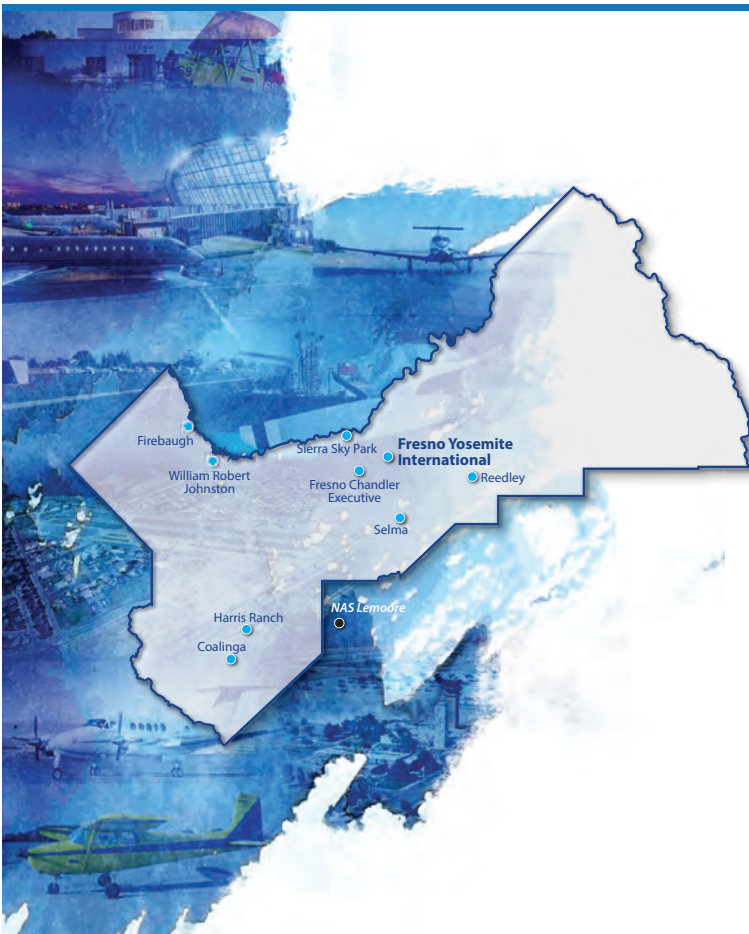




Fresno Council
of Governments

Appendix D

FRESNO YOSEMITE INTERNATIONAL AIRPORT



Appendix D: Fresno Yosemite International Airport

Appendix D provides an overview of Fresno Yosemite International Airport's (Airport) setting, airport influence area (AIA), safety zones, noise, and airspace and overflight areas. This Appendix also discusses existing and planned land uses, as well as current and future Airport facilities.

Fresno Yosemite International Airport is owned and operated by the City of Fresno. The Airport is approximately five miles northeast of downtown Fresno. The 2017 – 2021 *National Plan of Integrated Airport Systems* classifies the Airport as a small hub primary facility, and the 2013 *California Aviation System Plan* (CASP) considers it a primary small hub metropolitan airport. The Airport sits at an elevation of 336 feet above mean sea level. The Airport is a joint use civilian and military facility used by commercial air carriers, air cargo operators, charter operators, the State of California, general aviation, and the United States military. The California National Guard uses a 58-acre portion of the southeastern part of the Airport. The Army National Guard, the California Division of Forestry, corporate aviation businesses, and two fixed base operators also lease facilities from the Airport.

SAFETY ZONES

The AIA and Safety Zones for Fresno Yosemite International Airport are shown on **Exhibit D1**. Figure 3B of the California Airport Land Use Planning Handbook (Handbook) provides example zones for airports, which are differentiated by runway length. The Handbook zone examples are provided as a starting point for developing safety zones specific to an airport. As discussed below, there are two runways at Fresno Yosemite International Airport: Runway 11L-29R is 9,539 feet long and Runway 11R-29L is 8,008

feet long. The Federal Aviation Administration (FAA)-approved Airport Layout Plan (ALP) identifies extending the length of both runways. Using these extended dimensions, the Large Air Carrier Runway classification was assumed for both runways. For this plan, the outermost zone in the Handbook examples was replaced by the 14 CFR Part 77 Conical Surface, Outer Approach Transitional Surface, and Precision Approach Surface which also represent the airspace and overflight review area boundaries. The Outer Approach Transitional Surface and Precision Approach Surface are used at airports with runways that have a Precision Instrument Approach such as Fresno Yosemite International Airport. Additional information regarding the safety compatibility zones can be found in **Appendix M**.

NOISE

AIRPORT ACTIVITY

Exhibit D2 depicts the forecast 2022 noise exposure contours from the Fresno Yosemite International Airport Draft Noise Exposure Map Update dated July 2017. It is assumed that these noise contours reflect long range noise conditions at the airport.

AIRSPACE AND OVERFLIGHT

Exhibit D3 depicts the Airspace Plan from the 2013 Fresno Yosemite International Airport Master Plan. This exhibit includes the 14 CFR Part 77 Conical Surface, Outer Approach Transitional Surface, and Precision Approach Surface which make up the Airport Influence Area for Fresno Yosemite International Airport.

AIRPORT INFORMATION

AIRPORT FACILITIES

Table D1 summarizes the details of the runway facilities at the Airport and **Exhibit D4** shows the Airport Layout Plan (January 2013).

The Airport has two parallel runways, Runway 11L-29R and Runway 11R-29L. Runway 11L-29R is 9,539 feet long and 150 feet wide. It is grooved asphalt and in good condition. Runway 11L has a left-handed traffic pattern and Runway 29R has a right-handed traffic pattern. Runway 11L-29R can withstand up to 250,000 pounds. Its pavement markings are precision and in good condition. The runway has high intensity runway lighting (HIRL) with an approach lighting system on Runway 29R only. There is a touchdown point on both runway ends; however, only Runway 29R is lighted. There are runway end identifier lights (REILs) on both runway ends as well. Runway 11L-29R has both visual and instrument approach aids.

Runway 11R-29L is 8,008 feet long and 150 feet wide. It is grooved asphalt and considered in good condition. Runway 11R has a right-handed traffic pattern and Runway 29L has a left-handed traffic pattern. Runway 11R-29L also has a pavement bearing strength of 250,000 lbs. with precision runway pavement

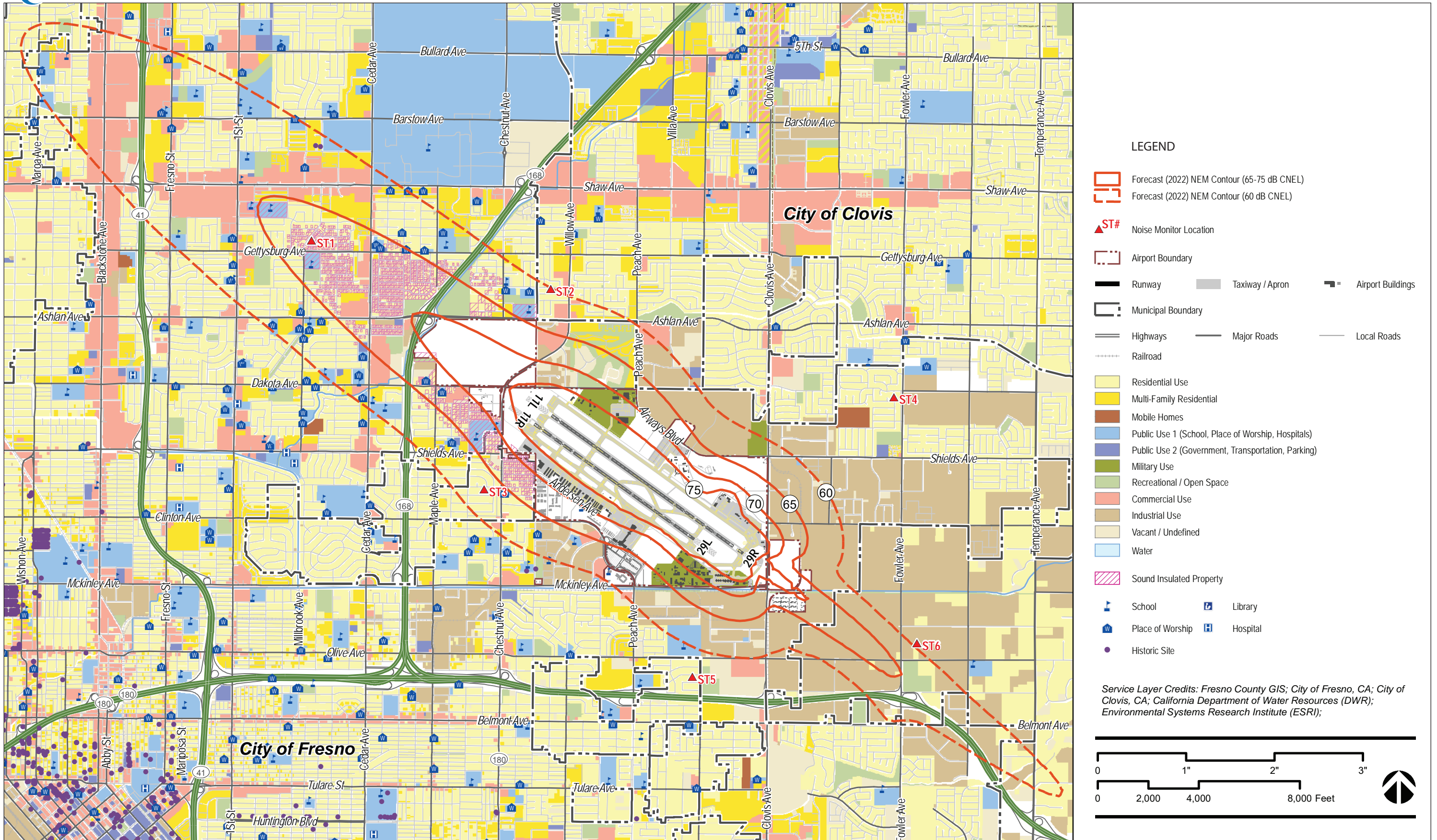
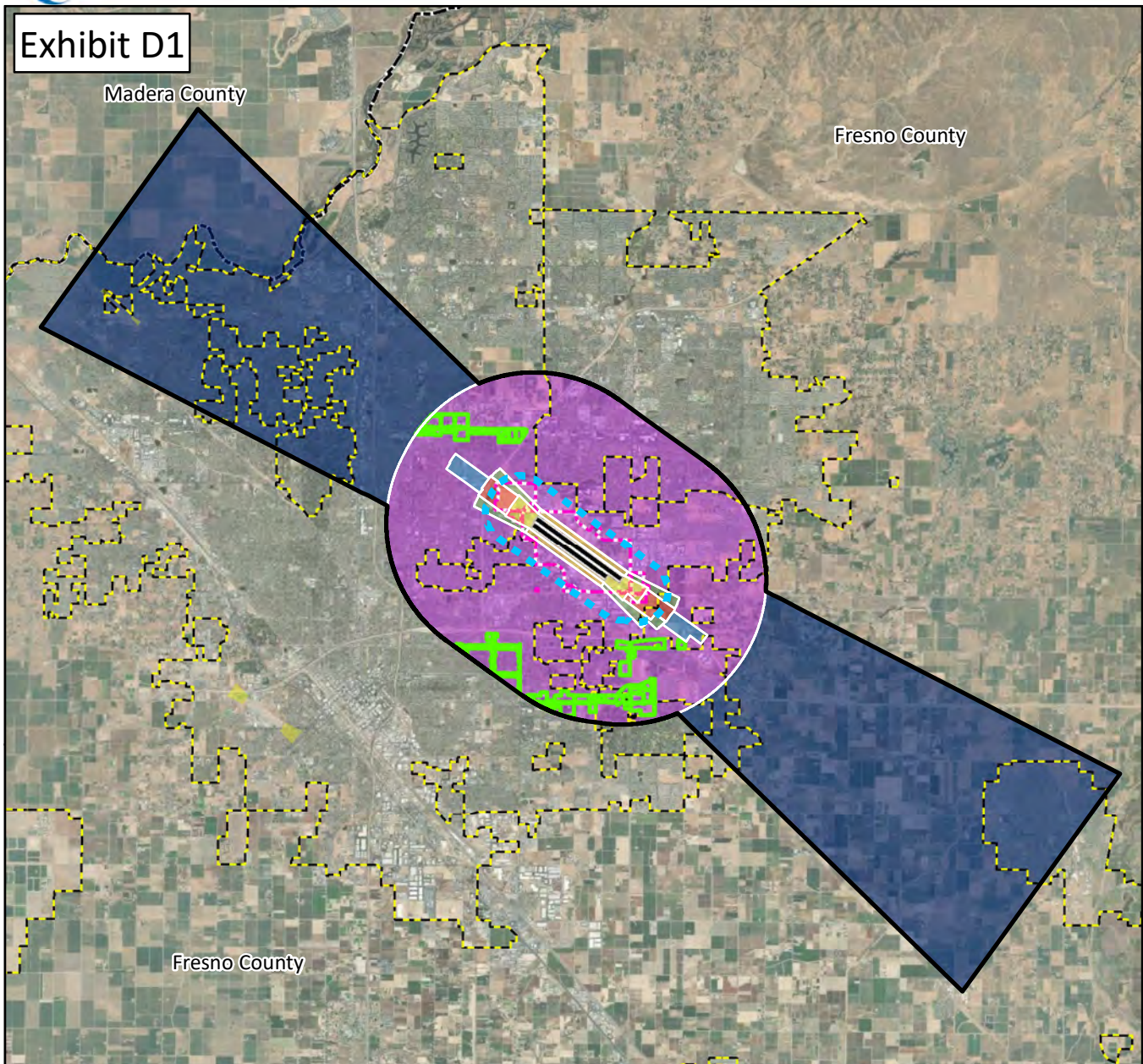




Exhibit D1



LEGEND

- Existing Runway¹
- - - Ultimate Runway¹
- Airport Property¹
- Municipal Boundary
- Airport Influence Area (AIA)²
- Urban³
- Vulnerable Occupants Review Area (See Section 3.2.2 & Table 3A)

Safety Zones⁴

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



0 15,000 30,000
1" = 15,000'

¹FresnoYosemite Intl. Airport Layout Plan (2013)

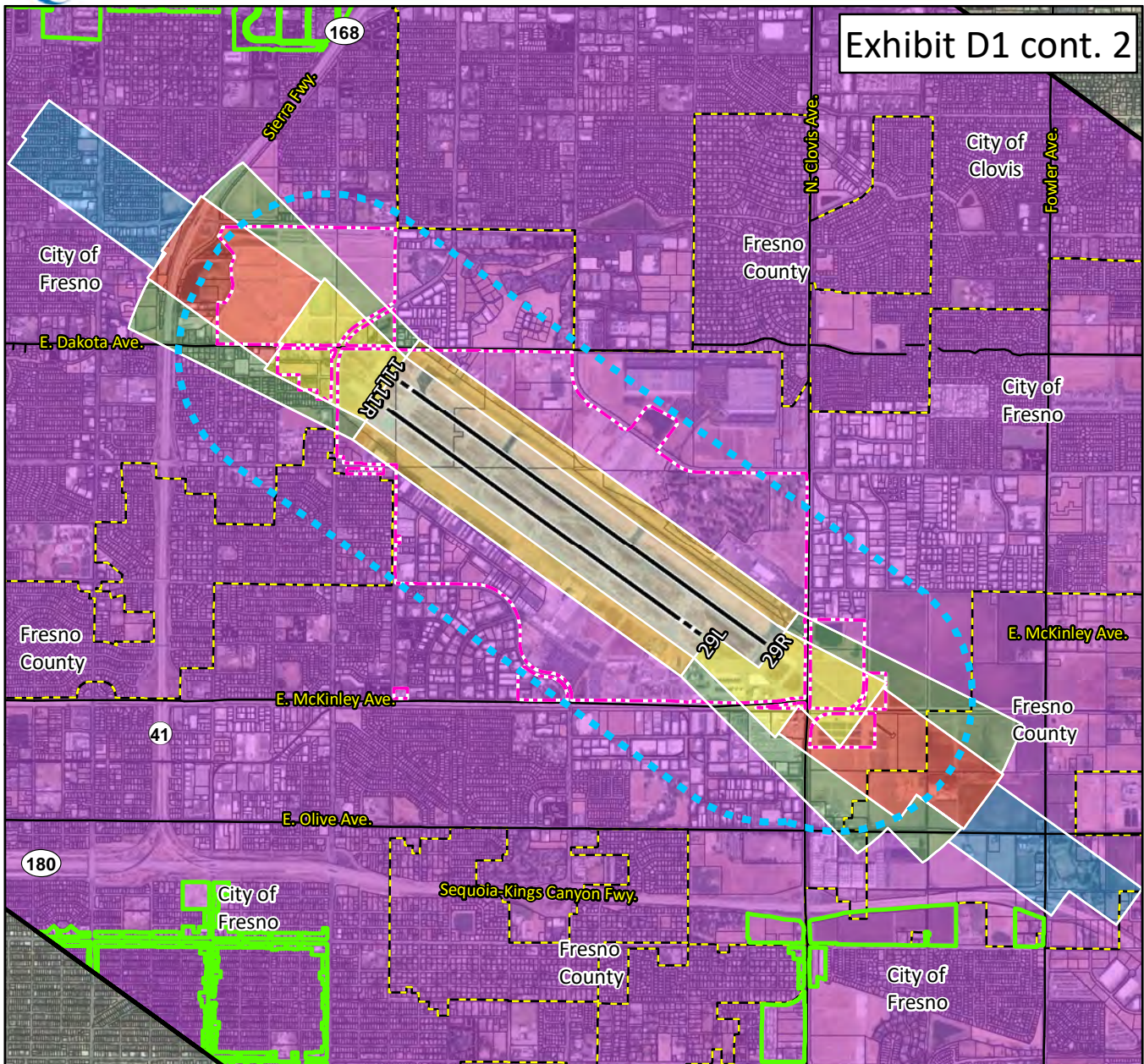
²AIA drawn from Part 77 Conical and Outer-Transitional surfaces. See 14 CFR, Subchapter E, Part 77, §77.25.

³City of Fresno, 2018

⁴Figure 3B, California Airport Land Use Planning Handbook (2011), and Coffman Associates Analysis. Sources: Fresno County Parcels, ESRI Basemap Imagery (2020).



Exhibit D1 cont. 2

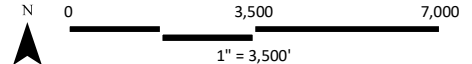


LEGEND

- Existing Runway¹
- - - Ultimate Runway¹
- Airport Property¹
- Parcel Boundary
- Municipal Boundary
- Streets
- Airport Influence Area (AIA)²
- Urban³
- Vulnerable Occupants Review Area (See Section 3.2.2 & Table 3A)

Safety Zones⁴

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

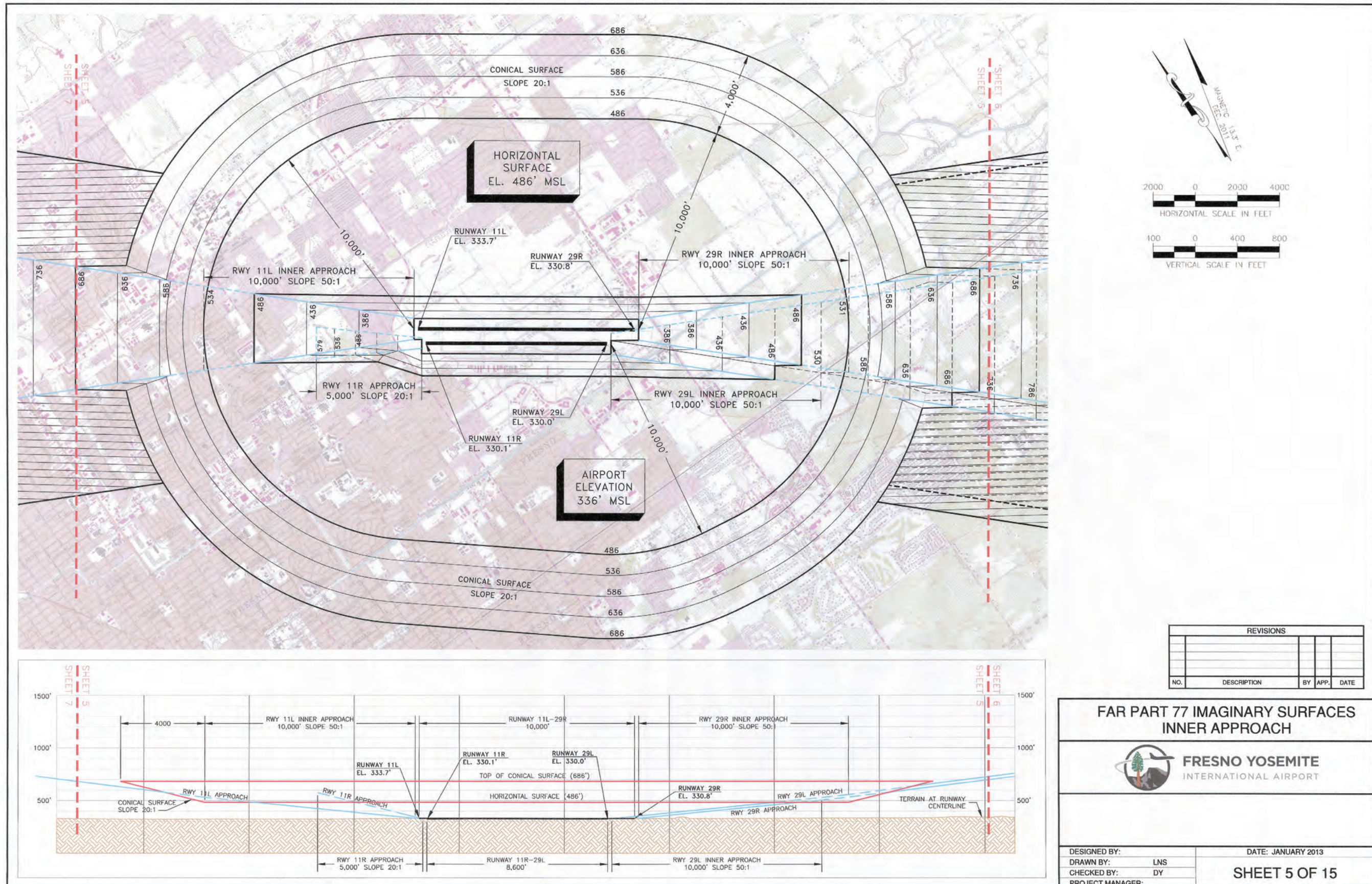


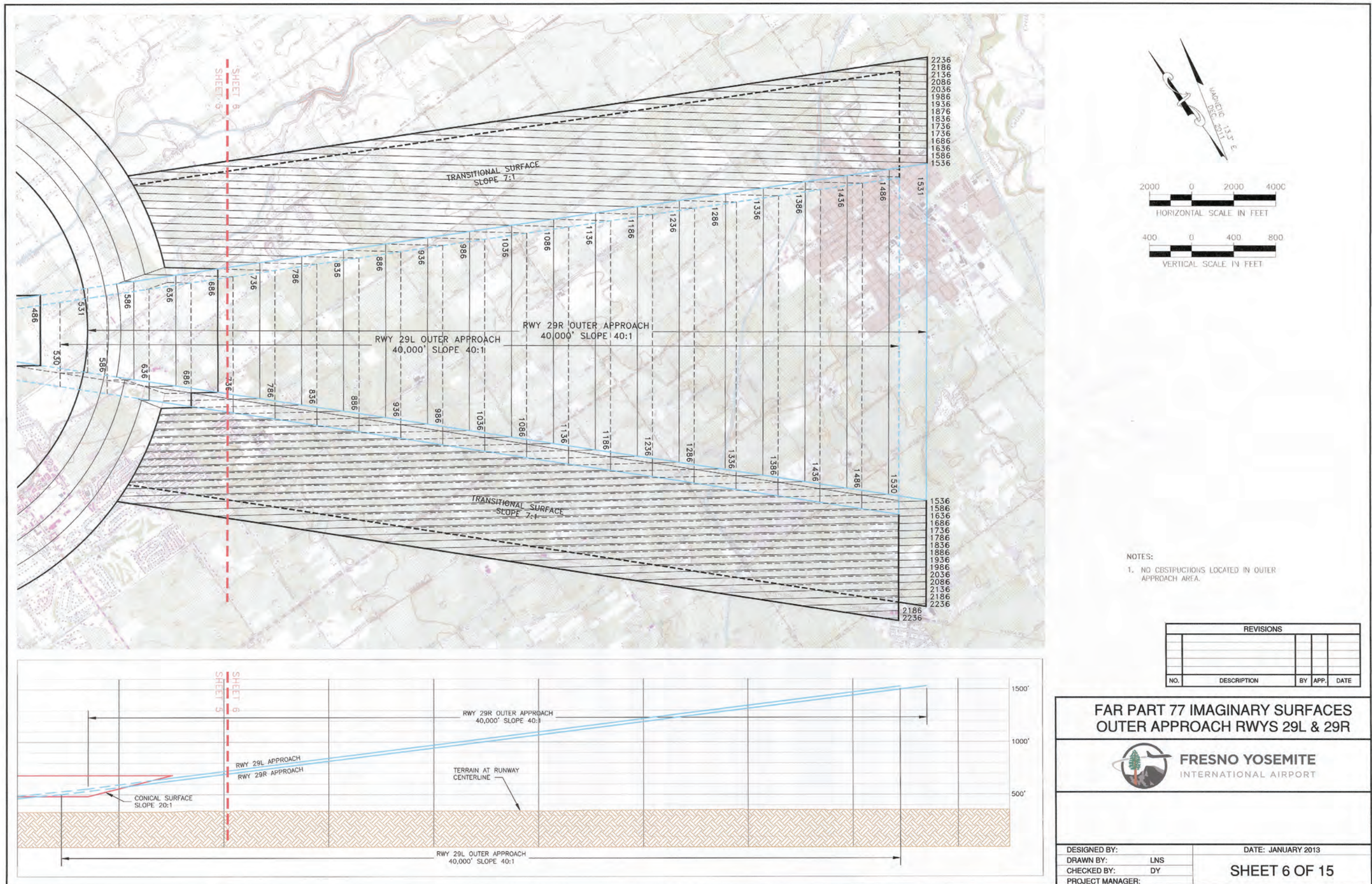
¹FresnoYosemite Intl. Airport Layout Plan (2013)

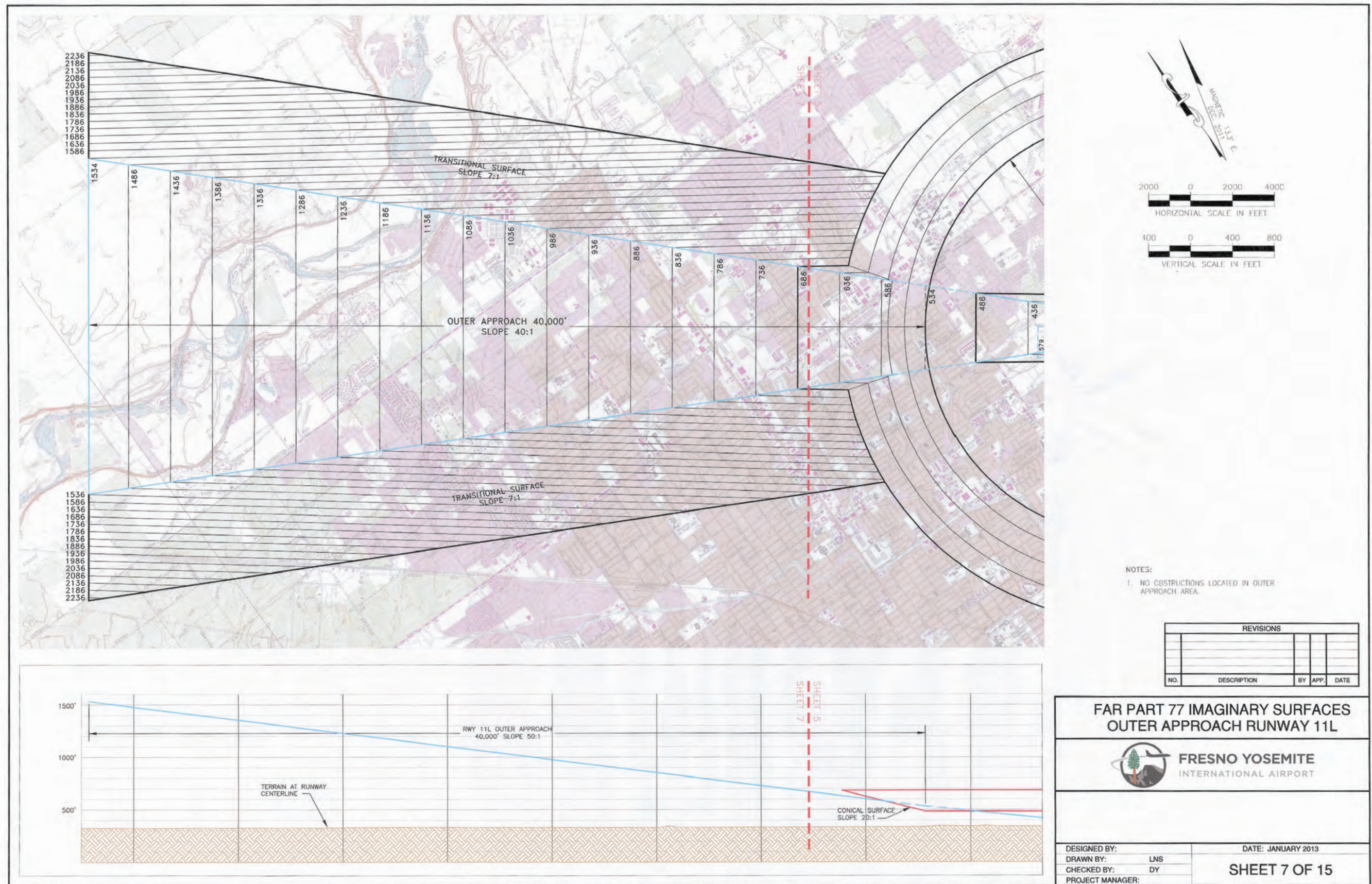
²AIA drawn from Part 77 Conical and Outer-Transitional surfaces. See 14 CFR, Subchapter E, Part 77, §77.25.

³City of Fresno, 2018.

⁴Figure 3B, California Airport Land Use Planning Handbook (2011), and Coffman Associates Analysis. Sources: Fresno County Parcels, Fresno County Streets, ESRI Basemap Imagery (2016).









markings in good condition. This runway has medium intensity runway lights (MIRL) but no approach lighting system. There are unlighted touchdown points and REILs on Runway 11R only. Runway 29L is equipped with a four-light PAPI on the left at a three-degree glide path. The only instrument approach to Runway 11R-29L is a global positioning system (GPS).

TABLE D1
Airport Facilities
Fresno Yosemite International Airport

	Runway 11L-29R	Runway 11R-29L
RUNWAY(S)		
Length (feet)	9,539	8,008
Width (feet)	150	150
Threshold Displacement (feet)	0	0
Runway Pavement Surface Material	Asphalt	Asphalt
Runway Pavement Surface Treatment	Grooved	Grooved
Runway Pavement Condition	Good	Good
Traffic Pattern	Left Right	Right Left
Runway Pavement Load Bearing Strength (lbs.)		
Pavement Classification Number (PCN)	75	44
Single Wheel	70,000	70,000
Double Wheel	170,000	170,000
Dual Tandem	N/A	175,000
Double Tandem	250,000	250,000
Double Dual Tandem	N/A	N/A
Runway Pavement Markings		
Type	Precision	Precision
Condition	Good	Good
Runway Lighting		
Runway Edge Lighting	HIRL	MIRL
Approach Lighting System (ALS)	None ALSF2	None
Touchdown Point	Yes (no lights) Yes (lighted)	Yes (no lights)
Runway End Identifier Lights (REILs)	Yes	Yes No
VISUAL APPROACH AIDS		
Type	4-Light PAPI on left	None 4-Light PAPI on left
Glide Path	3.00 degrees	N/A 3.00 degrees
INSTRUMENT APPROACH AIDS		
Instrument Landing System (ILS)	LOC/DME ILS/DME	No
Global Positioning System (GPS)	Yes	Yes
VOR/DME or TACAN	Yes	No
High-VOR/DME or TACAN	Yes	No

N/A: Not Applicable

HIRL: High Intensity Runway Lights

MIRL: Medium Intensity Runway Lights

ALSF2: Approach Lighting System with Sequenced Flashing Lights configuration 2

PAPI: Precision Approach Path Indicator

LOC: Localizer

DME: Distance Measuring Equipment

TACAN: Tactical Air Navigation

VOR: Very High Frequency Omnidirectional Range

Source: AirNav (July 2017)

FUTURE AIRPORT PLANS

At the time of this study, the Airport is undergoing a master plan update; however, the Airport's presently approved ALP shows extensions to both runways. Runway 11L-29R is proposed to be extended to 10,000 feet total and Runway 11R-29L is proposed for an ultimate length of 8,600 feet. Precision approaches are proposed for Runway 29L and Runway 11L.

AIRPORT ENVIRONS

EXISTING LAND USES

Exhibit D5 shows the existing land uses around the Airport.

Airport property encompasses approximately 2,159 acres of land within the City of Fresno and is generally bounded by Clovis Avenue to the east, Chestnut Avenue to the west, Dakota Avenue to the north, and McKinley Avenue to the south. The Airport is primarily surrounded by urban development including industrial, residential, and mixed commercial uses. A majority of the AIA is composed of single and multi-family residential land uses. Other land uses in the AIA include open space, and agriculture. Right-of-ways/transportation in the AIA make up the street network surrounding the Airport. Major streets connecting the Airport to other areas of Fresno include East Olive Avenue, East McKinley Avenue, East Dakota Avenue, and Clovis Avenue. California State Route 168 and California State Route 180 are the closest highways to the airport.

ZONING

Exhibit D6 shows zoning classifications in the AIA.

The Airport is surrounded primarily by industrial zones, both on and adjacent to Airport property. In addition to industrial zones, there are single and multi-family residential, open space, and commercial zones around the Airport. Residential zoning dominates much of the AIA. Additional zones in the AIA include commercial, mobile home parks, mixed use, parks and recreation, and agriculture.

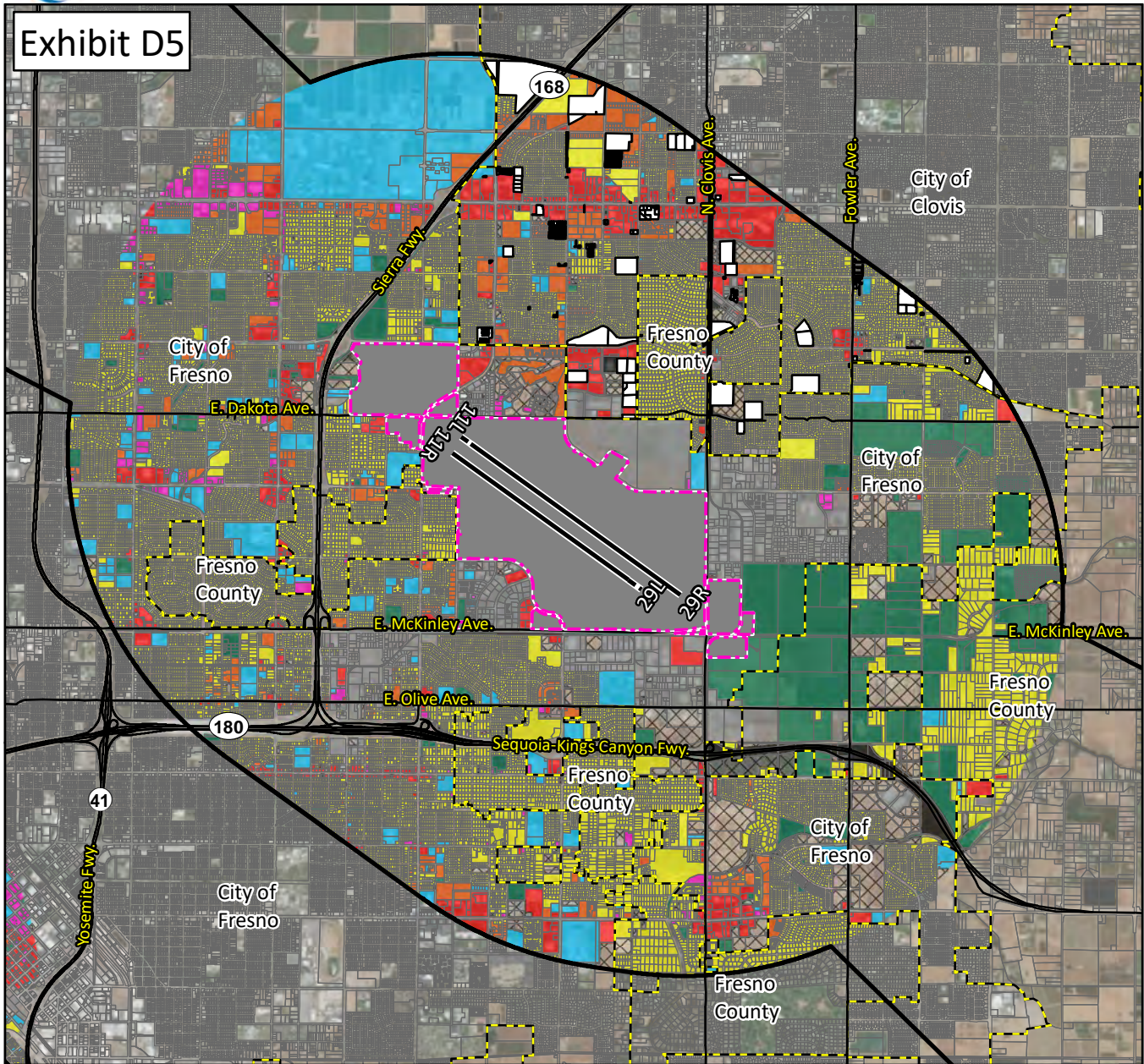
GENERAL PLAN

The general plan land uses around the Airport are illustrated on **Exhibit D7**.

Similar to zoning in the AIA, planned land uses in the vicinity of the Airport include industrial, single family residential, and open space. Additionally, there are several parcels planned for mixed use near the Airport. Although the AIA is still heavily planned for residential, much of the AIA is proposed as mixed use in the future. Mixed use development typically includes a combination of commercial and residential uses.



Exhibit D5



LEGEND

- Existing Runway¹
- - - Ultimate Runway¹
- Airport Property¹
- Parcel Boundary
- - - Municipal Boundary
- Streets
- Airport Influence Area (AIA)²

Existing Land Use³

- Single Family Residential
- Multi-Family Residential
- Commercial
- Industrial
- Public
- Open Space
- Agricultural
- Transportation/Right-of-Way
- Vacant
- No Data



0 6,000 12,000
1" = 6,000'

¹Fresno Yosemite Intl. Airport Layout Plan (2013).

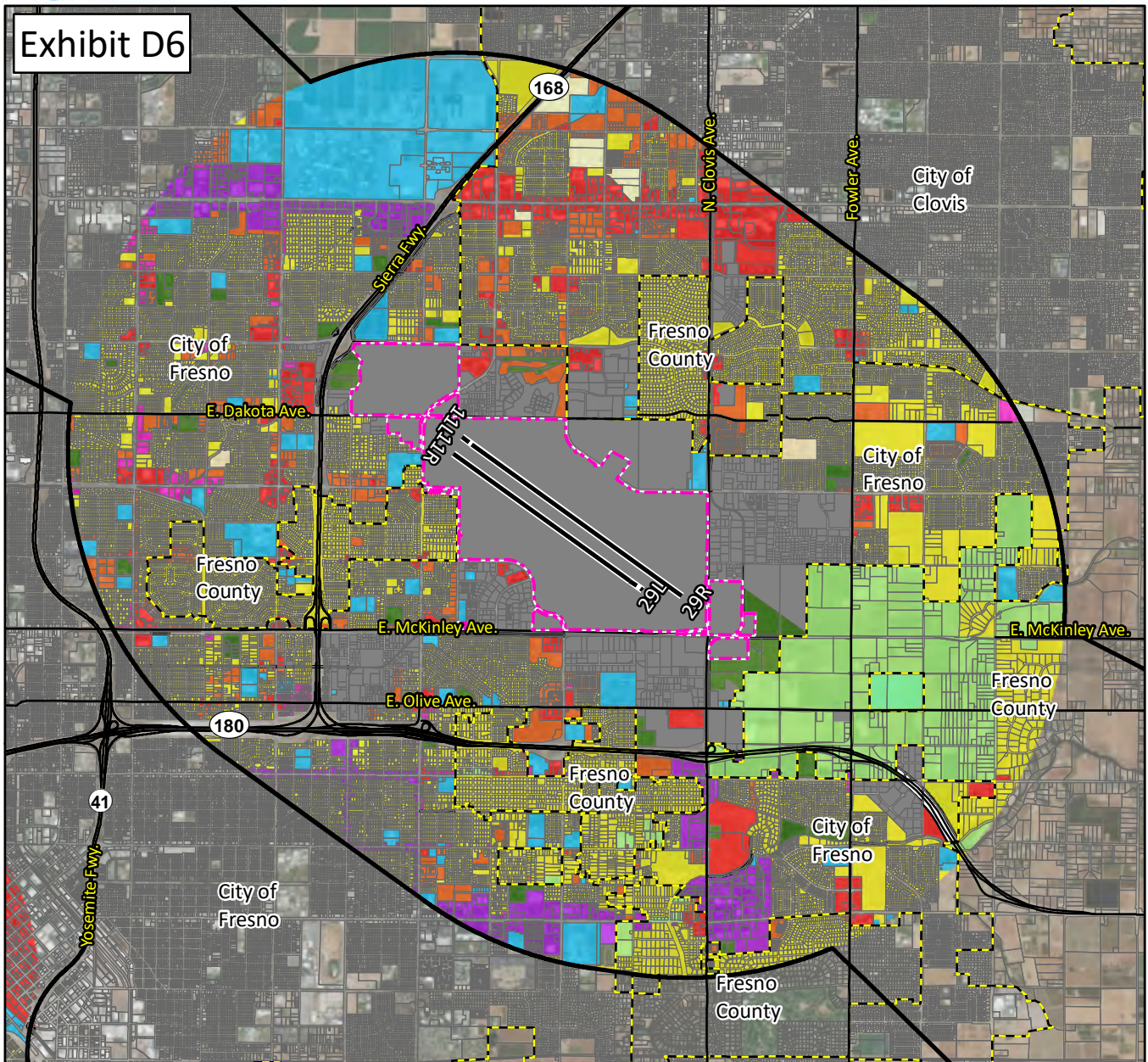
²AIA drawn from Part 77 Conical and Outer Transitional surfaces. See 14 CFR, Subchapter E, Part 77, §77.25.

³City of Fresno Existing Land Use, Fresno Council of Governments.

Sources: Fresno County Parcels, Fresno County Streets, ESRI Basemap Imagery (2016).



Exhibit D6



LEGEND

- Existing Runway¹
- - - Ultimate Runway¹
- Airport Property¹
- Parcel Boundary
- Municipal Boundary
- Streets
- Airport Influence Area (AIA)²

Zoning³

- Mobile Home Park
- Single Family Residential
- Multi-Family Residential
- Mixed Use
- Commercial
- Industrial
- Public
- Open Space
- Agriculture
- Transportation/Right-of-Way
- No Data



0 6,000 12,000
1" = 6,000'

¹Fresno Yosemite Intl. Airport Layout Plan (2013)

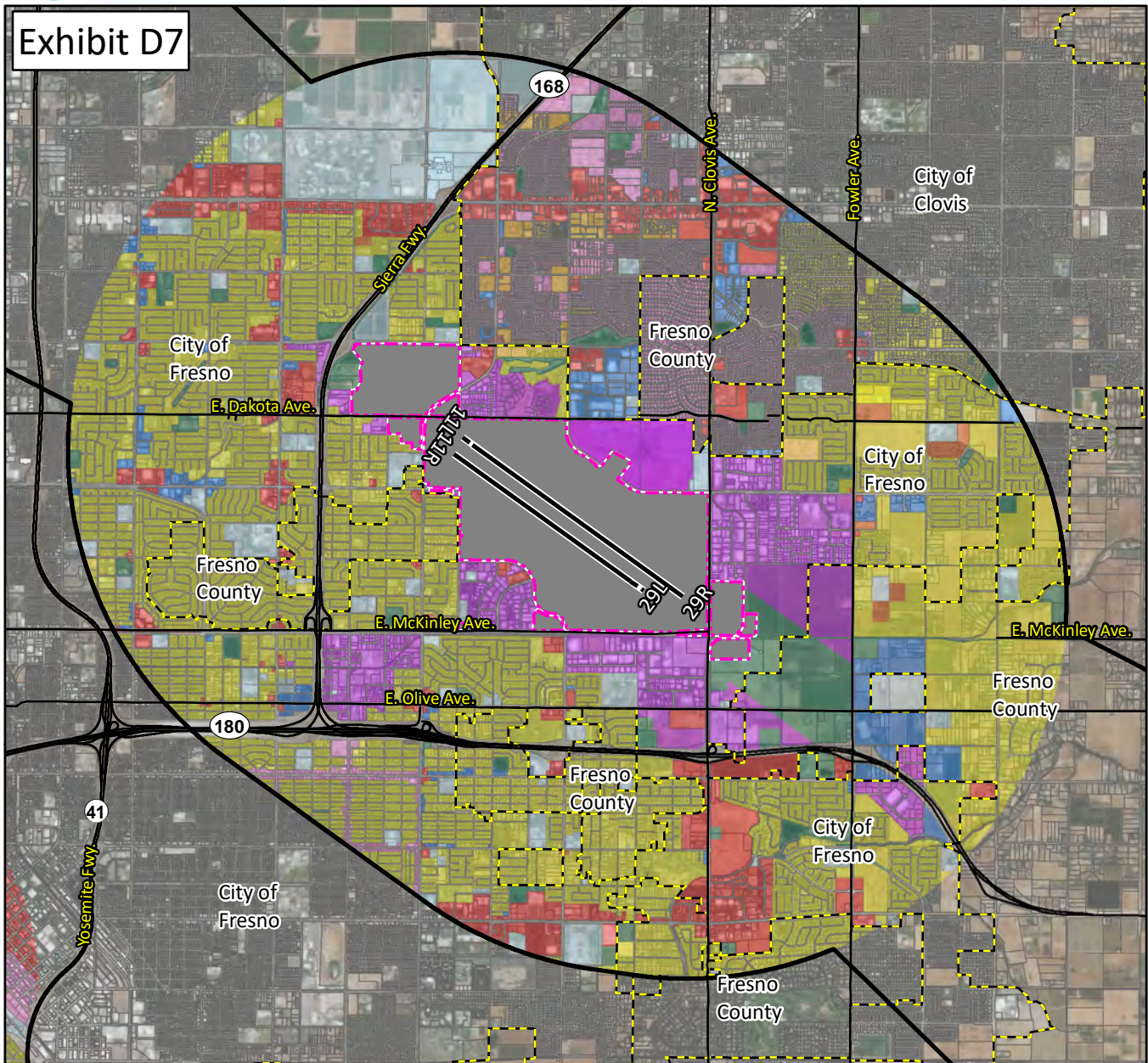
²AIA drawn from Part 77 Conical and Outer Transitional surface. See 14 CFR, Subchapter E, Part 77, §77.25.

³Fresno County Zoning, City of Clovis Zoning, City of Fresno Zoning.

Sources: Fresno County Parcels, Fresno County Streets, ESRI Basemap Imagery (2016).



Exhibit D7



LEGEND

- Existing Runway¹
- Ultimate Runway¹
- Airport Property¹
- Parcel Boundary
- Municipal Boundary
- Streets
- Airport Influence Area (AIA)²

General Plan³

- Single Family Residential
- Multi-Family Residential
- Mixed Use
- Commercial
- Office
- Industrial
- Public
- Open Space



0 6,000 12,000
1" = 6,000'

¹Fresno Yosemite Intl. Airport Layout Plan (2013).

²AIA drawn from Part 77 Conical and Outer Transitional surfaces. See 14 CFR, Subchapter E, Part 77, §77.25.

³Fresno County General Plan.

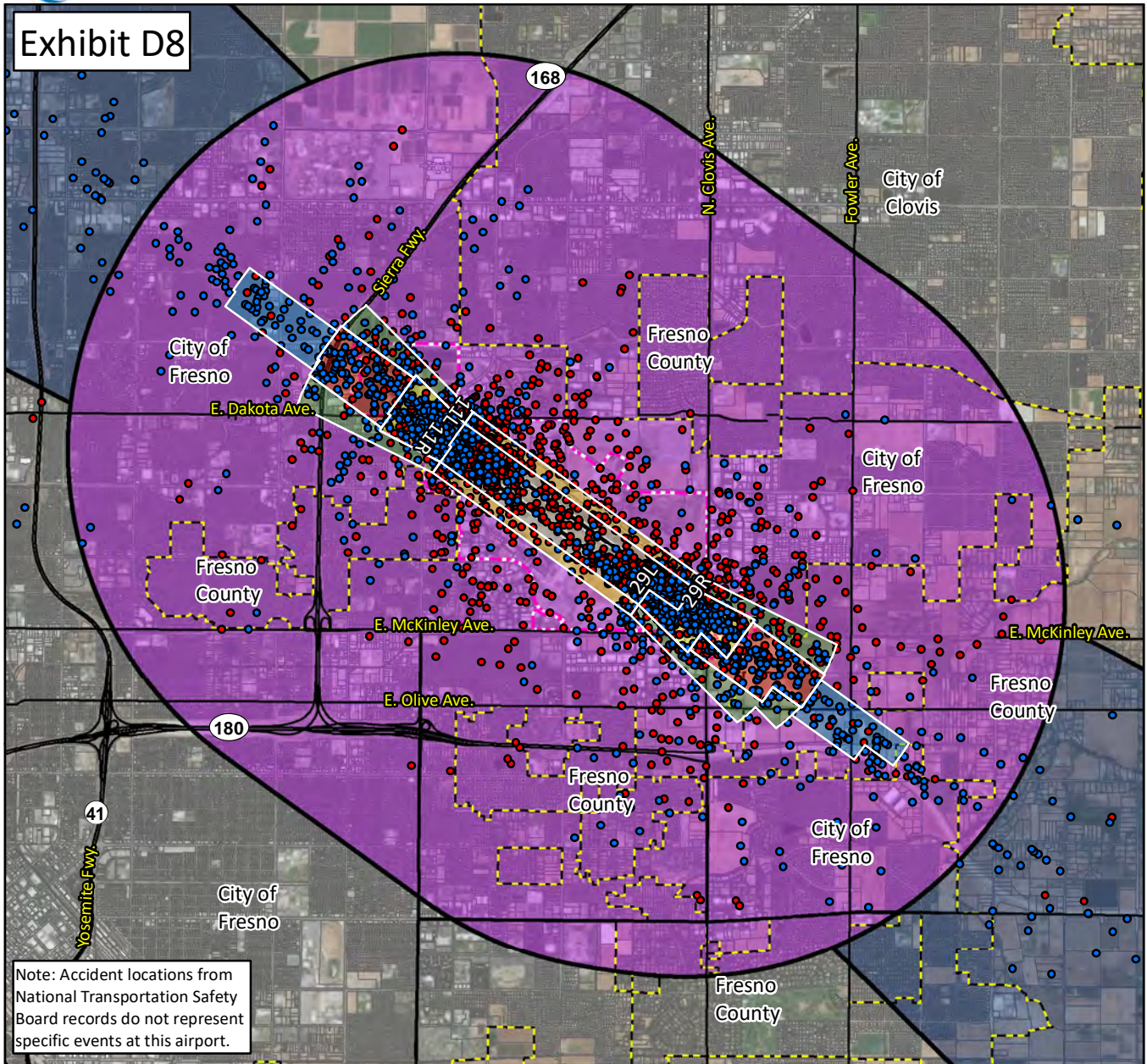
Sources: Fresno County Parcels, Fresno County Streets, ESRI Basemap Imagery (2016).

COMPATIBILITY FACTORS

Exhibit D8 is a compatibility factors map, which compiles National Transportation Safety Board flight accident data for all airports in the United States, noise exposure contours, and arrival and departure flight tracks from the noise exposure contours. The purpose of this exhibit is to illustrate the methodology behind the shape and size of the safety, noise, and airspace compatibility zones.



Exhibit D8



Note: Accident locations from National Transportation Safety Board records do not represent specific events at this airport.

LEGEND

- Existing Runway¹
 - - - Ultimate Runway¹
 - Airport Property¹
 - Parcel Boundary
 - - - Municipal Boundary
 - Streets
 - Arrival Accidents²
 - Departure Accidents²
 - Airport Influence Area (AIA)³
- Safety Zones⁴
- 1. Runway Protection Zone
 - 2. Inner Approach/Departure Zone
 - 3. Inner Turning Zone
 - 4. Outer Approach/Departure Zone
 - 5. Sidelane Zone
 - 6. Traffic Pattern Zone
 - 7. Precision Approach Zone

N
0 6,000 12,000
1" = 6,000'

¹Fresno Yosemite Intl. Airport Layout Plan (2013)

²California Airport Land Use Planning Handbook, 2011. Normalized from airports in United States.

³Figure 3A, California Airport Land Use Planning Handbook (2011), and Coffman Associates Analysis.

⁴AIA drawn from Part 77 Conical and Outer Transitional surfaces. See 14 CFR, Subchapter E, Part 77, §77.25.

Sources: Fresno County Parcels, Fresno County Streets, ESRI Basemap Imagery (2016).