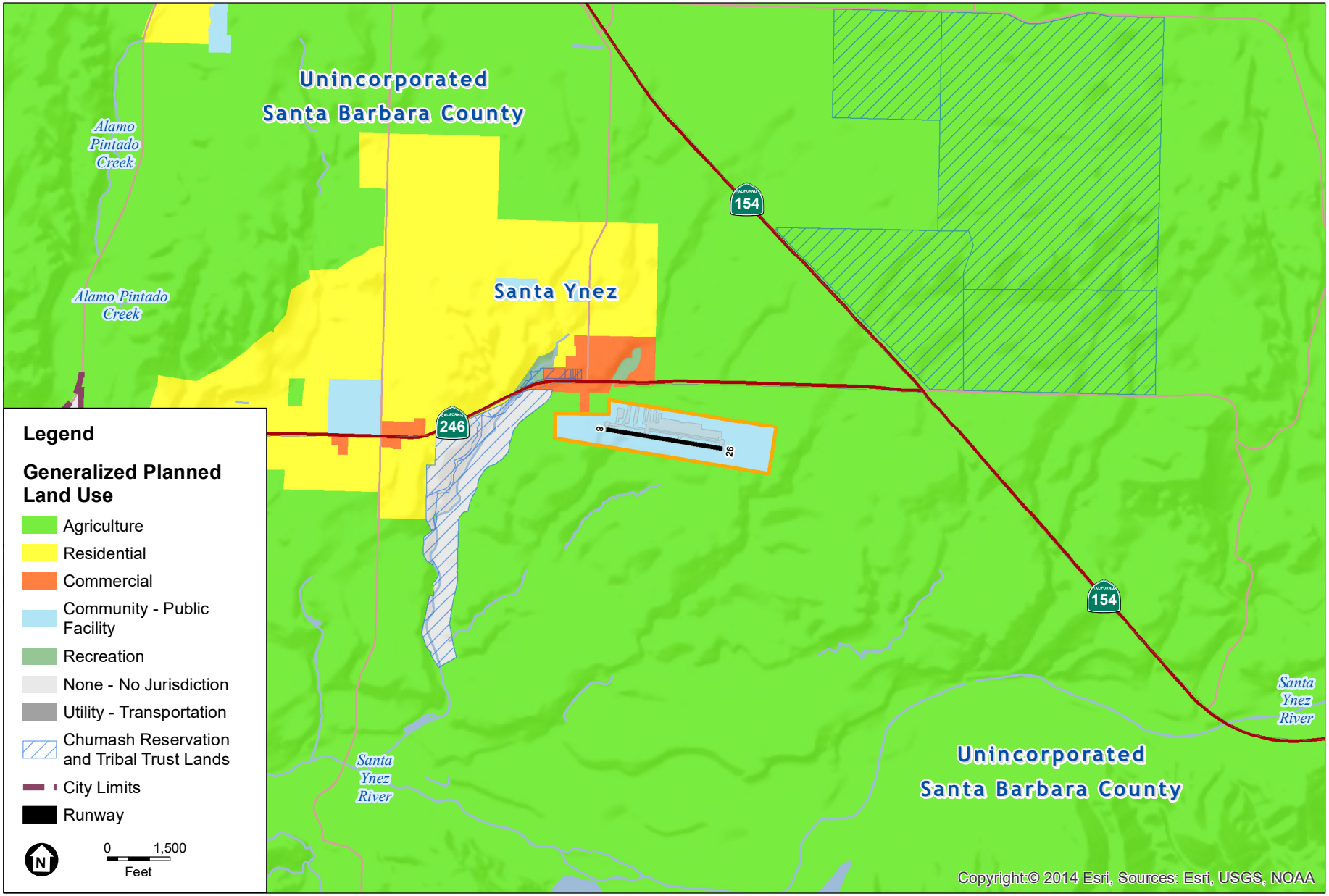

SOURCE: Santa Barbara County Comprehensive Plan, 2019.

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Exhibit A-3
Santa Ynez Airport
Generalized Planned Land Use

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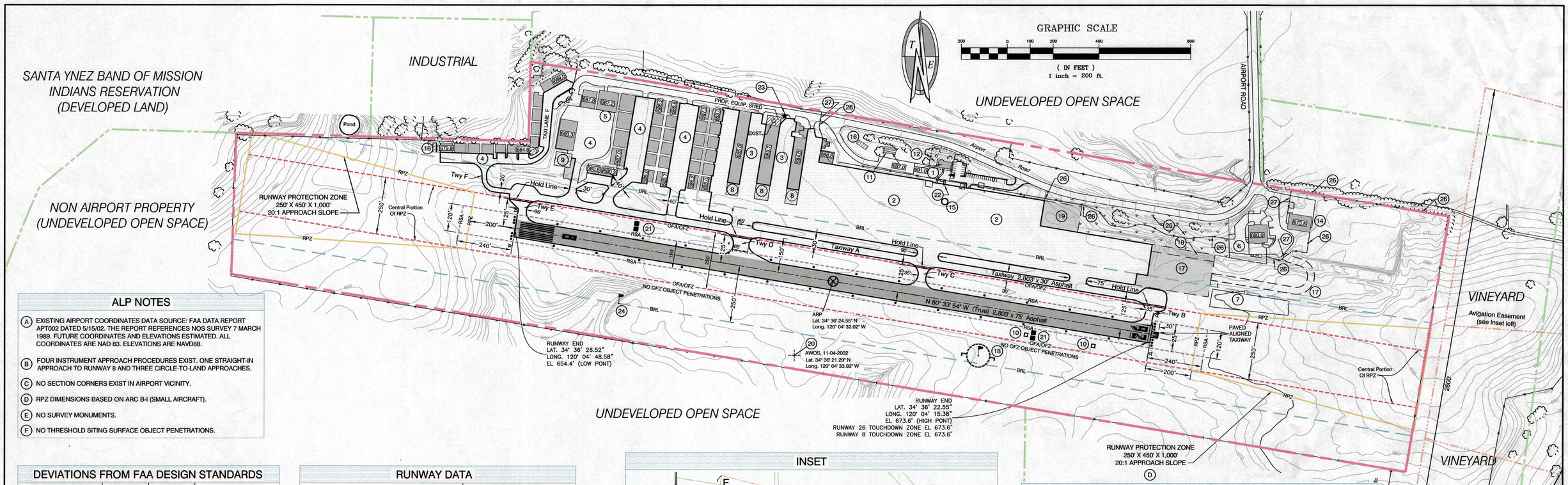


ALP NOTES

(A) EXISTING AIRPORT COORDINATES DATA SOURCE: FAA DATA REPORT APT002 DATED 5/15/02. THE REPORT REFERENCES NOS SURVEY 7 MARCH 1989. FUTURE COORDINATES AND ELEVATIONS ESTIMATED. ALL COORDINATES ARE NAD 83. ELEVATIONS ARE NAVD88.

(B) FOUR INSTRUMENT APPROACH PROCEDURES EXIST. ONE STRAIGHT-IN APPROACH TO RUNWAY 8 AND THREE CIRCLE-TO-LAND APPROACHES.

(C) NO SECTION CORNERS EXIST IN AIRPORT VICINITY.

(D) RPZ DIMENSIONS BASED ON ARC B-I (SMALL AIRCRAFT).

(E) NO SURVEY MONUMENTS.

(F) NO THRESHOLD SITING SURFACE OBJECT PENETRATIONS.

DEVIATIONS FROM FAA DESIGN STANDARDS

DESIGN STANDARD	REQUIRED	EXISTING	ACTION
WIDTH OF TAXIWAY F	35'	20'	TO REMAIN
WIDTH OF TAXIWAY A	35'	30'	TO REMAIN

AIRPORT DATA

		EXISTING	FUTURE
AIRPORT SERVICE LEVEL (NPIAS)		General Aviation	No Change
AIRPORT REFERENCE CODE		B-I (Small)	No Change
CRITICAL AIRCRAFT		Light Twin	No Change
AIRPORT REFERENCE POINT (a)	Latitude	34° 36' 24.55" N	No Change
	Longitude	120° 04' 32.02" W	No Change
AIRPORT ELEVATION (Above Mean Sea Level)		671'	No Change
MEAN MAX. TEMP. (Hottest Month)		91° F (August)	No Change
AIRPORT AND TERMINAL NAVIGATIONAL AIDS		Rotating Beacon	Beacon, REILS
GPS APPROACH ESTABLISHED		Yes	No Change
AIRPORT ACREAGE	Fee Simple	124	No Change
	Easement	291	No Change
AIRCRAFT PARKING SPACES	Tiedowns	118	108
	Individual Hangar Units	88	97

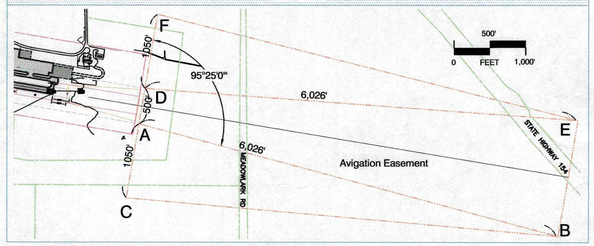
DRAWING LEGEND

	EXISTING	FUTURE
BUILDING RESTRICTION LINE (BRL)		NO CHANGE
OBSTACLE FREE ZONE (OFZ)		NO CHANGE
OBJECT FREE AREA (OFA)		NO CHANGE
RUNWAY SAFETY AREA (RSA)		NO CHANGE
RUNWAY PROTECTION ZONE (RPZ)		NO CHANGE
ACTIVE AIRFIELD PAVEMENT		
OTHER PAVEMENT IN USE		
DIRT OR GRAVEL ROAD		NO CHANGE
AIRPORT PROPERTY LINE		NO CHANGE
AVIGATION EASEMENT		NO CHANGE
INTERNAL BOUNDARY (lease, R.O.W. etc.)		
PARCEL BOUNDARY		NO CHANGE
BUILDING	XYZ	
FENCE		NO CHANGE
WIND CONE		NO CHANGE
BEACON	☆	★
REILS	NONE	α
TOPOGRAPHIC CONTOURS	670	NO CHANGE
VEGETATION		NO CHANGE
WATERWAY / CULVERT		NO CHANGE
AIRPORT REFERENCE POINT	⊗	NO CHANGE
PAPI	NONE	■■
STRUCTURE ELEVATION	680.5	680.5
VASI	◘	NO CHANGE
RUNWAY LIGHTS	•	NO CHANGE

RUNWAY DATA

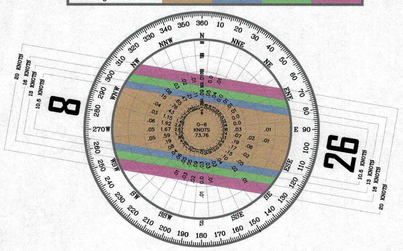
		RUNWAY 8-26 EXISTING	RUNWAY 8-26 FUTURE
AIRPORT REFERENCE CODE		B-I (Small)	NO CHANGE
CRITICAL AIRCRAFT		100 KING AIR	NO CHANGE
WINGSPAN		45.9'	NO CHANGE
UNDERCARRIAGE OF WIDTH		14'	NO CHANGE
APPROACH SPEED		111 KNOTS	NO CHANGE
MAX. CERTIFIED TAKEOFF WEIGHT		12,500 LBS	NO CHANGE
WIND COVERAGE (10.5 Knots/12 M.P.H.)		98.2%	NO CHANGE
PHYSICAL LENGTH AND WIDTH		2,804' x 75'	NO CHANGE
MAXIMUM ELEVATION (Above Mean Sea Level)		673.6'	NO CHANGE
EFFECTIVE GRADIENT		0.7%	NO CHANGE
MAXIMUM GRADIENT		1.1%	NO CHANGE
RUNWAY/TAXIWAY SURFACE TYPE		Asphalt	NO CHANGE
PAVEMENT STRENGTH (1,000#) - S/D/DT		12.5/-/-	NO CHANGE
TAXIWAY OBJECT FREE AREA (Width)		89'	NO CHANGE
TAXIWAY SAFETY AREA (Width)		49'	NO CHANGE
TAXIWAY WINGTIP CLEARANCE		20'	NO CHANGE
ELEVATION OF RUNWAY LOWPOINT		654.4'	NO CHANGE
ELEVATION OF RUNWAY HIGHPOINT		673.6'	NO CHANGE
DISTANCE OF RUNWAY CENTERLINE TO HOLD BARS		125'	NO CHANGE
STANDARD SEPARATION OF RUNWAY CENTERLINE TO PARALLEL TAXIWAY CENTERLINE		150'	NO CHANGE
RUNWAY OBJECT FREE ZONE (Length Beyond Runway End)	8	200'	NO CHANGE
	26	200'	NO CHANGE
RUNWAY OBJECT FREE ZONE (Width)		250'	NO CHANGE
RUNWAY OBJECT FREE AREA (Length Beyond Runway End)	8	240'	NO CHANGE
	26	240'	NO CHANGE
RUNWAY OBJECT FREE AREA (Width)		250'	NO CHANGE
RUNWAY SAFETY AREA (Width)		120'	NO CHANGE
RUNWAY SAFETY AREA (Length Beyond Runway End)	8	240'	NO CHANGE
	26	240'	NO CHANGE
APPROACH TYPE (FAR Part 77 Category)	Approach End 8	Nonprec. [A(NP)] (B)	NO CHANGE
	of Runway 26	Visual [A(V)] (B)	NO CHANGE
APPROACH VISIBILITY (Minimums)	Approach End 8	1 Mile	NO CHANGE
	of Runway 26	VFR	NO CHANGE
APPROACH SLOPE (Required/Clear)	Approach End 8	20:1/32:1	NO CHANGE
	of Runway 26	20:1/50:1	NO CHANGE
VISUAL AIDS	Approach End 8	NONE	REIL, PAPI
	of Runway 26	VASI	REIL, PAPI
RUNWAY END COORDINATES (A)	Approach End of Runway 8 Latitude	34° 36' 26.52" N	NO CHANGE
	Longitude	120° 04' 48.58" W	NO CHANGE
	Approach End of Runway 26 Latitude	34° 36' 22.55" N	NO CHANGE
	Longitude	120° 04' 15.38 W	NO CHANGE
RUNWAY MARKING		Basic/Nonprec.	NONPRECISION
RUNWAY LIGHTING		MIRL	NO CHANGE
TAXIWAY LIGHTING		MITL	NO CHANGE
NAVIGATIONAL AIDS	8	VOR/GPS	NO CHANGE
	26	VOR/GPS	NO CHANGE

INSET



ALL WEATHER WIND COVERAGE

Runways	10.5 Knots	13 Knots	16 Knots	20 Knots
Runway 8-26	*98.38%*	*99.3%*	*99.81%*	*99.95%*



TRUE NORTH

Magnetic Declination 12° 52' East (June 2013) Annual Rate of Change 00° 09' West (June 2013)

SOURCE: NOAA National Climatic Center Asheville, North Carolina Santa Ynes Airport Santa Ynes, California

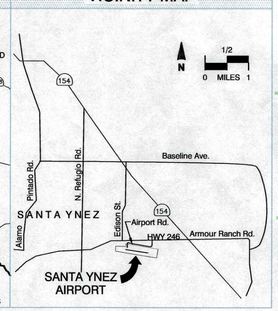
OBSERVATIONS: 22,580 All Weather Observations 2009-2013

BUILDING AND FACILITY LEGEND

1. Terminal
2. Tiedown Apron
3. T-Hangars
4. Box Hangars
5. Hangar. Tenant: Sheriff
6. Fire Station
7. Glider Fixed Base Operation/Staging Area
8. Future T-Hangars (0 - 5 years)
9. Future Box Hangar (0 - 5 years)
10. Visual Approach Slope Indicator
11. Offices
12. Future Fixed Base Operation (6-10 years)
13. Blank
14. Existing US Forest Service Facility
15. Fuel Island
16. Future Security Residence (6 - 10 years)
17. Reconstruct Ramp and Service Road
18. Segmented Circle & Wind Cone
19. Future Ramp Expansion
20. AWOS, Existing
21. PAPI, Runway 8 (Future) and Runway 26 (Future)
22. ADA Access From Apron to Terminal
23. Beacon Relocation (Future)
24. Secondary Wind Cone (Future)
25. Erosion Control, Regrading, Slope Stabilization
26. Install Fence
27. Install Access Gate

LOCATION MAP

VICINITY MAP



FAA APPROVAL

SUBMITTED BY:
County of Santa Barbara

By _____ Date

NOTE:

THIS DRAWING IS FOR PLANNING PURPOSES ONLY AND IS NOT INTENDED FOR CONSTRUCTION OR NAVIGATIONAL PURPOSES.

"THE CONTENTS OF THIS PLAN DO NOT NECESSARILY REFLECT THE OFFICIAL VIEWS OR POLICY OF THE F.A.A. ACCEPTANCE OF THIS DOCUMENT BY THE F.A.A. DOES NOT IN ANY WAY CONSTITUTE A COMMITMENT ON THE PART OF THE UNITED STATES TO PARTICIPATE IN ANY DEVELOPMENT DEPICTED HEREIN NOR DOES IT INDICATE THAT THE PROPOSED DEVELOPMENT IS ENVIRONMENTALLY ACCEPTABLE IN ACCORDANCE WITH APPROPRIATE PUBLIC LAWS."

NO.	REVISIONS/DESCRIPTION	DWG. DATE	APPROVED BY	DATE	FAA APPROVAL DATE
7	MULTIPLE ADDITIONS/REVISIONS BASED ON FAA FEEDBACK	7/22/13			
6	REMOVE RUNWAY MODIFICATIONS & REVISE VARIOUS LEGEND ITEMS	5/18/11			
5	REVISED LEGEND ITEM 5 & 13. ADD ITEMS 19-28.	5/28/10			
4	ADDITION OF 2,450 SF FOREST SERVICE ADMIN AREA	4/29/08			
3	LONG/LAT OF A.W.O.S.	11/04/02	S.B.COUNTY, CA	1/03	1/15/2003
2	MASTER PLAN UPDATE	8/08/02	S.B.COUNTY, CA	10/02	10/09/2002
1	ALP update	-	S.B.COUNTY, CA	5/92	5/20/1992

SANTA YNEZ AIRPORT

SANTA YNEZ, CALIFORNIA

AIRPORT LAYOUT PLAN

TARTAGLIA ENGINEERING
CIVIL ENGINEERS
7360 El Camino Real, Suite E, Atascadero, CA 93422
805-466-5660 FAX: 805-466-5471

DESIGN: JAS | DRAWN: TGE, JTH | DATE: 7/22/13 | SHEET 1 OF 2

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An aircraft parking apron is located immediately north of the middle of the runway and extends to the Runway 26 end. The parking apron includes space for tiedowns for 118 aircraft and the Airport maintains 88 hangars to the northwest of the runway. Per the 2013 ALP, the number of tiedown spaces will eventually be reduced to 108 to accommodate an additional nine individual hangar units (T and box hangars). The Airport provides FBO services, including aircraft fueling. Other services provided at the Airport include aircraft maintenance and repair, car rental, and glider rides. Other facilities at the Airport include a 1,664 square foot administrative office building, U.S. Forest Service administrative offices and an engine bay, and Santa Barbara County Fire Station 32.

There are currently three published instrument approaches to the Airport: GPS RWY 08, GPS-A, and VOR OR GPS-B. These instrument approaches are described in greater detail in **Table A-2**. There are no obstructions on the approach to Runway 26. A 17 foot hill located 750 feet from the runway and150 feet left of the runway centerline represents an obstruction on the Runway 8 end.

Straight out departures from Runway 26 are not allowed and aircraft are recommended to turn left off the runway end on a 210 degree heading. Approaches to Runway 8 are recommend to turn to the final approach within a mile of the runway, safety permitting.

The Airport has maintained an avigation easement beyond the Runway 26 end since 1950. The easement is off the east end of the runway and covers a trapezoidal area that extends in an easterly direction for 6,026 feet.

Table A-2 presents a summary of the Airport's airside and landside facilities.

Table A-2 - Airport Facilities Summary – Santa Ynez Airport

Airside Facilities	
Runways	**Description**
Runway Designation	Runway 8-26
Airport Reference Code (ARC)	B-I
Critical Design Aircraft	Generic Light Twin Prop/100 King Air
Runway Dimensions	2,804' x 75'
Pavement Strength	12,500 Pounds
Runway Lighting	MIRL
Taxiways	Taxiway A: 2,803' x 30' Taxiways B, C, E: 87.5' (125' from runway centerline) x 35' Taxiway D: 87.5' (125' from runway centerline) x 65'
Heliport/Helipad	North of the Runway 26 end
Approach Protection	**Description**
Runway Protection Zones (RPZs)	
• Runway 8	250' x 450' x 1,000'
• Runway 26	250' x 450' x 1,000'
Approach Obstacles	Runway 8: 17 ft. hill, 750 ft. from runway, 150 ft. left of centerline, 32:1 slope to clear

Table A-2 - Airport Facilities Summary – Santa Ynez Airport (continued)

Traffic Patterns and Approach Procedures	**Description**				
Aircraft Traffic Patterns					
• Runway 8	Right				
• Runway 26	Left				
Pattern Altitude	1,700 feet				
Instrument Approach Procedures	**Type**	**Navigational Aids**	**Aircraft Category**	**Minimums**	
				Ceiling	**Visibility**
GPS RWY 08	Straight in	GPS	A, B	1,060'	1 mile
	Circling	GPS	A	1,120'	1 mile
	Circling	GPS	B	1,160	1 mile
	Lompoc Altimeter Setting Minimums				
	Straight in	GPS	A,B	1,600'	1¼ mile
	Circling	GPS	A	1,640'	1¼ mile
	Circling	GPS	B	1,680'	1½ mile
GPS A	Circling	GPS	A	1,120'	1 mile
	Circling	GPS	B	1,160'	1 mile
	Lompoc Altimeter Setting Minimums				
	Circling	GPS	A	1,640'	1¼ mile
	Circling	GPS	B	1,680'	1½ mile
VOR OR GPS-B	Circling	VOR/GPS	A	1,880'	1¼ mile
	Circling	VOR/GPS	B	1,880'	1½ mile
Visual Approach Aids	VASI Runway 26				
Landside Facilities					
Building Area	**Description**				
Aircraft Parking Location	North side, south side				
Aircraft Parking Capacity					
• Hangar Spaces	63 hangars on the north side 15 hangars on the south side				
• Tie-Down Spaces	41 on the north side 12 on the south side				
Services					
• Fuel	100LL, Jet A				
• Other	Major airframe and power plant repairs; oxygen				

Notes: MIRL =Medium intensity runway lights
MSL=Mean sea level
AGL=Above ground level
GPS= Global Positioning System
VOR=Very high frequency omnidirectional radio range
VASI=Visual Approach Slope Indicator

Source: Santa Ynez Airport Airport Layout Plan Narrative Report, 2001; Federal Aviation Administration National Flight Data Center < https://nfdc.faa.gov/nfdcApps/services/airportLookup/airportDisplay.jsp?airportId=kiza>, accessed April 2017.

4.0 Airport Activity

The following sections describe existing activity at the Airport as well as forecasted Airport activity consistent with projections provided for in the ALP Narrative Report.

4.1 Existing Airport Activity

Table A-3 summarizes airport activity at the Airport. The ALP Narrative Report estimated that in 1999 there were 112 aircraft based at the Airport, including 82 single-engine propeller aircraft, 12 multi-engine propeller aircraft, two helicopters, seven ultralights, and nine gliders. FAA's Airport Master Record indicates that there were approximately 91 aircraft based at the Airport in 2016, indicating that the number of aircraft based at the Airport has remained relatively stable over the last several years.

The ALP Narrative Report estimated that there were 27,000 annual operations in 1999, an average of 74 operations per day. FAA's APO Airport Master Record indicates that there were 30,400 annual operations in 2016, an average of 83 operations per day. Categorization of aircraft operation type in 1999 indicated that 58 percent of operations were itinerant GA, 40 percent were local GA operations, less than two percent were air taxi operations, and less than one percent were military operations. FAA's counts for 2016 were similar: 55 percent were itinerant GA operations, 43 percent were local GA operations, less than two percent were air taxi operations, and less than one percent were military operations.

Prevailing winds are from the west-northwest and approximately 90 percent of arrivals and departures are to/from Runway 26. Helicopter traffic is minimal and operates from the runway. Glider traffic crosses the runway towards the Runway 26 end at an altitude of approximately 2,000 feet.

4.2 Forecast Airport Activity

California state law requires that the Airport Land Use Compatibility Plans (ALUCPs) must be based on a long-range Airport Master Plan or an ALP that forecasts anticipated growth at an airport for the next 20 years. The last forecast prepared for the Airport was included in the ALP Narrative Report and forecasted airport activity to 2019. Because this forecast does not provide an adequate planning horizon for purposes of the ALUCP, the Terminal Area Forecast (TAF) for IZA prepared by the FAA was used to characterize future aircraft activity. The TAF for IZA is consistent with the forecast from the ALP Narrative Report.

Table A-3 summarizes forecasted airport activity at the Airport. The TAF forecast for 2039 estimates a total of 30,400 annual operations, approximately 83.3 average daily operations, for the year 2039 planning horizon.

Table A-3 – Airport Activity Data – Santa Ynez Airport

Based Aircraft		**Existing Conditions (2017)**		**Future Conditions (2039)**	
Single-engine prop		73		--	
Multi-engine prop		7		--	
Helicopters		5		--	
Ultralights		6		--	
Gliders		15		--	
Total		106		--	
Aircraft Operations		**Existing Conditions (2017)**		**Future Conditions (2039)**	
		Number of Operations	**Percentage by Aircraft Category**	**Number of Operations**	**Percentage by Aircraft Category**
Air Taxi & Commuter		450	1.5%	450	1.5%
General Aviation Local		13,000	42.8%	13,000	42.8%
General Aviation Itinerant		16,820	55.3%	16,820	55.3%
Military		130	0.4%	130	0.4%
Total		30,400	100.0%	30,400	100.0%
Runway Utilization					
Aircraft Type		**Rwy 8**		**Rwy 26**	
Single-Engine Propeller, Fixed Pitch	Day	10%		90%	
	Evening	10%		90%	
	Night	10%		90%	
All Other Aircraft	Day	10%		90%	
	Evening	10%		90%	
	Night	10%		90%	
Runway		**Operations**		**Flight Track**	**Percentage**
8		Departures		Downwind	30%
8		Departures		270° Overhead	30%
8		Departures		Standard	30%
8		Departures		Straight Out	10%
26		Departures		Downwind	45%
26		Departures		270° Overhead	25%
26		Departures		Standard	20%
26		Departures		Straight Out	10%
Helicopter		Departures		South Track	50%
Helicopter		Departures		North Track	50%
8		Arrivals		Close-In Pattern	90%
8		Arrivals		Straight In	10%
26		Arrivals		Close-In Pattern	90%
26		Arrivals		Straight In	10%
Helicopter		Arrivals		South Track	50%
Helicopter		Arrivals		North Track	50%

Source: Santa Ynez Airport Airport Layout Plan Narrative Report, 2001; U.S. Dept. of Transportation, Federal Aviation Administration, Airport Master Record, April 26, 2018; U.S. Dept. of Transportation, Federal Aviation Administration, Terminal Area Forecast, IZA, January 2018.

5.0 Draft Compatibility Factors

The four compatibility factors depicted on the following exhibits were developed following guidance provided in the California Department of Transportation's (Caltrans) Airport Land Use Compatibility Handbook (Handbook) and represent operating conditions specific to IZA. Each compatibility factor is further discussed below.

5.1 Draft Noise Compatibility Data

Exhibit A-1 shows noise contours reflecting operating conditions at the Airport for year 2019 conditions as provided for in the ALP Narrative Report. The noise contours reflect 30,000 annual forecasted operations, or approximately 82 annual average daily operations. Per the TAF produced by the FAA, the number of operations in 2039 would increase by 400 annually, or approximately one a day. The flight tracks, flight track usage percentages, and runway use percentages would effectively remain the same. Accordingly, the noise contour is consistent with 2039 conditions. Flight tracks that represent aircraft activity at the Airport and that were recreated from those shown in the ALP Narrative Report as used in producing the noise contours are also depicted on **Exhibit A-1**.

5.2 Draft Safety Compatibility Data

Exhibit A-5 shows the proposed safety zones for the Airport. The safety zones were developed based on guidance provided in the Handbook, which includes dimensions for "generic" safety zones. These generic safety zones are geometric shapes representing areas of progressive degree of risk of aircraft accident based on statistical analysis of accident locations. Typically, the closer to the runway end, the higher the risk for an accident. While the number of safety zones at an airport may vary based on the airport's unique operating conditions, the Handbook provides guidance for six safety zones. **Table A-4** describes these safety zones in detail.

Safety zones for IZA were developed by selecting the appropriate set of generic safety zones from the examples provided in the Handbook and then overlaying them on the runway. Where necessary, adjustments were made to the safety zones to reflect the operating conditions at the Airport. For purposes of this exercise, the flight tracks used to model the noise contours were recreated to show the general aircraft operating patterns at the Airport. The safety zones were adjusted to reflect operational patterns at the Airport as represented by the aircraft flight tracks and operational data used to produce the noise contours shown in in **Exhibit A-6**. Ninety percent of operations are arrivals to and departures from Runway 26. Based on information provided by the Airport, the majority of departures from Runway 26 turn left on a 210 degree heading. To depict this, a track has been added showing a 210 degree departure from the Runway 26 end. Please note that this track was not used in modeling the noise contours shown in **Exhibit A-5**.

The safety zones for Runway 8-26 were based on *Example 1: Short General Aviation Runway*, included in the Handbook. *Example 1* assumes a runway length of less than 4,000 feet, approach visibility minimums greater than or equal to a mile or a visual approach only, and RPZs of 250 feet by 450 feet by 1,000 feet. Runway 8-26 is 2,803 feet long and has visual approach minimums and RPZs consistent with *Example 1*.

Safety Zone 4 was adjusted off both the Runway 8 and Runway 26 ends and extended to the south from the edge of Safety Zone 3 on both sides of the runway. On the Runway 8 end,

Safety Zone 4 was extended to reflect aircraft departing Runway 26 and turning immediately beyond the runway end to the southwest on a 210 degree heading or following the departure flight tracks developed for the 2001 ALP Narrative Report noise model. Aircraft arriving to the runway make similar turns close in to the runway. Safety Zone 4 was similarly extended and south to the edge of Safety Zone 3 to reflect similar operations off the Runway 26 end. As there are no operations to the north of the Runway 8 end, Safety Zone 3 has been eliminated. No other adjustments to the safety zones were made in that area. Finally, Safety Zone 6 was extended 500 feet to the south to reflect aircraft operations south of the runways.

5.3 Draft FAR Part 77 Airspace Compatibility Data

Exhibit A-7 depicts the Part 77 airspace surfaces for IZA. The airspace surfaces were prepared based on the May 2011 ALP. Part 77 airspace surfaces reflect areas around airports determined by FAA regulations that should be protected from obstructions and visual impacts that may interfere with the safe operation of aircraft.

5.4 Draft Overflight Compatibility Data

Exhibit A-8 shows the overflight notification area for IZA. The overflight notification area includes all areas covered by the Airport's Safety Zones as well as flight corridors based on the traffic patterns presented in the ALP Narrative Report. General corridors centered on the traffic pattern flight tracks were created to account for normal variation in aircraft operations. The generalized flight corridors extend to the outer boundary of the Airport's conical surface.

5.5 Draft Airport Influence Area

Exhibit A-9 shows the Airport Influence Area (AIA) for IZA. The AIA is "the area in which current or future airport-related noise, overflight, safety, or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses." (Business and Professions Code 11010(b)(13)(b).) The AIA is divided into two areas. Review Area 1 and Review Area 2. Review Area 1 consists of a combination of the noise contours and six safety zones for the Airport, and represents areas where noise and/or safety concerns may require limitations on the type of allowable land uses. Review Area 2, consists of areas beyond Review Area 1, but within the area covered by the combined airspace surfaces and overflight notification area. Restrictions on the height of objects within Review Area 2 may apply.

Table A-4 – Airport Safety Zones

Landside Facilities	
Safety Zone	**Description**
Safety Zone 1	• Runway Protection Zone • Reflects areas where aircraft are on very close approach or departure; • Altitude: Typically less than 200 feet above the runway.
Safety Zone 2	• Inner Approach/Departure Zone • Aircraft overflying at low altitudes on final approach and straight-out departure; • Altitude: Between 200 and 400 feet above the runway.
Safety Zone 3	• Inner Turning Zone • Aircraft, (especially smaller, piston-powered aircraft) turning base to final on landing approach or initiating turn to en route direction on departure; • Altitude: Less than 500 feet above runway, particularly on landing.
Safety Zone 4	• Outer Approach/Departure Zone • Approaching aircraft usually at less than traffic pattern altitude. Particularly applicable for busy general aviation runways (because of elongated traffic pattern), runways with straight-in instrument approach procedures, and other runways where straight-in or straight-out flight paths are common; • Altitude: Less than 1,000 feet above the runway.
Safety Zone 5	• Sideline Zone • Area not normally overflown; primary risk is with aircraft (especially twins) losing directional control on takeoff; excessive crosswind gusts or engine torque; • Altitude: Runway elevation.
Safety Zone 6	• Traffic Pattern Zone • Aircraft within a regular traffic pattern and pattern entry routes; • Altitude: Ranging from 500 to 1,500 feet above the runway.

Source: Caltrans Airport Land Use Compatibility Handbook, 2011.

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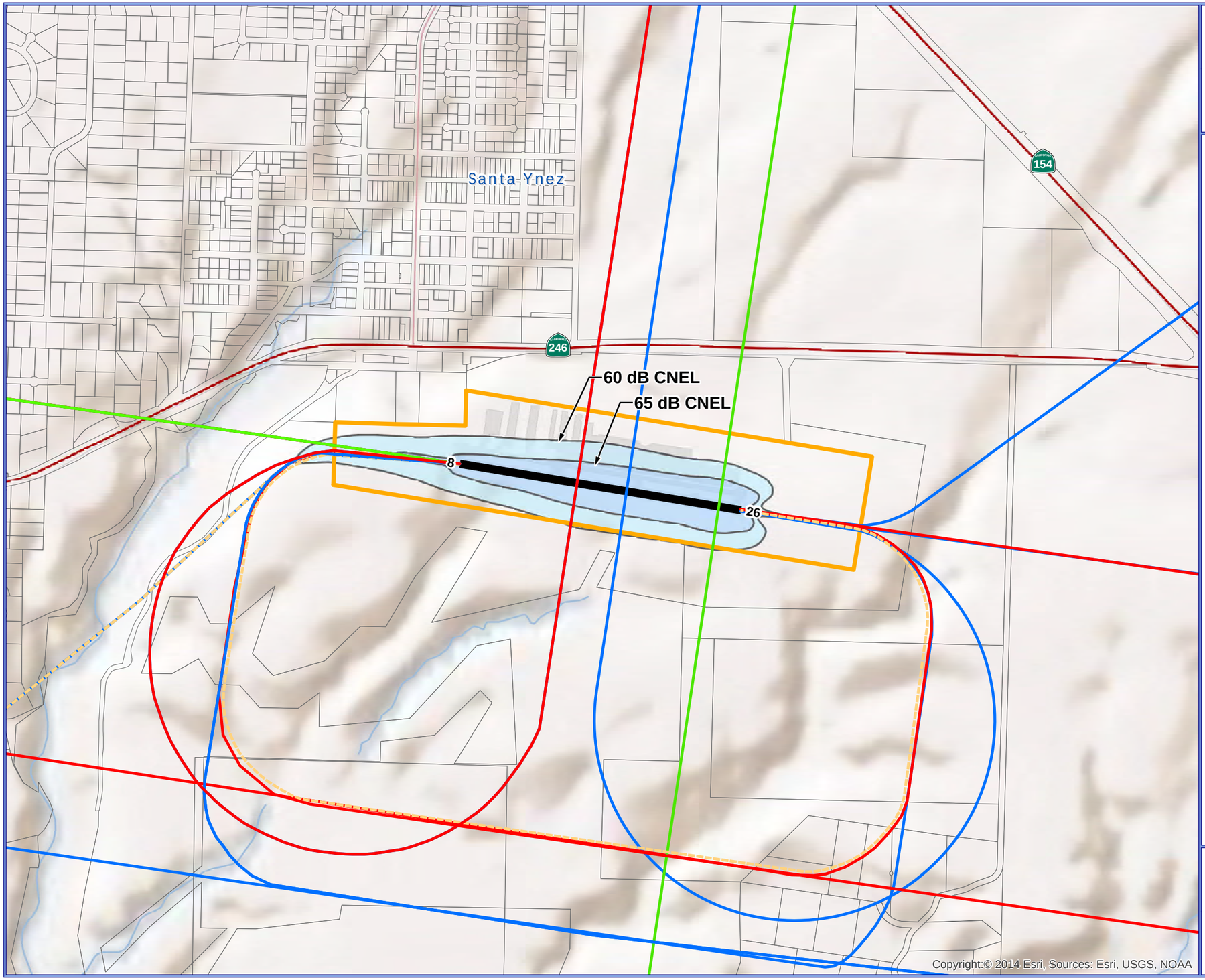

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Legend

Noise Exposure Range
- 60-65 dB CNEL
- 65+ dB CNEL

Flight Tracks
- Arrivals
- Departures
- Touch-and-Go
- Helicopter
- Airport Property Boundary
- Runways
- Freeways/Highways
- Primary or Secondary Street
- Parcel Lines

Prepared by: URS Corporation; CPH Jones Consulting; ATAC Corporation

Source: Parcels - County of Santa Barbara Clerk-Recorder-Assessor's Mapping Division, November 2016; Roadway Centerlines - Santa Barbara County Mapping and GIS, December 2010; ESRI Layer Package: North American Airports - ESRI, November 2010; World Shaded Relief - ESRI Online (Sources ESRI, USGS, NOAA), 2014 (Updated February 2017), http://goto.arcgisonline.com/maps/World_Shaded_Relief.

0 0.25 0.5 Miles

0 1,000 2,000 Feet

NAD 1983 StatePlane California V FIPS 0405 (US Feet)

Exhibit A-5

Noise Compatibility Data Map: Santa Ynez Valley Airport

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Legend

Safety Zones

- Zone 1 - Runway Protection Zone
- Zone 2 - Inner Approach/Departure Zone
- Zone 3 - Inner Turning Zone
- Zone 4 - Outer Approach/Departure Zone
- Zone 5 - Sideline Zone
- Zone 6 - Traffic Pattern Zone

Flight Tracks

- Arrivals
- Departures
- Touch-and-Go
- Helicopter
- Runway 26 Departures - 210 Degrees
- Runways
- Airport Property Boundary
- Freeways/Highways
- Primary or Secondary Street
- Parcel Lines

Prepared by: URS Corporation; CPH Jones Consulting; ATAC Corporation

Source: Runway 26 Departure - ATAC Corporation, 2017; Parcels - County of Santa Barbara Clerk-Recorder-Assessor's Mapping Division, November 2016; Roadway Centerlines - Santa Barbara County Mapping and GIS, December 2010; ESRI Layer Package: North American Airports - ESRI, November 2010; World Shaded Relief - ESRI Online (Sources ESRI, USGS, NOAA), 2014 (Updated February 2017), http://goto.arcgisonline.com/maps/World_Shaded_Relief.

0 0.25 0.5 0.75 Miles

0 1,000 2,000 3,000 4,000 Feet

NAD 1983 StatePlane California V FIPS 0405 (US Feet)

Exhibit A-6

Safety Compatibility Data Map: Santa Ynez Valley Airport

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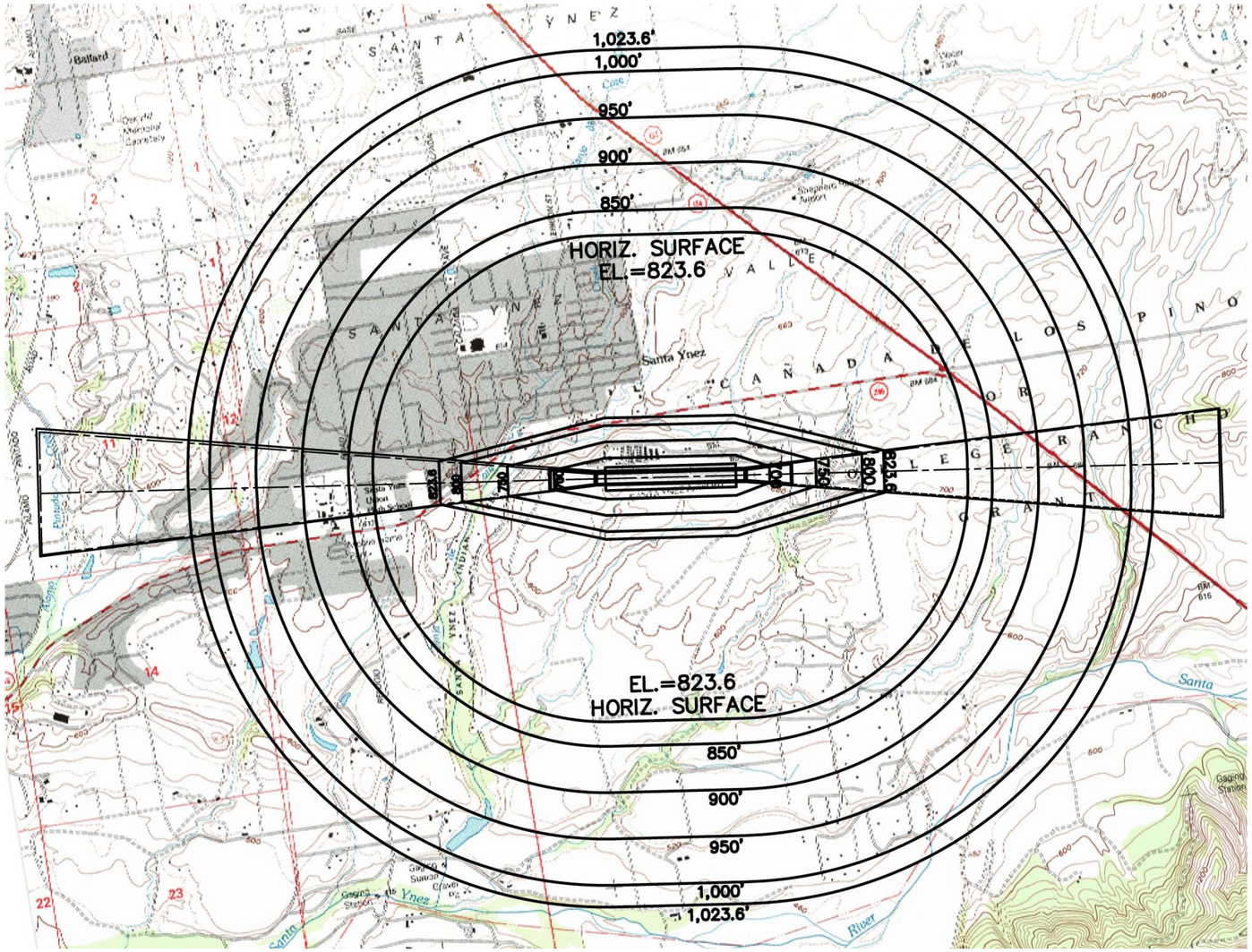
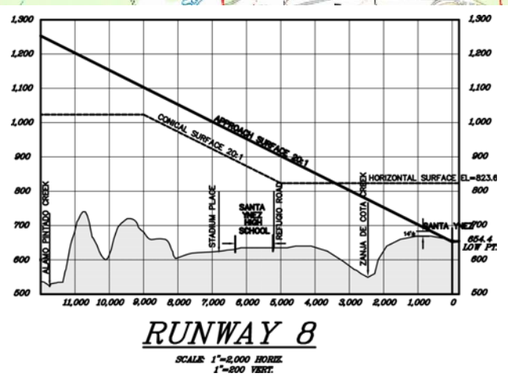


SURFACE DIMENSION	
Surface	Dim.
Primary Surface Width	500'
Approach Surface 8 (Inner Width)	500'
Approach Surface 26 (Inner Width)	500'
Approach Surface 8 (Outer Width)	1,500'
Approach Surface 26 (Outer Width)	3,500'
Approach Surface 8 (Length)	5,000'
Approach Surface 26 (Length)	5,000'
Conical Surface Width	4,000'

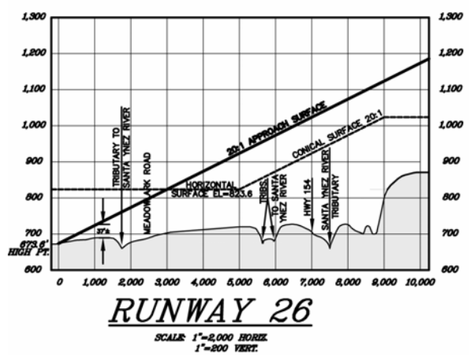
SURFACE ELEVATION	
End of Runway 8	654.4' MSL
End of Runway 26	673.6' MSL
Horizontal Surface	823.6' MSL
Conical Surface	20:1
Approach Surface 8	20:1
Approach Surface 26	20:1

USGS MAPS FOR BASE	
7.5 Minute Quad	
Santa Ynez Quad 1978	Rev. 1995
Los Olivos Quad 1982	Rev. 1995



RUNWAY 8

SCALE: 1"=2,000 HORIZ. 1"=200 VERT.



RUNWAY 26

SCALE: 1"=2,000 HORIZ. 1"=200 VERT.

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Legend

Runway

Notes:

1. Far Part 77 Surfaces are based on runway information shown on the Airport Layout Plan dated May 18, 2011 (2,803' x 75'.)
2. All elevations are in feet above mean sea level (MSL).
3. A composite ground profile is created by using the highest point at any given distance from the runway within the approach surface.
4. There are no threshold siting surface penetrations.
5. Roads and tributaries to the Santa Ynez River traverse through the approach surfaces of Runways 8 and 26. They are shown on the runway profiles where the cross the extended runway centerlines.
6. There are no terrain penetrations into the horizontal surface.

Prepared by: CPH Jones Consulting; ATAC Corporation
Source: Tartaglia Engineering, May 2012; Santa Ynez Valley Airport Airport Layout Plan, May 2011.

NOT TO SCALE

Exhibit A-7

FAR Part 77 Airspace Protection Compatibility Data Map: Santa Ynez Airport

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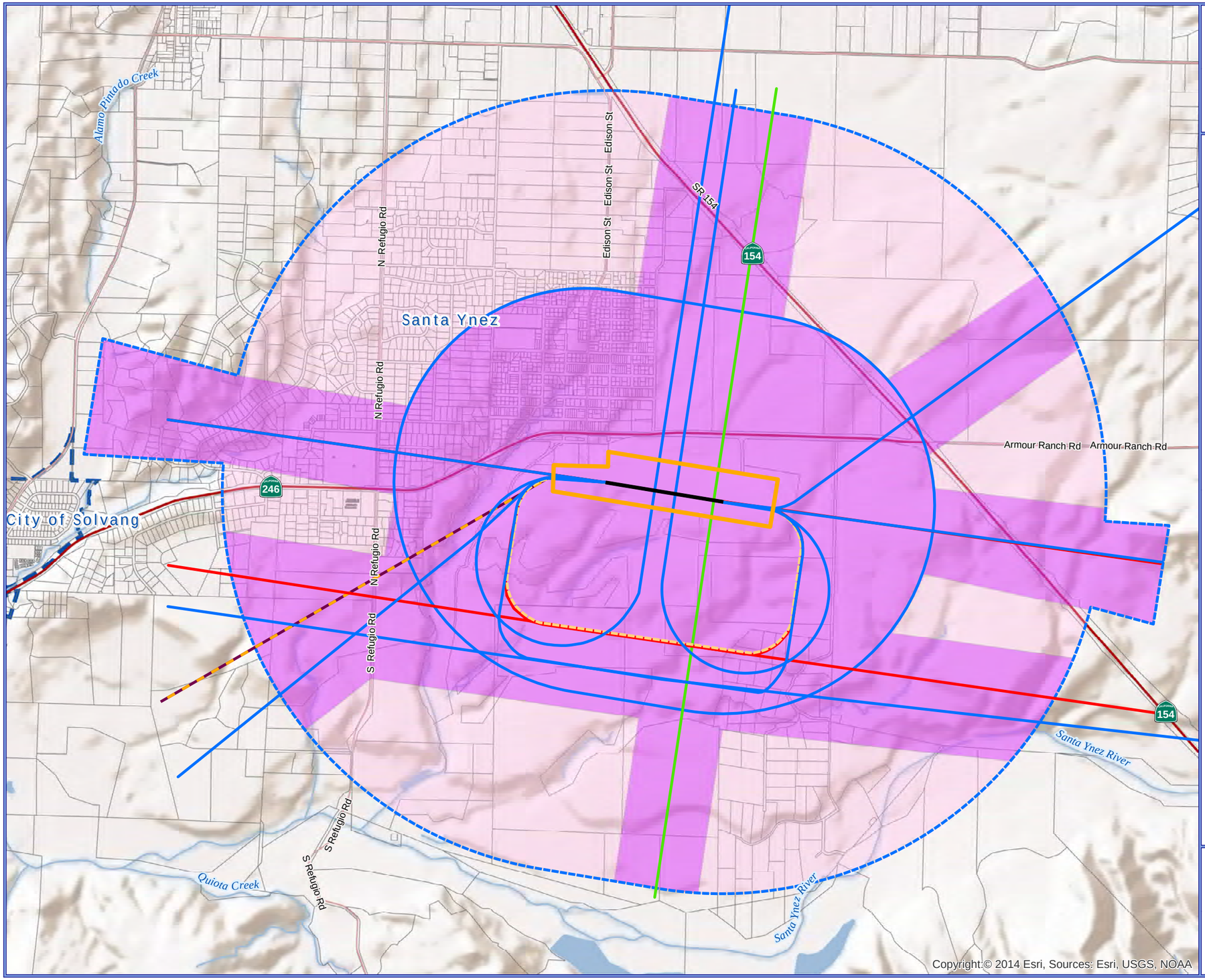

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Legend

- Overflight Notification Area
- Disclosure in Real Estate Transaction
- AIA Review Area 1
- AIA Review Area 2

Flight Tracks

- Arrivals
- Departures
- Touch-and-Go
- Helicopter
- Runways
- Airport Property Boundary
- Freeways/Highways
- Primary or Secondary Street
- Parcel Lines

Prepared by: URS Corporation; CPH Jones Consulting; ATAC Corporation

Source: Runway 26 Departure - ATAC Corporation, 2017; Parcels - County of Santa Barbara Clerk-Recorder-Assessor's Mapping Division, November 2016; Roadway Centerlines - Santa Barbara County Mapping and GIS, December 2010; ESRI Layer Package: North American Airports - ESRI, November 2010; World Shaded Relief - ESRI Online (Sources ESRI, USGS, NOAA), 2014 (Updated February 2017), http://goto.arcgisonline.com/maps/World_Shaded_Relief.

0 0.25 0.5 0.75 Miles

0 1,000 2,000 3,000 4,000 Feet

NAD 1983 StatePlane California V FIPS 0405 (US Feet)

Exhibit A-8

Overflight Compatibility Data Map: Santa Ynez Valley Airport

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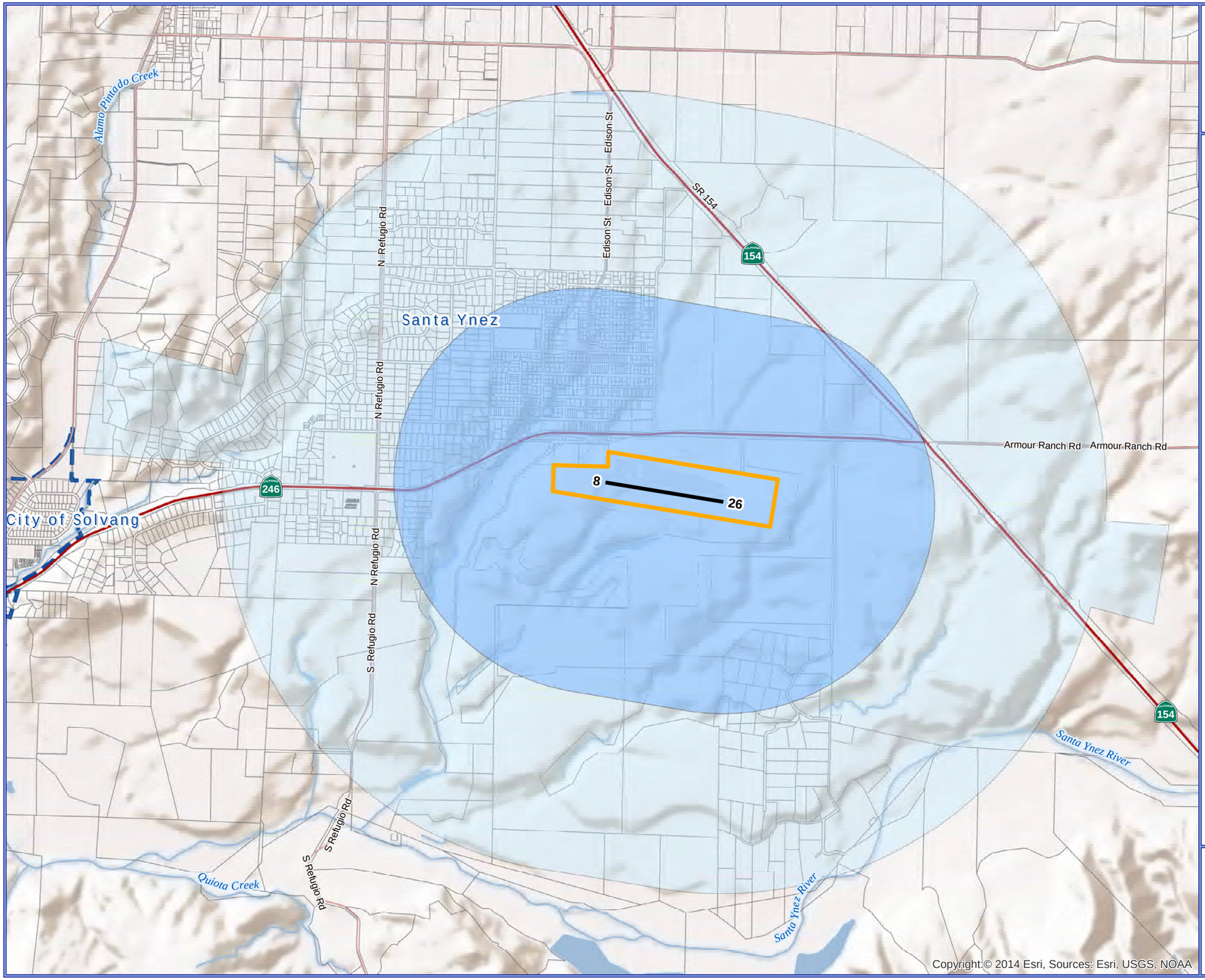

Legend

- AIA Review Area 1
- AIA Review Area 2
- Runways
- Airport Property Boundary
- Freeways/Highways
- Primary or Secondary Street
- Parcel Lines

Prepared by: URS Corporation; CPH Jones Consulting; ATAC Corporation

Source: Parcels - County of Santa Barbara Clerk-Recorder-Assessor's Mapping Division, November 2016; Roadway Centerlines - Santa Barbara County Mapping and GIS, December 2010; ESRI Layer Package: North American Airports - ESRI, November 2010; World Shaded Relief - ESRI Online (Sources ESRI, USGS, NOAA), 2014 (Updated February 2017), http://goto.arcgisonline.com/maps/World_Shaded_Relief.

0 0.25 0.5 0.75 Miles

0 1,000 2,000 3,000 4,000 Feet

NAD 1983 StatePlane California V FIPS 0405 (US Feet)

N

Exhibit A-9

Airport Influence Area: Santa Ynez Valley Airport

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