

MASTER PLAN

# SANDPOINT AIRPORT



**BONNER COUNTY, IDAHO**



**Mead  
& Blunt**

In association with  
**J.A. Sewell and Associates and  
Real Estate Economics**

# MASTER PLAN SANDPOINT AIRPORT



## BONNER COUNTY, IDAHO

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# INTRODUCTION

A photograph of a white and red seaplane with the registration number N262GS on its side, parked on a paved tarmac. The plane is a high-wing aircraft with a floatplane landing gear. In the background, there are other vehicles, including a white pickup truck and a yellow forklift, and a clear blue sky with scattered white clouds. The word "INTRODUCTION" is overlaid in large, white, sans-serif capital letters across the top of the image.

## **Background**

Sandpoint Airport (SZT) is located in Bonner County, Idaho. The Airport is owned and operated by Bonner County, and sits within the Sandpoint city limits. The Airport is a key aviation facility in northern Idaho, and serves business users, emergency response services, and recreational users. The Airport Master Plan will look at how Sandpoint Airport exists today, and make recommendations to guide future development.

## **Purpose**

The Plan provides information on historic and current airport activity levels, facilities, and operations, and generates activity forecasts that support improvements to satisfy demand over the next twenty years. Information collected from municipalities, governments, and agencies is augmented with data from airport stakeholders, including airport management, airport tenants and users, and the general public.

The Airport is an asset to its community, providing economic development and employment opportunities, and access for recreational, business, and emergency users. The Airport faces challenges in continuing to provide these services to its community and meeting FAA standards, as it is constrained on all sides by existing and planned development. Surface streets and environmentally sensitive areas present further challenges to development. Furthermore, the Airport's only runway is in need of rehabilitation; the Airport is working with the FAA to achieve compliance with design standards and grant assurances; and new FAA guidance on compatible land use may present a challenge to future development. This Plan will provide recommendations to help the Airport solve these issues so that it may continue to serve residents and visitors to its community.

## Outreach

The Plan is as much about the planning process as it is the resulting document. During development of the Plan, the Airport and the consultant team will involve community agencies, neighbors, airport users and tenants, and the public. A user survey was distributed at the beginning of the planning process to solicit feedback from pilots and tenants about the adequacy of airport facilities. Local stakeholders have been assembled into a Planning Advisory Committee (PAC), which meets at key points during the planning process. The PAC comments on Plan elements as they are developed, and provides feedback to the Airport. In addition to Bonner County and local municipalities, the Federal Aviation Administration and the Idaho Transportation Department – Division of Aeronautics provide feedback on Plan elements.

The Airport is an economic generator for the community, and public outreach is a key part of the planning process. Two public open houses will be held during the planning process to share results and solicit feedback as elements are developed.

## Presentation

The Plan consists of the following chapters and appendices.

1. **Inventory** – Presents a baseline of the features and facilities at SZT, including historical aviation activity, geography, and socioeconomic aspects.
2. **Aviation Activity Forecasts** – Presents forecasts for aircraft operations and based aircraft. Forecasts consider demographic, economic, seasonal, and general industry trends that influence aviation demand.
3. **Facility Requirements** – Examines airside and landside infrastructure to determine present condition and adequacy to accommodate current and future demand, based on baseline information and aviation activity forecasts presented in the Inventory and Forecasts chapters. This analysis results in recommendations that provide the basis for development of alternatives related to Airport needs, facilities, staffing, and funding.
4. **Improvement Alternatives** – Presents options for desired, recommended, and required development. The alternatives are evaluated against operational, financial, environmental, and other feasibility-related criteria, and preferred alternatives are selected.
5. **Planning for Compliance** – Presents strategies for meeting FAA design standards and grant assurances.
6. **Financial Feasibility** – Presents revenues and expenses associated with existing facilities, existing and forecasted operations, and proposed improvements, including a Capital Improvement Program showing the cost and schedule of improvements.

### Appendices

<b>Appendix A</b>	<b>Airport Layout Plan</b>
<b>Appendix B</b>	<b>Environmental Overview</b>
<b>Appendix C</b>	<b>Wildlife Hazard Site Visit</b>
<b>Appendix D</b>	<b>Airport Recycling Plan</b>
<b>Appendix E</b>	<b>Activity Data</b>
<b>Appendix F</b>	<b>Runway Length Calculations</b>
<b>Appendix G</b>	<b>Dismissed Alternatives</b>
<b>Appendix H</b>	<b>Runway Protection Zone Memo</b>
<b>Appendix I</b>	<b>Combined Capital and Operating Budget Forecast</b>



# CHAPTER 1 INVENTORY

## **Introduction**

The Sandpoint Airport (SZT or “the Airport”) is owned and managed by Bonner County, Idaho, and located in the City of Sandpoint. SZT has one paved runway (Runway 1/19) with one partial parallel taxiway connecting Runway 1/19 to hangars and parking areas. SZT is classified as a general aviation (GA) airport in the Federal Aviation Administration’s (FAA) National Plan of Integrated Airport Systems (NPIAS). As part of NPIAS, SZT is eligible to receive Airport Improvement Program (AIP) grants.

The Airport’s economic impact includes jobs and wages attributable to on-airport businesses, and additional jobs and wages attributed to visitor spending. The 2009 Idaho Transportation Department Division of Aeronautics (ITD-Aero) Idaho Airport System Plan (2009 Idaho Plan) found that SZT employs 482 people, provides \$15.1 million in payroll, and generates \$33 million in annual economic activity.

This chapter provides an overview of existing airport facilities, and will serve as the baseline for determining facility requirements and recommending improvements. This chapter is organized into the following sections.

1. Airport Location and Community Profile
2. Airport Role
3. Airport Design and FAA Standards
4. Airfield Facilities
5. Landside Facilities
6. Regional Circulation and Airport Access
7. Airport Utilities
8. Facility Summary

## 1. Airport Location and Community Profile

SZT is a key transportation link for the surrounding communities. This section describes the Airport's location relative to surrounding areas, provides information on the geography and climate in Sandpoint, and includes local demographic information.

### 1.1 Airport History

Sandpoint Airport was built during the early 1940s as a gravel runway. Development of aviation facilities continued throughout the 1940s. Further developments of Runway 1/19 and the taxiway were made in the 1980s. North Boyer Avenue was rerouted as part of a runway extension project in 1998. Hangar development on the northwest side of the Airport occurred in 1998. Residential development surrounding the Airport began in the 1960's, and has continued into year 2000.

### 1.2 Airport Property and Location

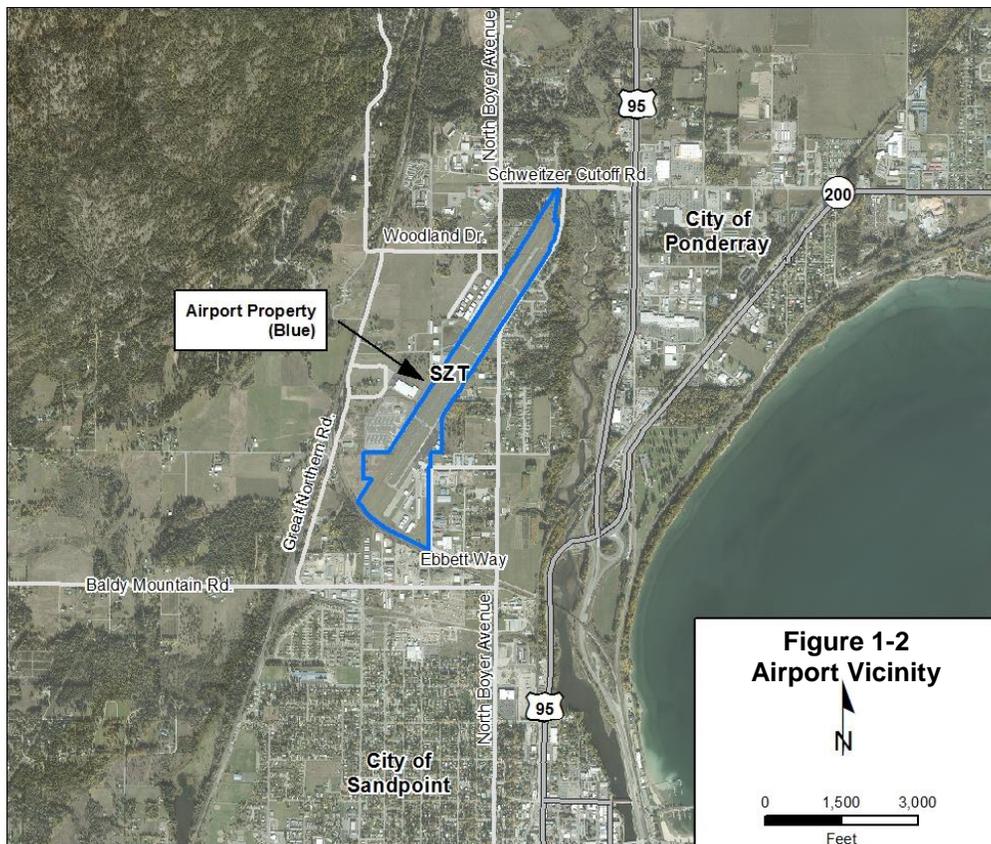
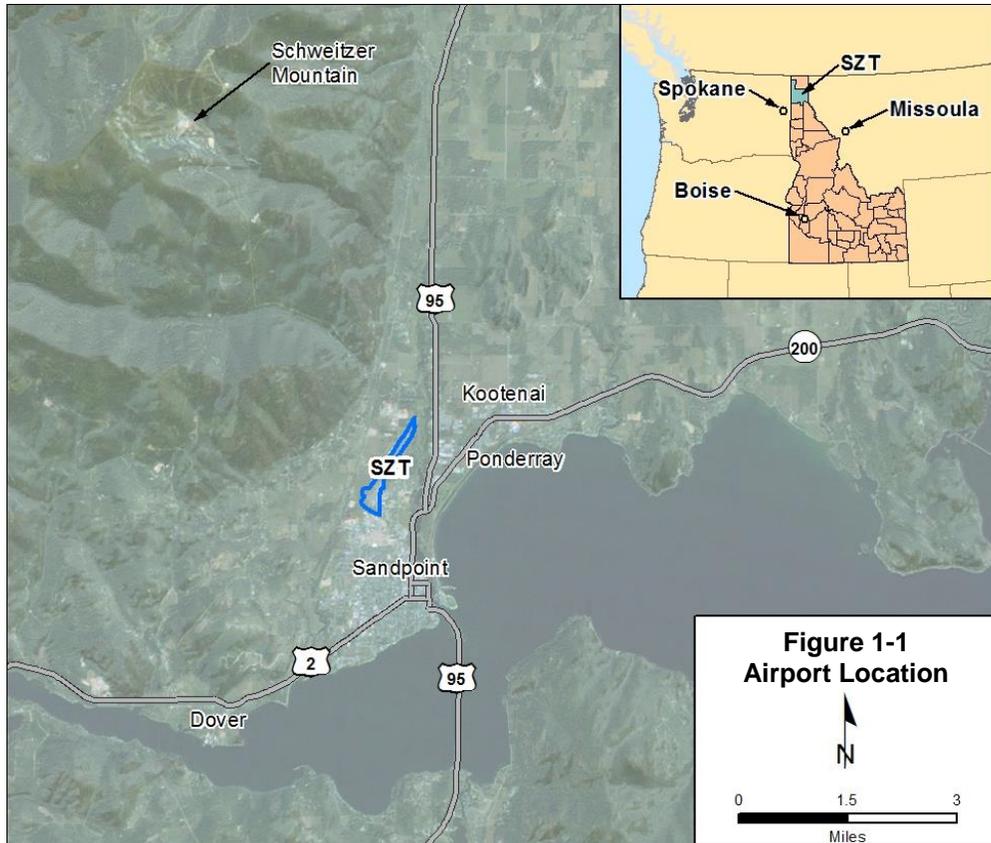
The Airport is bordered by surface transportation. Boyer Avenue and Industrial Drive are to the east, Great Northern Road is to the west, and the Schweitzer Cutoff Road and Woodland Drive are to the north. The Burlington Northern Santa Fe railroad borders the Airport to the south, and the City of Sandpoint owns right of way between the railroad and Runway End 1 for extension of Ebbett Way. Airport property includes 115 acres, and the Airport's elevation is 2,131 feet above mean sea level. Airport location maps are shown in **Figure 1-1** and **Figure 1-2**.

### 1.3 Climate

Bonner County experiences four seasons – and airport activity is influenced by the influx of tourists drawn to Lake Pend Oreille in the summer and to the Schweitzer Mountain Resort in the winter. Local climate influences design of aviation facilities and support facilities. Hot days increase aircraft takeoff distance required, cold days require snow removal equipment and aircraft deicing services. Extended periods of rain and low visibility support the creation of instrument flight procedures and installation of navigational aids. A summary of temperature and precipitation is included in **Table 1-1**

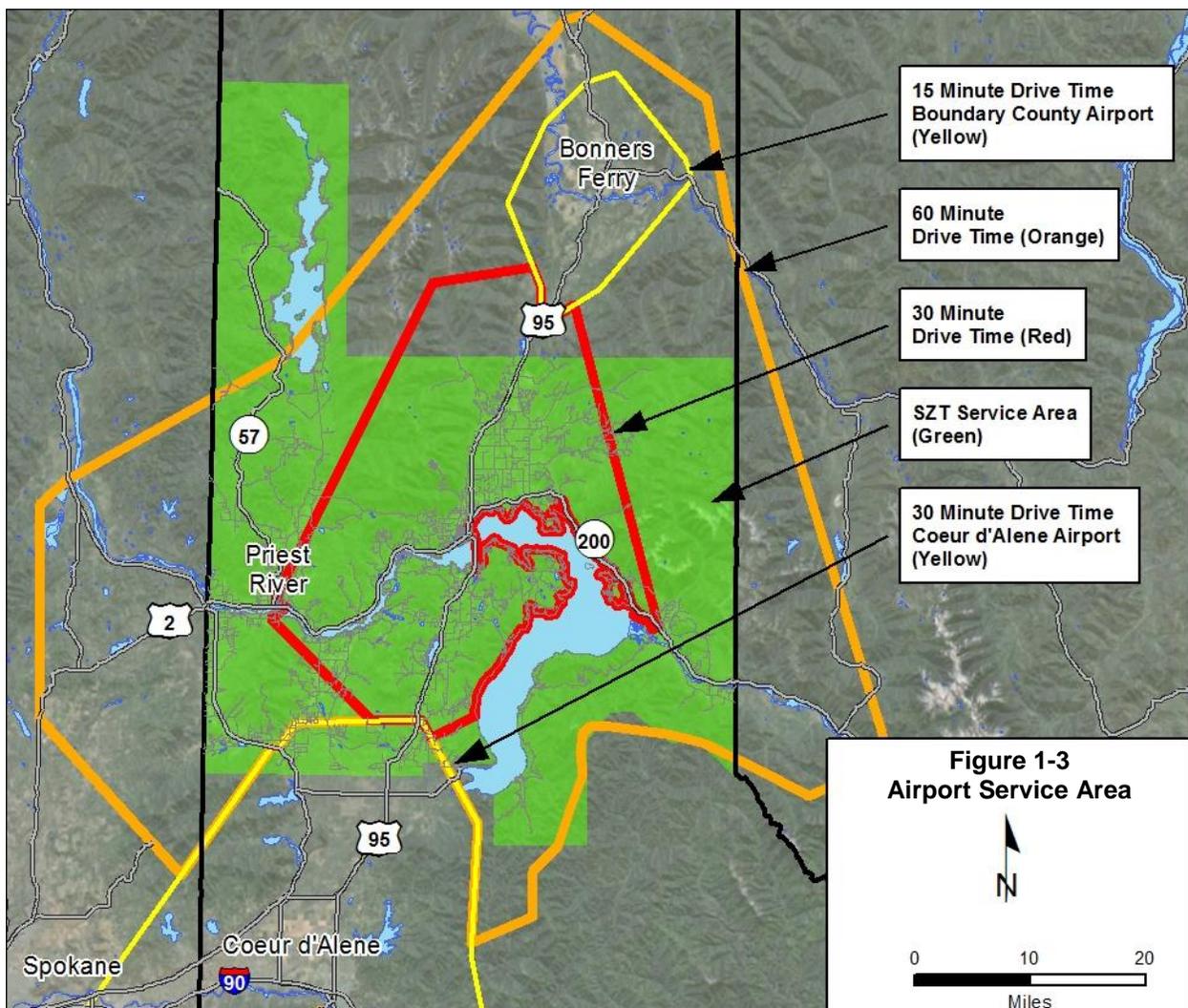
<b>Climate Indicator</b>	<b>Monthly Average</b>	<b>Month</b>	<b>Annual Average</b>
Maximum Temperature	80.7°F	July	56.4°F
Minimum Temperature	21.5°F	January	34.8°F
Maximum Precipitation	4.7"	December	34.1"
Minimum Precipitation	1.4"	August	
Total Snowfall	19.5"	January	61.1"

*Source: Sandpoint Experiment Weather Station (ID8137) U.S. Department of Agriculture, 2013*

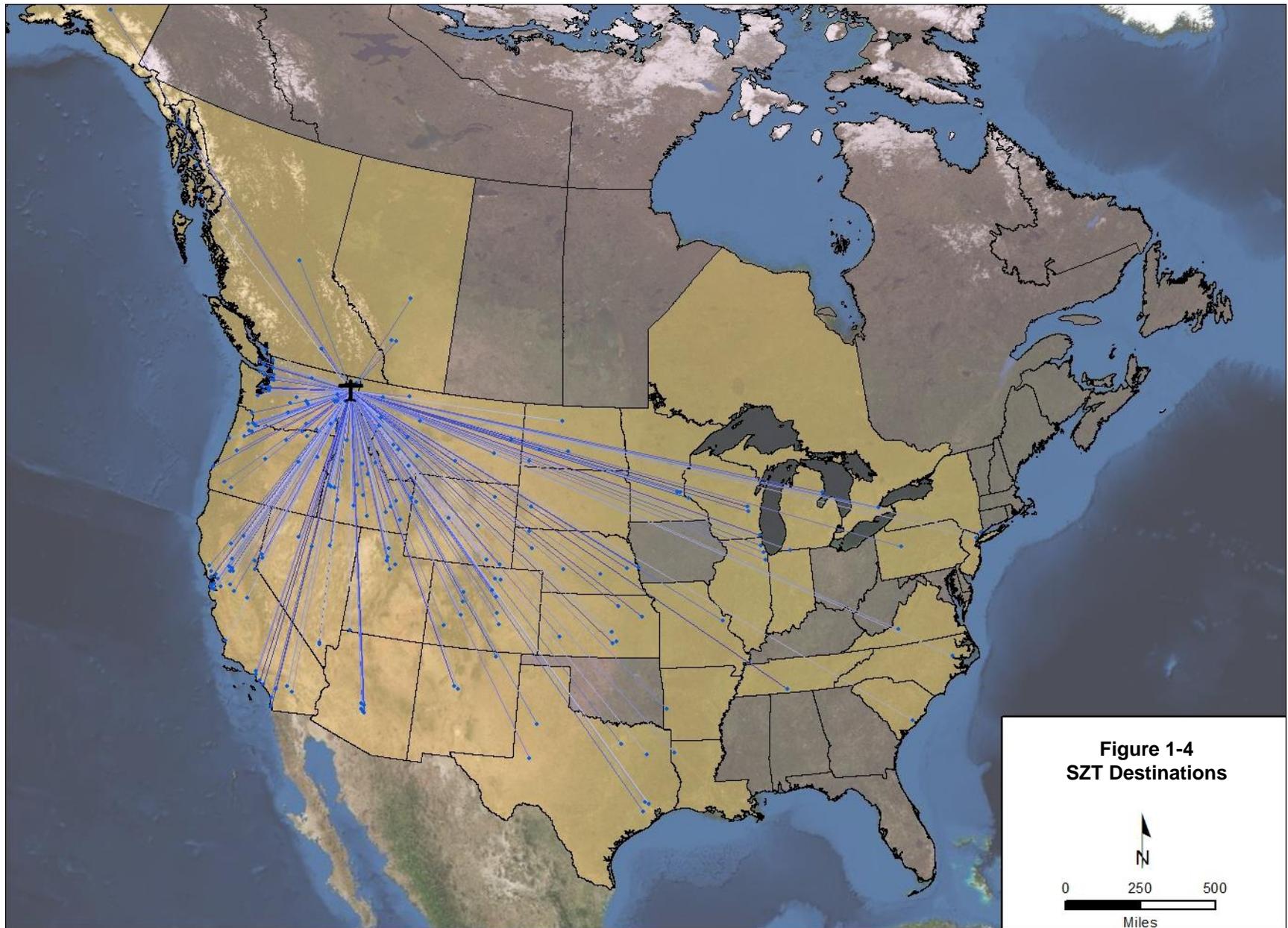


### 1.4 Airport Service Area

The airport service area is a function of driving time to surrounding areas. In general, the service area includes locations within a thirty minute drive, and it is expected that aircraft owners inside this area will base their aircraft at SZT. Geographic features such as rivers, Lake Pend Oreille, and mountains, and distances from nearby airports influence the service area. In some circumstances, one hour of drive time is more appropriate as there are no alternative airports. Coeur d'Alene Airport (COE) to the south and Boundary County Airport (651) to the north influence the service area. For the purposes of this Master Plan, the Airport's service area is Bonner County, Idaho for single-and multi-engine propeller aircraft and helicopters. Larger jet traffic may not be able to use Boundary County Airport in Bonner's Ferry, Idaho, which makes SZT the closest alternative for these users and expands the Airport's service area into southern Boundary County. Drive times between SZT and surrounding areas are shown in **Figure 1-3**.



Airport users come from across the United States and Canada. Third party flight data vendor FlightAware.com records were used to present origin and destination routes from SZT between October 2012 and October 2013 in Figure 1-4.



## 1.5 Socioeconomic Conditions

The Airport is the primary aviation facility for Bonner County, and economic conditions influence the demand for aviation services. Aviation trends generally follow national, state, and local economic trends. Socioeconomic analysis gives insight into what is driving aviation demand at SZT, and is used to forecast future demand. Resources for socioeconomic data include the U.S. Census Bureau (Census), the Idaho Department of Labor (IDOL), the planning and development divisions of the Cities of Sandpoint and Ponderay, Bonner County, and local organizations such as the Bonner County Economic Development Corporation. Census data describing the demographic makeup of Bonner County's 40,877 residents is presented in **Table 1-2**.

Table 1-2: Bonner County Demographics (2010 Census)		
Population	Population	
White, Non-Hispanic	39,261	96.0%
Black or African American	58	0.1%
American Indian or Alaskan Native	315	0.8%
Asian	184	0.5%
Native Hawaiian or Pacific Islander	42	0.1%
Some Other Race	163	0.4%
Persons reporting two or more races	854	2.1%
Total	40,877	

Source: US Census Bureau

Demographic and economic indicators are of interest when determining demand for aviation services. Analysis presents three demographic indicators and their change over the past 20, 10, and 5 year periods to illustrate how Bonner County is developing over time. These indicators are used to forecast aviation demand in **Chapter 3**. Indicators selected include Bonner County Population, per capita income (PCI), gross regional product (GRP), and gross regional product per capita (GRP/Capita). Demographic and economic indicators are presented in **Table 1-3**.

Table 1-3: Bonner County Demographic and Socioeconomic Indicators				
Year	Population	PCI <sup>1</sup>	GRP <sup>1</sup>	GRP/Capita <sup>1</sup>
1992	29,177	\$22,147	\$597	\$20,461
2002	37,634	\$27,975	\$954	\$25,350
2007	40,738	\$35,032	\$1,301	\$31,936
2012	40,877	\$34,057	\$1,160	\$28,377
1992-2012 CAGR	1.7%	2.2%	3.4%	1.6%
2002-2012 CAGR	0.8%	2.0%	2.0%	1.1%
2007-2012 CAGR	0.1%	-0.6%	-2.3%	-2.3%

<sup>1</sup> – Currency adjusted for inflation into 2012 dollars using U.S. Bureau of Labor Statistics Inflation Calculator

CAGR – Compound Annual Growth Rate

Source: Woods & Poole, 2013

Bonner County has seen population growth stabilize since 2002; however, measures of County productivity show growth. Despite the impacts of the 2009 economic recession on PCI, GRP, and GRP per Capita, economic development is trending upwards in Bonner County. Currency values are adjusted for inflation to 2012 dollars to compare totals between years. Compared to residents in Bonner County 20 years ago, residents in 2012 had higher average salaries and produced more. Levels of production have grown faster than population, suggesting that individual workers are contributing more output than their predecessors.

Recent trends show Bonner County's labor industries shifting from a heavy reliance on the timber industry to an increase in tourism and manufacturing related activity. Manufacturing jobs in Bonner County have increased 27% between 2000 and 2010 (compared to a 26% drop statewide), and Schweitzer Mountain Resort has created jobs by increasing winter tourism (IDOL 2013). Non-farm employment distribution for Bonner County in 2012 is included in **Table 1-4**.

<b>Industry</b>	<b>Total Employment</b>
Trade, Utilities, & Transportation	22%
Government	18%
Manufacturing	15%
Leisure and Hospitality	13%
Educational and Health Services	9%
Professional and Business Services	6%
Construction	5%
Financial Activities	4%
Natural Resources	2%
Information	1%
Other Services	5%

*Source: Idaho Department of Labor, 2013*

The primary employers for Bonner County include the following companies (in alphabetical order).

- Bonner General Hospital
- Coldwater Creek (Clothing retailer)
- Idaho Forest Group, a Timber Company
- Skilled nursing facility Life Care Center
- Food manufacturer Litehouse Foods
- Schweitzer Mountain Resort
- Dietary supplement manufacturer Thorne Research
- Retailer Wal-Mart

## 1.6 Land Use

Land use compatibility planning promotes relations between the Airport and its neighbors. Incompatible land uses near Airports can interfere with flight operations and reduce the utility of an airport. Potential concerns associated with incompatible land uses include aircraft noise disturbances, environmental impacts, hazards to air navigation, and the risks to the health, safety, and welfare of those in the air and on the ground. Hazards to air navigation occur when a structure or activity is permitted that could impede visibility or navigation, increasing risk for aircraft. Examples of hazards to air navigation include tall structures, land uses that produce smoke and glare, and activities that attract wildlife.

The 2009 Idaho Plan provides guidance on compatible land uses, intended to support local airport land use compatibility planning initiatives, including strategies for implementing compatible land use planning policies and developing airport overlay zones. The 2009 Idaho Plan states that typical land uses that are compatible with airports include commercial, industrial, agricultural, golf courses, and parks.

Bonner County enacted an airport overlay zone in 1976. This zone regulates the height of structures near the Airport. Airport property was annexed by the City of Sandpoint in 1988, and in 2000 the City of Sandpoint created the City Code Title 9, Chapter 12, *Airport Overlay Zone District* (Airport Overlay). The Airport Overlay features height restrictions according to zone, which mirror the Federal Aviation Regulation Part 77 surfaces for the Airport. The Airport Overlay purpose states that “the Airport Overlay Zone District is established for the purpose of preventing the creation or establishment of hazards to air navigation, as defined, or where such hazards are already created or established, eliminating, removing, altering, mitigating, marking or lighting such airport hazards.”

The FAA has published interim guidance on acceptable land uses in runway protection zones (RPZs), intended to enhance safety of people on the ground. RPZs are described in **Section 3**.

## 2. Airport Role

The 2009 Idaho Plan classifies airports in terms of what types of aviation uses they support. SZT is classified as a Regional Business Airport, which is an airport that “supports regional economic activities, connecting to state and national economies, and serves all types of general aviation aircraft. They also accommodate local business activities and various types of general aviation users.”

The Airport benefits the local, regional, state, and national economies as part of the national aviation system. The 2009 Idaho Plan provides an estimated economic benefit of \$48 million dollars in on-airport employment, spin-off jobs, and jobs supported by visitor spending. Airport tenants include aviation-oriented manufacturers Quest Aircraft and Tamarack Aerospace, fixed base operators (FBO) Granite Aviation and Inland Aviation, Northern Aircraft, machinery producer NW Manufacturing, and aerial lifting and removal company Timberline Helicopters.

The Airport is primarily used to transport people, materials and resources. The Airport is used by business travelers, and recreational users for activities including hunting, site-seeing, fishing, and camping. The Airport plays a critical role in community emergency response through medical evacuation flights and firefighting activities. The Airport is used by companies that perform aerial inspections of utility lines and environmental patrols.

There are several airports within a 30 minute drive of SZT; however, they do not offer the same facilities and cannot be considered alternatives. The closest airports with comparable facilities include the Coeur d’Alene Airport 33 nautical miles to the south, and Bonners Ferry airport 28 nautical miles to the North. Both of these airport are beyond a 30 minute drive. Airports within a 30 minute drive of SZT are shown in **Table 1-5**.

<b>Airport Name</b>	<b>Primary Runway</b>	<b>Instrument Approach</b>	<b>Distance (nm)</b>
Sandpoint Airport (SZT)	5,501' x 75'	Non-precision	0.0
Lake Pend Oreille Seaplane Base (S96)	Water	None	9.4
Priest River Municipal (1S6)	2,950' x 48'	None	15.5
Cavanaugh Bay (66S)	Turf	None	17.1
Tanglefoot (D28)	Water	None	18.0
Priest Lake USFS (67S)	Turf	None	23.1
Boundary County (65S)	4,002' x 75'	Non-precision	27.7
Troy (57S)	3,750' x 30'	None	28.4

### 3. Airport Design and FAA Standards

Design of airport facilities is predicated on FAA design standards defined in advisory circular (AC) 150-5300-13A, *Airport Design* (AC 5300-13A). AC 5300-13A provides standards for runway and taxiway design based on an airport's design aircraft – the most demanding aircraft to conduct at least 500 takeoffs and landings in a year. Design and setbacks of runways and taxiways are dictated by runway reference code – a combination of the design aircraft's approach category (AAC) and design group (ADG), and the runway visibility minimums (flight visibility category). The 2002 Master Plan and FAA-approved airport layout plan indicate that the RRC for SZT is B-II-Visual. Changes to the RRC will be explored in **Chapter 3, Facility Requirements**. SZT has instrument approach procedures, the visibility minimums are not low enough to fit into the flight visibility categories in AC 5300-13A. RRC categories are shown in **Figure 1-5**.

**Figure 1-5 Runway Reference Codes**

Aircraft Approach Category (AAC)		
Aircraft Approach Category	Approach Speed	
A	Approach speed less than 91 knots	
B	Approach speed 91 knots or more but less than 121 knots	
C	Approach speed 121 knots or more but less than 141 knots	
D	Approach speed 141 knots or more but less than 166 knots	
E	Approach speed 166 knots or more	

Airplane Design Group (ADG)		
Group #	Tail Height (ft [m])	Wingspan (ft [m])
I	< 20' (< 6 m)	< 49' (< 15 m)
II	20' - < 30' (6 m - < 9 m)	49' - < 79' (15 m - < 24 m)
III	30' - < 45' (9 m - < 13.5 m)	79' - < 118' (24 m - < 36 m)
IV	45' - < 60' (13.5 m - < 18.5 m)	118' - < 171' (36 m - < 52 m)
V	60' - < 66' (18.5 m - < 20 m)	171' - < 214' (52 m - < 65 m)
VI	66' - < 80' (20 m - < 24.5 m)	214' - < 262' (65 m - < 80 m)

Visibility Minimums	
RVR (ft)	Flight Visibility Category (statute mile)
4000	Lower than 1 mile but not lower than ¾ mile (APV ≥ ¾ but < 1 mile)
2400	Lower than ¾ mile but not lower than ½ mile (CAT-I PA)
1600	Lower than ½ mile but not lower than ¼ mile (CAT-II PA)
1200	Lower than ¼ mile (CAT-III PA)

Source: AC 5300-13A

Setbacks and design surfaces predicated on RRC include the runway safety area (RSA), runway object free area (ROFA), RPZ, runway obstacle free zone (ROFZ). The RSA is intended to reduce the risk of damage to an aircraft in the event of an aircraft leaving the runway. The FAA requires that the RSA be free of obstacles, cleared and graded, capable of supporting vehicles such as snow removal equipment and airport rescue and firefighting equipment, and are graded to support drainage and limit water accumulation.

The ROFA and ROFZ are clear areas surrounding the runway. Structures that are not required for air navigation or safety, or fixed by function, are prohibited from the ROFA and ROFZ. The ROFA is flat along the ground, and the ROFZ extends upward to 150 feet above airport elevation.

RPZs are trapezoidal-shaped areas beyond the runway ends intended to enhance the protection of people on the ground. The FAA recommends that airports own or have controlling easements over the property within the RPZ. Portions of both RPZs are outside of airport control. Boyer Road runs through the RPZ beyond Runway End 19, and the Burlington Northern Santa Fe Railway runs through the RPZ beyond Runway End 1. Airport design surfaces are shown on **Figure 1-6** and dimensions are provided in **Table 1-6**.

Table 1-6 – Runway Design Surfaces	
Design Surface	Dimensions for B-II-V Runways
Runway Safety Area	300' beyond runway end, 150' wide*
Runway Object Free Area	300' beyond runway end, 300' wide*
Runway Obstacle Free Zone	200' beyond runway end, 400' wide*
Runway Protection Zone	500' inner width, 700' outer width, 1,000' length**

Source: AC 5300-13A.

\* Parallel to and symmetrical about the runway centerline

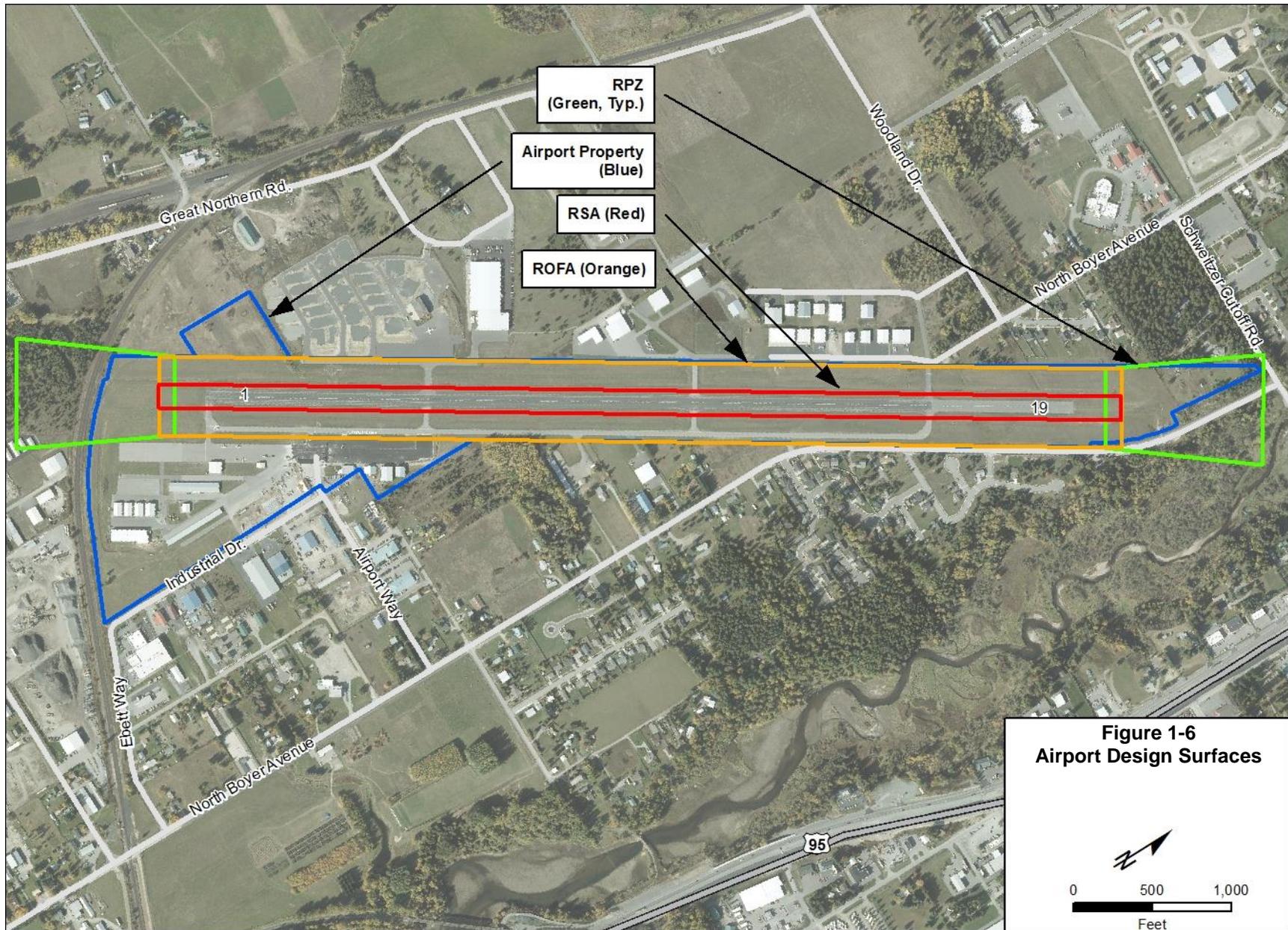
\*\*beginning 200 feet from the Runway End

Land use compatibility in the RPZ is a FAA area focus. Improvement projects that introduce incompatible land uses, or bring existing incompatible uses closer to the runway end must be approved by FAA headquarters, and require a memorandum describing the planning process. Analysis of existing and planned land uses in the RPZ are included in **Chapter 4, Improvement Alternatives**, and **Appendix H, Runway Protection Zone Memo**.

### 3.1 Non-Standard Conditions

SZT has facilities that do not meet FAA B-II design standards. A goal of this Master Plan is to develop improvement alternatives that bring the Airport into compliance with FAA standards and support continued aviation activity. Non-standard conditions are described in **Table 1-7**.

Table 1-7 –Non-standard Conditions at SZT		
Design Standard	B-II Standard	Existing
Runway Centerline to Taxiway Centerline	240 ft.	200 ft.
Runway Centerline to Aircraft Parking	250 ft.	215 ft.
Runway Centerline to Holding Position	200 ft.	185 ft.
Taxiway Width	35 ft.	30 ft.
Taxiway Object Free Area	65.5 ft.	47 ft.



**Figure 1-6**  
**Airport Design Surfaces**

## **4. Airfield Facilities**

The Airport is located on 115 acres owned by Bonner County, inside the City of Sandpoint. The airfield has one runway, one partial parallel taxiway, airside and landside development areas and parking facilities on the east and west sides of Runway 1/19. The primary development area is located southeast of the runway and includes the fixed base FBO, hangars and cargo aprons. Aircraft parking aprons are located along the southeast side of the runway, and along the terminal apron. An airport layout diagram is included in **Figure 1-7**, and the FAA airport facility directory summary is included in **Figure 1-7**.

### **4.1 Runway 1/19**

Runway 1/19 is 5,500 feet long and 75 feet wide with a weight bearing capacity of 40,000 pounds for aircraft with a single wheel configuration. The runway was rebuilt in 1988, and a 900 foot extension was added to Runway End 19 to bring the total length to 5,500 feet. Runway 1/19 had a slurry seal in 1996, and crack sealing projects in 1996 and 2003. A 2012 pavement condition index (PCI) study rated the 900 foot extension of Runway End 19 in “fair” condition with a PCI of 70, and the 4,600 foot section is in “very poor” condition with a PCI rating of 40.

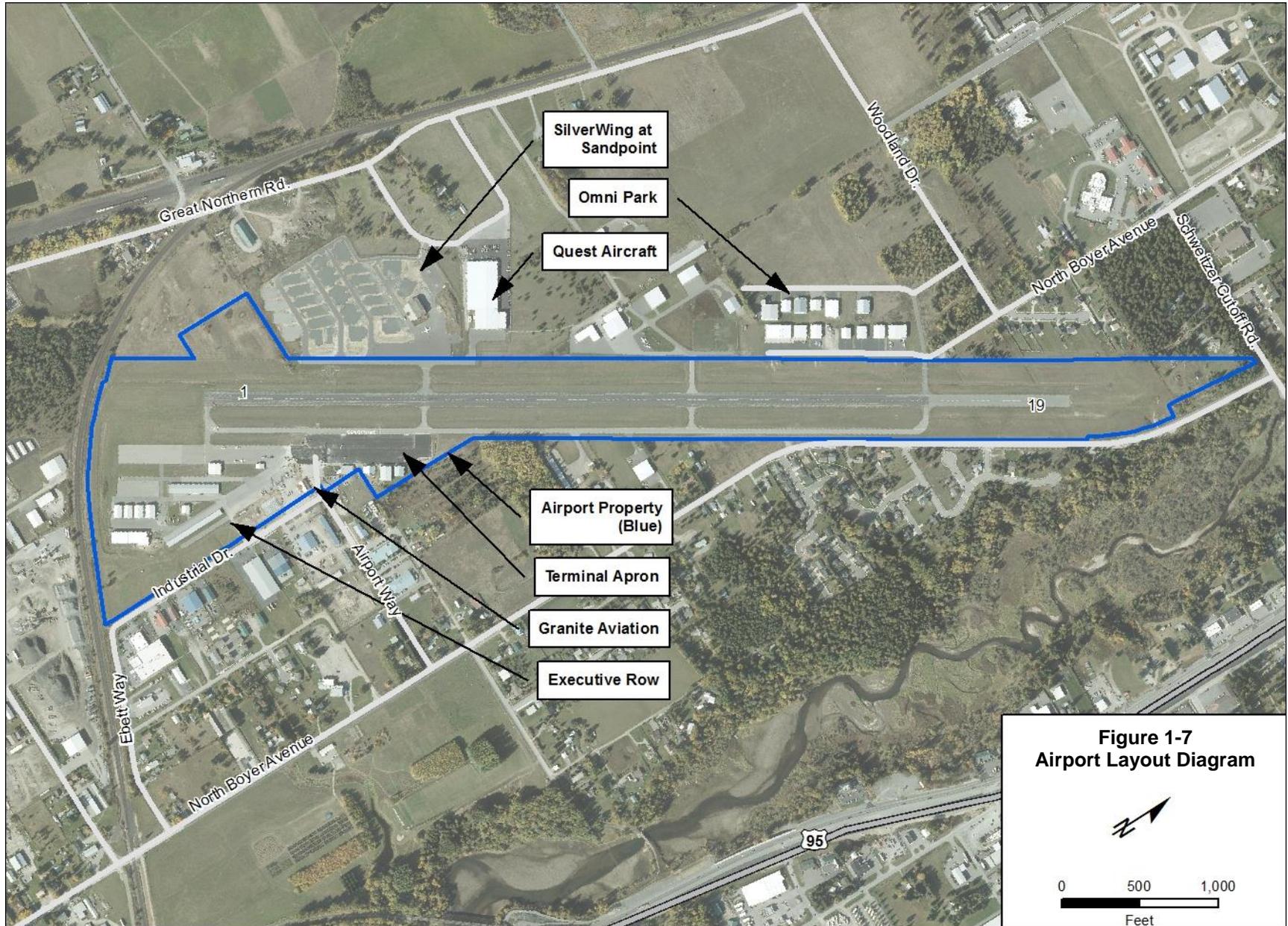
Airport management has identified the need to reconstruct Runway 1/19. Several distresses were noted in the pavement structure during a 2013 inspection. The 1996 slurry seal and 2003 crack sealing are beyond their life expectancies. There are four primary longitudinal cracks (averaging 1 inch in width) and transverse cracks located at approximately 100-foot intervals (averaging 0.5 to 1.5 inches in width). Intermittent alligator cracking has also been observed in the wheel paths.

### **4.2 Taxiways**

The partial parallel taxiway and connectors are 30 feet wide, and runs from Runway End 1 towards Runway End 19, stopping 900 feet before the runway end. The weight bearing capacity is 40,000 pounds for aircraft with a single wheel configuration. The taxiway and connectors were constructed in 1988, and crack sealed in 1996. The 2012 PCI Study rates the taxiway and connector pavements between “serious” (PCI rating of 21) to “good” (PCI rating of 100). Longitudinal cracks exist down the centerline of the taxiway, and transverse cracks cross the pavement every 200 to 300 feet. There are areas that are severely damaged, with tears to the pavement mat and alligator cracking. Additionally, there are areas of evident oxidation of the pavement.

### **4.3 Terminal Apron**

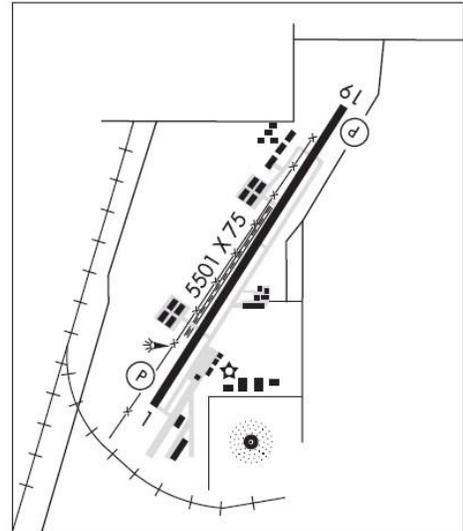
The 2012 PCI study ranks the terminal apron as low as 18. The Airport initiated a reconstruction project in 2013. The terminal apron is 900 feet long by 200 feet wide. The terminal apron has the strength to carry 45,000 pound single wheel gear and 90,000 pound dual wheel gear on a routine basis, and is capable of handling heavier aircraft. There are four box hangars adjacent to the terminal apron, a fueling station, FBO Granite Aviation, and an automobile parking lot.



**Figure 1-8: FAA Airport Facility Diagram**

**SANDPOINT** (SZT) 2 N UTC-8(-7DT) N48°17.97' W116°33.61'  
 2131 B S4 FUEL 100LL, JET A OX 3, 4 NOTAM FILE SZT  
**RWY 01-19:** H5501X75 (ASPH) S-40 MIRL  
**RWY 01:** REIL. PAPI(P2L)—GA 3.75° TCH 28'. Tree.  
**RWY 19:** REIL. PAPI(P2L)—GA 3.75° TCH 50'. Trees.  
**AIRPORT REMARKS:** Attended 1500-0100Z± Summer, 1600-0100Z±  
 Winter. Wildlife invof arpt. ACTIVATE MIRL Rwy 01-19 and REIL Rwy  
 01 and Rwy 19—CTAF. PAPI Rwy 01 and Rwy 19 opr continuously.  
**WEATHER DATA SOURCES:** AWOS-3 135.425 (208) 263-3074.  
**COMMUNICATIONS:** CTAF/UNICOM 122.7  
 Ⓡ SEATTLE CENTER APP/DEP CON 123.95  
**RADIO AIDS TO NAVIGATION:** NOTAM FILE GEG.  
**SPOKANE (H) VORTACW** 115.5 GEG Chan 102 N47°33.90'  
 W117°37.61' 023° 61.6 NM to fld. 2756/21E. **HIWAS.**  
 VOR portion unusable:  
 300°-330° byd 30 NM blo 9,000'  
 335°-360° byd 18 NM blo 7,000'  
 335°-360° byd 25 NM  
 360°-015° byd 26 NM blo 7,000'  
**SANDPOE NDB (MHW)** 264 SZT N48°17.44'  
 W116°33.79' at fld. NOTAM FILE SZT.  
 NDB unusable:  
 170°-200° byd 20 NM  
 200°-360°  
 360°-170° byd 15 NM  
**LOC/DME** 109.1 I-RPO Chan 28 Rwy 01. LOC unusable fm 1 NM to rwy thld.

**GREAT FALLS**  
**H-1C, L-13B**  
**IAP**



Source: FAA, November 2013

#### 4.4 Navigational Aids and Airfield Lighting

Navigational aids (NAVAID) provide guidance and positional information to aircraft. NAVAIDs can be airborne or located on the ground, and visual or electronic. NAVAIDs include lighting systems, radio beacons, signage, global positioning satellites, and pavement markings. NAVAIDs transmit weather and airport operational information to enroute aircraft, and allow pilots to operate in reduced visibility.

NAVAIDs at SZT include a non-directional beacon (NDB) and distance measuring equipment (DME). A localizer antenna (LOC) beyond Runway End 19 was damaged in an aircraft accident in late 2013. Off-airport NAVAIDs used in instrument flight procedures include the Spokane and Coeur d'Alene VHF omnidirectional range (VOR) antennas. Global Positioning System (GPS) provides navigation support without ground based equipment.

Airfield lighting improves pilot situational awareness at night and during low visibility. Runway 1/19 has a medium intensity runway lighting system (MIRL). There are no lights or markers on the taxiway. Runway End 1 and Runway End 19 have runway end identifier lights (REIL), which are synchronized flashing lights located on each side of the runway.

There are two-light precision approach path indicators (PAPIs) located at each runway end. PAPIs assist pilots in maintaining the correct glide path to the runway threshold. The standard PAPI angle is 3.00 degrees, and the PAPI's at the Airport are both set at 3.75 degrees. This creates a slightly steeper than standard glide path, to assist pilots in avoiding of obstructions.

Air traffic communications are on the airports common traffic frequency (Unicom), and airport weather is reported by the automated weather observation system (ASOS). A segmented circle and wind cone are co-located near Runway End 1.

#### 4.5 Instrument Procedures

Instrument procedures are a series of maneuvers that guide aircraft to and from the Airport, facilitating the transition to and from the enroute state of flight. Instrument procedures include instrument approach procedures (IAPs) that assist aircraft transitioning from enroute to landing, and departure procedures (DPs) that assist aircraft that are taking off and transitioning into the enroute stage of flight. IAPs include straight-in procedures, where aircraft are directed to a particular runway end, and circling procedures, where aircraft are directed to the airport and then choose a runway for landing. IAPs are classified as precision IAPs, with vertical and lateral guidance; and as non-precision IAPs, with lateral guidance only. Visual flight maneuvers are not IAPs.

SZT has two non-precision circling IAPs. One uses area navigation (RNAV) global positioning system (GPS) satellite-based navigation technology, and the other uses non-directional beacon (NDB) and localizer (LOC) radio-based navigation technology. DPs at SZT have higher than normal climb gradients to avoid obstacles. The standard climb gradient is 200 vertical feet per nautical mile. Departures from Runway End 1 have a climb gradient of 520 vertical feet per nautical mile, and departures from Runway End 19 have a climb gradient of 480 feet per nautical mile. DPs from both runway ends direct aircraft to the Coeur d'Alene VOR.

### 4.6 Runway Threshold Siting Standards

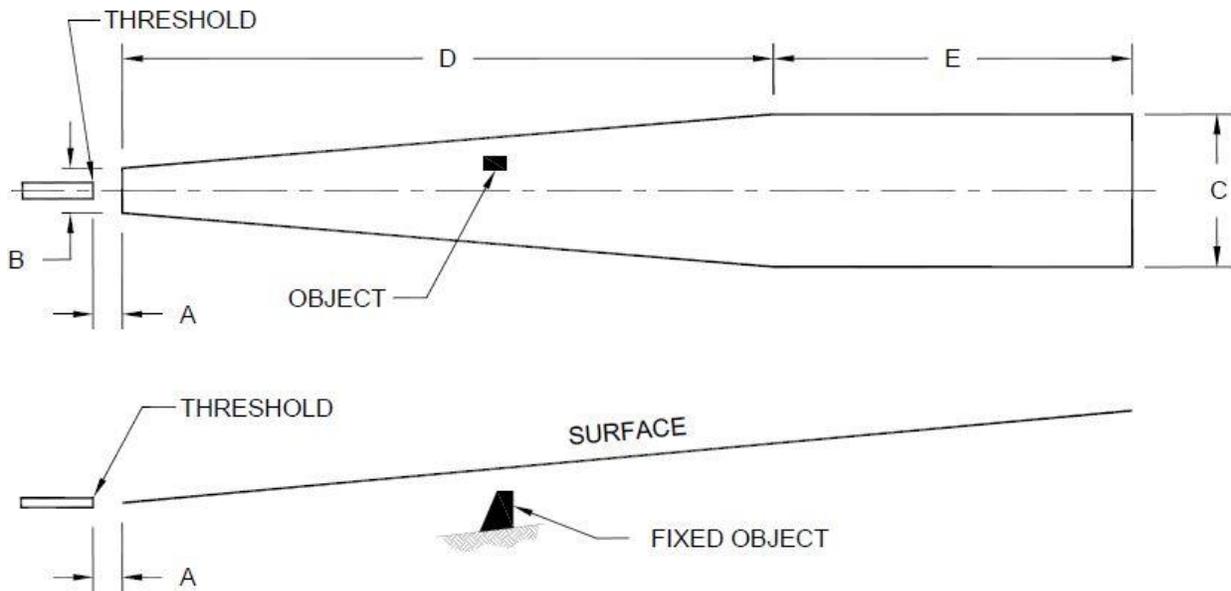
Runways ends are sited so that the approach and departure paths are clear of obstacles. AC 5300-13A includes nine types of threshold siting standards (TSS). Applicability of TSSs depends on runway use and visibility minimums. Multiple TSSs apply to a runway end, and in some circumstances there are TSSs that overlap. In these situations, the lowest and largest TSS is referred to as the controlling standard.

There are three controlling standards for each runway end. The Type 3 standard is for “approach end of runway expected to serve large airplanes (visual day/night); or instrument minimums  $\geq 1$  statute mile (day only).” The Type 5 standard is for “approach end of runways expected to support instrument night operations serving greater than approach category B aircraft.” The Type 9 standard is for “departure runway ends for all instrument operations.” TSSs are applicable to both runway ends, and presented in **Table 1-8**. A generic TSS diagram is presented in **Figure 1-9**.

Table 1-8 – Threshold Siting Standards						
Standard	Dim. A	Dim. B	Dim. C	Dim. D	Dim. E	Slope
Type 3	0	400'	1,000'	1,500'	8,500'	20:1
Type 5	200'	800'	3,800'	10,000'	0	20:1
Type 9	0	500'	6,466'	10,200'	0	40:1

Source: AC 5300-13A.

**Figure 1-9 –Threshold Siting Standard**



Dimensions are included in **Table 1-8**

Source: AC 5300-13A

## 5. Landside Facilities

Landside facilities support aviation activities. These facilities include aircraft parking and storage, FBOs, on-airport development, and support facilities and services.

### 5.1 Aircraft Storage

Aircraft are stored in hangars and outside on tie-downs. Hangars are classified as T-hangars, which are nested hangar developments groupings; box hangars, which are stand-alone hangars for one or more aircraft; and executive hangars, which are box hangars with additional space for office, and commercial facilities. Tie-downs are marked spaces on parking aprons with ground couplings to restrain aircraft during windy conditions.

Most hangars at SZT are located on the southeast side of the Airport, where near-term hangar development is planned. There are three box hangars located on the terminal apron, and executive hangars located on the west side of the Airport. Two adjacent properties are have negotiated through-the-fence (TTF) access agreements, which are discussed in **Section 5.3**.

SZT has 65 aircraft tie-down spaces, 14 T-hangar units, 20 box hangars, and 4 executive hangars.

### 5.2 FBO

The Airport's full-service FBO, Granite Aviation, is located on the terminal apron, at the northwest corner of the intersection of Airport Way and Industrial Drive. The FBO provides aircraft fueling; de-icing; lavatory service; hangar and tie-down rental; arrangements for lodging, catering, and transportation; car rental; aircraft rental; flight instruction; and scenic flights. There are two 12,000 gallon fuel tanks at SZT – one stores 100 low lead (100LL) and the other stores Jet A. Fuel pumps are attended during normal business hours, and self-serve available 24-hours per day. A second FBO is under construction on the southwest corner of Airport Way and Industrial Drive.

### 5.3 Commercial Development & Through the Fence Access Agreements

The Airport is in the process of developing property along Industrial Drive in an area referred to as Executive Row. This area is expected to support aviation related businesses, a new FBO, facilities for Tamarak Aerospace, and box hangars.

The Airport has multiple TTF access agreements, which grant off-airport operators not located on the airfield access to airport property. FAA concern with TTF access agreements includes land use compatibility, and private entities benefiting disproportionately from publicly funded facilities. In 2013, the FAA released compliance guidance letter 2013-01, *FAA Review of Existing and Proposed Through-the-Fence Access Agreements*, and official TTF policy in the Code of Federal Regulations.

FAA policy on TTF access agreements requires that private parties with TTF access agreements pay access charges to the airport sponsor comparable to on-airport tenants using the same facilities; bear the cost of building and maintaining airfield access; maintain the property for residential, non-commercial use; prohibit others from using their property to gain airfield access; and prohibit aircraft fueling on property. TTF access agreements at SZT are discussed **Chapter 5 Planning for Compliance**.

#### **5.4 Support Facilities**

Sandpoint does not have scheduled commercial passenger airline service, therefore it is exempt from the Federal Aviation Regulation that requires aircraft rescue and firefighting support at airports with scheduled commercial service. Emergency services at SZT are provided by the surrounding communities.

There are no structures dedicated to airport maintenance equipment. Airfield maintenance duties include snow removal, landscaping and grass mowing, and upkeep of mechanical and electrical systems. The Airport owns a funnel plow with a loader-mounted blower for snow removal. Airport management handles landscaping, and mechanical and electrical maintenance is performed by contractors.

The Airport does not have, and is not required to have, on-site security, police, Transportation Security Administration, or U.S. Customs and Border Patrol staff. The Airport is surrounded by a perimeter fence that is chain link on the west side, and chain-link with barbed wire on the other boundaries. Access to the airfield is controlled by code operated gates.

## 6. Regional Circulation and Airport Access

Regional circulation and access considers how the surrounding transportation network ties into airport facilities. This section identifies the existing road transportation system around the Airport, and automobile facilities provided at the Airport. Traffic conditions and planned roadway improvements will be considered during the development of facility requirements.

### 6.1 Airport Access

Roadway classification comes from the City of Sandpoint's 2008 Comprehensive Plan. Principal arterial roads in the City of Sandpoint include U.S. Highway 95, that runs south to Coeur d'Alene and north to Bonner's Ferry, and U.S. Highway 2, that runs west to Priest River. Minor arterials include Boyer Road along the Airport's east border, Baldy Mountain Road to the south of the Airport, and the Schweitzer Cutoff Road along the Airport's north border. Great Northern Road is classified as a major collector road, and runs along the Airport's western border. There are 15 automobile parking spaces at the Granite Aviation FBO.

### 6.2 Existing Traffic Conditions

The Schweitzer Cutoff Road connects the Airport to U.S. Highway 95 and is the primary access road to the Airport. The Schweitzer Cutoff Road intersects Boyer Road and Great Northern Road, which provide access to airport facilities and businesses. Improvement alternatives that may change traffic patterns and volumes will be developed in coordination with the City of Sandpoint. A summary of the 2006 Boyer Road/Schweitzer Cutoff Road Traffic Study is included in **Table 1-9**.

Location	Date	Average Daily Traffic (ADT)	Peak Hour Traffic
Boyer S. of Schweitzer	2006	6,017	555 (5-6 P.M.)
Schweitzer E. of Boyer	2006	7,373	702 (3-4 P.M.)
Schweitzer W. of Boyer	2006	3,045	247 (12-1 P.M.)

### 6.3 Planned Roadway Improvements

Roadway improvements are underway near the Airport to improve surface transportation by automobile, bicycle, and foot. These projects are not being performed by the Airport, and may influence airport development alternatives. Improvements in development include the following.

- Replace and raise the Schweitzer Cutoff Road Bridge over the Sandy Creek by up to seven feet.
- Construct a roundabout at the intersection of Schweitzer Cutoff Road and Boyer Avenue.
- Install bike lanes, curbs and gutters on the Schweitzer Cutoff Road between the roundabout and the bridge.
- Install airport directional signage at the intersection of Schweitzer Cutoff Road and U.S. Highway 95.

## **7. Airport Utilities**

Utilities include water service, sanitary sewer service, storm water drainage, electrical power, and natural gas supply, telephone, solid waste and recycling. Availability of utilities will influence the Airport's ability to develop. The City of Sandpoint Public Works Department, consulted in late 2013, reports that storm water generation and drainage off-airport are of concern. Other facilities are expected to be adequate. A summary of utilities and providers is included below.

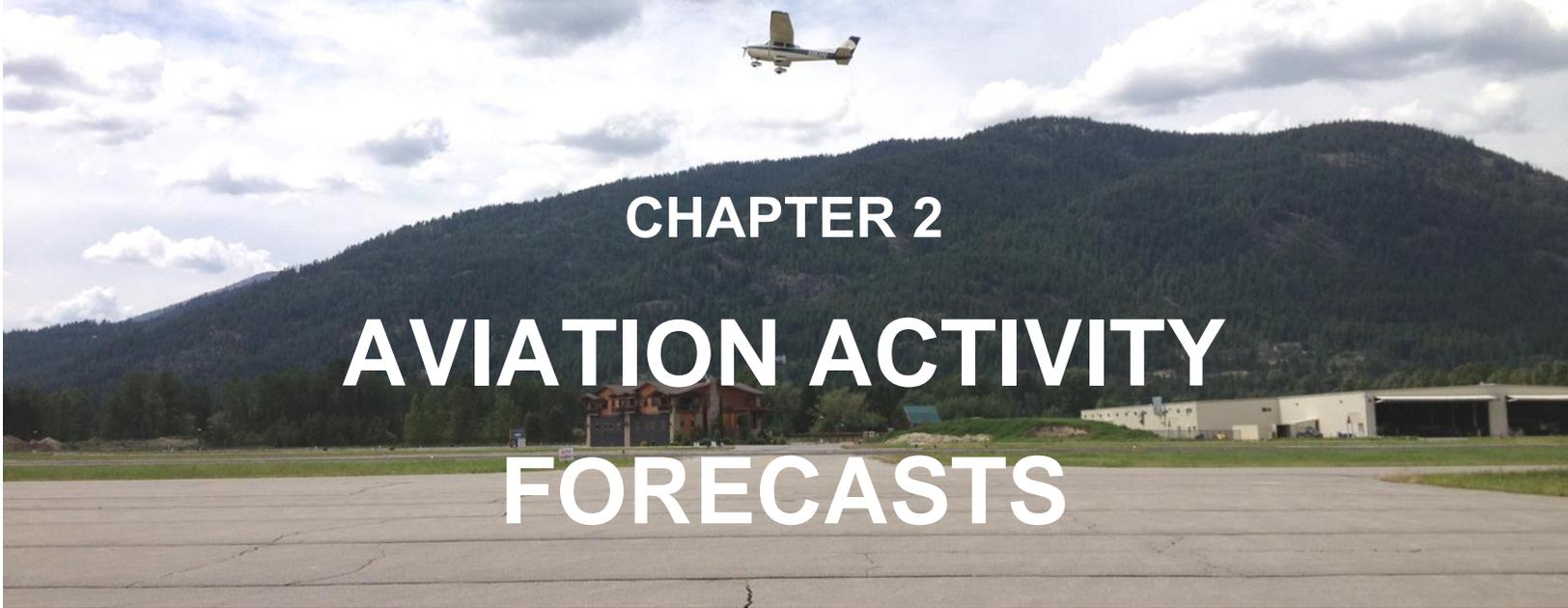
- The City of Sandpoint supplies water, storm water, and sanitary sewers.
- Avista supplies electrical power and natural gas.
- Verizon supplies telephone services.
- Waste Management, Inc. picks up waste from the FBO.
- Recyclables are transported to the Waste Management facility by airport personnel. The Airport does not have a recycling program due to the small amount of waste produced onsite.

## 8. Facility Summary

Airside and landside facilities at SZT support existing users. Data presented in this chapter are combined with demand forecasts in Chapter 2 to determine facility requirements to meet the needs of future users of the Airport. Improvement projects to meet the facility requirements are identified in Chapter 4. A summary of facilities at SZT is presented in **Table 1-10**.

<b>Table 1-10 – Summary of Airport Infrastructure</b>	
<b>Facility/Infrastructure</b>	<b>Existing Properties</b>
<b>Airport Property</b>	<b>115 Acres</b>
<b>Runway</b>	
Length x width (feet)	5,500x75
Strength (lbs.)	40,000
<b>Partial Parallel Taxiway and Connectors</b>	
Width (feet)	30
Strength (pounds)	40,000
<b>NAVAIDS</b>	
Approaches	LOC <sup>1</sup> /DME, NDB, GPS
<b>Lighting &amp; Visual Aids</b>	
Runway Edge	Medium-Intensity Runway Lighting (MIRL)
Taxiway/Apron Edge	None
Runway End Identifier Lights (REILs)	Yes
Approach Slope Indicators	Precision Approach Path Indicators (PAPIs)
Segmented Circle/Wind/Cone/Beacon	Yes
<b>Access and Parking</b>	
Automobile	15 Spaces at FBO
<b>Apron/Hangar Facilities</b>	
Terminal Apron	180,000 sq. feet
Tie Downs	65
T-Hangars	14
Conventional-Box	20
Executive	4
<b>Fuel Storage</b>	
100 LL (gallons)	12,000
Jet-A (gallons)	12,000
Fuel Service	Attended during business hours, 24 hour self-service
<b>Other</b>	
Automated Weather Observation System	Yes
Unicom	Yes

*1 – Localizer was damaged in late 2013. It is expected to be replaced with a more modern localizer in 2014.*



# CHAPTER 2

# AVIATION ACTIVITY

# FORECASTS

This chapter presents aviation activity forecasts for the Sandpoint Airport (SZT or “the Airport”). Aviation activity forecasts form the justification and need for demand-driven improvements at the Airport, and provide data from which to estimate future noise and traffic. Aviation activity forecasts are often incorporated by reference into other studies and policy decisions. The aviation activity forecasts have a base year of 2012, and a planning period of 20 years. The base year is 2012 because this was the most recent year that complete data was available when the forecasting effort was started. This chapter is organized as follows.

- Forecast Background
- Forecast Methodologies
- Based Aircraft Forecasts
- Based Aircraft Fleet Mix Forecast
- General Aviation Operations Forecasts
- Design Aircraft Operations
- Air Taxi and Jet Aircraft Operations Forecasts
- Forecast Summary and FAA TAF Comparison

## 2.1 Forecast Background

This chapter forecasts aviation activity at SZT and compares the forecasts to the Federal Aviation Administration (FAA) Terminal Area Forecast (TAF). The TAF is the annual report of historical aviation data and forecasts for airports included in the National Plan of Integrated Airport Systems (NPIAS). The TAF is prepared to assist the FAA in meeting its planning, budgeting, and staffing requirements, and to provide information for use by state and local authorities, the aviation industry, and the public. The forecasts contained in this chapter will be compared to TAF forecasts because they will impact the timing and scale of airport improvement projects. The FAA will review the forecasts prepared as part of this Master Plan, and the preferred forecasts may be used to update the TAF once approved by the FAA.

There are no comprehensive historical accounts of aviation activity for airports without airport traffic control towers, such as SZT. In such cases, the TAF incorporates operations and based aircraft figures as estimated by FAA inspectors, airport managers, and state aviation activity surveys. A hangar survey was conducted in 2014 to assess the number of aircraft based at SZT and in hangars with through the fence access. This number and types of aircraft revealed by the survey are used for baseline 2012 forecasts.

## 2.2 Forecast Methodologies

This chapter identifies preferred forecasts of aviation demand to assist the Airport in long-term planning decisions. Aviation activity forecasts identify local and national trends in commercial and general aviation, socioeconomics, FAA policies and funding, and overall integrity of the Airport and its facilities. There is no one “correct” or “best” way to prepare aviation activity forecasts. Just as historic trends, national activity levels, and local demographics influence existing aviation activity at SZT, these factors will influence future activity. Given the factors that influence aviation activity, variations of three broad forecasting methodologies were used to create a series of scenarios for SZT.

- Time-Series (assumes that historic trends will continue into the future).
- Market Share (assumes that the local share of national aviation activity levels will remain largely constant).
- Socioeconomic (assumes that aviation activity will change at the same rate as population and personal income).

### 2.2.1. Time-Series Methodology

Time-series methodologies create forecasts by assuming patterns that have occurred in the past will continue into the future. Time-series methodologies are most useful for a pattern of demand that demonstrates a historical relationship between two or more variables. Two different time-series methodologies are used in this chapter – growth rate and linear trend line. Both of these methodologies assume that historical trends will continue into the future, and that the variables that influenced those trends in the past will continue to do so. A difference between the two methodologies is the weight that is given to significant changes in activities from year to year. The two methodologies are summarized below.

- Time-Series: Growth Rate Method: The growth rate variation uses historical compounded annual growth rates (CAGR), which are a measure of average annual rate of change per year over period of time, and extrapolates future data values by assuming the same CAGR will occur throughout the forecast period.
- Time-Series: Linear Trend Line Method: The linear trend line is similar to the growth rate methodology in that it uses historical activity levels to forecast future activities. However, the formula used puts more weight on variations from average activity levels. The results of the linear trend line methodology take into account abrupt changes in available service or aircraft fleet that frequently occur in the aviation industry.

### 2.2.2. Market Share Methodology

The market share methodology looks at the national or regional quantity of a given activity (such as based aircraft and aircraft operations) and determines what percentage, or “market share,” of these activities occurs at SZT. This methodology expects that the Airport’s market share will remain constant throughout the forecast. The market share analysis implies that the local proportion of activity is regular and predictable. Because many aspects of an airport remain relatively constant over time, such as its location, the type of facilities provided, and appeal to travelers, market share methodologies are frequently used to forecast aviation activity.

### 2.2.3. Socioeconomic Methodology

The socioeconomic factors examined in this chapter are population and per capita income trends. Aviation activity forecasts are developed based upon the observed and projected correlation between historical aviation activity and the socioeconomic data. Local population and per capita income can be a strong indicator of aviation demand, particularly at general aviation (GA) airports.

## 2.3 Based Aircraft

Based aircraft are operational and airworthy aircraft that are based at an airport for the majority of the year. Based aircraft forecasts are used to determine future needs for airport facilities including hangars, apron space, tie-downs, and FBO services. The preferred based aircraft forecast is used in a GA aircraft operations methodology. Historical data comes from the FAA Terminal Area Forecast, which is augmented by a 2014 hangar survey conducted by the Airport.

The overall cost to own and operate an aircraft has increased in recent years, which has contributed to an annual decline in the U.S. GA fleet since 2007. Contrary to the national trend, the number of based aircraft at SZT has increased by over four percent annually over the past decade. Five methodologies are used for the based aircraft forecasts, including linear trend line, growth rate, market share, local per capita income variable, and local population variable methodologies.

### 2.3.1 Based Aircraft: FAA Terminal Area Forecast (TAF)

FAA records indicate that based aircraft at SZT have increased from 62 in 2003 to 99 in 2012. The published TAF indicates that there were 99 based aircraft at SZT in 2012; however the 2012 based aircraft number has been corrected to reflect the 97 based aircraft from the hangar survey. The TAF projects that based aircraft will grow from 97 in 2012 to 137 in 2032, a CAGR of 1.75 percent. This projection has been adjusted from the published TAF to reflect the updated based aircraft count for 2012. The growth rate used to forecast future based aircraft numbers is the same as in the published TAF. The 2012 TAF based aircraft forecast is shown in **Table 2-1**.

<b>Year</b>	<b>Total Based Aircraft</b>
2002	60
2007	76
2012	97
<b>2002-2012 CAGR</b>	<b>4.25%</b>
2017	106
2022	115
2027	126
2032	137
<b>2012-2032 CAGR</b>	<b>1.75%</b>

### 2.3.2 Based Aircraft: Time Series Forecasts

The time series forecasts include growth rate and trend line forecasts. The growth rate methodology assumes that future based aircraft will change at the same average rate as they did between 2003 and 2012. The trend line methodology finds the best fit line for the annual totals, which puts more weight on variations from average activity levels, and takes into account abrupt changes in the previous aircraft fleet. The Trend Line and Growth Rate forecasts are shown in **Table 2-2**.

Table 2-2: Based Aircraft – Time Series Forecasts		
Year	Trend Line Forecast	Growth Rate Forecast
2003	62	
2008	85	
2012	97	
<b>2003-2012 CAGR</b>	<b>5.10%</b>	
2017	121	124
2022	140	159
2027	159	205
2032	179	262
<b>2012-2032 CAGR</b>	<b>3.10%</b>	<b>5.10%</b>

### 2.3.3 Based Aircraft: Market Share Forecast

Market share forecasts compare activity levels at an airport to a larger geographical region over a given period of time. The market share forecast applies the Airport's 2012 market share, 0.060 percent, to FAA forecasts of total U.S. based aircraft fleet. The market share forecast predicts marginal increases in based aircraft, increasing at an average annual rate of 0.087 percent to 115 total based aircraft in 2032. The market share forecast is shown in **Table 2-3**.

Table 2-3: Based Aircraft – Market Share Forecast			
Year	Market Share Forecast	Total U.S. Based Aircraft	SZT Market Share
2003	62	195,759	0.032%
2008	85	175,985	0.048%
2012	97	162,386	0.060%
<b>5 Year Average</b>			<b>0.056%</b>
2017	101	169,499	0.060%
2022	106	177,096	
2027	111	185,054	
2032	115	193,241	
<b>2012-2032 CAGR</b>	<b>0.87%</b>	<b>0.87%</b>	

*Historical/Forecast National Based Aircraft Source: FAA Aerospace Forecasts*

### 2.3.4 Based Aircraft: Socioeconomic Forecasts

Changes in per capita income (PCI) and population can serve as indicators for changes in demand for based aircraft. The PCI forecast establishes a ratio between based aircraft at SZT and every \$100 in PCI and uses it to project based aircraft throughout the forecast period and the population forecast does the same with a ratio of based aircraft per 100 Bonner County residents. A 5-year average was chosen to capture the impact of the 2008 recession and subsequent recovery on Bonner County PCI, population, and based aircraft. The PCI forecast is shown in **Table 2-4** and the population forecast is shown in **Table 2-5**.

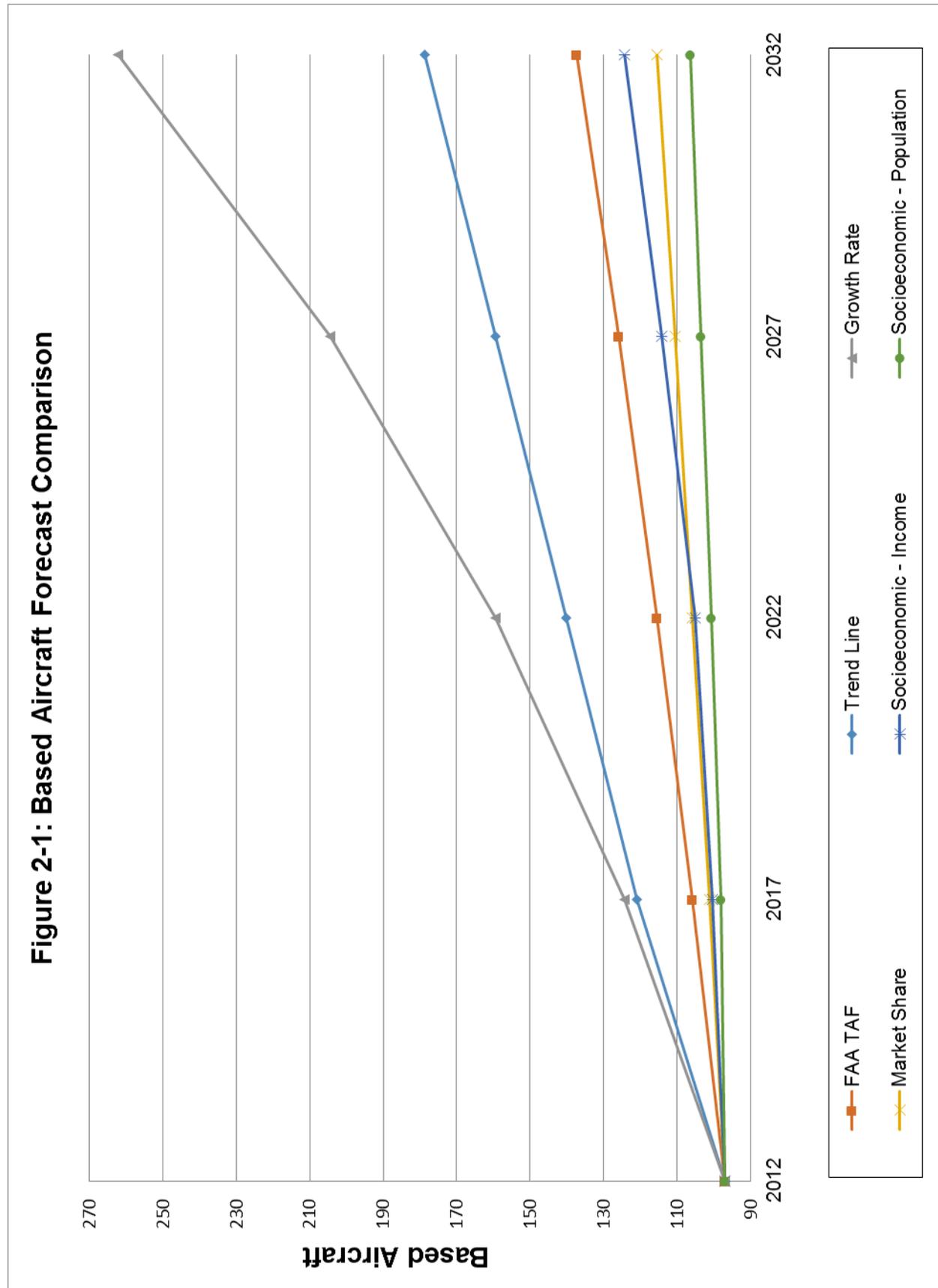
Year	Based Aircraft	PCI (2012 Dollars)	Based Aircraft per \$100 in PCI
2008	85	\$33,945	0.250
2009	97	\$33,362	0.291
2010	97	\$33,347	0.291
2011	97	\$33,807	0.287
2012	97	\$34,057	0.285
<b>5 Year Average</b>			<b>0.281</b>
2017	100	\$35,790	0.281
2022	105	\$37,464	
2027	114	\$40,644	
2032	124	\$44,246	
<b>2012-2032 CAGR</b>	<b>1.24%</b>	<b>1.32%</b>	

Year	Based Aircraft	Bonner County Population	Based Aircraft Per Capita
2008	85	40,966	0.207
2009	97	40,809	0.238
2010	97	40,915	0.238
2011	97	41,118	0.236
2012	97	41,336	0.235
<b>5 Year Average</b>			<b>0.231</b>
2017	98	42,493	0.231
2022	101	43,707	0.231
2027	104	44,927	0.231
2032	106	46,128	0.231
<b>2012-2032 CAGR</b>	<b>0.46%</b>	<b>0.55%</b>	

*Historical/Forecast Population and PCI Source: Woods & Poole, Inc.*

### 2.3.5 Based Aircraft: Forecast Comparison

A comparison of the based aircraft forecasts is shown in **Figure 2-1** and **Table 2-6**.



<b>Year</b>	<b>FAA TAF</b>	<b>Trend Line</b>	<b>Growth Rate</b>	<b>Market Share</b>	<b>PCI</b>	<b>Population Variable</b>
2012	<b>97</b>	97	97	97	97	97
2017	<b>106</b>	121	124	101	100	98
2022	<b>115</b>	140	159	106	105	101
2027	<b>126</b>	159	205	111	114	104
2032	<b>137</b>	179	262	115	124	106
2012-2032 CAGR	<b>1.75%</b>	3.21%	4.25%	0.87%	1.50%	0.72%

The trend line and growth rate forecasts predict that previous growth in based aircraft will continue unconstrained over the next 20 years. Although it is reasonable to expect strong growth based on past precedent, this aggressive growth is not likely based on local, regional, and national trends that can be supported into the future. Given that SZT has limited property and is surrounded by development, it is expected that there will be a point at which the Airport can no longer accommodate additional based aircraft. Therefore, these two forecasts are eliminated from further consideration.

The market share and population variable forecasts predict the lowest growth rates over the next 20 years. Local based aircraft trends have not demonstrated a strong relationship with the national based aircraft fleet or local population over the past 10 years. Based aircraft at SZT have grown by 4.6 percent while the national fleet of active aircraft has declined by 1.9 percent. Similarly, population in Bonner County has grown, but at an average rate of 0.7 percent per year for the last ten years whereas growth of based aircraft at SZT has been 16 times greater. This suggests that population is a weak indicator to project future growth. These two forecasts are eliminated from further consideration.

The two remaining forecasts are the TAF and the income variable forecast. These two forecasts predict moderate growth over the next 20 years, with the TAF predicting 1.75 percent annual growth and the PCI forecast predicting 1.24 percent annual growth. The correlation coefficient, a measure of how related two variables are, is 0.56 between based aircraft at SZT and PCI of Bonner County. This suggests that these two variables may not be strongly related, and is a weak indicator for supporting future growth projections using PCI.

The TAF forecast has shown 97 based aircraft since 2009, a figure confirmed by the hangar survey. Given the other range of forecasts considered using external variables and growth rates, the TAF represents a moderate growth forecast that is expected to provide a balance of optimism and restraint when planning for future growth. Future TAF forecasts use the same growth rate as the published TAF, but change the 2012 based aircraft totals to reflect the hangar survey. The TAF is the preferred based aircraft forecast. It is recommended that the FAA TAF be adjusted to reflect the results of the hangar survey and the 1.75 percent average annual growth rate be used to project future based aircraft.

## 2.4 Based Aircraft Fleet Mix Forecast

The TAF distinguishes among five categories of based aircraft: single-engine (piston/turbo-prop), multi-engine (piston/turbo-prop), jet, helicopter, and other (such as gliders). In general, these aircraft categories have different spatial dimensions and performance characteristics, and as a result, have different airport facility requirements.

The 2014 hangar survey indicated that of the 97 aircraft at SZT, 85 percent were single engine piston/turbo-prop aircraft, four percent were multi-engine piston/turbo-prop aircraft, one percent were jet aircraft, seven percent were helicopters, and three percent were other (gliders). From 2003 to 2012, the proportion of helicopters and “other” in the based fleet increased, while the other aircraft categories either held steady or declined slightly. The preferred forecast for this Master Plan anticipates that jet aircraft and multi-engine piston/turbo-prop aircraft will increase in proportion while other aircraft types will decline in relative percentage or remain consistent with 2012 levels. This methodology is based on national growth rates from the 2013 FAA Aerospace Forecast. Historical based aircraft by type and the projected based aircraft fleet mix at SZT are shown in **Table 2-7**.

<b>Table 2-7: Based Aircraft Fleet Mix Forecast</b>											
<b>Year</b>	<b>Single Engine</b>	<b>%</b>	<b>Multi Engine</b>	<b>%</b>	<b>Jet</b>	<b>%</b>	<b>Helo.</b>	<b>%</b>	<b>Other</b>	<b>%</b>	<b>Total</b>
<b>Historic</b>											
2003	57	92%	3	5%	0	0%	1	2%	1	2%	62
2004	65	82%	8	10%	2	3%	3	4%	1	1%	79
2005	65	82%	8	10%	2	3%	3	4%	1	1%	79
2006	65	86%	8	11%	2	3%	1	1%	0	0%	76
2007	65	86%	8	11%	2	3%	1	1%	0	0%	76
2008	71	84%	11	13%	1	1%	2	2%	0	0%	85
2009	85	88%	8	8%	2	2%	2	2%	0	0%	97
2010	85	88%	8	8%	2	2%	2	2%	0	0%	97
2011	85	88%	8	8%	2	2%	2	2%	0	0%	97
2012	82	85%	4	4%	1	1%	7	7%	3	3%	97
<b>2003-2012 Average</b>		<b>86%</b>		<b>8%</b>		<b>2%</b>		<b>7%</b>		<b>3%</b>	
<b>Forecast</b>											
2017	89	84%	4	4%	2	2%	8	7%	3	3%	106
2022	95	82%	6	5%	3	3%	8	7%	3	3%	115
2027	100	80%	8	6%	5	4%	9	7%	4	3%	126
2032	107	78%	10	7%	7	5%	9	7%	4	3%	137

*Historic Based Aircraft Fleet Mix Source: FAA Terminal Area Forecast*

## 2.5 General Aviation Operations

Aircraft operations include both aircraft takeoffs and landings. Aircraft operations forecasts are directly tied to the expected demand for overall aviation activity at an airport and have implications for whether an airport having adequate capacity to accommodate this activity.

GA operations are those not categorized as either commercial or military and include local operations, or flights that remain within 20 nautical miles of the airport, and itinerant operations, or flights farther than 20 nautical miles from the airport. GA encompasses a wide variety of users and activities including corporate and business operators, recreational operators, flight training, agricultural applications, law enforcement, and government uses. Historically, GA operations account for 95 percent of total aircraft operations at SZT. GA operations forecasts are used to determine user needs related to runways, taxiways, hangars, aircraft parking aprons, FBO facilities, ground access facilities, and automobile parking lots.

GA activity can be impacted by the cost of ownership and operation of an aircraft and available hangar space for lease. Nationally, GA activity declined between 2003 and 2012. This trend can be largely explained by the economic downturn that began in 2008 and rising fuel prices. However, GA activity at SZT remained relatively constant over this same period, indicating that GA operations at the Airport are somewhat independent of national industry trends.

Data available to prepare aircraft operations forecasts at non-towered airports can be limited. Without a reliable history of operations forecast methodologies must draw on national projections, based aircraft levels, and interviews with airport tenants and business owners. Four methodologies are used to produce forecasts of GA operations forecasts: trend line, growth rate, operations per based aircraft (OPBA), and market share.

### 2.5.1 General Aviation Operations: FAA Terminal Area Forecast (TAF)

Records in the 2012 TAF indicate that GA operations at SZT have remained constant over the past decade. There were 29,131 GA operations in 2002 and 30,216 GA operations in 2012. The TAF forecast shows continued growth in GA over the next 20 years, reaching 49,673 GA operations in 2032, a CAGR of 2.52 percent per year. The 2012 TAF GA Operations Forecast is shown in **Table 2-8**.

<b>Table 2-8: General Aviation Operations – 2012 TAF</b>	
<b>Year</b>	<b>Total GA Operations</b>
2003	29,957
2004	30,765
2005	31,590
2006	32,260
2007	32,947
2008	29,500
2009	29,500
2010	29,500
2011	29,500
2012	30,216
<b>2002-2012 CAGR</b>	<b>0.10%</b>
2017	34,105
2022	38,579
2027	43,734
2032	49,673
<b>2012-2032 CAGR</b>	<b>2.52%</b>

### 2.5.2 General Aviation Operations: Time Series Forecasts

Growth rate and trend line methodologies are similar to those used to forecast based aircraft, and consider trends over the past five years when forecasting aviation demand. The five year window was chosen to capture the effect of rising gas prices, change in fleet mix, and the economic recession and recovery. The trend line and growth rate forecasts project slight increases in GA operations, both less than one percent annually. The growth rate and trend line forecasts are shown in **Table 2-9**.

<b>Table 2-9: General Aviation Operations – Time Series Forecasts</b>		
<b>Year</b>	<b>Trend Line Forecast</b>	<b>Growth Rate Forecast</b>
<b>Historical</b>		
2008		29,500
2009		29,500
2010		29,500
2011		29,500
2012		30,216
<b>5 Year CAGR</b>		<b>0.60%</b>
<b>Forecast</b>		
2017	30,700	31,200
2022	31,400	32,100
2027	32,100	33,100
2032	32,800	34,100
<b>2012-2032 CAGR</b>	<b>0.41%</b>	<b>0.60%</b>

The trend line and growth rate forecasts are at a disadvantage due to the imprecise nature of counting GA operations at non-towered airports. GA operations remained steady at 29,500 from 2008 to 2011 which limits the information on activity level change over time that is essential to successfully employing these methodologies.

**2.5.3 General Aviation Operations: Operations per Based Aircraft Forecast**

The OPBA methodology calculates GA operations by finding a ratio between the number of based aircraft and the number of GA operations, assuming GA operations will change in line with based aircraft. Between 2008 and 2012 the number of based aircraft at SZT increased from 85 to 97, while the number of GA operations remained consistent at about 30,000. The five year average was 314 GA operations per based aircraft. This ratio was applied to the preferred based aircraft forecast described in **Section 2.3.5**. The OPBA forecast is shown in **Table 2-10**.

<b>Table 2-10: General Aviation Operations – Operations per Based Aircraft Forecast</b>			
<b>Year</b>	<b>GA Operations</b>	<b>Based Aircraft</b>	<b>OPBA Forecast</b>
<b>Historical</b>			
2008	29,500	85	347
2009	29,500	97	304
2010	29,500	97	304
2011	29,500	97	304
2012	30,216	97	312
<b>Five Year Average</b>			<b>314</b>
<b>Forecast</b>			
2017	33,300	106	314
2022	36,300	115	314
2027	39,600	126	314
2032	43,200	137	314
<b>2012-2032 CAGR</b>	<b>1.80%</b>	<b>1.75%</b>	

### 2.5.4 General Aviation Operations – Market Share Forecast

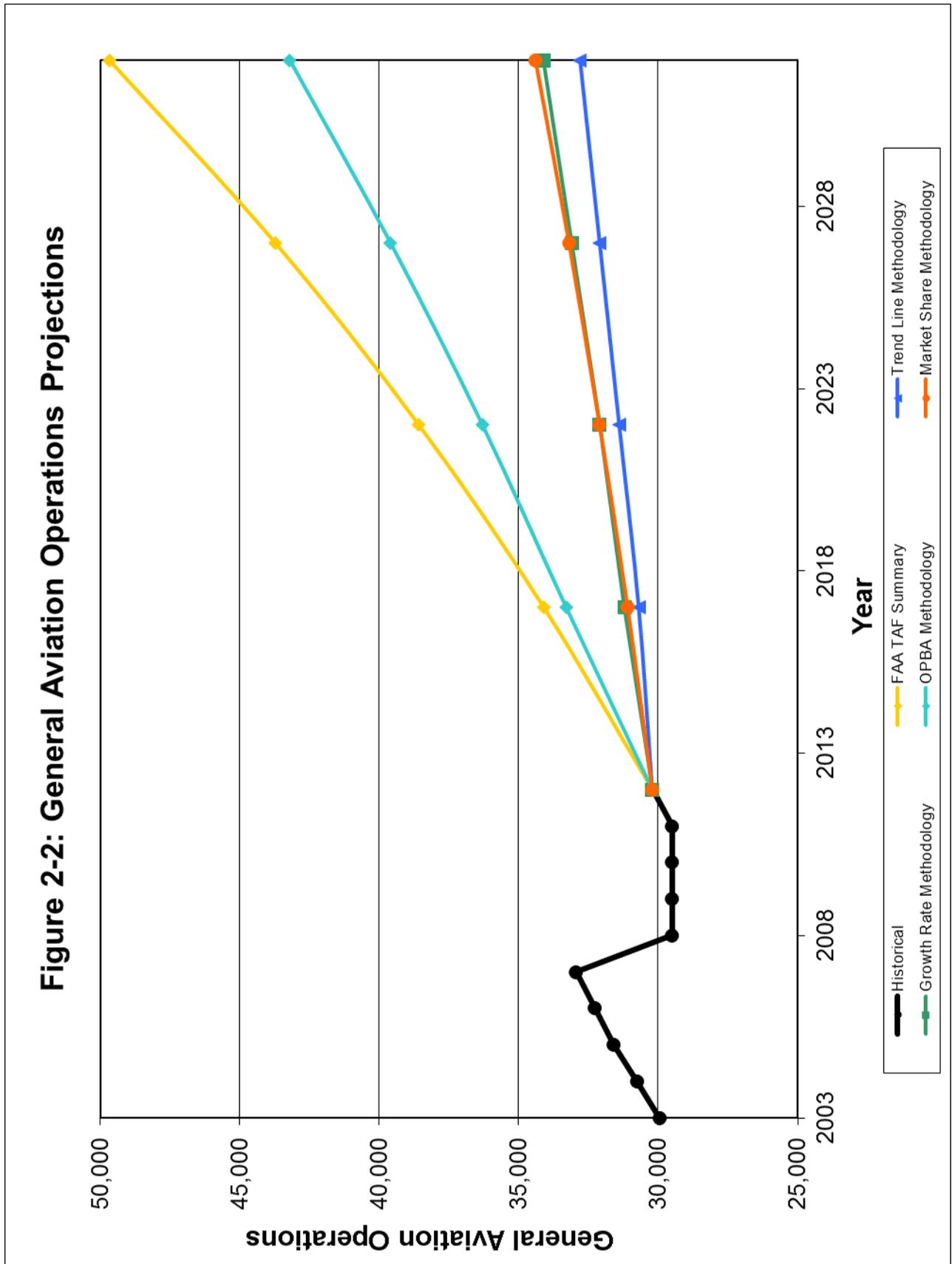
The market share methodology identifies the percentage of national GA operations that occur at SZT. Outside of the busiest GA airports in the country, GA airport market shares typically remain consistent over time, as was the case at SZT between 2008 and 2012. SZT saw GA operations grow in 2012 while national GA operations declined, increasing the Airport's market share. This forecast carries the Airport's 2012 national market share of 0.0302 percent through the forecast period. This figure was applied to the number of projected total U.S. GA operations described in the *FAA Aerospace Forecasts FY2013-2033*. The market share GA operations forecast is shown in **Table 2-11**.

<b>Table 2-11: General Aviation Operations - Market Share Forecast</b>			
<b>Year</b>	<b>Market Share Forecast</b>	<b>Total U.S. Operations</b>	<b>SZT Market Share</b>
<b>Historical</b>			
2008	29,500	110,780,189	0.0266%
2009	29,500	104,133,769	0.0283%
2010	29,500	101,410,177	0.0291%
2011	29,500	100,161,945	0.0295%
2012	30,216	99,994,572	0.0302%
<b>Five Year Average</b>			<b>0.0287%</b>
<b>Forecast</b>			
2017	31,100	102,745,881	0.0302%
2022	33,100	106,050,080	0.0302%
2027	33,200	109,729,248	0.0302%
2032	34,400	113,826,264	0.0302%
<b>2012-2032 CAGR</b>	<b>0.65%</b>	<b>0.65%</b>	

*Historical/Forecast National Operations Source: FAA Aerospace Forecasts*

### 2.5.5 General Aviation Operations: Forecast Comparison

A comparison of the GA operations forecasts resulting from the methodologies described in the previous sections is shown in **Chart 2-2** and **Table 2-12**.



<b>Year</b>	<b>TAF</b>	<b>Trend Line</b>	<b>Growth Rate</b>	<b>OPBA</b>	<b>Market Share</b>
2012	30,216	30,216	30,216	<b>30,216</b>	30,216
2017	34,105	30,700	31,200	<b>33,300</b>	31,100
2022	38,579	31,400	32,100	<b>36,300</b>	32,100
2027	43,734	32,100	33,100	<b>39,600</b>	33,200
2032	49,673	32,800	34,100	<b>43,200</b>	34,400
2012-2032 CAGR	2.52%	0.41%	0.61%	<b>1.80%</b>	0.65%

The trend line and growth rate forecasts project that GA operations will hold steady over the next 20 years, while the TAF projects aggressive growth over the next 20 years. Based on local, regional, and national trends it was concluded that neither a decline nor aggressive growth in GA operations is likely – there will be fluctuation in GA operations as older aircraft will retire, fuel prices will remain a concern, and the economy continues to recover. Further, the trend line and growth rate forecasts lack sufficient historical data to build from. These three forecasts are eliminated from further consideration.

The OPBA forecast projects a 1.80 percent CAGR and the market share forecast projects a 0.65 CAGR percent. The OPBA forecast is the preferred GA operations forecast because the Airport's market share has increased in recent years although the national level of GA operations is decreasing. The Market Share forecast does not reflect local growth in based aircraft, which is expected to yield future growth in GA operations captured by the OPBA forecast.

The preferred GA operations forecast projects 43 percent growth over 20 years, from 30,216 in 2012 to 43,200 in 2032. The preferred GA operations forecast will be used to develop facility improvement recommendations.

## 2.6 Local and Itinerant GA Operations

Local and itinerant GA operations have different implications for required airport facilities. Local users may be flying in the traffic pattern, performing touch-and-go operations in which the aircraft takes off immediately after landing. Local aircraft are more likely to be based at SZT, and require hangars and tie-downs. Itinerant aircraft place greater demand on parking apron space and FBO facilities.

Based on the TAF, itinerant GA operations at SZT generally exhibit a 66 percent itinerant to 34 percent local split. The repetitive operations counts from 2008 to 2011 suggest that these numbers have not been updated since 2008. Nationally, the split over the past five years has been 56 percent itinerant to 44 percent local, which is more in line with SZT's operations numbers prior to 2008. Operations counts from 2012 support using the 66 percent itinerant to 34 percent local split over the national split. It is anticipated that this split will remain constant throughout the forecast period. A summary of projected local and itinerant general aviation operations is shown in **Table 2-13**.

<b>Table 2-13: General Aviation Operations - Local/Itinerant Split</b>					
<b>Year</b>	<b>Total GA Operations</b>	<b>Itinerant GA Operations</b>	<b>% Itinerant</b>	<b>Local GA Operations</b>	<b>% Local</b>
<b>Historical</b>					
2008	29,500	19,500	66%	10,000	34%
2009	29,500	19,500	66%	10,000	34%
2010	29,500	19,500	66%	10,000	34%
2011	29,500	19,500	66%	10,000	34%
2012	30,216	20,109	67%	10,107	33%
<b>Five Year Average</b>			<b>66%</b>		<b>34%</b>
<b>Forecast</b>					
2017	33,300	22,040	66%	11,260	34%
2022	36,300	24,020	66%	12,280	34%
2027	39,600	26,210	66%	13,390	34%
2032	43,200	28,590	66%	14,610	34%
<b>2012-2032 CAGR</b>	<b>1.80%</b>	<b>1.78%</b>		<b>1.86%</b>	

*Historical Itinerant/Local Split Source: TAF*

## 2.7 Air Taxi Operations

Air taxi aircraft are aircraft with 60 or fewer seats on unscheduled and on-demand flights, which are typically conducted by charter companies such as the FBO, fractional ownership aircraft programs, on demand air taxi operators such as NetJets, and emergency medical services. The TAF classifies 618 operations, or two percent of total 2012 operations, as air taxi. Due to concerns with the TAF being an estimate, a third party flight data provider was also consulted to verify TAF estimates. 2013 fuel records from Granite Aviation were reviewed as an additional data source. These data sources are included in **Appendix F**.

Aircraft operations data for the period October 2012 through September 2013 was obtained from aircraft activity data provider FlightAware. FlightAware data is a sample of actual operations, and not a record of all operations. Flights operating under visual flight rules and flights that do not file a flight plan (e.g. local operations) are generally not included. For this reason, FlightAware data tends to have a higher proportion of jet aircraft that travel farther distances and usually fly under instrument rules for insurance purposes and carrier operations specifications, and a lower proportion of smaller single-engine aircraft. Granite Aviation fuel records, which are also incomplete as not every aircraft that visits SZT purchases fuel, support the FlightAware data.

It is expected that FlightAware captures most operations by jet aircraft, and tends to miss operations by smaller propeller aircraft that make up the majority of operations at SZT. Operations counts are adjusted to match 2012 operations, and consideration was given to reduce data skew by larger aircraft being reported in greater numbers. The methodology behind this adjustment is explained in **Sections 2.8 and 2.9**. A summary of the FlightAware data are presented in **Table 2-14**.

<b>Operations by Type</b>	<b>FlightAware Total (%)</b>		<b>2012 TAF<sup>1</sup> (%)</b>	
Itinerant Operations	1,101	99%	20,727	67%
Local Operations	8	1%	10,107	33%
Total Operations	1,109		30,834	
<b>Operations by Engine Type</b>	<b>FlightAware Total</b>		<b>Percent of Total</b>	
Single Engine Propeller	443		40%	
Jet	375		34%	
Multi-Engine Propeller	291		26%	
<b>Operations by Owner Type<sup>2</sup></b>	<b>FlightAware Total</b>		<b>Percent of Total</b>	
Air Taxi – Jet	280		26%	
Air-Taxi – Propeller	269		24%	
Business – Propeller	226		20%	
Individual/Club - Propeller	225		20%	
Business – Jet	95		9%	
Government – Propeller	15		1%	

*1 – Operations include GA operations (30,216) and Air Taxi Operations (618)*

*2- Owner Type based on FlightAware Owner Name Information*

FlightAware data are primarily itinerant, mixed amongst engine type, and are primarily air taxi. Air taxi operations, both jet and propeller, make up approximately 50 percent of FlightAware records for the year of data. The total is slightly lower than that reported by the TAF although both sources are estimates. The FlightAware air taxi estimates are preferred because the actual operations are identifiable. Air taxi operations are shown in **Table 2-15**.

<b>Table 2-15: Air Taxi Operations Forecast</b>	
<b>Year</b>	<b>Operations</b>
2012 (FlightAware)	549
2017	630
2022	720
2027	820
2032	940
<b>CAGR</b>	<b>2.75%</b>

*Sources: Flightaware Inc., Mead & Hunt Inc.*

Air taxi operations are performed by both jet and propeller aircraft. Air taxi services are typically hired on an as-needed basis, and the size of the party, payload, and length of haul influence the selection of aircraft type. Operations by jet aircraft are described in **Section 2.8** and operations by aircraft approach category and aircraft design group are described in **Section 2.9**.

## 2.8 Jet Aircraft Operations

Jet operations generally require greater runway length than propeller aircraft due to heavier aircraft weight and faster aircraft speed. Facility requirements vary depending on the type of jet aircraft; therefore FlightAware jet operations are extrapolated to estimate annual operations by each jet aircraft type. The following considerations were made when jet operations by type. Correspondence and data used to make these assumptions is included in **Appendix F**. Jet operations are broken out for the purpose of computing runway length requirements in **Chapter 3**, and not for FAA reporting purposes.

- Jet operations are considered as itinerant only due to the expense and irregularity of operating a jet in the traffic pattern for flight training purposes.
- FlightAware data does not include visual flight rules (VFR) data because “visual flight plans are irrelevant and only used by FSS for search and rescue” ([flightaware.com/about/faq](http://flightaware.com/about/faq)). A flight plan is not required for VFR flight, although it is encouraged.
- Jet operators are more likely file IFR flight plans due to: greater length of haul, cruising altitude in Class A airspace (therefore IFR is required), and operator specifications and insurance requirements.
- Jet operations that do not enter Class A airspace are likely to be short-distance repositioning flights from within the region (e.g. GEG/SFF/COE to and from SZT) and are not expected to be heavily loaded and require full runway length.
- The 2014 hangar survey indicates that there is one B-II jet aircraft based at SZT, and no other based jet aircraft.
- FlightAware owner records indicate that jet operators at SZT are either air taxi companies or businesses that own jet aircraft.
- One year of FlightAware counts includes 375 jet operations.
- One year of Granite Aviation fuel records includes 66 jet fuel records (132 jet operations).
- The 35 percent jet refueling rate suggests that many jet operations are not fully loaded when they leave SZT, and that they purchase fuel elsewhere.
- The TAF does not report operations as “jet” and the FAA enhanced traffic management system counts database does not have records for SZT. The best information available comes from FlightAware and Granite Aviation.
- It is not possible to identify the percentage of jet operations within the TAF itinerant GA operations total with the data available.
- It is likely that some jet operations do not show up in FlightAware records; therefore a multiplier should be used to provide a conservative estimate of jet aircraft operations.
- FlightAware records will serve as the basis for forecasting future jet aircraft demand.
- Quest reported six operations by customers using light jets (less than six passengers) in 2013. They say that this could double in line with their production in the next 10 years to 12 operations.
- Tamarack Aerospace projected 1,000 operations by jets of all types; however, this projection would significantly exceed their facilities ability to accommodate and service these aircraft. It is expected that much of Tamarack’s installation work will occur at licensed service centers around the country, and that jet operations related to Tamarack will be lower.

Estimates of 2012 jet aircraft operations by aircraft make and model are shown in **Table 2-16**.

<b>Table 2-16: 2012 Jet Aircraft Operations</b>		
<b>Aircraft Make/Model</b>	<b>Reference Code</b>	<b>Jet Operations</b>
Aero Commander 680	B-II	2 <sup>1</sup>
Beechjet 400	C-I	20
BAC P84 Jet Provost	B-I	2 <sup>1</sup>
Cessna Citation 1SP	B-I	38
Cessna Citation CJ1	B-II	56
Cessna Citation CJ2	B-II	20
Cessna Citation CJ3	B-II	2
Cessna Citation Excel	B-II	34
Cessna Citation II	B-II	12
Cessna Citation III	B-II	38
Cessna Citation Mustang	B-I	10
Cessna Citation V	B-II	16
Cessna Citation X	C-II	34
Challenger 300	B-II	14
Challenger 600	C-II	4
Dassault Falcon 10	B-I	2
Eclipse 500	B-I	4 <sup>1</sup>
Embraer ERJ-135	C-II	2
Embraer Phenom 100	B-I	30
Gulfstream III	C-II	2
Hawker 800	C-II	18
Hawker 1000	B-I	2 <sup>1</sup>
IAI 1124 Westwind	C-I	2
Learjet 31	C-I	2
Learjet 35	D-I	4
Learjet 40	C-I	6
Learjet 45	C-I	14
Learjet 60	C-I	2
<b>Total</b>		<b>392</b>

*Operations are rounded to the nearest whole even number.*

*1: Includes operations from fuel records, as noted below.*

*Source: FlightAware 10/2012-9/2013, Granite Aviation 2013*

FlightAware records capture aircraft reported by the FBO with the exception of the two operations by an Aero Commander, two operations by a BAC P84, two operations by an Eclipse 500, and two operations by a Hawker 1000. These missing jet operations are included in total jet operations.

## 2.9 Design Aircraft Operations

The design aircraft is the most demanding aircraft that regularly uses an airport. The FAA defines “regular use” as 500 annual operations, also referred to as the substantial use threshold. These aircraft have a direct influence on airfield geometric design standards. The design aircraft for an airport is identified by a Runway Reference Code (RRC) and Runway Design Code (RDC). The RRC signifies the current operational capabilities of a runway and its associated parallel taxiway, and the RDC signifies the standards to which the runway is to be built. The RRC and RDC for a particular aircraft consist of two components: approach category (based on approach speed) and design group (based on wingspan and tail height).

Operations data for itinerant jet aircraft is summarized from **Table 2-16**, and included in **Table 2-17**. FlightAware data also includes operations by non-jet itinerant aircraft. The majority of aircraft are in approach categories A and B, and design groups I and II. FlightAware operations counts are adjusted to match TAF operations counts by preserving the relative percentage by each aircraft reference code and multiplying by the 2012 TAF non-jet itinerant operations total of 20,263. FlightAware records and adjusted itinerant non-jet operations are included in **Table 2-18**.

<b>AAC\ADG</b>	<b>B</b>	<b>C</b>	<b>D</b>
<b>I</b>	88	46	4
<b>II</b>	194	60	0

<b>FlightAware Itinerant Non-Jet Operations</b>			
<b>AAC\ADG</b>	<b>I</b>	<b>II</b>	<b>Total</b>
<b>A</b>	431	42	473
<b>B</b>	102	160	262
<b>Total</b>	<b>533</b>	<b>202</b>	<b>735</b>
<b>Adjusted Itinerant Non-Jet Operations</b>			
<b>AAC\ADG</b>	<b>I</b>	<b>II</b>	<b>Total</b>
<b>A</b>	11,884	1,158	13,042
<b>B</b>	2,812	4,412	7,224
<b>Total</b>	<b>14,696</b>	<b>5,570</b>	<b>20,266</b>

Local operations are divided using relative percentages of total based aircraft, and presented in **Table 2-19**. Approach category and design group “H” designations refer to helicopter aircraft.

<b>AAC\ADG</b>	<b>I</b>	<b>II</b>	<b>H</b>	<b>Total</b>
<b>A</b>	7,190	625	0	7,815
<b>B</b>	1,355	208	0	1,563
<b>H</b>	0	0	729	729
<b>Total</b>	<b>8,545</b>	<b>833</b>	<b>729</b>	<b>10,107</b>

Approach Category B and Design Group II aircraft are the most demanding aircraft operating at SZT on a regular basis. Absent unforeseen changes in fleet mix, these aircraft are likely to continue to be the most demanding aircraft regularly operating at the airport throughout the 20-year planning period. Therefore, this Master Plan will utilize B-II as the RDC for Runway 1/19 and associated facilities at SZT. SZT will continue to see operations by more demanding aircraft; however, it is not expected that these aircraft will exceed 500 operations in the 20-year planning horizon. Activity forecasts by RDC are presented in **Table 2-20**.

<b>RRC</b>	<b>2012</b>	<b>2017</b>	<b>2022</b>	<b>2027</b>	<b>2032</b>
A-I	19,074	19,350	20,410	21,600	22,810
A-II	1,783	2,460	2,830	3,040	3,320
B-I	4,255	5,090	5,670	6,390	7,210
B-II	4,814	5,870	6,670	7,600	8,580
C-I	46	70	80	100	130
C-II	60	90	120	140	170
D-I	4	10	10	10	20
Helicopter	729	1,020	1,230	1,540	1,900
<b>Total</b>	<b>30,765</b>	<b>33,930</b>	<b>37,020</b>	<b>40,420</b>	<b>44,140</b>

Sources: FlightAware Inc., Mead & Hunt Inc.

Note: Operations estimated from IFR flight data. Numbers are rounded.

SZT is not configured for routine operations by aircraft larger than B-II. The Airport is constrained by existing streets, railroads, and development. There are several factors that influence routine use of the Airport by aircraft larger than a B-II including runway length, pavement strength, instrument approach capability, aircraft parking space, and hangar availability. Existing airfield conditions that do not meet B-II design standards are described in **Chapter 3**, and improvement alternatives to bring the Airport into compliance with B-II design standards are described in **Chapter 4**. It is expected that B-II design standards will meet the needs of aircraft exceeding the FAA substantial use threshold of 500 operations for the next 20 years.

## 2.10 Forecast Summary and TAF Comparison

The FAA templates for summarizing and documenting airport planning forecasts and for comparing forecasts with the TAF are presented in **Table 2-21** and **Table 2-22**. The following forecasts are identified as the preferred forecasts:

- For based aircraft, the TAF is chosen as the preferred forecast methodology, supplemented with the hangar survey which adjusts 2012 based aircraft from 99 to 97. This preferred forecast predicts growth in based aircraft, rising from 97 in 2012 to 137 in 2032.
- For GA operations, the OPBA methodology is chosen as the preferred forecast methodology. This methodology projects that the five year average of operations per based aircraft (314) will remain constant throughout the planning period. This preferred forecast projects 43 percent growth in GA operations, from 30,216 in 2012 to 43,200 in 2032.
- Based on the most demanding aircraft currently using the Airport and expected to use the Airport in the future, the runway design code (RDC) is B-II for Runway 1/19 and associated facilities.
- Analysis conducted for this chapter uses FlightAware records for the air taxi operations forecast.
- Local and itinerant operations by aircraft reference code were estimated using FlightAware data.

**Table 2-21. FAA Template for Comparing Airport Planning and TAF Forecasts**

Category	Year	Master Plan Forecast	TAF	MPF/TAF (% Difference)
<b>Passenger Enplanements</b>				
No Passenger Enplanement Forecast				
<b>Air Taxi Operations</b>				
Base Yr. Level	2012	549	618	-11.17%
Base Yr. + 5yr.	2017	630	711	-11.39%
Base Yr. + 10yrs.	2022	720	815	-11.66%
Base Yr. + 15yrs.	2027	820	932	-12.02%
Base Yr. + 20yrs.	2032	940	1,063	-11.57%
<b>GA Operations</b>				
Base Yr. Level	2012	30,216	30,216	0%
Base Yr. + 5yr.	2017	33,300	34,105	-2.36%
Base Yr. + 10yrs.	2022	36,300	38,579	-5.91%
Base Yr. + 15yrs.	2027	39,600	43,734	-9.45%
Base Yr. + 20yrs.	2032	43,200	49,673	-13.03%

<b>Table 2-22: FAA Template for Summarizing and Documenting Airport Planning Forecasts</b>										
<b>Sandpoint Airport</b>										
<b>A. Forecast Levels and Growth Rates</b>										
<b>Specify Base Year: 2012</b>	<b>2012</b>	<b>2017</b>	<b>2022</b>	<b>2027</b>	<b>2032</b>	<b>Average Compound Annual Growth Rates</b>				
	<u>Base Yr. Level</u>	<u>Base Yr. to +5</u>	<u>Base Yr. to +10</u>	<u>Base Yr. to +15</u>	<u>Base Yr. to +20</u>	<u>Base Yr. to +5</u>	<u>Base Yr. to +10</u>	<u>Base Yr. to +15</u>	<u>Base Yr. to +20</u>	
<b>Passenger Enplanements</b>										
TOTAL Air Carrier & Commuter	0	0	0	0	0	N/A	N/A	N/A	N/A	
<b>Operations</b>										
<u>Itinerant</u>										
Air Carrier	0	0	0	0	0	N/A	N/A	N/A	N/A	
Commuter/air taxi	549	630	720	820	940	2.79%	2.75%	2.71%	2.73%	
Total Commercial Operations	549	630	720	820	940	2.79%	2.75%	2.71%	2.73%	
General aviation	20,109	22,040	24,020	26,210	28,590	1.85%	1.79%	1.78%	1.78%	
Military	0	0	0	0	0	N/A	N/A	N/A	N/A	
<u>Local</u>										
General aviation	10,107	11,260	12,280	13,390	14,610	2.18%	1.97%	1.89%	1.86%	
Military	0	0	0	0	0	N/A	N/A	N/A	N/A	
<b>TOTAL OPERATIONS</b>	<b>30,765</b>	<b>33,930</b>	<b>37,020</b>	<b>40,420</b>	<b>44,140</b>	<b>1.98%</b>	<b>1.87%</b>	<b>1.84%</b>	<b>1.82%</b>	
<b>Based Aircraft</b>										
Single Engine (Nonjet)	82	89	95	100	107	1.65%	1.48%	1.33%	1.34%	
Multi Engine (Nonjet)	4	4	6	8	10	0.00%	4.14%	4.73%	4.69%	
Jet Engine	1	2	3	5	7	14.87%	11.61%	11.33%	10.22%	
Helicopter	7	8	8	9	9	2.71%	1.34%	1.69%	1.26%	
Other	3	3	3	4	4	0.00%	0.00%	1.94%	1.45%	
<b>TOTAL</b>	<b>97</b>	<b>106</b>	<b>115</b>	<b>126</b>	<b>137</b>	<b>1.79%</b>	<b>1.72%</b>	<b>1.76%</b>	<b>1.74%</b>	
<b>B. Operational Factors</b>										
	<u>Base Yr. Level</u>	<u>Base Yr. to +5</u>	<u>Base Yr. to +10</u>	<u>Base Yr. to +15</u>	<u>Base Yr. to +20</u>					
<b>Average aircraft size (seats)</b>										
Air Carrier & Commuter	N/A	N/A	N/A	N/A	N/A					
<b>Average enplaning load factor</b>										
Air Carrier & Commuter	N/A	N/A	N/A	N/A	N/A					
<b>GA operations per based aircraft</b>	<b>312</b>	<b>314</b>	<b>316</b>	<b>314</b>	<b>315</b>					

# CHAPTER 3

# Facility Requirements



Airport planning for facility requirements is based upon addressing existing needs and accommodating future demand. This chapter describes the existing condition of airside and landside facilities at the Sandpoint Airport (SZT) and provides recommendations for facility improvements over the next 20 years, based on site inspections, Federal Aviation Administration (FAA) policy and guidance, and the aviation activity forecasts presented in **Chapter 2**. The recommendations presented provide the basis for development of improvement alternatives. Facility requirements are presented in the following sections.

- 2010 Idaho Airport System Plan Recommendations
- Critical Design Aircraft
- Runways
- Taxiways and Taxilanes
- Aircraft Parking and Storage
- Navigational Aids and Approach Procedures
- Airport Property
- Through The Fence
- Support Facilities

## 3.1 2010 Idaho Airport System Plan Recommendations

The 2010 Idaho Airport System Plan (2010 IASP) identifies five functional roles for 75 public-use airports located throughout the State of Idaho. These roles include *Commercial Service*, *Regional Business*, *Community Business*, *Local Recreational*, and *Basic Service*. The 2010 IASP identifies recommended facilities for airports based on their role in the state airport system, and compares recommendations to existing facilities to identify facility requirements.

The 2010 IASP classifies SZT as a *Regional Business* airport. Existing airport facilities meet 2010 IASP *Regional Business* airport system objectives for runway length, runway width, runway strength, visual aids, runway lighting, weather reporting facilities, landside facilities, and services. SZT does not have a full parallel taxiway or a straight-in non-precision instrument approach procedure, which are “desired” features at *Regional Business* airports. Feasibility of implementing a full parallel taxiway is discussed in **Chapter 4**. This Master Plan effort includes an airport airspace analysis that will provide FAA flight procedures staff with the ability to evaluate the feasibility of a straight-in non-precision instrument approach procedure.

### 3.2 Design Aircraft

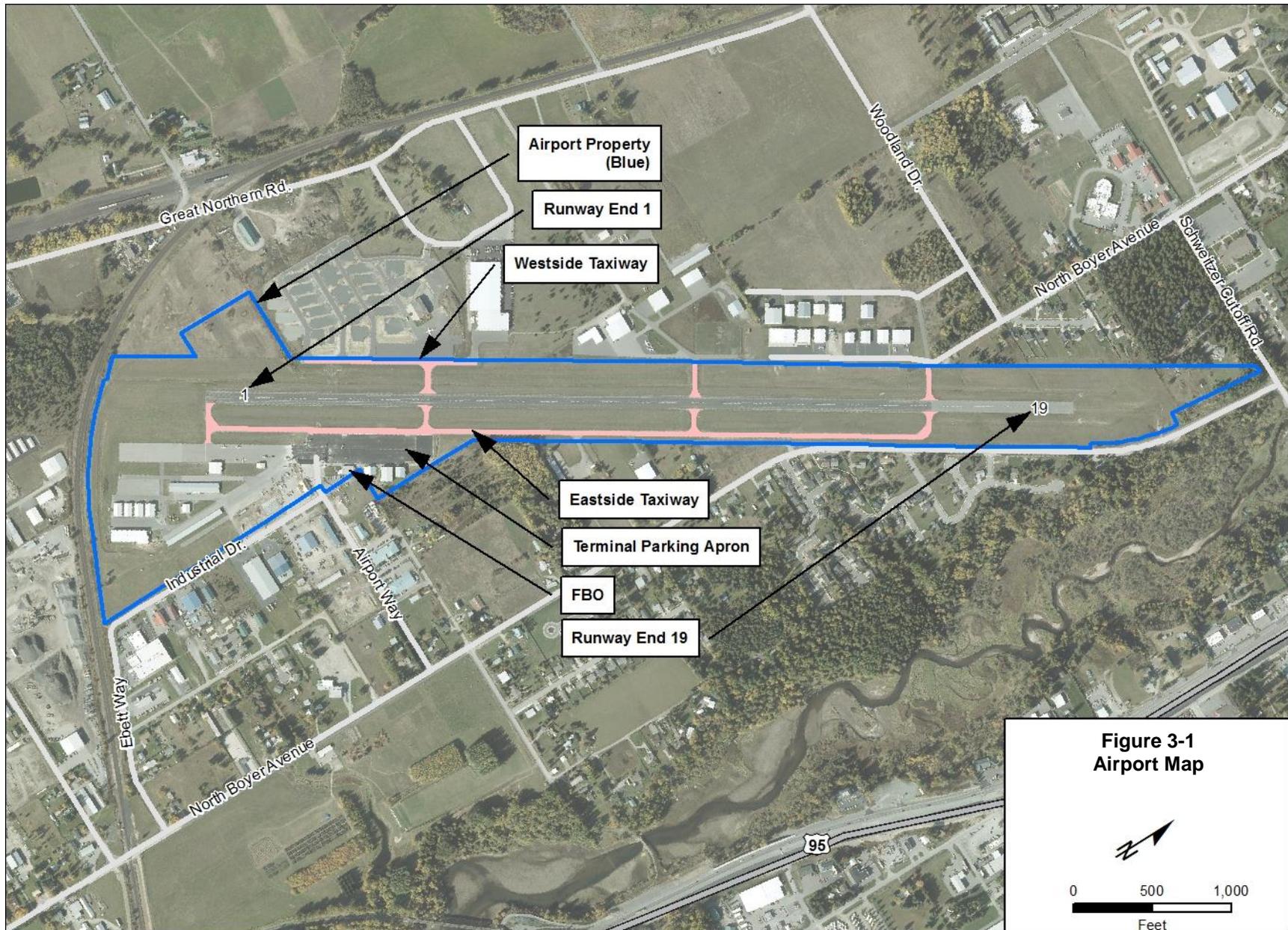
**Chapter 2** evaluates the most demanding aircraft using the Airport and shows that airport reference code (ARC) B-II business jets remain the most demanding aircraft to exceed the FAA substantial use threshold of 500 annual operations. There are operations by larger aircraft; however, these do not exceed 500 operations. FAA policy regarding planning and funding is to support improvements that are justified by existing demand and the forecasted growth, and to protect public investment in existing facilities. Based on the aviation activity forecasts, progression beyond the existing ARC of B-II is not expected in the next 20 years. It is recommended that the Airport revisit the aviation activity forecasts in periodically to check how projections are tracking with aircraft operations records.

Requirements for a C-II facilities are discussed in this section because aircraft larger than B-II operate at SZT on occasion. Aircraft flight track data and fixed base operator (FBO) fuel records indicate that approach category C and higher aircraft generally do not take on fuel at SZT, and have an average stage length of less than 500 nautical miles. These aircraft are typically flying to other airports in the Pacific Northwest and Northern Midwest from SZT. C-II design standards have a larger footprint, and it is expected to be difficult to accommodate C-II facilities on Airport property. **Chapter 4** demonstrates the challenges and constraints associated with developing C-II facilities at SZT because of residential and business land uses surrounding the Airport. Due to the sensitivity of the current airport location, it is recommended that the Airport monitor operations by approach category C and higher aircraft. Should operations show a trend of increasing, the Airport will need to study methods to meet design standards for the larger and faster aircraft on site, at another airport in the region, or at a new facility.

### 3.3 Runways

Runways have far-reaching implications for airport development and layout. This section describes runway requirements for SZT, and identifies the required number, length, and design criteria of runways expected to be needed at the Airport over the next 20 years. Runways and associated areas are presented in **Figure 3-1**. Runway requirements are organized into the following sections.

- Wind Coverage
- Geometric Design Criteria
- Runway Protection – Design Standards
- Runway Length
- Runway Lighting



**Figure 3-1**  
**Airport Map**

### 3.3.1 Wind Coverage

Runways are typically aligned to provide aircraft adequate coverage from winds that blow perpendicularly to the runway orientation, known as crosswinds. The approach category A and B and design group I and II aircraft that make up the majority of aircraft operations at SZT are more sensitive to crosswinds than are larger aircraft. FAA standards require that runways provide 95 percent coverage for crosswind components in excess of 10.5 knots for A-I and B-I aircraft, and 95 percent coverage for crosswind components in excess of 13 knots for A-II and B-II aircraft. Higher velocity crosswind components are permitted for larger aircraft.

Wind analysis for SZT was performed using weather data recorded by the automated weather observation system (AWOS) at the Airport for a period from January 2004 to December 2013. Wind coverage is presented for visual flight rules (VFR) conditions, instrument flight rules (IFR) conditions, and all-weather conditions. The results of the wind analysis are presented in **Table 3-1**.

<b>Crosswind Component (ARC)</b>	<b>Weather Category</b>	<b>Wind Coverage (Runway 1-19)</b>
10.5 knots (A-I, B-I)	All-Weather	99.84%
	IFR	100%
	VFR	99.84%
13 knots (A-II, B-II)	All-Weather	99.94%
	IFR	100%
	VFR	99.94%
16 knots (C/D-I, C/D-II A/B/C/D-III)	All-Weather	99.99%
	IFR	100%
	VFR	99.99%
20 knots (A/B/C/D-IV, C/D-V-VI)	All-Weather	100%
	IFR	100%
	VFR	100%

*Sources: FAA Airport Design Software using NOAA data from SZT AWOS, January 2004 to December 2013*

Prevailing winds at SZT blow from the northeast, and are well aligned with the centerline of Runway 1/19. Other winds come from the southwest, with limited winds coming from the northwest. A wind rose is included on the **Airport Layout Plan**, included in **Appendix A**. Runway 1/19 is sited due to wind coverage and regional topography, and provides adequate wind coverage for existing based and itinerant aircraft. It is recommended that runway improvement alternatives maintain the existing runway alignment.

Prevailing winds and neighboring land uses favor the use of Runway End 1 84 percent of the time; however actual use may be lower during periods of calm wind. The majority of aircraft operations favor Runway End 1 in calm winds below five knots. Airport development is clustered on the eastside of Runway End 1, which is where the FBO, aircraft parking, and other services are located. The presence of aviation facilities puts itinerant users close to the calm-wind runway end. It is recommended for the Airport to continue to develop the southeast property due to its favorable location for airport users.

**3.3.2 Geometric Design Criteria**

**Table 3-2** presents the existing runway conditions compared to the B-II and C-II design standards from FAA Advisory Circular (AC) 150/5300-13A, *Airport Design*. Improvement alternatives propose corrections for non-standard conditions.

<b>Table 3-2: Runway Design Standard Differences for Runway Design Codes B-II and C-II</b>			
<b>Runway Design Code</b>	<b>Existing Conditions</b>	<b>B-II</b>	<b>C-II</b>
<b>Representative Aircraft</b>		<b>Citation Excel</b>	<b>Citation X</b>
Runway Width	75 feet	75 feet	100 feet
Is Runway 1/19 In Compliance?		<b>Yes</b>	<b>No</b>
Shoulder Width	10 feet	10 feet	10 feet
Is Runway 1/19 In Compliance?		<b>Yes</b>	<b>Yes</b>
Runway OFZ Width and Length <sup>1</sup>		400 x 200 feet	400 x 200 feet
Is Runway 1/19 In Compliance?		<b>Yes</b>	<b>Yes</b>
RSA and Length <sup>1</sup>		150 x 300 feet	500 x 1000 feet
Is Runway 1/19 In Compliance?		<b>Yes</b>	<b>No</b>
ROFA Width and Length <sup>1</sup>		500 x 300 feet	800 x 1000 feet
Is Runway 1/19 In Compliance?		<b>No</b>	<b>No</b>
Centerline to Taxiway Centerline	200 feet	240 feet	300 feet
Is Runway 1/19 In Compliance?		<b>No</b>	<b>No</b>
Centerline to Aircraft Parking Area	250 feet	250 feet	400 feet
Is Runway 1/19 In Compliance?		<b>Yes</b>	<b>No</b>
Centerline to Holdline	185 feet	200 feet	250 feet
Is Runway 1/19 In Compliance?		<b>No</b>	<b>No</b>
Crosswind Component		13 knots	16 knots
Is Runway 1/19 In Compliance?		<b>Yes</b>	<b>Yes</b>
RPZ Dimensions		1,000 x 500 x 700 feet	1,700 x 500 x 1,010 feet
Does Airport own RPZ property?		<b>No</b>	<b>No</b>
1. Length beyond Runway End. 2. Distance from Runway Centerline Design standards shown are for existing approach minimums of one statute mile or greater. More demanding standards may apply if approach minimums of less than one statute mile are implemented.			
OFZ: Obstacle Free Zone RSA: Runway Safety Area ROFA: Runway Object Free Area RPZ: Runway Protection Zone			

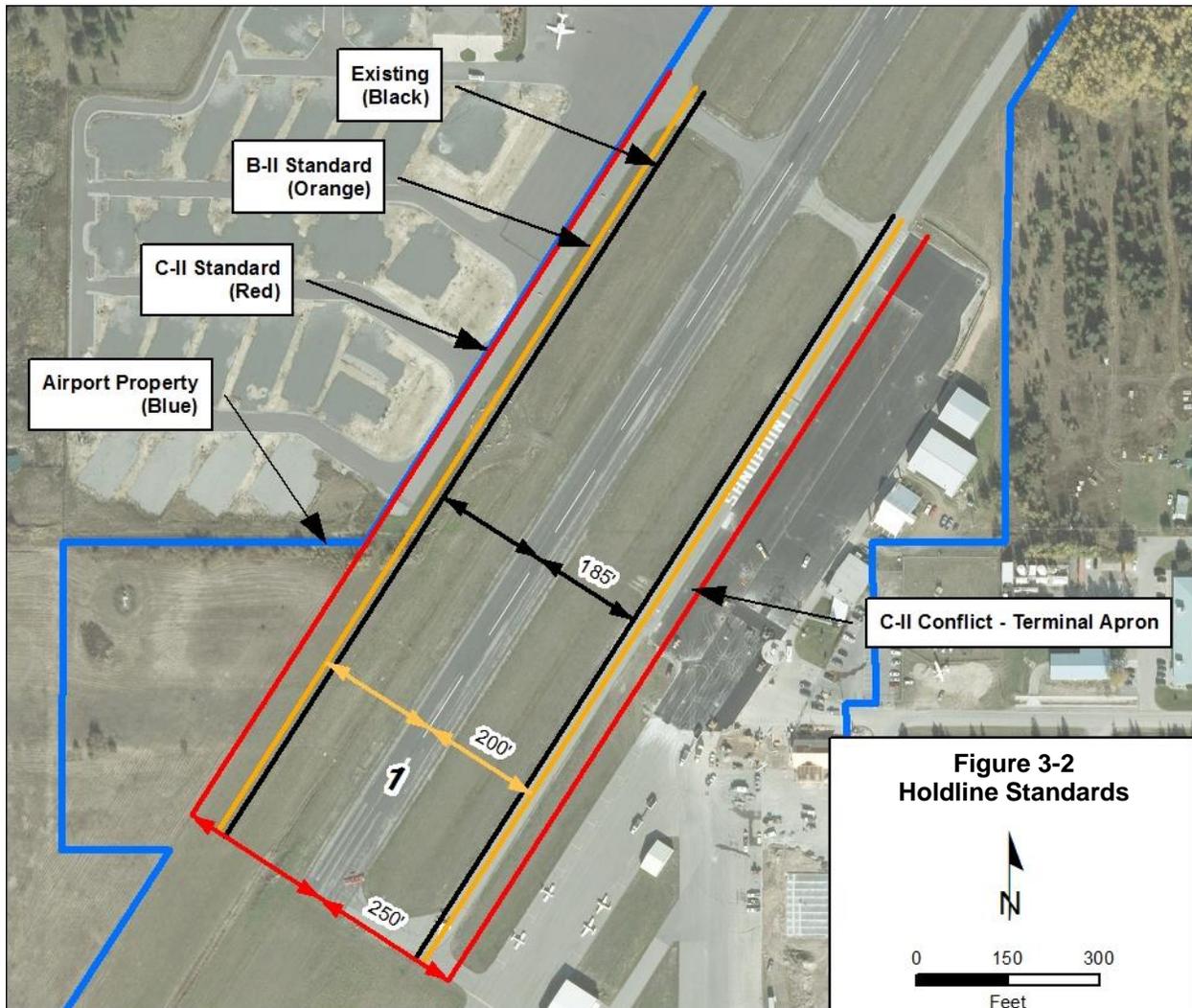
Source: AC 150/5300-13A Airport Design

Separation standards are intended to maintain safe operating distances between parked and taxiing aircraft, and aircraft taking off and landing. Standards include separations between the runway centerline and the aircraft holdline, parallel taxiway centerline, and aircraft parking areas. Non-standard centerline separations can create operational inefficiencies by increasing hold distances, introducing complex pavement geometry, and increasing runway occupancy time.

**Runway Centerline-to-Holdline Separation**

The existing runway centerline to holdline separations at Runway End 1 are shown and compared to the ARC B-II and C-II standards in **Figure 3-2**. The existing runway centerline to holdline separation is 185 feet, which is less than the B-II standard of 200 feet and C-II standard of 250 feet. The existing runway centerline to holdline separation on the west side of Runway End 1 are spaced at 185 feet, but there is room to move them to 200 feet without impacting with reducing space available for aprons, buildings, and taxiways.

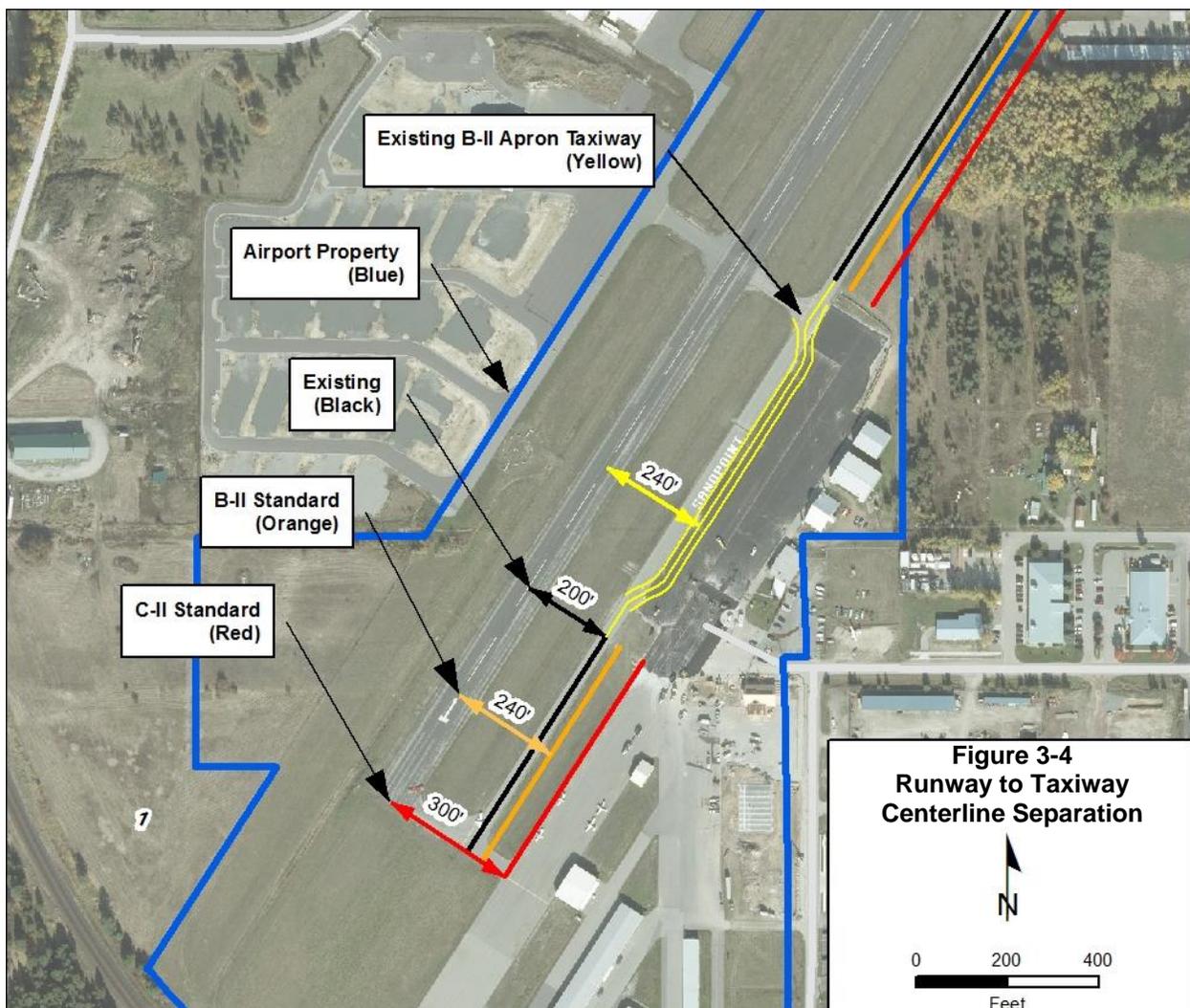
It is recommended that the holdlines are moved to the B-II standard separation distance of 200 feet.



**Runway Centerline to Taxiway Centerline Separation**

The eastside taxiway centerline is 200 feet from the runway centerline, which is less than the 240 foot B-II design standard. The portion of the eastside taxiway in front of the apron meets the B-II design standard. Shifting the north runway connector of the eastside taxiway to B-II design standard puts the taxiway and the taxiway object free area (TOFA) outside of airport property. Moving the eastside taxiway to the C-II standard of a 300 feet for runway centerline to taxiway centerline separation would further impact the terminal apron and private property. Existing runway centerline to westside taxiway centerline separation is 240 feet and meets the B-II design standard. Runway to taxiway centerline separation is shown in **Figure 3-4**.

No improvements to the westside taxiway separation are recommended.



**Figure 3-4  
Runway to Taxiway  
Centerline Separation**

### Runway Protection Design Standards

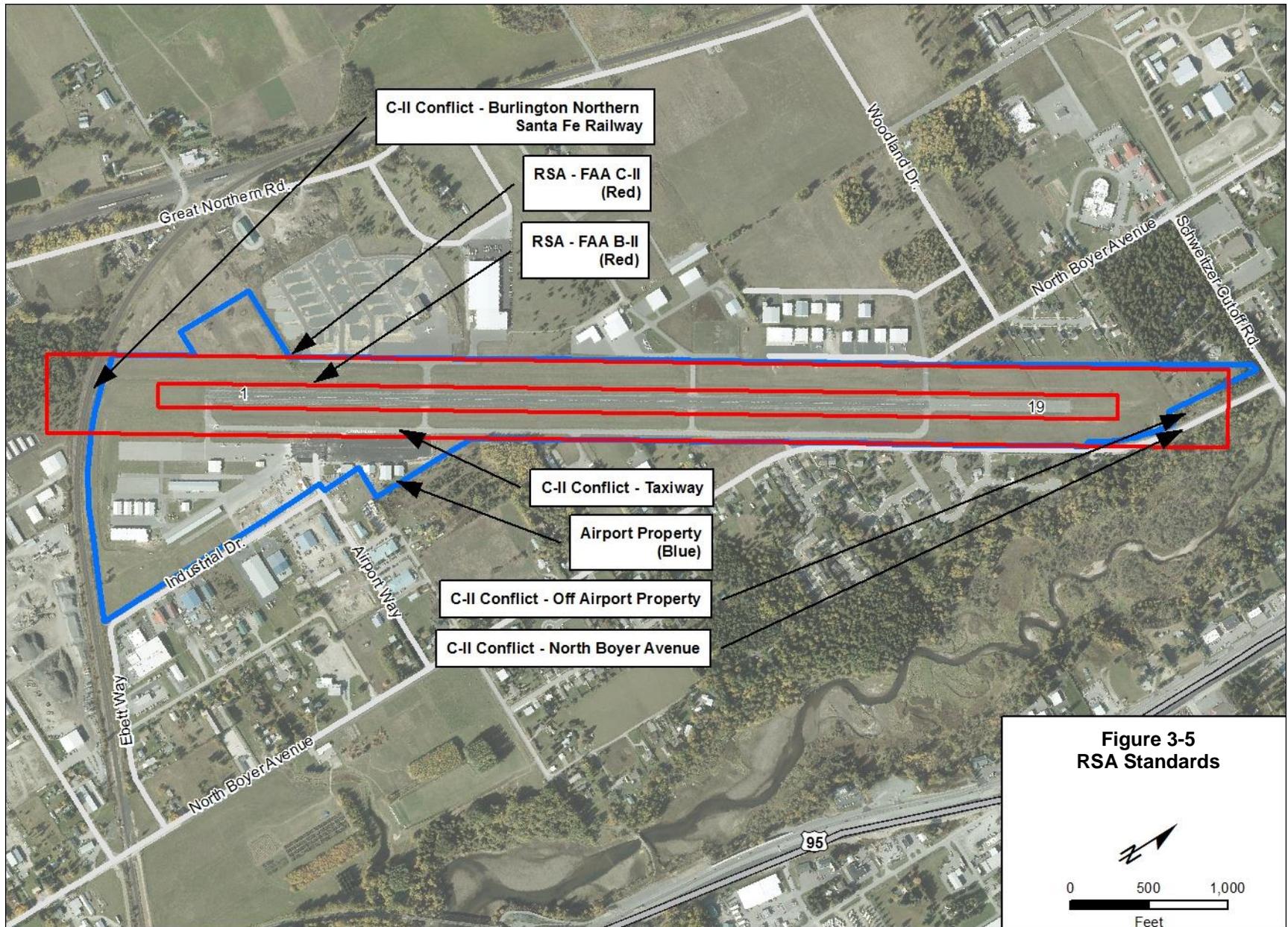
The FAA has three primary runway protection standards centered on the runway centerline that are intended to increase the safety of aircraft in the air and on the ground. This section addresses the Runway Safety Area (RSA), the Runway Object Free Area (ROFA), and the Runway Obstacle Free Zone (OFZ).

#### Runway Safety Area

The RSA is a two dimensional rectangular surface centered on the runway centerline that extends beyond the sides and ends of the runway. The RSA is intended to reduce the risk of damage to airplanes in the event of an overshoot, undershoot, or excursion from the runway. FAA AC 150/1500-13A, *Airport Design*, and FAA Order 5200.8, *Runway Safety Area Program*, require that the RSA is:

- Cleared and graded, with no potentially hazardous ruts, humps, depressions, or other surface variations;
- Drained by grading or storm sewers to prevent water accumulation;
- Capable, under dry conditions, of supporting snow removal equipment Aircraft Rescue and Fire Fighting (ARFF) equipment, and the occasional passage of aircraft without causing damage to the aircraft; and
- Free of objects, except for objects that need to be located in the RSA because of their function.

The Airport meets RSA standards for B-II. However, for C-II, the RSA extends outside of airport property, and onto North Boyer Avenue, the Burlington Northern Santa Fe Railway, the airport fence, and eight acres of non-airport property. The Airport must own and keep clear all property within the RSA. Dimensions for B-II and C-II RSAs are shown in **Figure 3-5**.



**Runway Object Free Area (ROFA)**

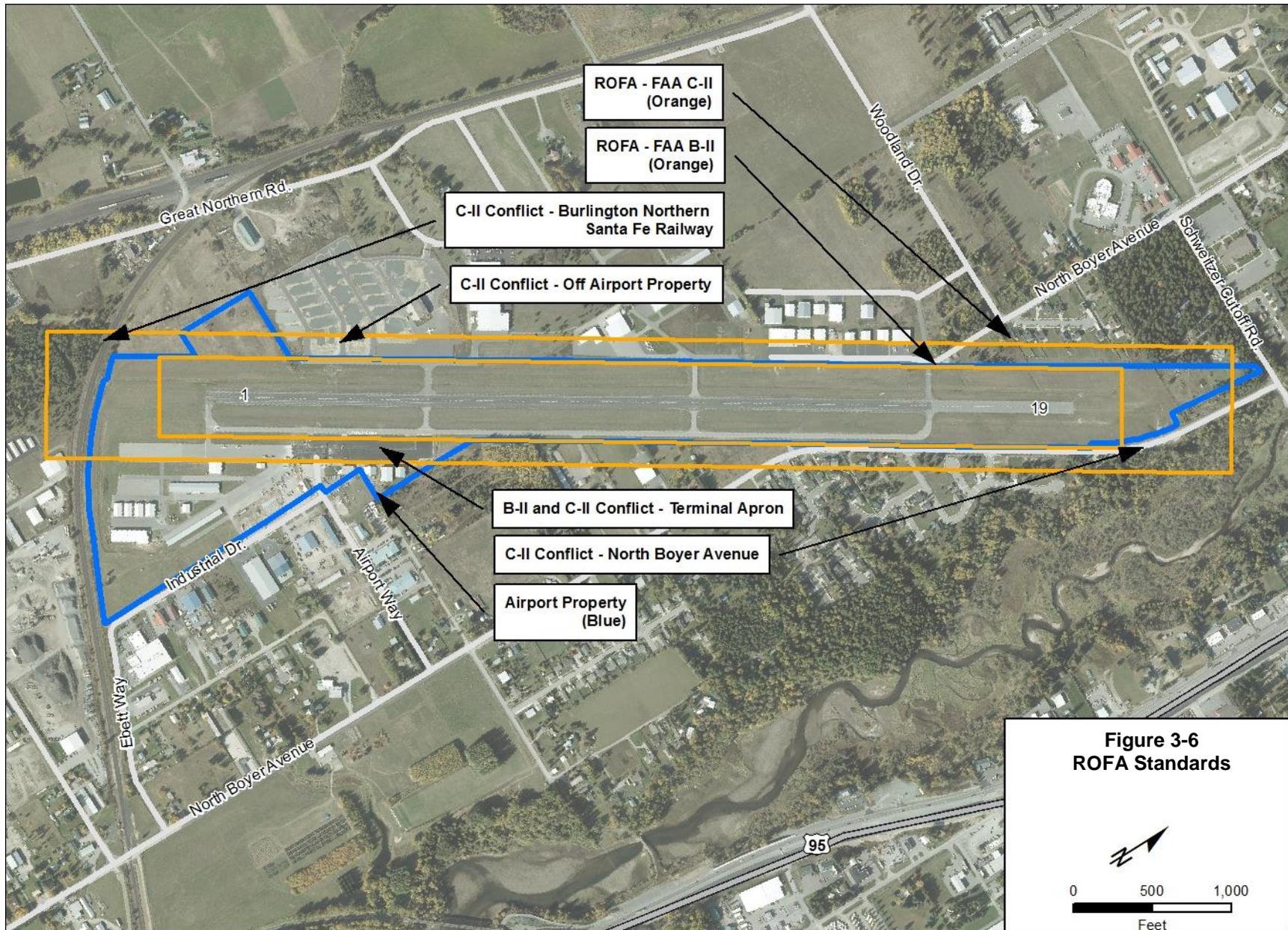
The ROFA is a two dimensional rectangular surface centered on the runway centerline that extends beyond the sides and ends of the runway. AC 150/5300-13A states that the only objects allowed inside the ROFA are those that are essential for navigation and objects needed for maneuvering aircraft. Otherwise, the ROFA must be clear of:

- Objects protruding above the RSA edge elevation;
- Parked Aircraft; and
- Agricultural operations

Parking apron on the east side of the airfield is inside the B-II ROFA, and a section of property inside the ROFA near North Boyer Avenue is not owned by the Airport. The C-II ROFA is larger and conflicts with the entire terminal apron and most of the Airport's perimeter fencing, North Boyer Avenue, the Burlington Northern Santa Fe Railway, and 48 acres of private property. It is recommended that the ROFA be brought into compliance with the B-II design standard. B-II and C-II ROFA dimensions are shown in **Figure 3-6**.

**Runway Obstacle Free Zone (OFZ)**

The runway OFZ is a three-dimensional volume of airspace above the runway centerline that extends beyond the sides and ends of the runway. The OFZ is required to be clear of obstacles for the protection of aircraft landing or taking off from the runway, and for missed approaches. The OFZ precludes parked aircraft and other objects, except for frangible navigational aids that are fixed by function. Unlike the other surfaces, the OFZ is governed by a standard that is independent of the ARC. At SZT, the OFZ dimensions are based on the size of the aircraft it serves. B-II and C-II classifications are include in *Large Aircraft*, defined as airplanes with a maximum certified takeoff weight (MTOW) of more than 12,500 pounds. Non-standard OFZ conditions at SZT include the aircraft holdline and the eastside taxiway.



### 3.3.3 Runway Length Analysis

Runway length analysis follows the five-step procedure for determining recommended runway lengths described in AC 150/5325-4B, *Runway Length Requirements for Airport Design*, and supplements this procedure with individual design aircraft requirements. Based on the approved aviation activity forecasts, B-II aircraft are the critical design aircraft used for this runway length analysis.

For *Large Aircraft* up to 60,000 pounds MTOW, AC 150/5325-4B states that the recommended runway length is determined according to a family grouping of aircraft having similar performance characteristics and operating weights. AC 150/5325-4B provides separate runway length charts for two subcategories of Large Aircraft up to 60,000 pounds: “75% of Fleet” and “Remaining 25% of Fleet.” The 75% of Fleet aircraft are defined as those requiring less than 5,000 feet of runway at Mean Sea Level (MSL) and the standard day temperature (SDT) of 59°F. The Remaining 25% of Fleet aircraft are defined as those requiring at least 5,000 feet of runway at MSL and the SDT of 59°F, and make up 100% of *Large Aircraft with a MTOW up to and including 60,000 Pounds* when combined with the 75% of Fleet aircraft.

For the purpose of this runway length analysis, the 75% of Fleet subcategory corresponds to the B-II design aircraft, while the Remaining 25% of Fleet subcategory corresponds to aircraft greater than B-II. Typical B-II aircraft that use SZT and fit into this category include the Cessna Citation Excel, Cessna CJ1 and the Cessna Citation V.

There are two performance groups of aircraft within the 75% of Fleet and the Remaining 25% of Aircraft categories: operations at 60% of useful load and operations at 90% of useful load. Useful load is the difference between the empty operating weight of the aircraft and the MTOW of the aircraft, and consists of passengers, crew, cargo, and usable fuel.

Airport elevation, weather conditions, and runway surface conditions influence runway length requirements. The airport elevation of 2,131 feet AMSL and the mean maximum daily temperature of the hottest month of 82°F are applied to the performance charts in AC 150/5325-4B to determine the recommended runway length for each performance group. Results are presented in **Table 3-3**.

<b>Family Grouping</b>	<b>Runway Length (Dry)</b>	<b>Runway Length (Wet)</b>
75% of Fleet at 60% Useful Load	5,100 feet	5,500 feet
75% of Fleet at 90% Useful Load	6,500 feet	7,000 feet
Remaining 25% of Fleet at 60% Useful Load	5,900 feet	5,900 feet*
Remaining 25% of Fleet at 90% Useful Load	8,550 feet	8,550 feet*

Source: AC 150/5325-4B, *Runway Length Requirements for Airport Design*, \*No wet adjustment necessary

Aircraft operator haul length and useful load requirements vary. In general, longer haul lengths require higher useful loads to accommodate the necessary fuel. Based on FlightAware data, 58 percent of haul lengths by Large Aircraft up to 60,000 pounds were less than 500 nautical miles. According to AC 150/5325-4B, the design objective for a primary runway is to “provide a runway length for all airplanes that will regularly use it without causing operational weight restrictions.” The 5,500 foot length shown in **Table 3-3** for the family grouping 75% of Fleet at 60% useful load is the recommended runway length at SZT. This length corresponds to existing B-II design aircraft operations at typical haul lengths of less than 500 nautical miles. This 5,500 foot length is the existing length of SZT’s Runway 1/19, and therefore additional runway length is not expected to be required, and existing length is adequate for airport users.

Runway length requirements for individual design aircraft up to 60,000 pounds MTOW were also investigated to verify that 5,500 feet is the appropriate length for Runway 1/19. Detailed aircraft performance charts are required to determine required lengths at less than MTOW; however such charts were not readily available for the majority of these aircraft that operated at SZT in 2013. Takeoff field length requirements for each aircraft at MTOW were collected from various sources and adjusted for Airport elevation, mean maximum daily temperature of the hottest month, and wet runway surface conditions. The results of this analysis are presented in **Table 3-4**.

<b>Table 3-4: Individual SZT Design Aircraft Runway Length Requirements</b>						
<b>Aircraft Make/Model</b>	<b>Estimated 2012 Operations</b>	<b>Runway Reference Code</b>	<b>MTOW (lbs)</b>	<b>Takeoff Length Requirements</b>		
				<b>Dry, Sea Level, SDT (ft)</b>	<b>Dry, 2131' MSL, 82F (ft)</b>	<b>Wet, 2131' MSL, 82F (ft)</b>
Cessna Citation 1SP	38	B-I	10,600	2,830	3,753	<b>4,316</b>
Cessna Citation CJ1	56	B-II	10,600	3,280	4,349	<b>5,001</b>
Cessna Citation V	16	B-II	16,300	3,385	4,488	<b>5,161</b>
Embraer Phenom 100	30	B-I	10,500	3,400	4,508	<b>5,184</b>
Cessna Citation CJ2	20	B-II	12,375	3,420	4,534	<b>5,214</b>
Cessna Citation Excel	34	B-II	20,200	3,590	4,760	<b>5,474</b>
<b>EXISTING RUNWAY LENGTH AT SZT</b>					<b>5,500</b>	<b>5,500</b>
Beechjet 400	20	C-I	16,100	4,290	6,522	<b>7,500</b>
Cessna Citation X	34	C-II	36,100	5,140	6,813	<b>7,835</b>
Cessna Citation III	38	B-II	21,000	5,150	6,827	<b>7,851</b>
Hawker 800	18	C-II	28,000	5,380	7,131	<b>8,201</b>

Sources: Flightaware; Aircraft Manufacturer Performance Data, Aviation Week & Aerospace Technology, and runway centerline gradient with FAA runway length calculator.

Notes: Required lengths are for aircraft at MTOW. Published takeoff field lengths for dry, sea level, international standard atmosphere (ISA) conditions are adjusted for Airport elevation and mean maximum daily temperature of the hottest month at SZT. This adjusted length is then increased by 15% to determine requirements for wet runway surface conditions.

Runway length calculations are included in **Appendix G**.

Required runway lengths for these individual aircraft range from 4,313 feet to 8,197 feet at MTOW. The average required runway length for these aircraft is 5,369 feet in dry conditions and 6,174 feet in wet conditions. Aircraft requiring less than 5,500 feet of runway length at MTOW are lighter aircraft that are more likely to operate closer to MTOW at SZT; therefore, the lengths listed for these aircraft are representative of their actual operating requirements. Aircraft requiring greater than 5,500 feet of runway length at MTOW are better able to adjust their fuel load to operate on the existing runway length, and in 2012 accounted for less than 200 annual operations at SZT. Based on this analysis, extending Runway 1/19 beyond its existing length is expected to be minimal given the 2012 fleet mix. This concept should be explored in the future should the fleet mix or role of the Airport change. Extending Runway 1/19 beyond 5,500 feet is likely to encourage increased use by larger than B-II aircraft, which cannot be accommodated within FAA design standards on the existing site, described in previous sections of this chapter and illustrated in **Chapter 4**.

Based on balanced consideration of the runway length requirements shown in **Table 3-3** and **Table 3-4**, the existing 5,500-foot runway length at SZT is appropriate for the B-II design aircraft fleet and no extension will be necessary within the 20-year planning period. For aircraft that desire to travel to Northern Idaho with heavier loads, they can be accommodated at Coeur D'Alene Airport (COE) located 46 miles south of Sandpoint and at Spokane International Airport (GEG) which is located 82 miles southwest of Sandpoint.

It is recommended that a runway length of 5,500 feet be maintained.

### **3.3.4 Runway Lighting**

Runway lighting provides guidance to approaching aircraft, and to aircraft maneuvering on the ground. Airfield lighting at SZT includes medium-intensity runway edge lighting (MIRL), with runway end identifier lights (REILs) and two-light precision approach path indicators (PAPIs) on both ends of the runway.

Runway 1/19 does not have an omnidirectional approach lighting system (ODALS). An ODALS is characterized by its effectiveness for providing circling, offset, and straight-in visual guidance for non-precision approach runways. According to AC 150/5300-13A, an approach lighting system is recommended for runways with straight-in instrument approach procedures (IAPs). An IAP is a series of predetermined maneuvers for the orderly transfer of an aircraft under IFR from the beginning of the initial approach to a landing or to a point from which a landing may be made visually. As discussed previously, this Master Plan effort includes an airport airspace analysis that will provide FAA flight procedures staff with the ability to evaluate whether a straight-in non-precision IAP is viable.

It is recommended that the Airport consider installing an ODALS should a straight-in IAP become viable, and the decision height of this IAP is low enough to allow for reduced visual minimums with the addition of an ODALS.

### 3.4 Taxiways and Taxilanes

Taxiways and taxilanes provide access between runways and aircraft parking and storage areas. Taxiways require careful planning for optimum airport utility and minimal delays. Taxiway design is driven by the critical aircraft expected to use the taxiway. The taxiway system should provide a smooth flow with a minimum number of turn points that require a change in taxi speed.

The eastside taxiway extends from Runway End 1 to the northeast, stopping 900 feet before Runway End 19. The eastside taxiway has four connector taxiways that provide access to Runway 1/19. There are three connector taxiways on the west side of Runway 1/19 that provide access to off-airport development. On the southeast side of the Airport there are several taxilanes that provide access to the parking apron and aircraft storage.

There are locations where the existing taxiway system presents operational issues. These concerns are primarily associated with the following issues.

- Geometric design criteria
- Aircraft back-taxiing on Runway 1/19
- Access to aircraft storage

#### 3.4.1 Geometric Taxiway Design Criteria

Taxiway design standards are set by the critical aircraft taxiway design group (TDG). Taxiway design standards associated with TDG 2 and 3 aircraft are presented in **Table 3-5**.

Taxiway Design Group	Existing	2	3
Representative Aircraft		Citation Excel	Citation X
Taxiway Width	30 feet	35 feet	50 feet
Are Taxiways In Compliance?		No	No
Taxiway Shoulder Width	10 feet	10 feet	20 feet
Are Taxiways In Compliance?		Yes	No
TSA Width	79 feet	79 feet	79 feet
Are Taxiways In Compliance?		Yes	Yes
TOFA Width	110 feet	131 feet	131 feet
Are Taxiways In Compliance?		No	No
<i>Source: AC 150/5300-13A Airport Design</i>			
TSA: Taxiway Safety Area TOFA: Taxiway Object Free Area			

As shown in **Table 3-5**, the existing eastside taxiway does not meet TDG 2 and 3 standards. It is recommended that the taxiway improvements meet TDG 2 standards, as this TDG is most commonly associated with B-II aircraft. Taxiway system alternatives are discussed in **Chapter 4, Improvement Alternatives**.

### **3.4.2 Aircraft Back-Taxiing on Runway 1/19**

As shown in **Table 3-5**, the eastside partial parallel taxiway does not meet TOFA width requirements. Similar to the ROFA discussed earlier in this chapter, the TOFA clearance standard increases the safety of maneuvering aircraft by clearing the area around the taxiway of objects except those that are necessary for air navigation and ground maneuvering purposes. A sign at the eastside taxiway entrance at SZT recommends a 51 foot maximum wing span. This is due to trees and the airport fence located alongside the eastside taxiway. The ADG II aircraft has a maximum wingspan of 79 feet. Aircraft that exceed the 51 foot maximum wingspan back-taxi on Runway 1/19. Back-taxiing is a ground procedure that uses the runway as a taxiway in the opposite direction an aircraft has landed or is preparing to takeoff. While back-taxi accidents are rare, this ground maneuver increases runway occupancy time and decreases airport capacity.

It is recommended that the Airport construct a full-length parallel taxiway on at least one side of Runway 1/19 to keep aircraft from having to back-taxi.

### **3.4.3 Access to Aircraft Storage Facilities**

There is a taxilane running parallel to Industrial Drive which provides access to the planned Executive Row hangars on the southeast side of the Airport. The separation of the centerline of this taxilane from the 12-unit Piper T-hangar is 39.5 feet, which meets the ADG I centerline to fixed object standard. This separation will limit development opportunities in this area if not increased to at least the ADG II standard of 57.5 feet. There are wingtip clearance issues on the terminal apron that limit the ability of jet aircraft to power in and out from the parking positions.

It is recommended that future development of taxilanes, aprons, and hangars planned for use by larger than ADG I aircraft consider wingtip clearance needs of ADG II aircraft.

## **3.5 Aircraft Parking and Storage**

Demand for aircraft parking and storage space is typically related to the local climate, fleet mix, and number of based and itinerant aircraft. Areas with more severe weather conditions, such as the winter in Sandpoint, have a higher demand for hangar storage as aircraft owners generally prefer enclosed storage. The following sections describes requirements for aircraft parking and storage at SZT.

### **3.5.1 Apron Requirements**

There are two aircraft parking aprons at SZT. Both are located on the southeast side of the Airport. The terminal apron is located between the eastside taxiway and the FBO, and consists of 161,000 square feet (3.7 acres). The secondary apron is located to the southwest of the terminal apron, and consists of 145,000 square feet (approximately 3.3 acres). 65,000 square feet (1.5 acres) of the secondary apron are currently unusable for aircraft parking and maneuvering due to conflict with the departure surface on Runway End 1. The departure surface is a 40:1 foot sloped protection surface that starts at the runway end. Thus, the Airport currently has 306,000 total square feet of apron, of which, 241,000 square feet is available for aircraft parking and maneuvering.

The Airport has 29 usable aircraft tie-downs on its two aprons, 12 of which are on the terminal apron and 17 of which are on the secondary apron. The Airport previously had 65 usable aircraft tie-downs, and recently lost the use of 14 tie-downs on the terminal apron due to design standard deficiencies, and lost 22 tie-downs on the secondary apron due to the aforementioned Runway End 1 departure surface.

Based on discussion with the Airport's FBO, ramp space, tie-downs, and covered parking are currently limited and an increase in capacity to cope with peak aircraft parking and maneuvering requirements is required. Based on the operational characteristics of itinerant and based aircraft at SZT, this Master Plan uses a factor of 0.5 tie-downs per based aircraft and 2,500 square feet of apron space per based aircraft to forecast future needs for these facilities. These metrics are based on the existing ratios of tie-downs per based aircraft and square feet of apron space per based aircraft at SZT. Tie-down and apron space requirement forecasts are presented in **Table 3-6**.

<b>Year</b>	<b>Based Aircraft Forecast</b>	<b>Recommended Tie-down Spaces</b>	<b>Required Total Apron (Square Feet)</b>
Existing	97	29 <sup>1</sup>	242,500
2017	106	53	265,000
2022	115	58	287,500
2027	126	63	315,000
2032	137	69	342,500

1: 49 tie-downs are recommended for the existing number of based aircraft.

The tie-down space forecast presented in **Table 3-6** indicates that SZT currently has a deficiency of 20 tie-downs, which limits the operational efficiency and utility of the Airport for based and transient users. The forecast indicates that the Airport should consider providing 20 more tie-downs in the near-term, and 40 additional tie-downs within the 20-year planning period for a total of 69 tie-down spaces. The apron space forecast in **Table 3-6** indicates that SZT should add 101,500 square feet of apron space to the total existing 241,000 usable square feet within the 20-year planning period, for a total of 342,500 square feet of apron.

An airspace analysis was conducted for the Runway End 1 departure surface as part of the Master Plan. The southeast apron has been closed due to conflict with the 40:1 departure surface. Airport stakeholders have indicated that tie-down spaces should be increased to similar levels to before the closure of the southeast apron. The Airport initiated coordination with the FAA to determine if raising this surface by 35 feet will allow for the reopening of the southeast apron. Potential property to be acquired for apron and tie-down space is discussed in **Section 4.7.2**.

### 3.5.2 Hangar Requirements

Based aircraft that do not use tie-downs are stored in box hangars and T-hangars. On-airport hangars are located east of the parking aprons on the southeast corner of the Airport. There are off-airport hangars located on both sides of Runway 1/19 that require through-the-fence access. Transient aircraft park in tie-down spaces or in available hangars.

The FBO has indicated that during the winter there is not adequate hangar storage available for transient aircraft requiring temporary hangar space, and that existing hangars door sizes are not large enough. The largest doors are 60 feet wide. Potential hangar developers have indicated that the door widths for jet hangars should be at least 100 feet to accommodate multiple aircraft and occasional larger jets. The access taxilane to the planned Executive Row development along Industrial Drive lacks sufficient wingtip clearance for ADG II aircraft.

It is recommended that consideration should be given to improving Executive Row to accommodate ADG II aircraft.

Hangar development is driven by aircraft operator preference; therefore, facility requirements serve to identify and protect property for future development. In 2012, SZT had 97 based aircraft stored in on-airport and off-airport hangars. As of 2013, occupancy of these facilities were as follows.

- 35 aircraft (36 percent of total based aircraft) stored in 15 on-airport box hangars. Each on-airport box hangar houses an average of 2.3 aircraft.
- 20 aircraft (21 percent of total based aircraft) stored in 22 on-airport T-hangar units, with two T-hangar units currently unoccupied.
- 29 aircraft (30 percent of total based aircraft) stored in 20 off-airport box hangars. Each off-airport box hangar houses an average of 1.5 aircraft.
- 10 aircraft (10 percent of total based aircraft) stored in ten off-airport T-hangar units.
- Two aircraft (2 percent of total based aircraft) using on-airport tie-downs.
- One aircraft (1 percent of total based aircraft) stored in a residential building at the Silverwing development.

Existing ratios of hangars per based aircraft, as well as existing ratios of on-Airport to off-Airport hangars, were applied to the preferred based aircraft forecast to determine future hangar requirements at SZT. Due to the low occupancy of tie-downs and SilverWing residences by based aircraft, this forecast does not consider requirements for these types of facilities. It is expected that forecasting hangar requirements in this manner will help SZT accommodate future aviation activity. The hangar requirement forecast is presented in **Table 3-7**.

<b>Table 3-7: Aircraft Hangar Requirements Forecast</b>					
<b>Year</b>	<b>Based Aircraft</b>	<b>On-Airport</b>		<b>Off-Airport</b>	
		<b>Box Hangars</b>	<b>T-Hangars</b>	<b>Box Hangars</b>	<b>T-Hangars</b>
Existing	97	15	22	20	10
2017	106	16	24	22	11
2022	115	18	26	24	12
2027	126	19	29	26	13
2032	137	21	32	28	14

Based on the hangar requirements forecast presented in **Table 3-7**, it is recommended that SZT add at least six on-Airport box hangars and at least 10 on-Airport T-hangar units within the 20-year planning period. The hangar requirements forecast indicates projected demand for eight additional off-Airport box hangars and 14 additional off-Airport T-hangar units. It is recommended that the Airport consider accommodating the projected off-airport needs on airport property if future tenants wish to locate on-airport. It is recommended that the Airport look into the useful life of the existing hangars to determine when they will need to be replaced, and consider replacing via moving hangars onto airport property.

### **3.6 Navigational Aids and Procedures**

Navigational aids (NAVAIDs) provide guidance to pilots during flight preparation and operation, and support aircraft visibility, navigation, and safety. The type and number of NAVAIDs required at an airport is determined by the type and volume of aviation activity, airspace surrounding the airport, meteorological conditions, and operational needs. NAVAIDs assist in development and execution of instrument procedures. The following sections describe the existing NAVAIDs and flight procedures at SZT, and related considerations to be taken into account in development of improvement alternatives for this Master Plan.

#### **3.6.1 NAVAIDS**

The Airport has a localizer antenna array (LOC) and distance measuring equipment (DME) located beyond Runway End 19 that provides enhanced approach capability during periods of low visibility. This equipment is referred to by FAA procedure publications as the RWY 1 LOC/DME, or RPO LOC. This equipment is unusable beyond one nautical mile from the Runway End1 threshold due to high terrain in the vicinity of the Airport. This terrain makes it so that publication of a straight-in IAP to Runway End 1 is not allowed. As of September 2013, the RPO LOC is out of commission due to a runway excursion that involved impact to the equipment. The LOC is due to be replaced in 2014.

A non-directional beacon (NDB) is used for location finding and the RPO LOC missed approach, and is located on southeast corner of Airport. The NDB has limited functionality because of terrain near the Airport. It is unusable by aircraft 0° to 170° east of magnetic north beyond 15 nautical miles; 170° to 200° east of magnetic north beyond 20 nautical miles; and by aircraft 200° to 360° east of magnetic north.

Additional ground-based NAVAIDs would marginally improve accessibility of the Airport, and would require equipment investments that may not be eligible for FAA funding. It is expected that satellite-based navigation will provide similar or enhanced benefit to procedure development without the need for additional ground-based equipment.

#### **3.6.2 Approach Procedures**

As of April 2014, SZT has two circling IAPs. The first circling approach is the LOC/DME-A approach, which has a decision height of 989 feet above touchdown zone elevation (TDZE) and provides instrument approach capability down to 1 ¼ mile visibility for Category A aircraft, 1 ½ mile visibility for B aircraft, and 3 mile visibility for C and D aircraft. The second circling approach is the RNAV/GPS-B approach, which has a decision height of 1,589 feet above TDZE and provides instrument approach capability down to 1 ¼ mile visibility for A aircraft, 1 ½ mile visibility for B aircraft, and 3 mile visibility for C aircraft. The RNAV/GPS-B approach is not available for use by Category D aircraft.

A straight-in IAP would improve airport access to either end of Runway 1/19, and the utility and accessibility of the airfield during periods of inclement weather and at night. The FAA's ability to implement a straight-in IAP is limited by terrain on either end of Runway 1/19, as well as structures surrounding Runway End 19. Satellite-based approach procedures have advanced to the point where they can provide performance comparable to traditional ground-based IAPs. Given terrain and infrastructure limitations at the existing Airport site, as well as cost savings associated with reduced ground-based equipment requirements, it is recommended that the Airport and the FAA consider satellite-based procedures.

Implementation of a straight-in IAP has the potential to enlarge the size of the RPZ should visibility minimums drop below one statute mile. A larger RPZ will encompass land uses considered incompatible by FAA guidance, and mitigation measures may be required to meet FAA guidelines. Land use compatibility considerations associated with improved approach capabilities are discussed in **Chapter 4**.

### 3.6.3 Departure Procedures

Departure procedures (DPs) are conducted according to runway end-specific procedures published by the FAA. DPs prescribe minimum visibility and cloud ceiling conditions for instrument aircraft departures; minimum aircraft climb gradients for avoiding obstacles; and climb headings and directions once airborne. DPs are published when standard minimum climb gradients and straight-out departures are prevented by obstacles in the departure environment.

Departure minimums from Runway End 1 are two statute miles of visibility and a 4,200-foot cloud ceiling, or standard minimums when using a 520-foot per nautical mile (NM) climb gradient. Departure minimums from Runway End 19 are two statute miles of visibility and a 2,200-foot cloud ceiling, or standard minimums when using a 480-foot per NM climb gradient. Departures from Runway End 19 require a climbing left turn to avoid terrain, while departures from Runway End 1 require a climbing right turn to avoid terrain.

It is recommended that the Airport work with surrounding communities to avoid development that may raise departure climb gradients beyond existing levels.

## 3.7 Airport Property

Efficient use of airport property is a balance runways, taxiways, parking aprons and design surfaces, and structures, tenant land uses, and on-airport businesses. Airports are challenged to find a way to best develop their property so that they meet the needs of the aviation community

It is desirable for an airport to control its RPZs. Eight acres of the Runway End 1 RPZ and seven acres for Runway End 19 RPZ are over land that is not controlled by the Airport. Moving runway endpoints requires a comprehensive review of land uses within the RPZ following the FAA's *Interim Guidance on Land Uses within a Runway Protection Zone*, dated September 27, 2012. The purpose of this review is to inventory incompatible land uses within the RPZs, including buildings, public roads, and railroads, and evaluate alternatives to remove them from the RPZs. Land use compatibilities in RPZs is discussed in more detail in **Chapter 4, Improvement Alternatives** and **Chapter 5, Planning for Compliance**.

### **3.8 Through-The-Fence**

Due to the Airport's unique "Through-the-Fence" (TTF) operations, special consideration should be given to these types of operations in development of improvement alternatives. Several operators are currently based at SZT largely due to the flexibility and convenience that the TTF operating environment provides. It is recommended that the Airport review future TTF agreements to conform with FAA TTF policy, and work with existing based TTF operators as leases come up for renewal.

In 2013, the Airport sponsor, in coordination with local economic development officials, began considering development of an aviation-related commercial and industrial business park at the Airport. The business park would provide a "one-stop shop" for business aircraft operators, including services such as winglet outfitting, interior and exterior aircraft customization, and other services related to aircraft maintenance, repair, and operation (MRO). This business development is planned to occur in hangars along Industrial Drive, within the existing airport property boundary.

### **3.9 Support Facilities**

Support facilities provide ground access and services to airport operators that allow for safe and efficient operation of the Airport. This sections describe requirements associated with the following support facilities.

- Ground Vehicle Access and Parking
- Fixed Base Operator (FBO) Facilities
- Deicing Facilities
- Maintenance and Snow Removal Equipment (SRE) Facilities
- Aircraft Fueling Facilities

#### **3.9.1 Ground Vehicle Access and Parking**

Primary access to SZT is from surface streets that connect to US Highway 95. It is recommended that airport improvements consider the impact additional traffic may have on the surface streets that link the Airport to the rest of the community. North Boyer Avenue, which parallels Runway 1/19 along its northeastern edge, will prevent the future construction of a full parallel taxiway to the east of the runway. A bicycle path is planned along this section of North Boyer Avenue, and a roundabout is planned at the intersection of North Boyer Avenue and Schweitzer Cutoff Road. Impacts to these planned projects should be considered during evaluation of improvement alternatives.

The City of Sandpoint owns an undeveloped 60-foot wide right-of-way (ROW) for the extension of Ebbett Road immediately south of Runway End 1. The City of Sandpoint has indicated that there is interest in discussing swapping this ROW with property owners located on Baldy Park Road south of the Burlington Northern Santa Fe Railroad. Due to the location of the RPZ above this ROW, it is recommend that the Airport purchase this ROW so that its future development does not introduce an incompatible land use.

There are 29 universal automobile parking spaces and two accessible automobile parking spaces on Airport property. Future parking requirements will be largely based on aircraft activity and airport tenant needs, therefore future vehicle parking requirements were forecasted using the same 1.75% annual growth rate as the preferred aircraft operations forecast. It is expected that future tenants will determine their own parking needs based on the nature of their business, in line with local zoning requirements. Airport-provided parking is not expected to be necessary; however, future requirements are shown to help estimate space required as development is planned. The automobile parking requirements forecast is presented in **Table 3-8**.

<b>Year</b>	<b>Universal Spaces</b>	<b>Accessible Spaces</b>
2012	29	2
2017	32	2
2022	34	2
2027	38	3
2032	41	3

### **3.9.2 Airport Tenants**

A second FBO building began construction in 2013 at the southwest corner of Airport Way and Industrial Drive. The owner, Granite Aviation, purchased former FBO SilverWing Aviation in late 2013. It is expected that one FBO will be sufficient for aviation activity demands for the 20-year planning period.

The Airport is interested in future cargo operator requirements in the event that an air cargo carrier were to provide service to SZT. Given typical cargo carrier operations at airports like SZT, a cargo processing and sorting would likely occur at a remote facility and an on-airport facility would not be required. The Airport should reserve apron space that will allow parking, maneuvering, and loading of cargo aircraft. Based on the size of the regional economy and current cargo carrier trends, the most likely type of cargo aircraft to serve SZT is the Cessna Caravan 208 with feeder service to Spokane International or Seattle-Tacoma International. The Airport should reserve apron space that meet the dimensional and operational characteristics for a Cessna Caravan 208.

The Airport has interest in hosting a U.S. Customs and Border Patrol (CBP) station to accommodate international arrivals. CBP will require either be a standalone facility or space within a general aviation terminal building. For a general aviation airport such as SZT, the facility should be immediately accessible from the aircraft parking apron and be sized to accommodate screening for a minimum of 20 passengers and their baggage. It is estimated that a CBP station at SZT would require between 4,000 and 5,000 square feet of interior space to accommodate passenger waiting and processing areas, CBP offices and equipment, utilities, circulation, and ancillary uses. Coordination with the Department of Homeland Security (DHS) during schematic design would provide actual space requirements. A CBP station requires an uninterrupted power source with back-up generation, as CBP operations must have continuous access to federal databases and closed circuit surveillance. To seek approval for a CBP station, the Airport must submit a request to DHS that includes number and frequency of international flights, expected originating countries of passengers, expected passenger loads, and a feasibility study.

### **3.9.3 Deicing Facilities**

Alternatives presented in subsequent chapters of this Master Plan will have implications for the adequacy of the existing deicing runoff management system. FBO Granite Aviation provides aircraft deicing services. Surface flow of deicing chemical should be analyzed during development of landside improvement alternatives, and ground taxi time and takeoff clearances should be reviewed for deicing chemical effectiveness.

### **3.9.4 Maintenance and Snow Removal Equipment (SRE) Facilities**

SZT has an annual average snowfall of 70.3 inches. The airfield must be kept clear of snow and ice during weather events to maintain a safe and efficient operating environment. The Airport updates its Snow and Ice Control Plan annually to identify practices and procedures for snow event planning, personnel training, weather monitoring, communications, and snow and ice control, removal, and disposal.

According to the Airport's Snow and Ice Control Plan for the 2013-2014 winter season, the Airport currently owns and maintains the following snow removal equipment (SRE).

- 1986 Ford F9000 plow truck (poor condition)
- KODIAK loader mounted blower (fair condition)
- John Deere 624J loader (good condition)
- Power Broom (good condition)
- Loader mounted box plow (new)

It is recommended that the Airport budget for replacement of SRE vehicles and equipment as they reach the end of their useful lives. Such equipment should be housed in a heated building to prolong useful life and enable rapid response to snow events. Facilities should be available within the building for equipment maintenance and repair.

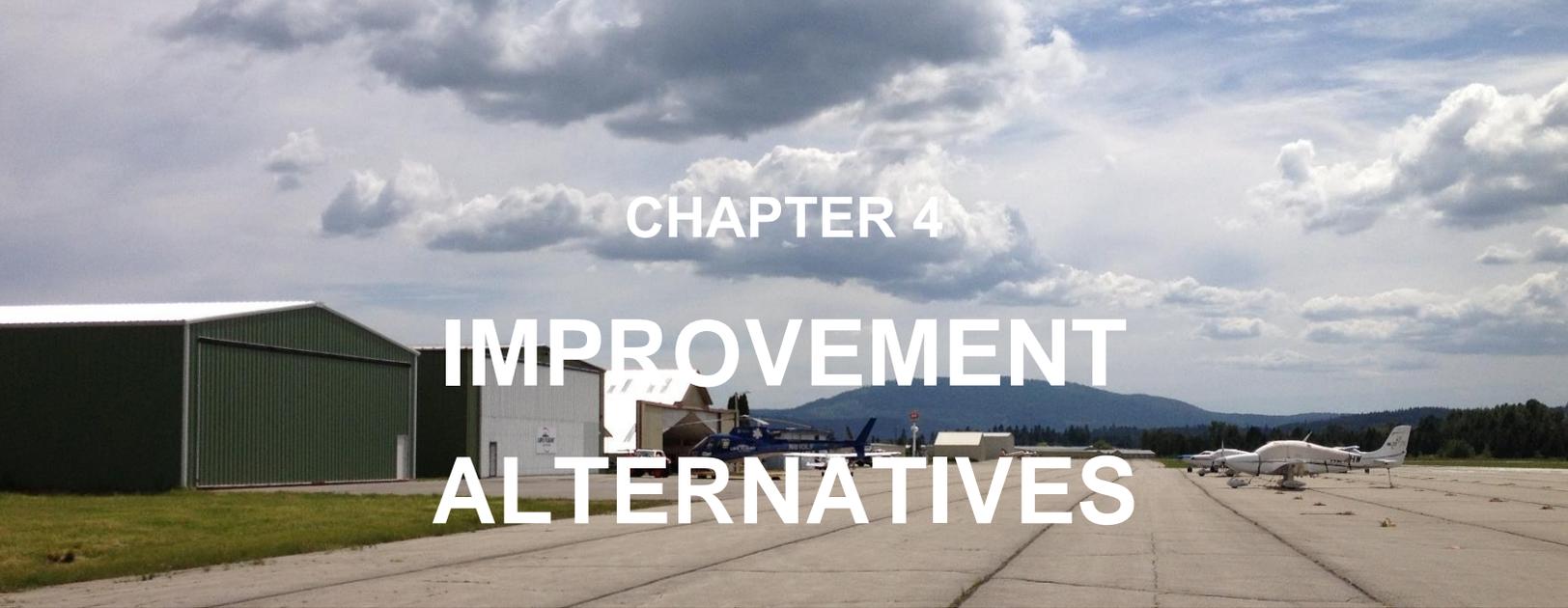
### **3.9.5 Aircraft Fueling Facilities**

There are two 12,000 gallon fuel tanks at SZT; one stores 100 low lead (100LL) and the other stores Jet A. Fuel pumps are attended during business hours, and self-serve is available 24-hours per day. These fuel tanks provide adequate capacity for current activity at the Airport. It is recommended that the Airport coordinate with the FBO to determine adequacy of existing fuel storage as demand increases.

### 3.10 Facility Requirements Summary

This section presents a summary of facility improvements identified for development or in need of additional study within the 20-year planning period. It is recommended that:

- Runway 1/19 and associated taxiways be brought into compliance with B-II design standards for ROFA, runway centerline to taxiway centerline separation, runway centerline to holdline separation, runway centerline to aircraft parking separation, taxiway width, and TOFA.
- The existing runway length be maintained.
- The Airport have at least one full length parallel taxiway.
- Runway 1/19 be evaluated for a straight-in IAP. Depending on minimums possible, the Airport may want to consider installing an ODALS.
- Future taxiways and taxilanes are designed to meet B-II standards.
- Aircraft storage layouts satisfy 20-year needs identified by the aircraft activity forecasts.
- The Airport control property within the RSA, ROFA, TSA, and TOFA. Consideration should also be given to acquiring land within the RPZs.
- The Airport provide continued through-the-fence access while conforming to FAA TTF policy; and identifying potential viable locations for an aviation-related Airport business park.
- Ultimate airfield build-out provide for required support facilities including ground vehicle access and parking; FBO facilities; airport maintenance, snow removal, and deicing facilities.



## CHAPTER 4

# IMPROVEMENT ALTERNATIVES

This chapter evaluates improvement alternatives to meet the facility requirements, discussed in **Chapter 3**, at the Sandpoint Municipal Airport (SZT or “the Airport”). Improvement alternatives primarily focus on alternatives for reconfiguring the runway and taxiway system. The runway and taxiway configuration will drive the scale and location of other improvement alternatives. This chapter recommends preferred Master Plan alternatives which are carried forward to the airport layout plan (ALP).

This chapter is organized into the following sections.

- Evaluation Criteria
- Airside Alternatives
- Alternative Evaluation
- Airside Facilities
- Landside Facilities
- Support Facilities
- Airport Property
- Summary

## 4.1 Evaluation Criteria

Airport improvement projects require coordination with the FAA, national and state permitting agencies, local governments, airport users and tenants, neighbors, and the public. Airport development alternatives are evaluated based on the following criteria.

- Safe and efficient movement of aircraft in the air and on the ground, in line with the Airport's development vision, are the primary objectives of improvement alternatives. Safety is evaluated by checking for compliance with FAA design standards using Aircraft Reference Code (ARC) B-II for the critical aircraft. Efficiency is evaluated using FAA and industry best practices, and consulting airport users through public outreach.
- Alternatives are evaluated for compatibility with the existing airfield layout, aircraft operating patterns, and improvement project construction phasing. Potential for expansion beyond the 20-year planning horizon is also considered.
- Accessibility and convenience for airport uses, tenants, and employees are evaluated. Accessibility and convenience affect public perception of SZT, and may influence operational efficiency.
- Preliminary environmental screening is conducted to identify natural and manmade resources that would be negatively affected. Field survey is not performed. Preferred improvement projects will require assessment pursuant to the regulations in the National Environmental Policy Act prior to implementation. This analysis is not included as part of this Master Plan.
- Some improvement alternatives require property beyond the existing airport boundary. Property acquisition necessary to implement improvement alternatives is identified. Property called out for acquisition assumes that the existing property owners are willing to sell to Bonner County, and does not imply use of alternative land acquisition practices.
- Alternatives include perimeter fencing and access control to keep the airfield secure, and deter large wildlife from crossing the property.

Alternatives are not evaluated based on cost or construction feasibility during the initial screening. While these elements are important, they come after meeting the chief concerns described above.

## 4.2 Airside Alternatives

Airside alternatives consider the runway, taxiways, and aircraft parking aprons. Runway 1/19 does not meet FAA design standards for runway and taxiway separation as described in **Chapter 3**. Improvement alternatives modify the location of the runway or taxiways to meet FAA design standards. These alternatives have effect on aircraft parking aprons, hangars, and public roadways, and private property adjacent to the Airport.

An initial set of nine airside alternatives were developed for the Master Plan. After discussion with the Airport Sponsor and the FAA, five of these alternatives were dismissed from further consideration (see **Appendix H**, Dismissed Alternatives). The remaining four airside alternatives preserve the existing runway length of 5,500 feet and the runway width of 75 feet. The four alternatives include a wildlife fence around the Airport, and each alternative assumes that the runway will be reconstructed, due to the condition of existing pavement, even if it remains in place.

**Chapter 2** and **Chapter 3** identified ARC B-II aircraft as the critical design aircraft at SZT, or the most demanding aircraft that operate at SZT on a regular basis. The existing airfield is not compliant with some FAA design standards for B-II aircraft, as described in AC 150/5300-13A, *Airport Design*. Improvement alternatives will address non-standard conditions with the ultimate goal of bringing the airfield into compliance. Existing non-standard conditions are described in **Table 4-1**.

<b>Table 4-1: Runway Design Standard Differences for Runway Design Code B-II</b>		
<b>Runway Design Code</b>	<b>Existing Conditions</b>	<b>B-II</b>
<b>Representative Aircraft</b>		<b>Citation Excel</b>
Runway Width	75 feet	75 feet
Is Runway 1/19 In Compliance?		<b>Yes</b>
Shoulder Width	10 feet	10 feet
Is Runway 1/19 In Compliance?		<b>Yes</b>
Runway OFZ Width and Length <sup>1</sup>		400 x 200 feet
Is Runway 1/19 In Compliance?		<b>Yes</b>
RSA and Length <sup>1</sup>		150 x 300 feet
Is Runway 1/19 In Compliance?		<b>Yes</b>
ROFA Width and Length <sup>1</sup>		500 x 300 feet
Is Runway 1/19 In Compliance?		<b>No</b>
Centerline to Taxiway Centerline	200 feet	240 feet
Is Runway 1/19 In Compliance?		<b>No</b>
Centerline to Aircraft Parking Area	250 feet	250 feet
Is Runway 1/19 In Compliance?		<b>Yes</b>
Centerline to Holdline	185 feet	200 feet
Is Runway 1/19 In Compliance?		<b>No</b>
Crosswind Component		13 knots
Is Runway 1/19 In Compliance?		<b>Yes</b>
RPZ Dimensions		1,000 x 500 x 700 feet
Does Airport own RPZ property?		<b>No</b>
1. Length beyond Runway End. 2. Distance from Runway Centerline		
Design standards shown are for existing approach minimums of one statute mile or greater. More demanding standards may apply if approach minimums of less than one statute mile are implemented.		
OFZ: Obstacle Free Zone RSA: Runway Safety Area ROFA: Runway Object Free Area RPZ: Runway Protection Zone		

#### 4.2.1 Airside Alternative 1

Alternative 1 relocates Runway 1/19 by shifting it 60 feet towards the west, the minimum distance necessary so that the proposed eastside taxiway object free area (TOFA) is clear of North Boyer Avenue and neighboring eastside properties. The proposed taxiway system includes full length parallel taxiways on both sides of the runway. The taxiway centerlines are 240 feet from the runway centerline to meet design standards for B-II aircraft.

Although the TOFA is clear of North Boyer Avenue, Alternative 1 may require a realignment of North Boyer Avenue on the north side of the Airport to move it outside of the relocated Runway Protection Zone (RPZ). Relocation of the runway end triggers a FAA mandated analysis of land use within the RPZ. A relocation of North Boyer Avenue to the east will require a new crossing of Sand Creek, which is a sensitive wetland area. It is anticipated that this will have environmental impacts that will require mitigation.

Alternative 1 may require the purchase and removal of nine privately owned hangars which would be encroached upon by the westside TOFA, and nine residential lots outside of airport property. These hangars could be relocated to another location. To implement Alternative 1, it is expected that the Airport would need to acquire property or easements of 8 acres for the Runway End 01 RPZ, 7 acres for the Runway End 19 RPZ, and 18 acres for the shifted Runway Object Free Area (ROFA), taxiways, and TOFA.

Airside Alternative 1 is shown in **Figure 4-1**

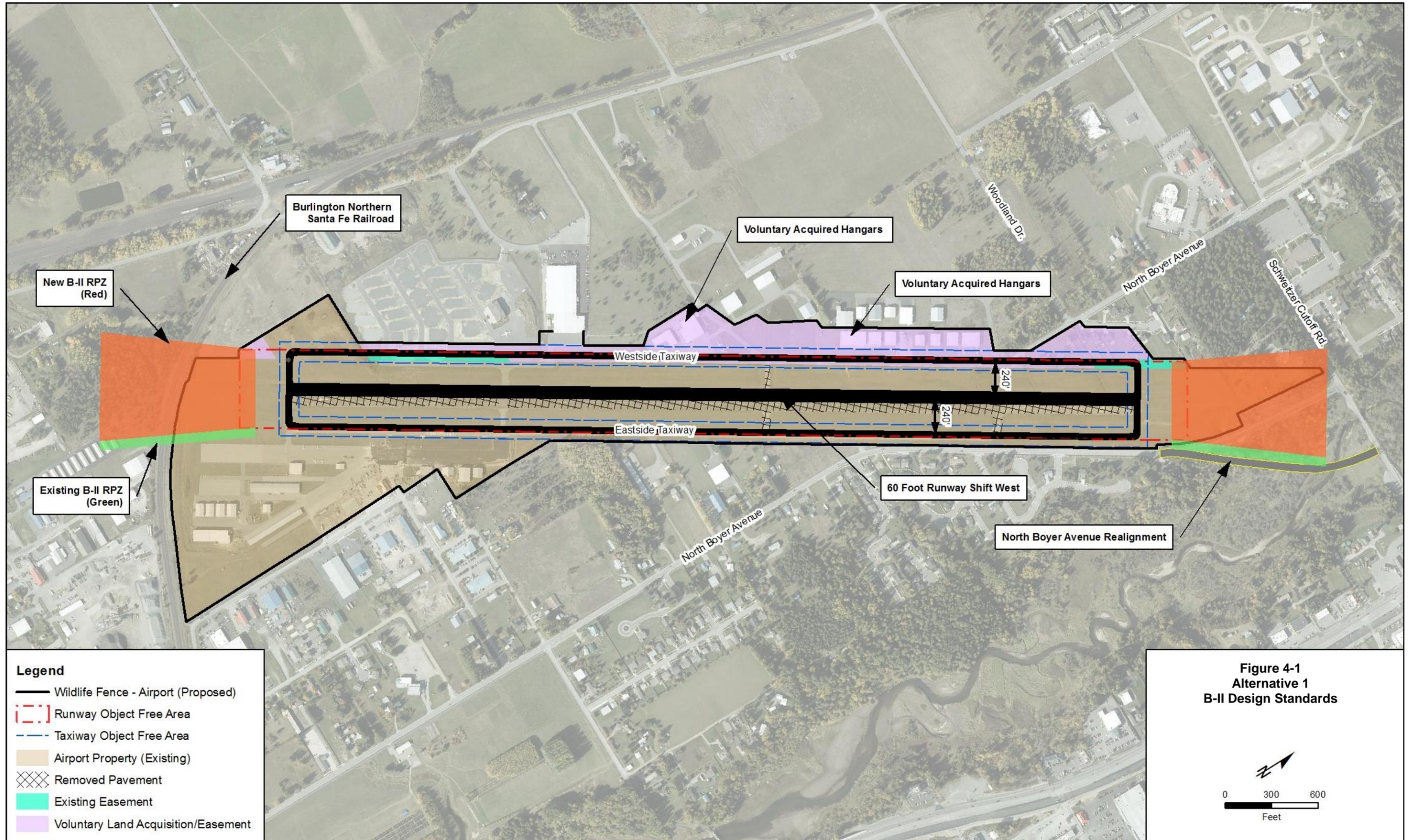
#### 4.2.2 Airside Alternative 2

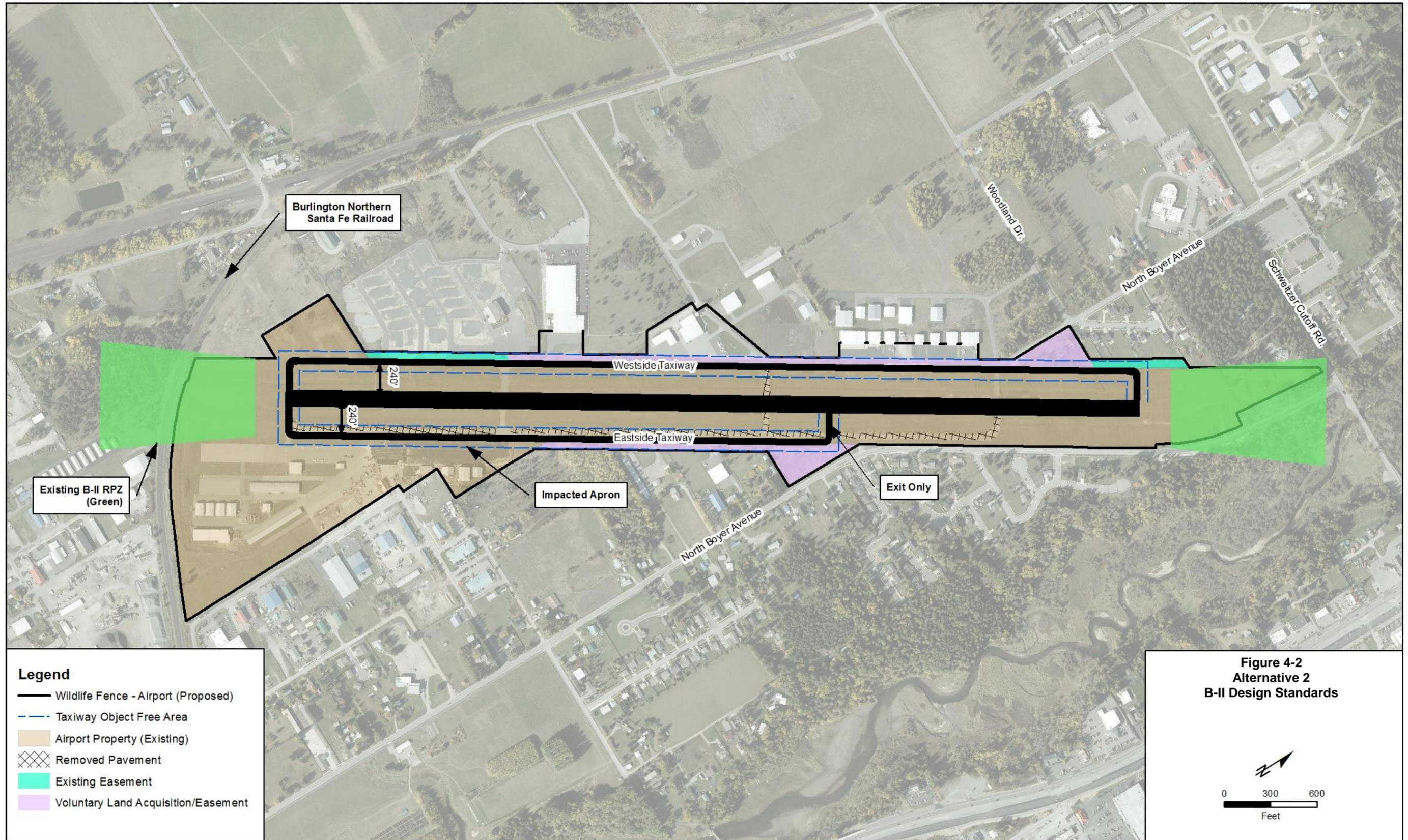
Alternative 2 leaves Runway 1/19 in its existing location. The proposed taxiway system includes a full length westside parallel taxiway and a partial length eastside parallel taxiway. Both taxiways would be separated 240 feet from the runway centerline to the corresponding taxiway centerline to meet design standards for B-II aircraft.

The eastside taxiway is currently a 4,500 foot partial length parallel taxiway starting at Runway End 01. By reducing the taxiway length to 3,500 feet, the conflict of the eastside TOFA with North Boyer Avenue and the residential properties is removed. The eastside taxiway does not provide aircraft access to Runway End 19. Aircraft seeking to reach Runway End 19 from the eastside of the airfield must cross at Runway End 1 and taxi on the westside taxiway. It is recommended for the eastside taxiway to be used only as an exit taxiway from Runway 01/19.

To implement Alternative 2, it is expected that the Airport would need to acquire property or easements of 8 acres for the Runway End 01 RPZ, 7 acres for the Runway End 19 RPZ, and 13 acres for the new taxiways and TOFA.

Airside Alternative 2 is shown in **Figure 4-2**.





### 4.2.3 Airside Alternative 3

Alternative 3 leaves Runway 1/19 in its existing location. The proposed taxiway system includes full length parallel taxiways on both sides of the runway, separated by 240 feet from the runway centerline to the taxiway centerline. This separation meets design standards for B-II aircraft.

Alternative 3 requires realignment of North Boyer Avenue on the northeast side of the Airport to move it out of the ROFA and TOFA. This shift will push North Boyer Avenue into the adjacent residential development, impacting properties. Alternative 3 will require the acquisition of 11 residential lots. A relocation of North Boyer Avenue to the east will require a new crossing of Sand Creek, which is a sensitive wetland area. It is anticipated that this will have environmental impacts that will require mitigation.

To implement Alternative 3, it is expected that the Airport would need to acquire property or easements of 8 acres for the Runway End 01 RPZ, 7 acres for the Runway End 19 RPZ, and 16 additional acres for the new taxiways and TOFA.

Airside Alternative 3 is shown in **Figure 4-3**

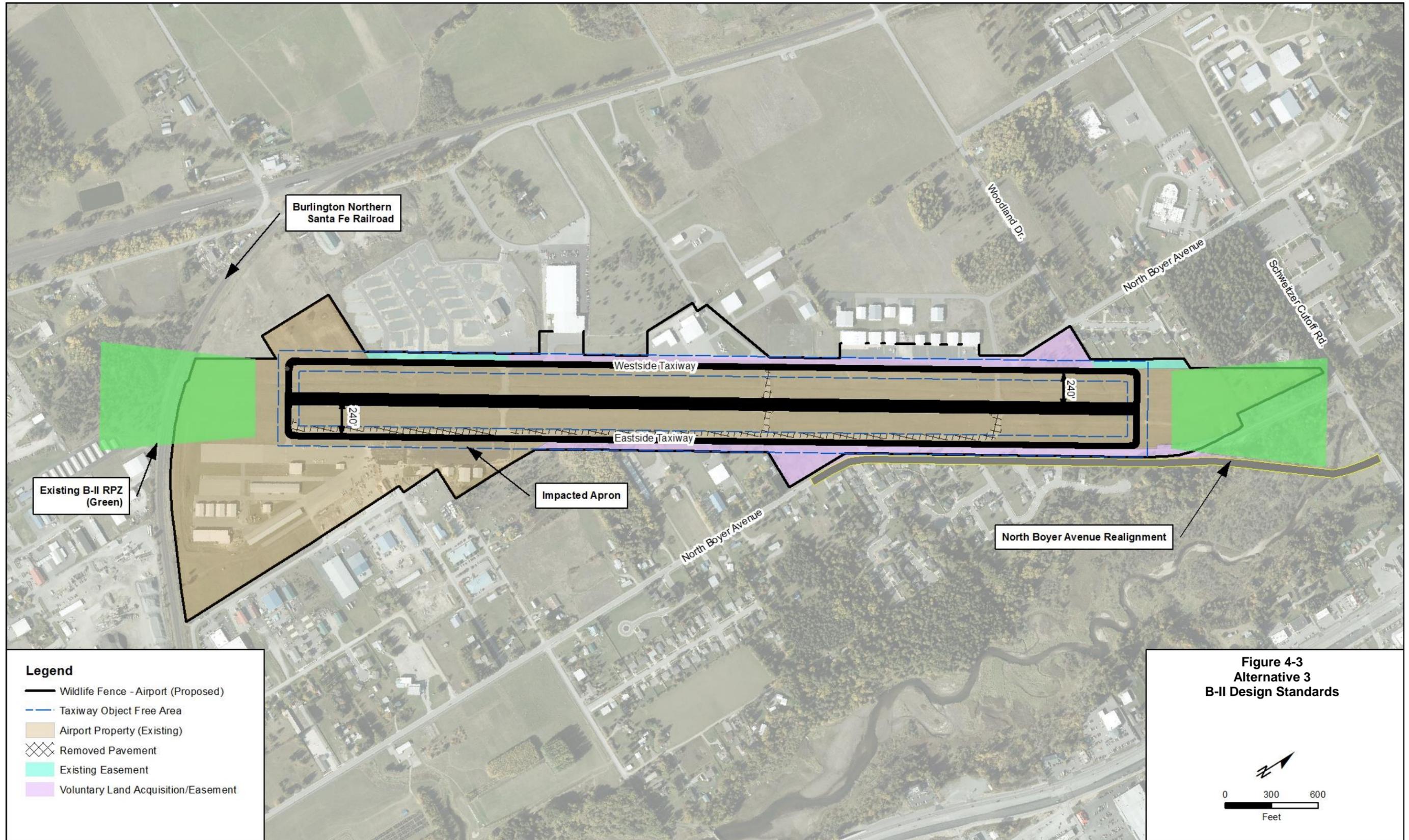
### 4.2.4 Airside Alternative 4

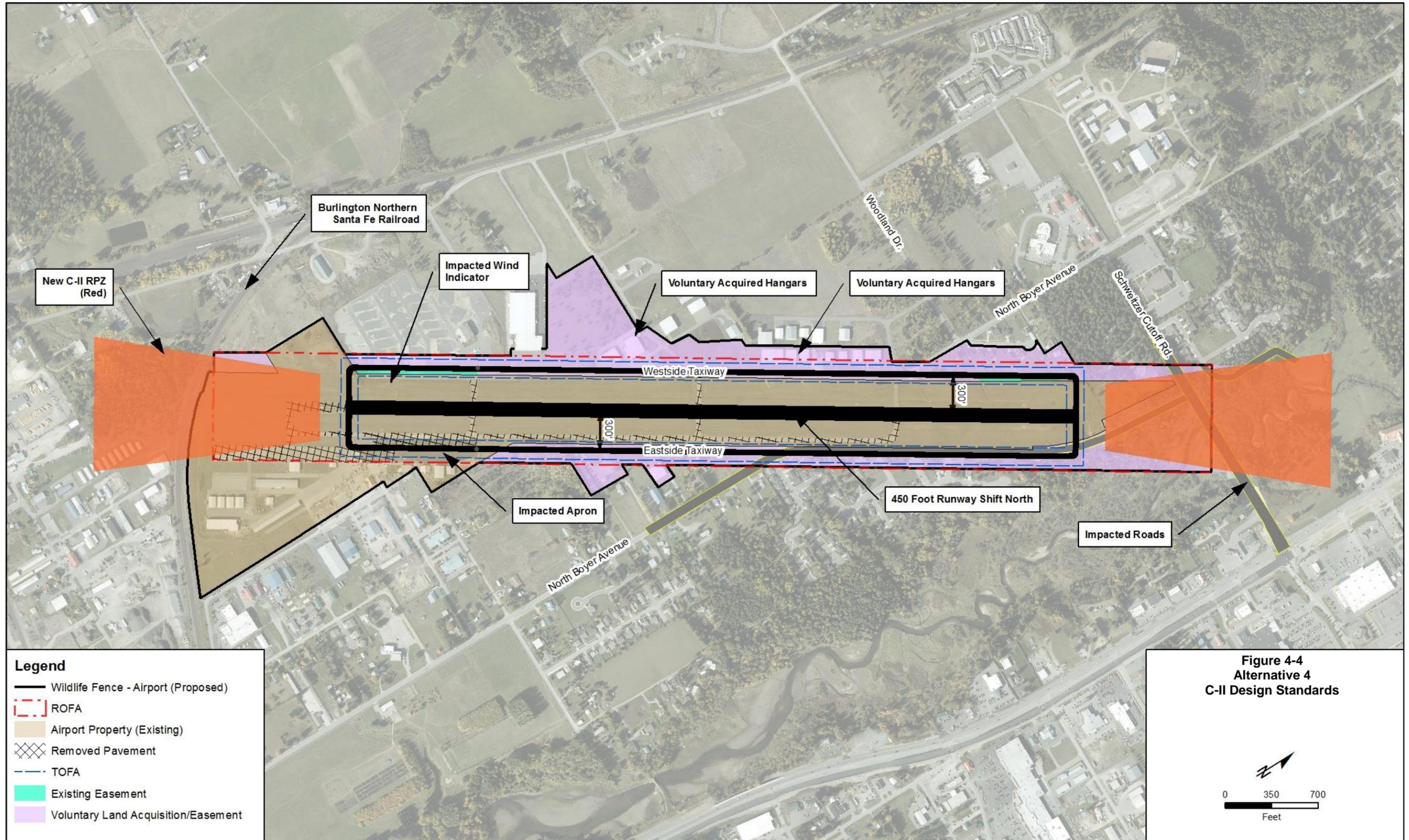
Alternative 4 meets design standards for C-II critical aircraft. Although it is not expected that C-II aircraft will exceed the substantial use threshold of 500 annual operations during the 20-year planning period, Alternative 4 is included to assess the feasibility of a C-II airport at the current SZT location. Alternative 4 shifts Runway 01/19 to the north by 450 feet to keep the Burlington Northern Santa Fe Railroad out of the ROFA. The existing runway length of 5,550 feet is maintained. The taxiway system includes full length parallel taxiways on both sides of the runway, with 300 feet between the runway centerline and taxiway centerline. Alternative 4 requires a realignment of North Boyer Avenue on the northeast side of the Airport, as well as realignments of Schweitzer Cutoff Road and Burns Court to accommodate the ROFA.

Alternative 4 requires the purchase and removal of 10 privately owned hangars that are inside the ROFA. Alternative 4 may require the purchase of 45 residential lots associated with the relocation of North Boyer Avenue. The ultimate road alignment will determine the specific number of residential lots impacted for Alternative 4. A relocation of North Boyer Avenue to the east will require a new crossing of Sand Creek, which is a sensitive wetland area. It is anticipated that this will have adverse environmental impacts that will require mitigation.

To implement Alternative 4, it is expected that the Airport would need to acquire 17 acres of property and easements for the Runway End 01 RPZ, 27 acres for the Runway End 19 RPZ, and 58 acres for the larger ROFA, taxiways, and TOFA.

Airside Alternative 4 is shown in **Figure 4-4**.





### 4.3 Alternative Evaluation

This section describes the reasoning for the selection of the preferred alternative. The Airport Sponsor, FAA, ITD-Aero, and the Planning Advisory Committee (PAC) were included in the discussion for the selection of the preferred alternative. Adjacent facilities and property alternative that build around this preferred airside system will be developed in subsequent sections.

The four airside configuration alternatives presented in **Section 4.2** will each bring the Airport into compliance with FAA design standards for either B-II or C-II aircraft, and include property acquisition to bring the RPZ, ROFA, and TOFA under control of the Airport. Each alternative will improve airfield safety and operational utility. The primary impacts and required facilities for each airside alternative are compared in **Table 4-2**. Primary impacts include residential properties, hangars, apron space, tie-downs, and public roads. Required facilities include new runway and taxiway pavement, as well as new wildlife fencing around the Airport perimeter.

<b>Table 4-2: Runway/Taxiway Configuration Alternative Comparison</b>				
<b>Attribute</b>	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>	<b>Alternative 4</b>
<b>Design Standards</b>	B-II	B-II	B-II	C-II
<b>RPZ Property Acquisition and Easements (acres)</b>	15	15	15	44
<b>Non-RPZ Property Acquisition and Easements (acres)</b>	18	13	16	58
<b>Runway Shift</b>	60 feet towards the west	None	None	450 feet towards the north
<b>Residential Lots Impacted</b>	5	0	11	45*
<b>Hangars Impacted</b>	9	0	0	10
<b>Tie-downs Impacted</b>	0	12	12	22
<b>Roads Impacted</b>	1	0	1	3
<b>Cost Estimate (Millions)</b>	\$24.9	\$12.7	\$21.2	\$52.2
<b>Sponsor/FAA Funds (Millions)</b>	\$2.5/\$22.4	\$1.3/\$11.4	\$2.1/\$19.1	\$5.2/\$47

\*Refer to Section 4.2.4, this number may increase depending on road realignments

#### 4.3.1 Non-preferred Alternatives

The runway and taxiway shift associated with Alternative 1 impacts 5 residential lots and 9 hangars. The RPZ shift will trigger a review of incompatible land uses within the RPZ, including the railroad and North Boyer Avenue. Should it be determined that the railroad must be relocated, additional property impacts will occur. The relocation of North Boyer Avenue will impact residential properties to the east of the Airport and require a new crossing of Sand Creek, which is expected to impact wetlands. **Alternative 1 is not preferred.**

Alternatives 2 and 3 do not impact hangars and leave Runway 1/19 in its existing location. The primary difference between the two is the full length parallel taxiway on the eastside – not present in Alternative 2, but present in Alternative 3. The full length parallel taxiway on the eastside in Alternative 3 requires a relocation of North Boyer Avenue, which will impact 11 residential properties, and require a new crossing over Sand Creek. It is expected that Alternative 3 will impact roadways, residences, and Sand Creek wetlands. **Alternative 3 is not preferred.**

Alternative 4 is presented to illustrate the demands associated with an airport built to C-II design standards would look like on the Airport. As illustrated in **Figure 4-4**, a C-II facility would place considerable strain on existing airport facilities and the surrounding community. RPZs, the ROFA, and the RSA would increase in size and the taxiways would be farther from the runway. Most development on the westside would be removed to meet clearance and setback requirements, and North Boyer Avenue and the Schweitzer Cutoff Road would require substantial relocation. Based on the activity forecasts in **Chapter 2**, C-II traffic is not expected to exceed the substantial use threshold of 500 annual operations during the next 20 years, and the Airport does not wish to become a C-II facility. **Alternative 4 is not preferred.**

#### 4.3.2 Preferred Alternative

Alternative 2 maintains the existing runway thresholds and implements a partial eastside taxiway to avoid impacting North Boyer Avenue. Alternative 2 does not impact existing hangars or off-airport residential properties. Dual parallel taxiways are desirable when an airport has balanced development on both sides of the runway, and at both runway ends. Due to external property constraints, North Boyer Avenue, and the topography, it is unlikely that the northeast corner of the airfield will ever be developed for aviation purposes. Runway End 19 can be served by a westside parallel taxiway that provides similar benefit to airfield circulation as dual parallel taxiways. For these reasons, it is determined that dual full length parallel taxiways are not necessary at SZT. Aircraft can cross Runway 1/19 at Runway End 1. Runway crossings are not preferred, but given the space constraints at SZT, this option was selected as the most feasible to implement.

Alternative 2 causes the least amount of impact to on-airport and off-airport property while maintaining the existing runway thresholds and meeting design standards for B-II aircraft. Threshold siting surfaces and FAR Part 77 surfaces are analyzed on the Airport Layout Plan, included in **Appendix A**. **Alternative 2 is the preferred alternative.**

The runway layout depicted in Alternative 2 is used to evaluate subsequent improvement alternatives.

#### 4.4 Taxiway Modifications

Taxiway modifications include the shifting and shortening of the eastside taxiway, removal of midfield taxiway connectors, and a new full length westside taxiway. These improvements are intended to bring the Airport into compliance with design standards for B-II aircraft, promote safety, and improve circulation. Taxiway modifications and associated design surfaces should be construction to Airplane Design Group (ADG) II and Taxiway Design Group (TDG) 2 standards.

The eastside taxiway is 30 feet wide, which is less than the TDG 2 standard of 35 feet. It is recommended that the 35 foot standard width be used when the eastside taxiway shifts as part of the runway improvement project.

Centerlines of partial taxiways on the westside of Runway 1/19 are spaced 240 feet or greater from the runway centerline. The preferred runway alternative includes a full length parallel taxiway on the westside, which will join the series of partial taxiways and provide access to both runway ends. Property acquisition will be necessary to bring the taxiway and TOFA under airport control prior to construction. No impact or removal of hangars is expected as part of this process.

FAA Advisory Circular (AC) 150/5300-13A, *Airport Design (5300-13A)*, highlights that airports should avoid “high energy” intersections, which are when taxiways cross the middle third of the runway. Per 5300-13A, limiting runway crossings to the outer thirds of the runway keeps the portion of the runway where a pilot can least maneuver to avoid a collision clear. SZT has two runway connectors within the middle third of Runway 01-19. The proposed eastside and westside parallel taxiways eliminate the need for these midfield connector taxiways by providing access to both runway ends. It is recommended that these two midfield connector taxiways be removed upon implementation of the Alternative 2 taxiway layout. Aircraft will be able to cross Runway 1/19 at Runway End 1.

5300-13A states that taxiways should not lead directly from an apron to a runway. SZT has two taxiways with this type of direct access. One connects to the SilverWing development, and one connects to the terminal apron. As these taxiways come up for rehabilitation, it is recommended that consideration be given to relocating them, or installing a non-pavement island that will reduce the ability of aircraft to mistakenly taxi from the apron on to the runway.

## 4.5 Landside and Support Facilities

Landside and support facility alternatives outline improvements that satisfy the needs of forecasted growth in based aircraft and itinerant aircraft operations. Landside and support facility development is expected to cluster on the eastside of the airfield because of the location of the Fixed Based Operator (FBO) and the terminal parking apron. Westside development areas are expected to accommodate businesses that are aviation-related. Landside and support facilities are organized into the following categories.

- Navigational Aids and Procedures
- Aircraft Parking Apron
- Aircraft Storage Hangars
- Automobile Parking
- Ground Vehicle Access
- Maintenance and Snow Removal Equipment (SRE) Facilities
- Airport Fence

### 4.5.1 Navigational Aids and Procedures

The FAA is developing the Next Generation Air Transportation System (NextGen) to transition from ground-based NAVAIDs to satellite-based global positioning system (GPS) satellites. NAVAID development is occurring simultaneously with improvements in aircraft onboard avionics. The higher precision afforded as part of NextGen is planned to reduce congestion, improve efficiency, and increase safety. As the NextGen system develops, many ground-based NAVAIDs will be decommissioned at the end of their useful lives, while some ground-based NAVAIDs will be maintained as backup. To be decommissioned NAVAIDs are likely to include non-directional beacons (NDB) like the one located in the southeastern corner of airport property.

SZT's on-airport NAVAIDs, including airport lighting, NDB, wind indicator, distance measuring equipment, localizer antenna, medium intensity runway edge lighting system, runway end identifier lights, and precision approach path indicators, should be maintained to FAA standards for aircraft without GPS receivers, and to supplement NextGen. The airspace analysis conducted as part of this Master Plan effort allows the FAA to evaluate the potential for new GPS procedures. New instrument approach procedures (IAPs) have the potential to impact RPZ dimension should visibility minimums become lower than one statute mile. Achieving such minimums at SZT will require an approach lighting system. Due to the potentially incompatible land uses beyond both runway ends, it is recommended that the Airport consider the tradeoffs when pursuing lower visibility minimums.

FAA Order 8260.3B indicates that with existing height above touchdown (HAT) at the IAP decision point values (greater than 881 feet for approach category A), the Airport will require a full approach lighting system (ALS) to achieve visibility minimums lower than one statute mile. Visibility minimums lower than one statute mile are not possible for other approach categories with the existing HAT. A Full ALS generally requires a clear area of 2,600 feet beyond the end of the runway for light lane installation, which is not available at SZT without relocation of off-airport development.

Should the obstruction survey that is being completed as part of this Master Plan allow FAA Flight Procedures to construct an approach with a lower HAT value, then it is possible that the introduction of an ALS will afford visibility minimums below 1 statute mile. The type of system necessary and the space required (between 1,800 feet beyond runway end for a basic ALS and 2,600 feet beyond runway end for a full ALS) will be determined once the lowest HAT is known.

#### **4.5.2 Aircraft Parking Apron**

Aircraft parking capacity is an existing need at SZT. Aviation activity forecasts show that itinerant operations are expected to increase at a rate of 1.78 percent annually, which will further increase the demand for apron and tie-down spaces.

Two potential landside expansion areas off-airport property have been identified for increasing apron and tie-down spaces are shown in **Figure 4-5**. The eastside area is east of and adjacent to the existing parking apron and FBO. The westside area is located between existing businesses that operate near the airport.

The eastside landside expansion area includes 8.8 acres, or 383,300 square feet of space. This area can accommodate the 40 additional tie-down spaces and the 101,500 square feet identified in **Chapter 3** for the 20-year planning period, using 30% of the usable property.

The westside landside development area has an equal amount of space, and can fit a similar number of tie-downs as the eastside area. The majority of tie-down spaces at SZT are used by itinerant aircraft. If the westside area were developed to meet aircraft parking demand, itinerant aircraft would need to travel to the eastside to access the FBO. Developing the eastside landside expansion area would allow for an extension to the existing apron and would be easier to integrate with existing Airport services and aircraft activity. Developing the westside landside expansion area would require additional aircraft taxiing activity and runway crossings at the Airport due to its location away from the FBO.

It is recommended that the eastside landside expansion area be used to meet the projected 20-year apron and tie-down space requirements. While it is not anticipated that the westside expansion area will be needed in the next 20 years, it is recommended that the Airport consider acquiring this area to accommodate long-term needs.

### 4.5.3 Aircraft Storage Hangars

**Chapter 3** identifies that SZT does not have adequate hangar storage and hangar. Forecasts show that based aircraft are expected to increase at a rate of 1.75 percent annually. Development areas planned for aircraft storage in the form of box hangars or T-hangars are shown in **Figure 4-5**.

Planned box hangar development areas include seven lots on airport property near the FBO, and ten lots off airport property west of Runway 1/19. As discussed in **Section 4.5.2**, the eastside and westside landside expansion areas do not need to use the entirety of the proposed property acquisitions to accommodate projected apron and tie-down requirements. These areas can be developed to include both box hangars or T-hangars.

The combination of the planned box hangar lots, T-Hangar lots, and proposed landside expansions areas would meet the space requirements for the forecasted six on-Airport box/executive hangars, 10 on-Airport T-hangars, eight off-Airport box/executive hangars and 14 off-Airport T-Hangar units identified in **Chapter 3**.

Additionally, **Chapter 3** identifies that the existing Piper T-hangar building does not allow for adequate wingtip for ADG II aircraft to access the planned box hangar lots on Industrial Row. To provide adequate clearance, it is recommended that the Piper T-hangar be removed and replacement T-hangars be constructed elsewhere if demand exists.

### 4.5.4 Automobile Parking

SZT does not have an administration building. Airport parking is driven by the demands of each tenant, and it is up to the business owners and hangar contractors to provide adequate parking for their facilities. It is expected that site plan review by the City of Sandpoint will verify that proposed development include sufficient parking spaces to meet local zoning requirements.

### 4.5.5 Customs and Border Patrol

The Airport has expressed interest in a U.S. Customs and Border Patrol (CBP) station; however, further study will be required to assess the demand by international arrivals to justify a dedicated CBP station. For international arrivals to occur at SZT, arrangements can be made ahead of the desired travel date with CBP personnel from the Spokane area to meet arriving aircraft and passengers at SZT. International arrivals at SZT will require a dedicated area on the apron for processing. CBP coordination is the responsibility of individual flying to the Airport, and not the responsibility of airport management. For international arrivals to occur at SZT, and to dedicate an area of the apron for CBP processing. Further study is needed to assess the real demand for such a facility.

#### **4.5.6 Ground Vehicle Access**

SZT does not have direct access to the three major arterial roads in Sandpoint: U.S. Highway 2, U.S. Highway 95, and Idaho State Route 200. There are signs directing motorists to the Airport on local collector roads, but they do not promote the Airport or make it easy to find. It is expected that improved signage would make the Airport easier to find. Signage near exits to U.S. Highway 2, U.S. Highway 95, and Idaho State Route 200 that direct traffic to the Airport are expected to improve access and consolidate traffic onto appropriate roads.

The City of Sandpoint is planning additional development at the intersection of U.S. Highway 95/ U.S. Highway 2 and Schweitzer Cutoff Road. It is recommended that Airport work with the City of Sandpoint to develop new signage for the Airport.

Access to the both the west and east sides of the Airport would support existing and future development. North Boyer Avenue is the preferred access route to the eastside of SZT and Great Northern Road is the preferred access route to the westside of SZT.

Major attractions near the Airport that are likely to draw visitors include Schweitzer Mountain Ski Resort, Lake Pend Oreille, and Downtown Sandpoint. These attractions are accessible from the Airport via North Boyer Avenue. It is recommended that Airport work with the City of Sandpoint to improve signage on North Boyer Avenue to make the Airport easier to find from these attractions.

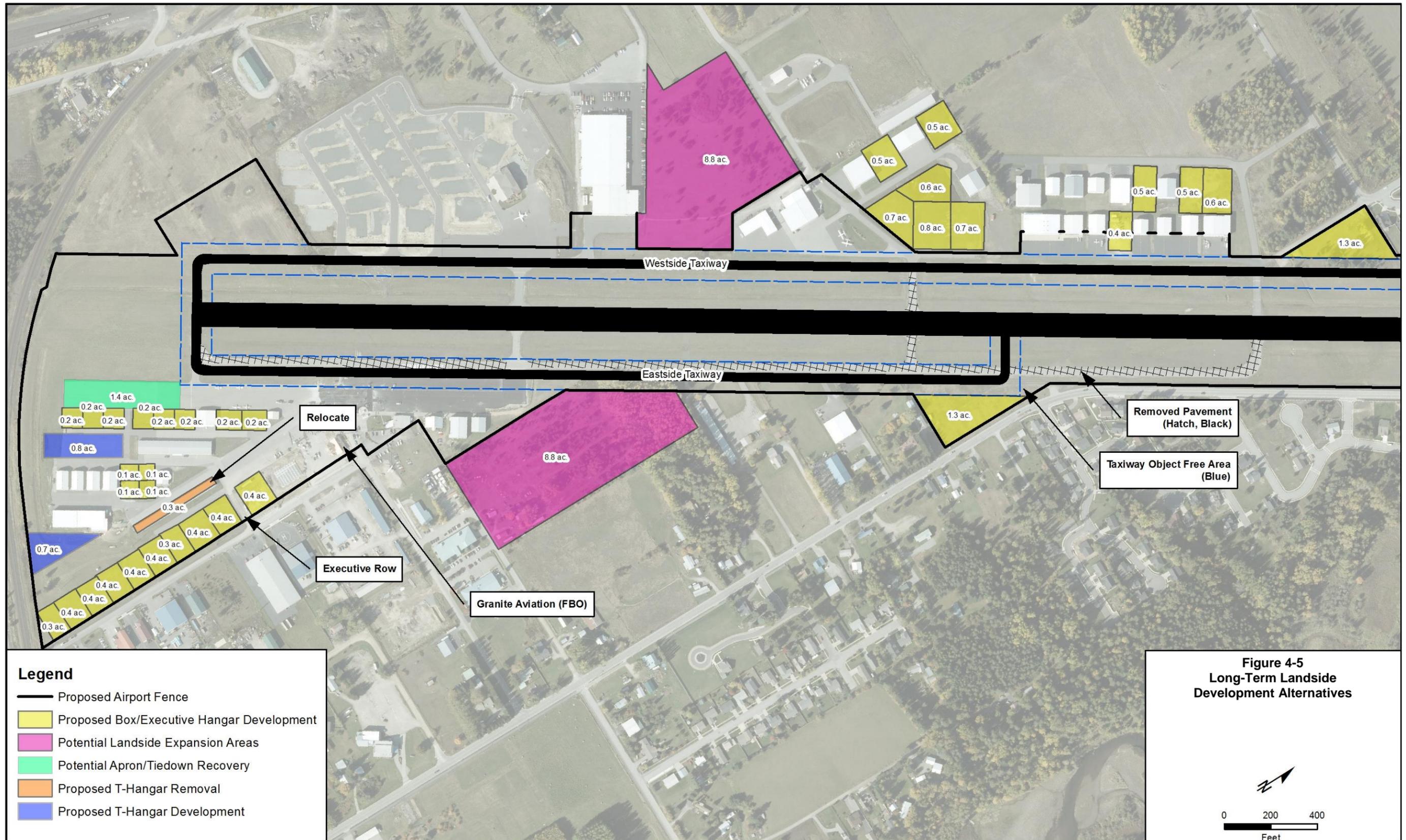
#### **4.5.7 Maintenance and Snow Removal Equipment (SRE) Facilities**

The Airport's snow removal plan identifies four snow storage areas. With the addition of the westside taxiway as part of the preferred alternative, it is recommended that the Airport evaluate the need for additional snow and ice storage areas.

#### **4.5.8 Airport Fence**

Due to the location of SZT, many known animal species that potentially pose a hazard to aircraft operations live and migrate in areas surrounding the Airport. SZT does not currently have a fence that completely surrounds the Airport, and the existing sections of fence at SZT does not adequately keep wildlife off airport property. It is recommended that SZT constructs a wildlife exclusionary fence that completely surrounds the airport. Additionally, due to existing TTF agreements with surrounding land owners, it is recommended for the Airport to acquire land or obtain easements to construct the wildlife fence. It is expected that wildlife fencing to be constructed around properties adjacent to the Airport with existing TTF agreements will not be eligible for FAA funding and will be considered private fencing.

The Wildlife Hazard Site Visit Summary Report can be found in **Appendix C**.



## 4.6 Airport Property

It is recommended that SZT acquire property and easements to protect runway and taxiway design surfaces and runway protection zones. Acquiring property and easements allows the Airport to remove incompatible objects for ground maneuvering purposes and airspace purposes. The FAA recommends that airports own property in these areas fee simple; however, easements can be substituted if necessary and are better than no control.

In addition to the 28 acres of land recommended for acquisition and easement by the preferred airfield alternative, 23.4 acres have been identified for acquisition to support aircraft tie-downs, hangars, apron area, and commercial development. Additional property does not have to be developed immediately, the Airport could lease the land until it comes time to construct improvement projects. These areas are shown in **Figure 4-5**.

## 4.7 Improvement Alternatives Summary

The following improvement alternatives are recommended.

### Airside Facilities

- Shift the eastside taxiway 40' to the east to meet B-II design standards, and decrease its length from 4,500' to 3,500' to avoid conflict with North Boyer Avenue.
- Construct a full length westside taxiway.
- Remove runway connectors that lie within the middle third of Runway 1/19.
- Construct a wildlife fence around airport property.
- Remove midfield connector taxiways.
- Remove taxiways with direct access to the runway from an apron.

### Landside and Support Facilities

- Acquire property adjacent to the airport to extend the apron and increase tie-down spaces.
- Remove the existing Piper T-Hangar to allow for adequate wing tip clearance for B-II aircraft.
- Coordinate with the City of Sandpoint and Bonner County to increase signage on major roads that access the Airport.
- Increase apron area around the FBO.
- Evaluate the need for additional snow and ice storage areas

### Airport Property

- Acquire property to control safety areas for the preferred alternative.



## Chapter 5

# PLANNING FOR COMPLIANCE

The purpose of this chapter is to review existing Sandpoint Airport (SZT or “the Airport”) policies and procedures and compare them to FAA requirements contained in FAA Order 5190.6B, *Airport Compliance Manual* (Order 5190.6B). This Order requires that Airport Sponsors comply with the federal obligations (assurances) accompanying each financial grant administered by the FAA. Similar obligations are also attached to transfer of Federal surplus property to Airport sponsors, as well as other agreements between an Airport sponsor and the United States government. Grant assurances require Airport Sponsor to maintain and operate their facilities safely, efficiently, and in accordance with specified conditions. According to Order 5190.6B, a sponsor meets its commitments when:

- 1) Federal obligations are fully understood;
- 2) A program (e.g., preventive maintenance, leasing policies, operating regulations, etc.) is in place that the FAA deems adequate to carry out the sponsor’s commitments;
- 3) The sponsor satisfactorily demonstrates that such a program is being carried out; and,
- 4) Past compliance issues have been addressed.

The FAA recommends the following approach to planning for compliance:

- 1) Describe each existing or potential compliance issue, reference the specific assurance or other obligation involved.
- 2) For existing violations, recommend remedies and time frame for achieving compliance.
- 3) For potential violations, recommend strategies to avoid noncompliance (i.e. new ordinance, etc.).
- 4) Develop and implement a strategy/program to educate the sponsor’s decision-makers and the general public on the components and importance of compliance.

In “A Model Element to Address Existing and Potential Compliance Issues”, the FAA states that “the intent of ‘planning for compliance’ is not to uncover problems for the purpose of punitive or enforcement action by the FAA; rather, the objective here is to take a proactive – even preemptive- approach to achieving compliance and avoiding noncompliance at a specific airport with its unique circumstances by examining existing and potential compliance issues as part of an airport planning study project.”

Past Airport Improvement Program (AIP) grants received by the Airport, including nature of the projects, dollar amounts, and associated grant assurance expiration dates, are presented in **Table 5-1**.

<b>Table 5-1: Sandpoint Municipal Airport (SZT) Federal Grant History</b>				
<b>Grant #</b>	<b>FY</b>	<b>Project Description</b>	<b>AIP Funding</b>	<b>Grant Assurance Expiration Date</b>
001-1986	1986	Conduct Airport Master Plan Study	\$36,000	2006
002-1987	1987	Acquire Land for Approaches	\$324,350	No expiration
		Noise Mitigation for Public Buildings	\$135	2007
003-1988	1988	Extend Runway	\$309,000	2008
		Rehabilitate Apron	\$223,818	2008
		Rehabilitate Runway	\$634,738	2008
		Extend Taxiway	\$73,000	2008
		Rehabilitate Taxiway	\$207,000	2008
004-1990	1990	Construct Apron	\$218,795	2010
		Rehabilitate Runway Lighting	\$64,629	2010
		Install Runway Vertical/Visual Guidance System	\$88,976	2010
		Install Miscellaneous NAVAIDS	\$65,000	2010
005-1992	1992	Conduct Airport Master Plan Study	\$70,650	2012
006-1993	1993	Expand Apron	\$148,413	2013
		Improve Runway Safety Area	\$9,000	2013
		Install Miscellaneous NAVAIDS	\$45,000	2013
		Install Instrument Approach Aid	\$390,000	2013
007-1996	1996	Rehabilitate Runway	\$185,000	2016
		Extend Runway	\$203,608	2016
		Install Runway Vertical/Visual Guidance System	\$5,000	2016
		Acquire Land for Approaches	\$36,000	No expiration
		Rehabilitate Apron	\$30,000	2016
		Conduct Airport Master Plan Study	\$4,500	2016
008-2001	2001	Improve Airport Drainage	\$25,000	2016
		Conduct Airport Master Plan Study	\$54,000	2021
009-2003	2003	Install Weather Reporting Equipment	\$100,000	2023
		Install Perimeter Fencing	\$167,400	2023
		Acquire Snow Removal Equipment	\$256,500	2023
		Construct Runway	\$118,800	2023
		Construct Taxiway	\$123,300	2023
		Remove Obstructions	\$54,000	2023
		Rehabilitate Runway	\$37,800	2023
010-2005	2005	Environmental Mitigation	\$174,346	2025
		Construct Taxiway	\$450,000	2025
		Install Perimeter Fencing	\$98,974	2025
011-2006	2006	Environmental Mitigation	\$25,000	2026
		Install Runway Vertical/Visual Guidance System	\$208,000	2026
		Install Instrument Approach Aid	\$49,956	2026
012-2012	2012	Conduct Environmental Study	\$192,883	2032
013-2013	2013	Rehabilitate Apron	\$1,007,326	2033
014-2013	2013	Update Airport Master Plan Study	\$370,000	2033
<b>Total AIP Grants (1986-2013)</b>			<b>\$6,885,897</b>	

Notes: There is no limit on the duration of the assurances regarding Exclusive Rights and Airport Revenue so long as the airport is used as an airport. There is no limit on the duration of the terms, conditions, and assurances with respect to real property acquired with federal funds. The duration of the Civil Rights assurance is specified in the assurances.

### 5.3 FAA Grant Assurance Review

This section summarizes the Airport's compliance, non-compliance, or potential non-compliance with the 39 current FAA grant assurances contained in FAA Order 5190.6B, which were most recently updated in March 2014. Although some of these grant assurances have changed or were not required for all previous grants accepted by SZT, each is considered in this section to assess whether the Airport is meeting its Federal commitments.

#### 1. General Federal Requirements

Bonner County complies with all applicable Federal laws, regulations, executive orders, policies, guidelines, and requirements as they relate to the application, acceptance, and use of Federal funds for Airport projects.

#### 2. Responsibility and Authority of the Sponsor

Bonner County is owner and operator of the Airport, and has the required legal authority and responsibilities described under this assurance.

#### 3. Sponsor Fund Availability

Bonner County commits and ensures that it has sufficient funds available for their financial share of all Federal construction and maintenance projects undertaken at SZT. The County also commits and ensures that it has sufficient funds for operation and maintenance of airport infrastructure once constructed to protect Federal investments at SZT.

#### 4. Good Title

The existing Airport Exhibit 'A' Property Map will be updated as part of this Master Plan to provide assurance that Bonner County holds good title to all parcels of property comprising the Airport. Bonner County also gives assurance that good title will be acquired for all future purchases of property required to implement the improvement projects identified in this Master Plan.

#### 5. Preserving Rights and Powers

This assurance prohibits the Airport Sponsor from taking or permitting any action which would operate to deprive it of any of the rights and powers necessary to perform any or all of the terms, conditions, and assurances of its grant agreements. If such action is taken or permitted, the assurance requires the Sponsor to act promptly to acquire, extinguish, or modify any outstanding rights or claims of right of others which would interfere with performance of its obligations. Residential Through-the-Fence (TTF) activities are an example of such a permitted action, as the Sponsor does not have full control over activities on residential TTF properties and therefore has a diminished ability to take enforcement action to fulfill its assurances. TTF access allows an aircraft owner to store an aircraft at an off-airport property, and to use the Airport by way of a taxiway that crosses the airport boundary and connects the owner's property to the Airport's runway-taxiway system. The FAA issued an interim policy in March 2011 to disallow future residential TTF access agreements at Federally-funded airports, and updated this grant assurance to reflect this new policy. The FAA intends to initiate another policy review of residential TTF access to Federally-obligated airports in 2014, which may reconsider its prohibition.

Bonner County currently has several TTF agreements and easements with private property owners on both the east and west sides of Airport property. Some of the agreements/easements are for residential land uses, while others are for commercial and industrial land uses. All of these agreements and easements were executed prior to the FAA issuance of its March 2011 interim policy. The March 2011 policy requires airport sponsors with existing agreements to develop an airport access plan that outlines how the airport will meet its obligations, including how it will meet standards and assurances for airport control, safety, self-sustainability, and non-discriminatory airport rates. However, because these TTF agreements and easements pre-date the March 2011 interim policy, and because the FAA understands that termination of such agreements and easements may have substantial adverse effects on private property values and investments, the FAA does not consider the existence of existing residential through-the-fence access by itself to be in non-compliance with Airport sponsor grant assurances.

#### **6. Consistency with Local Plans**

This Master Plan was completed in coordination with affected jurisdictions through interaction with a planning advisory committee assembled specifically for the project. Proposed projects identified in this plan were not found to be inconsistent with local plans during this process. Future planning efforts at SZT will consider the plans, policies, regulations, and ordinances of all affected jurisdictions.

County officials also assist in the development of local plans to ensure consideration of Airport needs. For example, the City of Sandpoint Comprehensive Plan includes a goal to “maintain Sandpoint Airport as a viable and safe part of the community.” This goal is supported by the following specific policies of the Comprehensive Plan:

- A. Ensure surrounding land uses are compatible with continued aircraft operations.
- B. Work with Bonner County to be aware of airport activity and respond to needs if appropriate.
- C. Provide for safe air navigation by approving appropriate safeguards to ensure that airport operations are conducted in a safe and efficient manner.
- D. Promote appropriate land uses adjacent to the airport which would be both compatible and beneficial to the airport and the community.
- E. Aid in the reduction of noise impact from aircraft.

#### **7. Consideration of Local Interest**

This Master Plan was completed in coordination with affected members of the community through the advisory committee process described above. Bonner County considers local interest in all planning and development activities at the Airport.

**8. Consultation with Users**

This Master Plan was completed in coordination with key Airport users through the advisory committee process described above. Bonner County considers the needs of Airport users in all planning and development activities at the Airport.

**9. Public Hearings**

Larger scale projects identified in this Master Plan, such as the preferred airfield alternative, will require further review under procedures defined in the National Environmental Policy Act (NEPA). The NEPA processes for these projects will include public hearings where applicable.

**10. Metropolitan Planning Organization**

This assurance does not apply to SZT because it is not a medium or large hub airport.

**11. Pavement Preventive Maintenance**

The Idaho Transportation Department, Division of Aeronautics (ITD-AERO) has implemented a network pavement management system that collects pavement condition information and provides an efficient process for identifying pavements requiring maintenance and repair at eligible airports statewide. The system also allows for establishing priorities, assessing the overall network condition, preparing and forecasting necessary budgets required to maintain the network at an acceptable condition level, and identifying required maintenance and repair activities. At each airport, Individual pavement sections are identified and a five-year maintenance schedule is developed that details the necessary maintenance and repair activities required to remain compliant with federal grant assurances.

The most recent pavement management system report for SZT (dated 2012) indicates \$7,824,427 worth of pavement repair and maintenance required during the five-year schedule ending in 2017. Bonner County is committed to the continued implementation of the ITD-AERO network pavement management system to remain compliant with the requirements of this grant assurance. However, until a firm decision is made regarding the appropriate runway dimensional standards and associated taxiway relocation projects, as evaluated and analyzed in this Master Plan, the expenditure of funds for existing pavement maintenance is limited.

**12. Terminal Development Prerequisites**

Bonner County has never accepted Federal grant funding for a terminal development project as defined under US Code Title 49. Therefore this assurance does not apply to SZT.

**13. Accounting System, Audit, and Record Keeping Requirements**

Bonner County keeps accounts and records of disposition for all Federal grants it receives with relation to the Airport. These accounts and records include documentation of project costs, funding disbursements, and funding from other sources, and are available for FAA review and inspection at any time.

**14. Minimum Wage Rates**

All contracts in excess of \$2,000 funded by Federal grants at SZT include provisions establishing minimum rates of wages in accordance with the Davis-Bacon Act.

**15. Veteran's Preference**

When available and qualified to perform work under contracts funded by Federal grants at SZT, Bonner County ensures that preference is given to veterans as required under Federal law.

**16. Conformity to Plans and Specifications**

All projects funded by Federal grants at SZT are completed in accordance with FAA-approved plans, specifications, and schedules.

**17. Construction Inspection and Approval**

All projects funded by Federal grants at SZT include competent technical supervision throughout the project to assure that the work conforms to FAA-approved plans, specifications, and schedules.

**18. Planning Projects**

All planning projects funded by Federal grants at SZT, including this Master Plan, comply with the requirements described under this assurance. Federal grant assurances that apply to planning projects are assurances 1, 2, 3, 5, 6, 13, 18, 25, 30, 32, 33, and 34.

**19. Operation and Maintenance**

Bonner County operates and maintains all Airport facilities in a safe and serviceable condition at all times in accordance with minimum standards required or prescribed by Federal, state, and local law. The Airport sponsor maintains and enforces a set of rules and regulations that serve this purpose. These rules and regulations identify allowable airport activities, airport user risks and responsibilities, hours of operation, policies for non-certificated aircraft, prohibition of sporting events, tie down and hangar policies, ground vehicle policies, ground rules for Airport use, policies for aircraft take-offs and landings, and a description of the Airport Manager's authority. The Airport sponsor also has established minimum standards for commercial aeronautical activity, including standards related to:

- Tenant agreements
- Fees and charges
- Leased premises
- Site development
- Products and services
- Licenses, permits, and certifications
- Personnel
- Payment of rents and fees
- Laws, rules, and regulations
- Insurance requirements
- Assignments, subletting, and encumbrances

- Taxes
- Signage
- Environmental compliance
- Safety of others
- Hours of operation
- Restrictions on self-service

Bonner County takes special care to prevent activities that interfere with its use as an Airport; give due regard to climatic and flood conditions in operation and maintenance activities; promptly marking and lighting hazards resulting from Airport conditions; and issuing notice to airmen (NOTAM) of any condition affecting aeronautical use of the Airport. However, due to current Through-the-Fence (TTF) activity at the Airport, Bonner County is at added risk of safety concerns related to lack of control over private TTF properties.

## **20. Hazard Removal and Mitigation**

Title 9, Chapter 12 of the Sandpoint City Code establishes an Airport Overlay Zone District for the purposes of preventing the creation or establishment of hazards to air navigation, and to establish the means to eliminate, remove, alter, mitigate, mark, or light hazards. Bonner County has also established an Airport Overlay District (Title 12, Chapter 5, Subchapter 5.2 of the Bonner County Code) for the purposes of preventing the creation or establishment of airport hazards, and to provide means to eliminate, remove, alter, mitigate, mark, or light hazards. The Districts are based on zones defined and prescribed by Federal Aviation Regulations (FAR) Part 77, *Objects Affecting Navigable Airspace*, as they apply specifically to SZT. This Master Plan, once adopted, establishes the most current FAR Part 77 zones related to SZT. The City of Ponderay has not adopted an airport hazardous overlay zoning district.

## **21. Compatible Land Use**

Bonner County has taken appropriate action to restrict the use of land in the immediate vicinity of SZT to activities and purposes compatible with normal airport actions. Bonner County has adopted land use zoning regulations and districts for the unincorporated areas of the County. Suburban zoning is applied to the land west of SZT, west of the Sandpoint City Limits. Suburban designation is established to promote the development of residential uses located on the edges of incorporated cities or other developed communities where sewer and water services are either available or have the potential to become available.

The City of Sandpoint has zoned the Airport property as General Industrial. Zoning classifications for land surrounding SZT are Industrial Technology Park east of the Airport and west of Boyer Avenue. Single Family Residential zoning is applied between Boyer Avenue and the city limits to the east. South of the Airport, south of Baldy Mountain Road is Industrial Business Park and Multi-Family Residential zoning. North of the Airport, a mixture of Single Family Residential, Rural Residential, Multi-Family Residential, and Professional Office zoning is applied. The Airport Overlay Zone District, described previously, overlays the entire airport and the surrounding area

within the Sandpoint City Limits and the unincorporated areas of Bonner County. However, as stated above, the City of Ponderay has not adopted an airport hazardous overlay zoning district.

Long-term compatibility issues with the surrounding allowed land uses potentially exist with the zoning of residential uses in close proximity to Runway 19. Continued residential development in this area has the potential for additional land uses that are not compatible with normal airport operations.

## **22. Economic Nondiscrimination**

Bonner County makes the Airport available as a public use facility on reasonable terms and without unjust discrimination with regard to types, kinds, and classes of aeronautical activities, except as is necessary for the safe operation of the Airport. Bonner County also does not discriminate with regard to agreements, contracts, leases, and other arrangements with individuals, firms, corporations, fixed base operators, or air carriers operating or based at the Airport. However, due to current Through-the-Fence (TTF) activity at the Airport, Bonner County is at added risk of economic discrimination concerns related to lack of control over private TTF properties.

## **23. Exclusive Rights**

Bonner County does not grant exclusive rights for use of the Airport to any individual, firm, corporation, fixed base operator, or air carrier to provide aeronautical services to the public.

## **24. Fee and Rental Structure**

Bonner County maintains a fee and rental structure for airport facilities and services that make the Airport as self-sustaining as possible. Airport records indicate that SZT currently charges from \$0.11 to \$0.20 per square foot/year for ground leases on privately owned buildings and facilities. An FBO ground lease plus rent from two Airport-owned hangars equals \$5,000 per month. Airport tie-down fees are \$6 per night or \$30 per month. A fuel flowage fee \$0.06 per gallon of jet fuel sold is levied. However, due to TTF activity at the Airport, Bonner County cannot control any rates and charges levied by other parties on private TTF properties.

## **25. Airport Revenues**

All revenues generated by the Airport are expended for the capital and operating costs of the airport, or other County-owned facilities directly related to air transportation. For 2013, SZT operating revenues totaled approximately \$105,000, with expenses totaling approximately \$122,000.

## **26. Reports and Inspections**

Bonner County complies with all requirements described under this assurance related to reports and inspections for Airport finances, operations, and development projects.

## **27. Use by Government Aircraft**

All facilities developed on the Airport with Federal financial assistance are made available for use by government aircraft at all times without charge.

**28. Land for Federal Facilities**

Bonner County will furnish without cost to the Federal Government any areas of land, water, or estate therein, as considered necessary by FAA, for air traffic control, air navigation, weather-reporting, and/or communication facilities and activities.

**29. Airport Layout Plan**

This Master Plan includes an update to the Airport Layout Plan (ALP) to reflect existing conditions and proposed development projects. This ALP is kept up to date as required under this assurance.

**30. Civil Rights**

Bonner County does not exclude, deny benefits to, or otherwise discriminate with regard to any activity conducted with or benefiting from Federal funds at the Airport, on the grounds of race, creed, color, national origin, sex, age, or disability.

**31. Disposal of Land**

The existing Airport Exhibit "A" Property Map will be updated as a portion of this Master Plan. No airport property previously acquired with a Federally-assisted grant program has been sold or disposed of in the past. Any future disposal of airport property that is no longer needed for airport purposes and was purchased for the Airport under a Federal airport development grant will be disposed of at fair market value, or an amount equal to the FAA's proportionate share of the fair market value of the land will be made available to the FAA for reinvestment in an approved airport development project that is eligible for grant funding. Grant Assurance 31 must be considered if at some point in the future aviation activity exceeds the Airport's ability to accommodate users, and therefore facilities must relocate to an alternate site.

**32. Engineering and Design Services**

Bonner County awards and negotiates all engineering, planning, architectural, surveying, and related contracts in accordance with the requirements described under this assurance.

**33. Foreign Market Restrictions**

Bonner County does not use FAA grants to fund projects which uses products or services from foreign countries that deny fair and equitable market opportunities for products and suppliers of the United States in procurement and construction.

**34. Policies, Standards, and Specifications**

Bonner County carries out all Airport projects in accordance with relevant FAA and State policies, standards, and specifications.

**35. Relocation and Real Property Acquisition**

All land acquisition activities referenced on the Exhibit 'A' will be carried out in accordance with Federal and State law as applicable, including payment or reimbursement of property owners for necessary expenses and relocation assistance for displaced persons.

**36. Access by Intercity Buses**

Bonner County will provide access to the Airport by intercity buses or other modes of transportation as requested or needed by relevant local transportation authorities.

**37. Disadvantaged Business Enterprises**

Bonner County does not discriminate on the basis of race, color, national origin, or sex in award and performance of Federal contracts, nor in the administration of its DBE and ACDBE programs.

**38. Hangar Construction**

The Airport grants aircraft owners long-term leases for hangars constructed at the aircraft owner's expense, subject to such terms and conditions as the Airport may impose.

**39. Competitive Access**

This assurance does not apply to SZT because it is not a medium or large hub airport.

The Airport's compliance, non-compliance, and potential future non-compliance with the 39 Federal grant assurances is summarized in **Table 5-2**.

<b>Table 5-2: FAA Grant Assurance Compliance Summary</b>					
<b>Grant Assurance</b>		<b>In Compliance</b>	<b>Existing Compliance Issue</b>	<b>Potential Future Compliance Issue</b>	<b>N/A</b>
1	General Federal Requirements	X			
2	Responsibility and Authority of the Sponsor	X			
3	Sponsor Fund Availability	X			
4	Good Title	X			
5	Preserving Rights and Powers			X	
6	Consistency with Local Plans	X			
7	Consideration of Local Interest	X			
8	Consultation with Users	X			
9	Public Hearings	X			
10	Metropolitan Planning Organization				X
11	Pavement Preventive Maintenance	X			
12	Terminal Development Prerequisites				X
13	Accounting System, Audit, and Record Keeping	X			
14	Minimum Wage Rates	X			
15	Veteran's Preference	X			
16	Conformity to Plans and Specifications	X			
17	Construction Inspection and Approval	X			
18	Planning Projects	X			
19	Operation and Maintenance			X	
20	Hazard Removal and Mitigation			X	
21	Compatible Land Use			X	
22	Economic Nondiscrimination			X	
23	Exclusive Rights	X			
24	Fee and Rental Structure			X	
25	Airport Revenues	X			
26	Reports and Inspections	X			
27	Use by Government Aircraft	X			
28	Land for Federal Facilities	X			
29	Airport Layout Plan	X			
30	Civil Rights	X			
31	Disposal of Land			X	
32	Engineering and Design Services	X			
33	Foreign Market Restrictions	X			
34	Policies, Standards, and Specifications	X			
35	Relocation and Real Property Acquisition	X			
36	Access by Intercity Buses	X			
37	Disadvantaged Business Enterprises	X			
38	Hangar Construction	X			
39	Competitive Access				X

### 5.3 Proactive Compliance Strategies

As shown in **Table 5-2**, SZT has a potential future compliance issue related to FAA grant assurance #5 (Preserving Rights and Powers) and its existing TTF access agreements and easements. This potential compliance issue raises the possibility of other potential future Federal compliance issues associated with the following grant assurances.

- #19 (Operation and Maintenance)
- #22 (Economic Nondiscrimination)
- #24 (Fee and Rental Structure)

Due to its limited footprint and neighboring built-up urban areas, the Airport also faces potential future compliance issues associated with grant assurance #20 (Hazard Removal and Mitigation) and #21 (Compatible Land Use). Finally, in the event that future aviation activity outgrows the Airport's ability to accommodate users and it therefore must relocate to an alternate site, grant assurance #31 (Disposal of Land) will need to be complied with to successfully transfer ownership of the existing Airport to other parties. Recommended strategies for addressing these existing and potential future compliance issues are described below.

#### **Assurance #5: Preserving Rights and Powers**

As a condition of continuing grants to airports with residential TTF access, the FAA requires that airports with existing TTF access arrangements adopt measures to substantially mitigate potential problems with residential TTF access where it exists to avoid future grant compliance issues. FAA standards for compliance for any Airport sponsor with existing residential TTF access are as follows:

- “1. *General authority for control of airport land and access.* The airport sponsor has sufficient control of access points and operations across airport boundaries to maintain safe operations, and to make changes in airport land use to meet future needs.
2. *Safety of airport operations.* By rule, or by agreement with the sponsor, through-the-fence users are obligated to comply with the airport's rules and standards.
3. *Recovery of costs of operating the airport.* The airport sponsor can and does collect fees from through-the-fence users comparable to those charged to airport tenants, so that through-the-fence users bear a fair proportion of airport costs.
4. *Protection of airport airspace.* Operations at the airport will not be affected by hangars and residences on the airport boundary, at present or in the future.
5. *Compatible land uses around the airport.* The potential for non-compatible land use adjacent to the airport boundary is minimized consistent with grant assurance 21, Compatible Land Use.”

The ALP update completed as part of this Master Plan will depict existing and planned future TTF access points. This Master Plan also recommends that Bonner County develop an airport access plan that meets the above standards for control, safety, cost recovery, airspace protection, and mitigation of potential non-compatible land uses on TTF properties.

#### **Assurance #19: Operation and Maintenance**

The airport access plan recommended above should be designed to avoid any operation or maintenance concerns that may lead to non-compliance with this grant assurance.

**Assurance #20: Hazard Removal and Mitigation**

This Master Plan recommends that Bonner County work with the Cities of Sandpoint and Ponderay to adopt a joint airport height hazard zoning ordinance, complete with a joint airport zoning board with the duty of administering and enforcing the regulations of the height hazard zoning ordinance.

**Assurance #21: Compatible Land Use**

The FAA is in the process of finalizing a compatible land use advisory circular. It is recommended that Bonner County work with the Cities of Sandpoint and Ponderay to adopt land development guidelines that follow FAA policy on compatible land use and airports. This will benefit the Airport by keeping it in compliance with Grant Assurance 21, and will benefit the surrounding communities by reducing the likelihood that new development will be adversely impacted by the presence of the Airport.

Further guidelines on compatible land use are available in Appendix C of the Idaho Transportation Department – Division of Aeronautics 2008 Idaho Airport System Plan (2008 ITD Plan), Appendix C. The 2008 ITD Plan include national and regulatory framework for enacting compatible land use policies at the local level; guidelines for compatible land use analysis and sample zoning ordinances.

**Assurance #22: Economic Nondiscrimination**

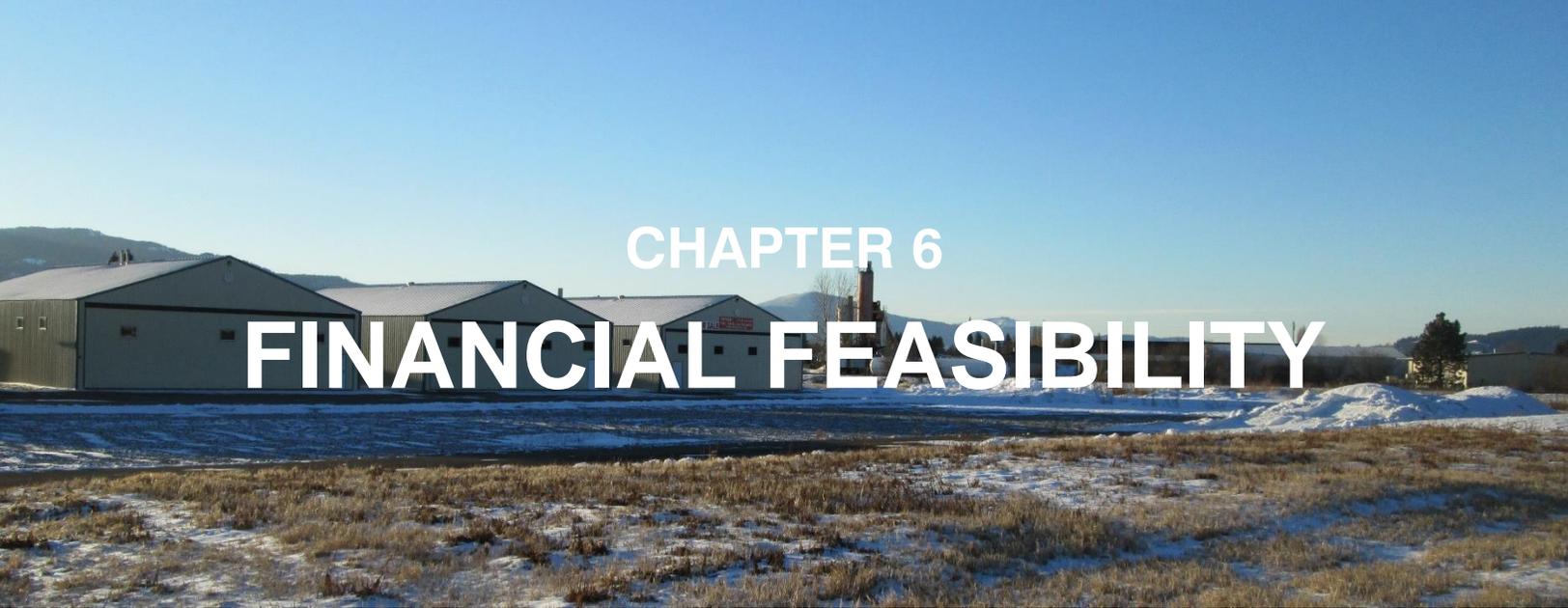
The airport access plan recommended above should be designed to avoid any economic nondiscrimination concerns that may lead to non-compliance with this grant assurance.

**Assurance #24: Fee and Rental Structure**

The airport access plan recommended above should be designed to avoid any fee and rental structure concerns that may lead to non-compliance with this grant assurance.

**Assurance #31: Disposal of Land**

In the event that future aviation activity outgrows the Airport's ability to accommodate users and it therefore must relocate to an alternate site, this Master Plan recommends that Bonner County adopt an explicit strategy for selling or otherwise disposing of the existing Airport property in accordance with FAA policies and procedures.



## CHAPTER 6

# FINANCIAL FEASIBILITY

The primary objective of the Financial Implementation Analysis for the Sandpoint Airport Master Plan is to evaluate the Airport's capability to fund the Capital Improvement Program (CIP) and to finance Airport operations. The program is planned for implementation through three phases of development including a five-year Short Term period (2015-2019), a five-year Intermediate Term period (2020-2024) and a ten-year Long Term period (2025-2034). The analysis includes development of a detailed Financial Implementation Plan. Objectives for developing the Financial Implementation Plan include presenting the results of the implementation evaluation and providing practical guidelines for matching an appropriate amount of financial sources with the planned use of funds.

### **6.1 Capital Funding Sources**

In the past, the Airport has used a combination of FAA Airport Improvement Program (AIP) entitlement and discretionary grants, State apportionments, and cash reserves/net revenues to fund capital improvements. These funding sources will continue as the Airport's primary sources to finance the Master Plan CIP. Specific information regarding sources of revenue and funding has been included in **Appendix I**, the Combined Capital and Operating Budget Forecast.

#### **6.1.1 Airport Improvement Program Grants**

The Airport receives grants from the Federal Aviation Administration (FAA) to fund eligible capital improvement projects. These federal grants are allocated to airports through the Airport Improvement Program (AIP). In February 2012, after several years of continuing budget resolutions in Congress, the FAA Modernization and Reform Act of 2012 was enacted and authorizes funding for the AIP through September 30, 2015. Under this AIP re-authorization legislation, eligible projects are funded on a 90% AIP grant / 10% local match basis for general aviation airports. Under this authorization, the Airport is projected to receive current year entitlements of \$150,000 in 2015. The implementation analysis assumes the application of AIP entitlement funds will be about \$150,000 during the Short Term planning period, the Intermediate Term and during the Long Term.

The approval of AIP discretionary / State apportionment funding is based on a project eligibility ranking method the FAA uses to award grants, at their discretion, based on a project's priority and importance to the national air transportation system. In the past, Sandpoint has received discretionary funding / State apportionment support for various eligible capital projects. It is reasonable to assume that the Airport will receive additional discretionary / State apportionment funding during the planning period for higher priority, eligible projects, such as the taxiway reconfiguration, runway reconstruction, land acquisitions and new general aviation apron construction, as well as other airfield pavement projects anticipated in future years.

The implementation analysis further assumes that the current AIP program will continue to be extended through 2034 and that future program authorizations will provide substantially similar funding levels as it currently does and as it has historically provided since the program was established in 1982.

### **6.1.2 Idaho State Funding**

The implementation analysis assumes that the Idaho Transportation Department (ITD) Division of Aeronautics will provide 2.5% of the total 10% local match. The total amount of State Funding is expected to be approximately \$165,977 during the Short Term, \$89,322 during the Intermediate Term, and \$139,163 during the Long Term.

### **6.1.3 Private 3rd Party Funding**

Many airports use private 3rd party financing when the planned improvements will be primarily used by a private business or other organization, especially if the airport is unable to make such an investment or if it is logically more advantageous for the airport to seek private funding. Projects of this kind typically include hangars, FBO facilities, cargo facilities, exclusive aircraft parking aprons, industrial development areas, non-aviation commercial areas and various other projects. Such projects are often not eligible for federal funding. If market demand does not attract this level of private investment during the anticipated time frame, the associated projects may be delayed until demand warrants development.

### **6.1.4 Other Unidentified Funding**

Conclusions of the Financial Implementation Analysis indicate that the traditional capital funding sources available to Sandpoint described in the preceding paragraphs are insufficient in amount to finance all the projects indicated in the 20 year CIP. Consequently, funding sources during each of the planning periods for the indicated projects remain unidentified and development of these projects will need to be delayed or cancelled if adequate funding cannot be determined when needed. The implementation analysis indicates that the combination of private funding, AIP discretionary / State apportionment, and unidentified funding relates to \$6.0 million in project costs for the Short Term, \$3.2 million for the Intermediate Term and \$5.0 million for the Long Term.

## **6.2 Financial analysis and implementation plan for the master plan capital improvement program**

This analysis, along with the tables presented at the end of Chapter 6, provides the results of evaluating the financial reasonableness of implementing the Master Plan Capital Improvement Program during the twenty-year planning period from 2015 through 2034.

**6.2.1 Estimated Project Costs and Development Schedule**

The CIP Estimated Project Costs and Development Schedule is derived from previous results of the Master Plan analysis. The CIP for capital expansion and improvement projects is projected on an annual basis for the Short Term planning period from 2015 through 2019, in total for the Intermediate Term planning period from 2020 through 2024 and in total for the Long Term planning period from 2025 through 2034. For each of these planning periods, **Table 6-2** (provided at the end of Chapter 6) presents the Capital Improvement Program including estimated costs and anticipated development schedule for the identified projects.

As shown in **Table 6-1**, the total estimated cost of projects is \$29,644,057 in 2015 dollars. The estimated costs for projects scheduled during the period 2016 through 2034 are adjusted by an assumed 3% rate of annual inflation. All estimated project costs during the Intermediate Term and Long Term assumed continued inflation until the end of each period (i.e. 2024 and 2034, respectively) as a conservative estimate. The resulting total project costs escalated for inflation have been determined to be approximately \$41,894,871. **Table 6-1** presents a summary of the table and provides a comparison of 2015 base year costs with escalated costs adjusted for inflation for each of the planning periods.

<b>Table 6-1: Summary of 2015 Base Year and Total Escalated Costs for the Master Plan Capital Improvement Program</b>		
<b>Planning Periods</b>	<b>2015 Base Year Costs</b>	<b>Total Escalated Costs</b>
Short Term Projects (2015-2019)	\$11,718,968	\$12,733,060
Intermediate Term Projects (2020-2024)	\$5,058,558	\$6,600,271
Long Term Projects (2025-2034)	\$12,866,531	\$22,561,540
<b>Total Project Costs</b>	<b>\$29,644,057</b>	<b>\$41,894,871</b>

A number of factors were identified through the development of the master plan which guided the sequencing of the Capital Improvement Program presented in Table 6-2. These factors are summarized as follows:

- The Environmental Assessment identified in 2015 is intended to address the initial 5-year development program. Future development and land acquisition such as shown on the east side of the airport may need to be re-evaluated for sufficient justification and may require additional environmental documentation at that time.
- Approach area obstructions have been identified which need to be removed in the short term. Most consist of tree obstructions that may be able to be removed with landowner consent. RPZ land acquisition is scheduled for 2018 which would allow for additional removal if necessary.

- FAA supports development of a full west side parallel taxiway. FAA support for an east parallel taxiway would be limited to the area adjacent to public apron areas. North of the apron areas funding would be “private”, or a combination of county and landowner funding.

- A runway shift of 30 feet to the north is identified to clear the railroad tracks to the south. This would require amendment of all instrument procedures and may require vertically guided design survey be entered into AGIS at least one year prior to publication of new approaches. The shift will require submittal of new airport data sheets to NFDC. The ALP calls for the current NDB to be eliminated which is currently used for missed approaches. This will require evaluation in development of new procedures. Construction will require shutdown of all Navids and coordination of an “Airport Sponsor Strategic Event Submission Form” at least 30 days in advance. Flight inspection of the localizer will be required at the completion of construction.

- The runway strength is currently listed as 40,000 pounds single wheel gear. Runway design will need to determine an equivalent dual wheel gear strength.

- The west parallel taxiway work is scheduled for the 2020-2024 time frame. The runway work may include a partial parallel taxiway adjacent to the south end of the runway until the full taxiway can be constructed.

### **6.2.2 Sources and Uses of Capital Funding**

Funding sources for the CIP depend on many factors, including AIP project eligibility, the ultimate type and use of facilities to be developed, the availability of other financing sources and the priorities for scheduling project completion. For master planning purposes, assumptions were made related to the funding source of each capital improvement.

**Table 6-2** lists each of the CIP projects, their estimated costs (in 2015 dollars) and the assumed funding sources and amounts. Throughout the entire 20-year planning period, it has been assumed that AIP entitlement and discretionary / State apportionment grants would be the primary funding source for the proposed projects. Implementation of capital projects that have AIP discretionary / State apportionment grants assumed as a funding source are subject to the availability of those grants. If the identified portion of discretionary / State apportionment funding is not awarded, then these projects will need to be delayed until funding is available.

<b>Table 6-2: Capital Improvement Program: 2015-2034</b>									
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020-2024</b>	<b>2025-2034</b>	<b>Total</b>	<b>Funding Type</b>
Environmental Assessment	\$200,000	\$0	\$0	\$0	\$0	\$0	\$0	\$200,000	AIP
Obstruction Removal	\$0	\$76,000	\$0	\$0	\$0	\$0	\$0	\$76,000	AIP
Land Acquisition (East and West Parallel Taxiway)	\$0	\$0	\$582,332	\$0	\$0	\$0	\$0	\$582,332	AIP
Private Land Acquisition (East Parallel Taxiway)	\$0	\$0	\$289,166	\$0	\$0	\$0	\$0	\$289,166	Local
Land Acquisition (RPZs)	\$0	\$0	\$0	\$1,626,824	\$0	\$0	\$0	\$1,626,824	AIP
Airport Wildlife Fencing	\$0	\$0	\$0	\$744,260	\$0	\$0	\$0	\$744,260	AIP
Private Wildlife Fencing	\$0	\$0	\$0	\$190,740	\$0	\$0	\$0	\$190,740	Local
Relocate Boyer Avenue & Fence Beyond ROFA	\$0	\$0	\$0	\$0	\$142,500	\$0	\$0	\$142,500	AIP
Runway Reconstruction*	\$0	\$0	\$0	\$0	\$3,267,146	\$0	\$0	\$3,267,146	AIP
Master Plan Update	\$0	\$0	\$0	\$0	\$0	\$400,000	\$0	\$400,000	AIP
Public West Parallel Taxiway Construction**	\$0	\$0	\$0	\$0	\$0	\$2,487,530	\$0	\$2,487,530	AIP
New Windcone / Segmented Circle	\$0	\$0	\$0	\$0	\$0	\$20,000	\$0	\$20,000	AIP
Public Partial East Parallel Taxiway	\$0	\$0	\$0	\$0	\$0	\$665,362	\$0	\$665,362	AIP
Private East Parallel Taxiway Construction	\$0	\$0	\$0	\$0	\$0	\$485,666	\$0	\$485,666	Local
New Box Hangars	\$0	\$200,000	\$3,200,000	\$200,000	\$200,000	\$1,000,000	\$6,500,000	\$11,300,000	Local
New T Hangars	\$0	\$0	\$800,000	\$0	\$0	\$0	\$800,000	\$1,600,000	Local
New Parking Lots	\$0	\$0	\$0	\$0	\$0	\$0	\$157,864	\$157,864	AIP
Land Acquisition (New GA Apron)	\$0	\$0	\$0	\$0	\$0	\$0	\$1,500,000	\$1,500,000	AIP
Access Roads (1,200' 2-lane w/curb and gutter)	\$0	\$0	\$0	\$0	\$0	\$0	\$342,000	\$342,000	AIP
Snow Removal Building	\$0	\$0	\$0	\$0	\$0	\$0	\$1,500,000	\$1,500,000	AIP
Snow Removal Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$166,667	\$166,667	AIP
Taxilane Extension	\$0	\$0	\$0	\$0	\$0	\$0	\$400,000	\$400,000	AIP
New GA Apron	\$0	\$0	\$0	\$0	\$0	\$0	\$1,500,000	\$1,500,000	AIP
<b>Total</b>	<b>\$200,000</b>	<b>\$276,000</b>	<b>\$4,871,498</b>	<b>\$2,761,824</b>	<b>\$3,609,646</b>	<b>\$5,058,558</b>	<b>\$12,866,531</b>	<b>\$29,644,057</b>	
<b>State Funding (2.5%)</b>	<b>\$5,000</b>	<b>\$1,900</b>	<b>\$14,558</b>	<b>\$59,277</b>	<b>\$85,241</b>	<b>\$89,322</b>	<b>\$139,163</b>	<b>\$394,462</b>	
<b>FAA Entitlement / State Apportionment (90%)</b>	<b>\$180,000</b>	<b>\$68,400</b>	<b>\$524,099</b>	<b>\$2,133,976</b>	<b>\$3,068,681</b>	<b>\$3,215,603</b>	<b>\$5,009,878</b>	<b>\$14,200,637</b>	
<b>Local Match (7.5%)</b>	<b>\$15,000</b>	<b>\$5,700</b>	<b>\$43,675</b>	<b>\$177,831</b>	<b>\$255,723</b>	<b>\$267,967</b>	<b>\$417,490</b>	<b>\$1,183,386</b>	
<b>Unidentified Funding</b>	<b>\$0</b>	<b>\$200,000</b>	<b>\$4,289,166</b>	<b>\$390,740</b>	<b>\$200,000</b>	<b>\$1,485,666</b>	<b>\$7,300,000</b>	<b>\$13,865,572</b>	

*Values in calculated in 2015 dollars. Cost estimates and funding sources are subject to revision. Numbers may not add exactly due to rounding.*

\*Runway reconstruction costs include new edge lighting, lighted signs, and visual nav aids.

\*\*Taxiway construction costs include new edge lighting and lighted signs.

**APPENDIX A**

**AIRPORT LAYOUT PLAN**

**Prepared by JUB Engineers; and Mead & Hunt**

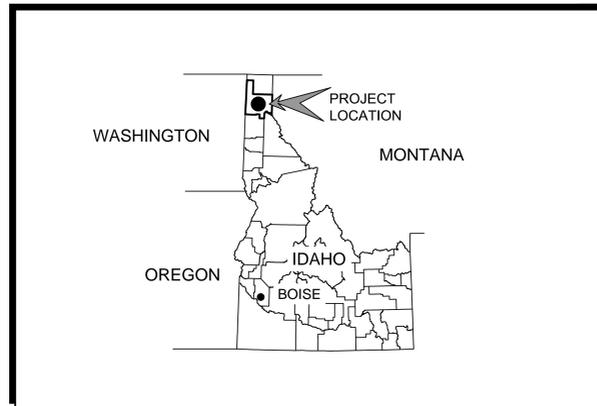
**September 2015**

# AIRPORT LAYOUT PLAN

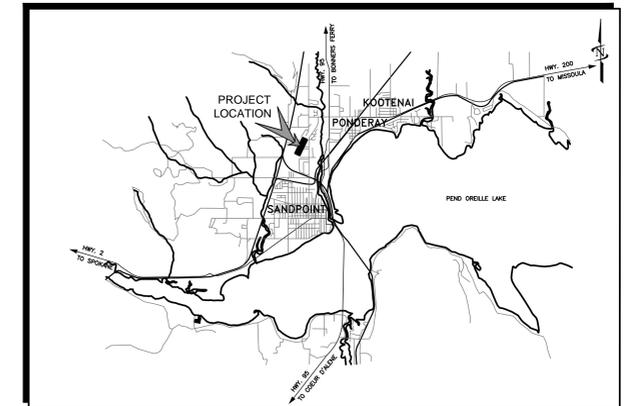
## SANDPOINT AIRPORT

SANDPOINT, IDAHO

MAY 2015



AREA MAP



VICINITY MAP



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NOTE:  
IF THESE SHEETS ARE PLOTTED ON 24" X 36" PAPER SIZE A MULTIPLIER OF 1.417 MAY BE USED FOR SCALING MEASUREMENTS.

AIP NO. 3-16-0033-014

**OWNER**  
**BONNER COUNTY**

**BOARD OF COUNTY COMMISSIONERS:**  
CARY KELLY, CHAIRMAN  
MIKE NIELSEN, VICE-CHAIRMAN  
GLEN BAILEY, COMMISSIONER

**AIRPORT MANAGEMENT:**  
SCOTT BAUER, AIRPORT DIRECTOR  
DAVE SCHUCK, AIRPORT MANAGER



**J-U-B ENGINEERS, INC.**  
W. 422 Riverside  
Suite 304  
Spokane, Washington 99201  
Phone: 509.458.3727  
Fax: 509.458.3762  
www.jub.com



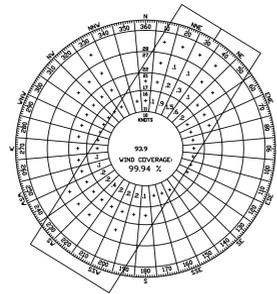
9600 NE Cascades Parkway  
Suite 100  
Portland, Oregon 97220  
Phone: 503.548.1494  
www.meadhunt.com

OTHER J-U-B COMPANIES



SPONSOR APPROVAL		REVISION		LAST UPDATED: April 6, 2015
BONNER COUNTY	DATE	NO.	DESCRIPTION	SHEET NUMBER: <b>1</b>

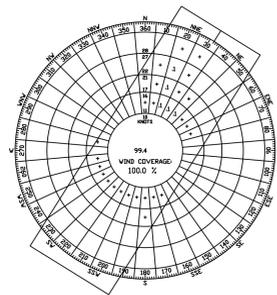
THE PREPARATION OF THESE DOCUMENTS WAS FINANCED IN PART THROUGH A PLANNING GRANT FROM THE FEDERAL AVIATION ADMINISTRATION AS PROVIDED UNDER SECTION 502 OF THE AIRPORT AND AIRWAY IMPROVEMENT ACT OF 1982, AS AMENDED. THE CONTENTS DO NOT NECESSARILY REFLECT THE OFFICIAL VIEWS OR POLICY OF THE FAA. ACCEPTANCE OF THESE DOCUMENTS BY THE FAA 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.



ALL-WEATHER WINDROSE

RUNWAY	WIND COVERAGE			
	10.5KT	13KT	16KT	20KT
2/20	99.84%	99.94%	99.99%	100.00%

Source: U.S. Department of Commerce  
National Climatic Data Center  
Station: Sandpoint, ID  
Period: 2004-2013  
Number of Observations: 237,562



IFR WINDROSE

RUNWAY	WIND COVERAGE			
	10.5KT	13KT	16KT	20KT
2/20	100.00%	100.00%	100.00%	100.00%

Source: U.S. Department of Commerce  
National Climatic Data Center  
Station: Sandpoint, ID  
Period: 2004-2013  
Number of Observations: 99,924

AIRPORT DATA TABLE		
ITEM	EXISTING	FUTURE
AIRPORT REFERENCE CODE (ARC)	B-II	B-II
MEAN MAXIMUM TEMPERATURE1	81.9	81.9
AIRPORT ELEVATION (ABOVE MEAN SEA LEVEL)	2131.6'	2131.6'
AIRPORT NAVIGATIONAL AIDS	LOC, DME, NDB	LOC, DME
AIRPORT REFERENCE POINT (ARP)	LAT: N48°17'58.36", LONG: W116°33'36.49"    LAT: N48°17'58.62", LONG: W116°33'36.25"	
MISCELLANEOUS FACILITIES	LIGHTED WIND CONE, AWOS III-P	LIGHTED WIND CONE, AWOS III-P
DESIGN AIRCRAFT	FALCON 50	CITATION CJ1
MAGNETIC DECLINATION, DATE, AND SOURCE	14.91°E, 2014, NGDC	14.91°E, 2014, NGDC
NPIAS SERVICE LEVEL	GA	GA
STATE EQUIVALENT SERVICE LEVEL	REGIONAL BUSINESS	REGIONAL BUSINESS

RUNWAY DATA TABLE					
ITEM	EXISTING		FUTURE		
	RUNWAY 2	RUNWAY 20	RUNWAY 2	RUNWAY 20	
RUNWAY DESIGN CODE (RDC)	B-II-5000	B-II-5000	B-II-5000	B-II-5000	
RUNWAY REFERENCE CODE (RRC)	B/II/5000	B/II/5000	B/II/5000	B/II/5000	
RUNWAY SURFACE TYPE	ASPHALT	ASPHALT	ASPHALT	ASPHALT	
PAVEMENT STRENGTH S/D/DT	40,000 SWG		SAME		
PAVEMENT CONDITION NUMBER (PCN)	N/A	N/A	N/A	N/A	
SURFACE TREATMENT	NONE	GROOVED			
EFFECTIVE GRADIENT (MAXIMUM)	0.024%	0.024%			
PERCENT WIND COVERAGE (10.5 KTS)	99.84%	99.84%	99.84%	99.84%	
LENGTH AND WIDTH	5,500'x75'	5,500'x75'	5,500'x75'	5,500'x75'	
DISPLACED THRESHOLD	NONE	NONE			
RUNWAY SAFETY AREA (RSA) WIDTH	150'	150'	150'	150'	
BEYOND DEPARTURE END	300'	300'	300'	300'	
RUNWAY END COORDINATES/ELEVATION	N48°17'35.38"/W116°33'58.11"/2128.7'	N48°18'21.34"/W116°33'14.85"/2130.0'	N48°17'35.63"/W116°33'57.88"/2129.1'	N48°18'21.60"/W116°33'14.61"/2130.0'	
RUNWAY LIGHTING TYPE	MIRL	MIRL	MIRL	MIRL	
RUNWAY PROTECTION ZONE (RPZ)	500'x700'x1,000'	500'x700'x1,000'	500'x700'x1,000'	500'x700'x1,000'	
RUNWAY MARKING	NON-PRECISION		NON-PRECISION		
FAR PART 77 APPROACH CATEGORY	B/34:1	B/34:1	B/34:1	B/34:1	
FAR PART 77 APPROACH TYPE	NON-PRECISION	NON-PRECISION	NON-PRECISION	NON-PRECISION	
VISIBILITY MINIMUMS	CIRCLING - 1 1/2 MILE	CIRCLING - 1 1/2 MILE	CIRCLING - 1 MILE	CIRCLING - 1 MILE	
TYPE OF SURVEY REQUIRED FOR APPROACH	NOT VERT. GUIDED	NOT VERT. GUIDED	VG	VG	
RUNWAY DEPARTURE SURFACE	N/A	YES	N/A	YES	
RUNWAY OBJECT FREE AREA (ROFA)					
LENGTH/WIDTH	300'/494'	300'/494'	300'/500'	300'/500'	
OBSTACLE FREE ZONE (OFZ) WIDTH/LENGTH	200'/400'	200'/400'	200'/400'	200'/400'	
THRESHOLD SETTING SURFACE	400'x3,800'x10,000' 20:1 SLOPE, 200' FROM END	400'x1,000x1,500'+8,500' 20:1 SLOPE	400'x3,800'x10,000' 20:1 SLOPE, 200' FROM END	400'x3,800'x10,000' 20:1 SLOPE, 200' FROM END	
VISUAL AND INSTRUMENT NAVIDS	REIL/PAPI/LOC/DME/NDB	REIL/PAPI	REIL/PAPI/LOC/DME	REIL/PAPI	
TOUCHDOWN ZONE ELEVATION	2,131.6'	2,131.6'	2,131.6'	2,131.6'	

TAXIWAY AND TAXILANE INFO		
ITEM	EXISTING	FUTURE
TAXIWAY WIDTH	25'	35'
TAXILANE WIDTH	25'	35'
TAXIWAY SAFETY AREAS	79'	79'
TAXIWAY OBJECT FREE AREA	94'	131'
TAXILANE OBJECT FREE AREA	79' MIN	79' MIN
TWY CENTERLINE TO PARALLEL TWY/TL CENTERLINE	155'	115'
TWY CENTERLINE TO FIXED/MOVABLE OBJECT	47'	65.5'
TL CENTERLINE TO PARALLEL TL CENTERLINE	N/A	N/A
TL CENTERLINE TO FIXED/MOVABLE OBJECT	VARIES	VARIES
TAXIWAY LIGHTING	REFLECTORS	MITL
TAXILANE LIGHTING	NONE	NONE
VERTICAL AND HORIZONTAL DATUMS	VERTICAL: NAVD 88, HORIZONTAL: NAD 83	

NON-STANDARD CONDITIONS					
EXISTING	RUNWAY 20		FUTURE		DATE OF PROPOSED MITIGATION
	RUNWAY 2	RUNWAY 20	RUNWAY 2	RUNWAY 20	
RWY CL TO PARALLEL TW CL 200'			RWY CL TO PARALLEL TW CL 240'		2019
RWY CL TO HOLD LINE 185'			RWY CL TO HOLD LINE 200'		2019
TAXIWAY WIDTH 30'			TAXIWAY WIDTH 35'		2021
TAXIWAY OFA WIDTH 94' (FENCE TO NORTHEAST)			TAXIWAY OFA WIDTH 131'		2019
RUNWAY OFA WIDTH 494' (FENCE TO NORTHEAST)			RUNWAY OFA WIDTH 500'		2019

DECLARED DISTANCES				
ITEM	EXISTING		FUTURE	
	RUNWAY 2	RUNWAY 20	RUNWAY 2	RUNWAY 20
TAKE OFF RUN AVAILABLE (TORA)	5,500'	5,500'	5,500'	5,500'
TAKE OFF DISTANCE AVAILABLE (TODA)	5,500'	5,500'	5,500'	5,500'
ACCELERATE STOP DISTANCE AVAILABLE (ASDA)	5,500'	5,500'	5,500'	5,500'
LANDING DISTANCE AVAILABLE (LDA)	5,500'	5,500'	5,500'	5,500'

LEGEND		
EXISTING	FUTURE	DESCRIPTION
[Symbol]	[Symbol]	BUILDING/STRUCTURE
[Symbol]	[Symbol]	EASEMENT
[Symbol]	[Symbol]	PROPERTY ACQUISITION
[Symbol]	[Symbol]	ROADWAY
[Symbol]	[Symbol]	AIRPORT MAINTENANCE ROAD
[Symbol]	[Symbol]	AIRFIELD PAVEMENT
[Symbol]	[Symbol]	PARKING AREA
[Symbol]	[Symbol]	AIRFIELD STRIPING
[Symbol]	[Symbol]	PAVEMENT TO BE REMOVED
[Symbol]	[Symbol]	AIRPORT PROPERTY LINE (APL)
[Symbol]	[Symbol]	APPROACH SURFACE
[Symbol]	[Symbol]	BUILDING RESTRICTION LINE
[Symbol]	[Symbol]	RUNWAY OBJECT FREE AREA
[Symbol]	[Symbol]	RUNWAY PROTECTION ZONE
[Symbol]	[Symbol]	RUNWAY SAFETY AREA
[Symbol]	[Symbol]	TAXIWAY OBJECT FREE AREA
[Symbol]	[Symbol]	TAXIWAY SAFETY AREA
[Symbol]	[Symbol]	NAVAID CRITICAL AREA
[Symbol]	[Symbol]	AIRPORT FENCE
[Symbol]	[Symbol]	PRIVATE FENCE
[Symbol]	[Symbol]	CONTOUR LINES
[Symbol]	[Symbol]	RAILROAD
[Symbol]	[Symbol]	THRESHOLD LIGHTS
[Symbol]	[Symbol]	REIL
[Symbol]	[Symbol]	PAPI / VASI
[Symbol]	[Symbol]	AIRCRAFT TIEDOWN
[Symbol]	[Symbol]	AIRPORT REFERENCE POINT (ARP)
[Symbol]	[Symbol]	PACS & SACS MONUMENTS
[Symbol]	[Symbol]	AIRPORT BEACON
[Symbol]	[Symbol]	SEGMENTED CIRCLE
[Symbol]	[Symbol]	TETRAHEDRON
[Symbol]	[Symbol]	WINDSOCK
[Symbol]	[Symbol]	TIF EASEMENT

NOTES:  
1. LOC, DME, NDB ARE AIRPORT OWNED  
2. CURRENT RDC/ARC ARE B-II BASED ON CURRENT AND FORECASTED OPERATIONS. HOWEVER, THE COUNTY WILL NEED TO REEVALUATE THE CRITICAL AIRPORT AND NUMBER OF OPERATIONS IN THE NEXT ALP UPDATE TO CONFIRM LONG-TERM VIABILITY OF THE EXISTING AIRPORT SITE TO MEET FAA DESIGN STANDARDS.

AIRPORT LAYOUT PLAN

AIRPORT DATA SHEET



JUB PROJECT #:	70-13-024	DATE:	May 14, 2015
FILE #:	70-13-024_C-AF_2		
DRAWN BY:	ZS		
DESIGN BY:	SS		
CHECKED BY:	MN		

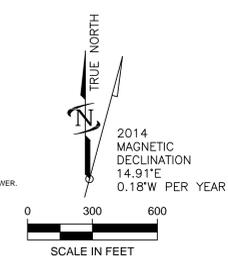
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REUSE OF DRAWINGS			
NO.	DESCRIPTION	BY	DATE

LEGEND	
EXISTING	DESCRIPTION
	BUILDING/STRUCTURE
	EASEMENT
	PROPERTY ACQUISITION
	ROADWAY
	AIRPORT MAINTENANCE ROAD
	AIRFIELD PAVEMENT
	PARKING AREA
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	BUILDING RESTRICTION LINE
	RUNWAY OBJECT FREE AREA
	RUNWAY PROTECTION ZONE
	RUNWAY SAFETY AREA
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	TAXIWAY SAFETY AREA
	NAVAID CRITICAL AREA
	FENCE
	CONTOUR LINES
	RAILROAD
	THRESHOLD LIGHTS
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	PACS & SACS MONUMENTS
	AIRPORT BEACON
	SEGMENTED CIRCLE
	TETRAHEDRON
	WINDSOCK
	TTF EASEMENT

BUILDING DATA		
BLD. NUMBER	TENANT	TOP OF BUILDING ELEVATION
1	HARRISON	2148.34
2	GECKIN	2151.41
3	JACKSON	2144.05
4	DEMPSEY	2148.06
5	NORTH IDAHO AVIATION	2154.39
6	PACK RIVER AVIATION	2151.02
7	SIMCHUCK	2150.39
8	NORTH IDAHO AVIATION	2150.39
9	PIPER	2126.03
10	ANDY BERREY	2126.49
11	ANDY BERREY	2152.53
12	ANDY BERREY	2127.15
24	SMITH	2154.61
25	LIFE FLIGHT	2154.61
26	GRANITE AVIATION	2155.28
27	GRANITE AVIATION	2142.05

- NOTES:
1. NAVD83 VERTICAL CONTROL DATUM WAS USED.
  2. NAD83 COORDINATE SYSTEM WAS USED.
  3. THE BUILDING RESTRICTION LINE (BRL) FROM THE RUNWAY CENTERLINE APPROXIMATES A BUILDING HEIGHT OF 20 FEET. IT DOES NOT INCLUDE CONSIDERATION FOR TOPOGRAPHY VARIATIONS THAT COULD REQUIRE MAXIMUM BUILDING HEIGHTS THAT ARE LOWER.
  4. ROADWAY AND RAILROAD ELEVATIONS ARE GROUND ELEVATIONS. SEE SHEET 6 FOR FURTHER DETAIL.
  5. EXISTING FENCE IS 6' CHAIN LINK.

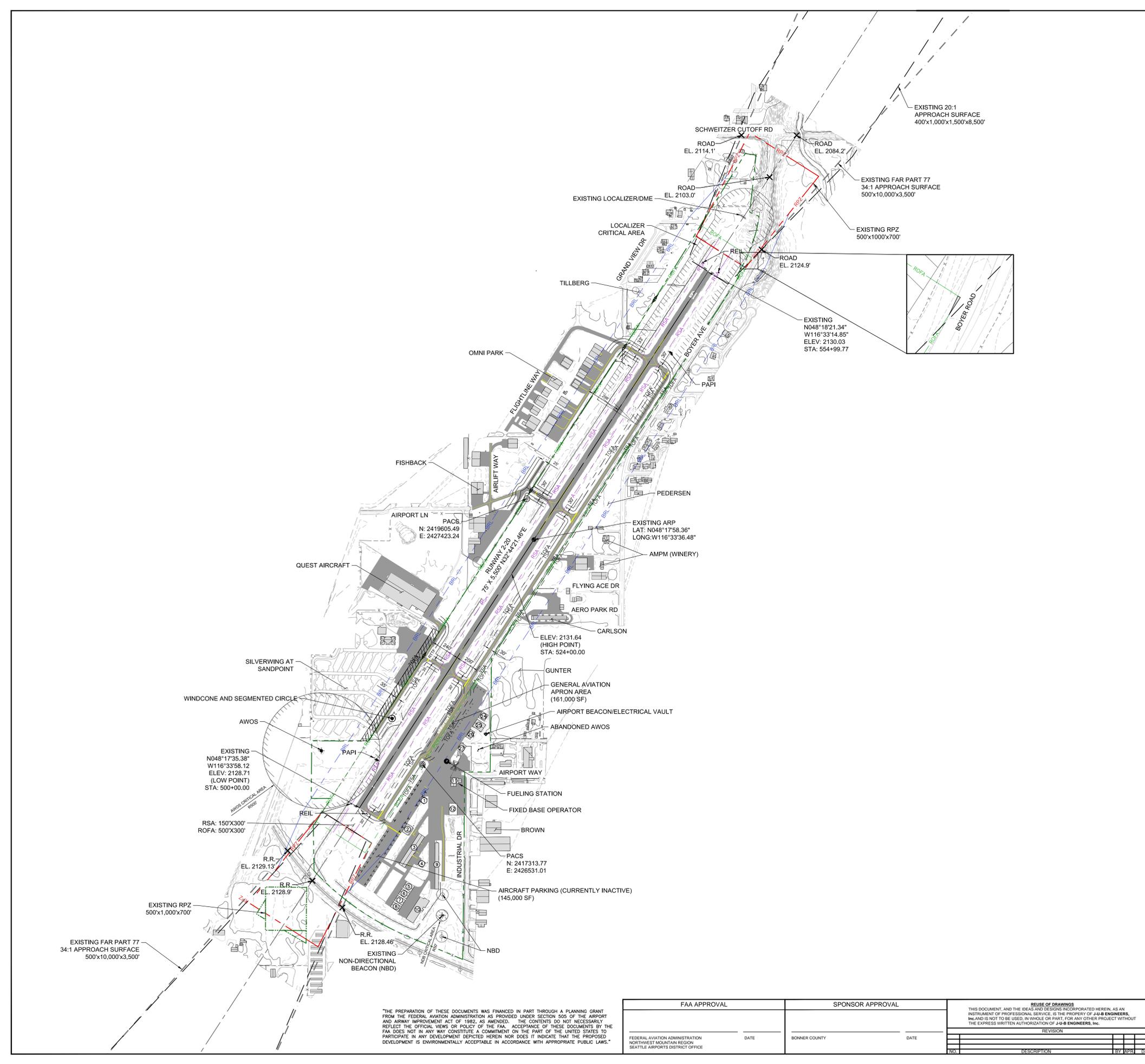


**AIRPORT LAYOUT PLAN**

**EXISTING**



JUB PROJ. #:	70-13-024	DATE:	April 6, 2015
FILE #:	70-13-024_C-AF_3		
DRAWN BY:	ZS		
DESIGN BY:	SS		
CHECKED BY:	MN		



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FAA APPROVAL	SPONSOR APPROVAL
FEDERAL AVIATION ADMINISTRATION NORTHWEST MOUNTAIN REGION SEATTLE AIRPORTS DISTRICT OFFICE	BONNER COUNTY
DATE	DATE

REUSE OF DRAWINGS			
THIS DOCUMENT, AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF J-U-B ENGINEERS, INC. AND IS NOT TO BE USED, IN WHOLE OR PART, FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF J-U-B ENGINEERS, INC.			
NO.	DESCRIPTION	BY	DATE

P:\01\104\104015 - USCEPES\FULL\PROJECTS\AIRPORT\SAFETY\13-024 SANITARY MASTER PLAN\WATEC\ASHEET\13-024\_C-AF\_3.DWG



May 27, 2015

The Honorable Cary Kelly, Chairman  
Bonner County Airport Commission  
1500 Highway 2, Ste. 308  
Sandpoint, ID 83864

Dear Chairman Kelly:

The revised Airport Layout Plan (ALP) for the Sandpoint Airport, Sandpoint, Idaho prepared by JUB Engineers, Inc., and bearing your signature, is conditionally approved. A signed copy of the approved ALP is enclosed.

An aeronautical study (No. 2015-ANM-155-NRA) was approved on May 14, 2015 for the development shown on the ALP. This determination does not constitute FAA approval or disapproval of the physical development involved in the proposal. It is a determination with respect of the safe and efficient use of navigable airspace by aircraft and with respect to the safety of persons and property on the ground.

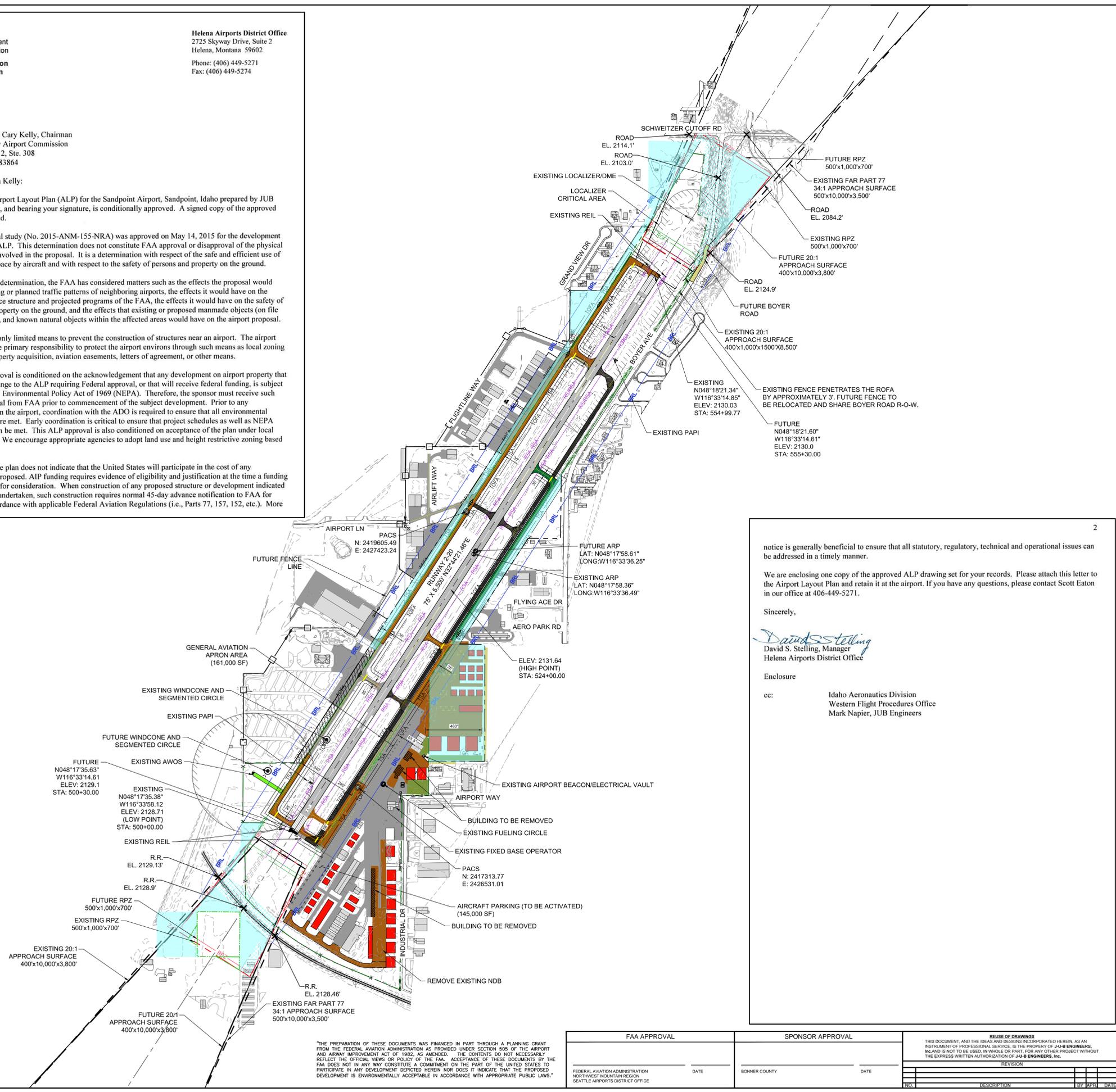
In making this determination, the FAA has considered matters such as the effects the proposal would have on existing or planned traffic patterns of neighboring airports, the effects it would have on the existing airspace structure and projected programs of the FAA, the effects it would have on the safety of persons and property on the ground, and the effects that existing or proposed manmade objects (on file with the FAA), and known natural objects within the affected areas would have on the airport proposal.

The FAA has only limited means to prevent the construction of structures near an airport. The airport sponsor has the primary responsibility to protect the airport environs through such means as local zoning ordinance, property acquisition, aviation easements, letters of agreement, or other means.

This ALP approval is conditioned on the acknowledgement that any development on airport property that results in a change to the ALP requiring Federal approval, or that will receive federal funding, is subject to the National Environmental Policy Act of 1969 (NEPA). Therefore, the sponsor must receive such written approval from FAA prior to commencement of the subject development. Prior to any development on the airport, coordination with the ADO is required to ensure that all environmental requirements are met. Early coordination is critical to ensure that project schedules as well as NEPA compliance can be met. This ALP approval is also conditioned on acceptance of the plan under local land use laws. We encourage appropriate agencies to adopt land use and height restrictive zoning based on the plan.

Approval of the plan does not indicate that the United States will participate in the cost of any development proposed. AIP funding requires evidence of eligibility and justification at the time a funding request is ripe for consideration. When construction of any proposed structure or development indicated on the plan is undertaken, such construction requires normal 45-day advance notification to FAA for review in accordance with applicable Federal Aviation Regulations (i.e., Parts 77, 157, 152, etc.). More

Helena Airports District Office  
2725 Skyway Drive, Suite 2  
Helena, Montana 59602  
Phone: (406) 449-5271  
Fax: (406) 449-5274



notice is generally beneficial to ensure that all statutory, regulatory, technical and operational issues can be addressed in a timely manner.

We are enclosing one copy of the approved ALP drawing set for your records. Please attach this letter to the Airport Layout Plan and retain it at the airport. If you have any questions, please contact Scott Eaton in our office at 406-449-5271.

Sincerely,  
*David S. Stelling*  
David S. Stelling, Manager  
Helena Airports District Office

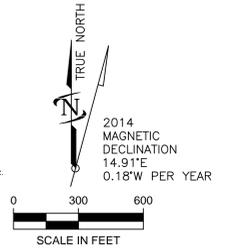
Enclosure

cc: Idaho Aeronautics Division  
Western Flight Procedures Office  
Mark Napier, JUB Engineers

LEGEND		DESCRIPTION
EXISTING	FUTURE	
[Symbol]	[Symbol]	BUILDING/STRUCTURE
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[Symbol]	[Symbol]	AIRPORT MAINTENANCE ROAD
[Symbol]	[Symbol]	AIRFIELD PAVEMENT
[Symbol]	[Symbol]	NON-FEDERALLY FUNDED TAXIWAY
[Symbol]	[Symbol]	PARKING AREA
[Symbol]	[Symbol]	AIRFIELD STRIPING
[Symbol]	[Symbol]	PAVEMENT TO BE REMOVED
[Symbol]	[Symbol]	AIRPORT PROPERTY LINE (APL)
[Symbol]	[Symbol]	APPROACH SURFACE
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[Symbol]	[Symbol]	RUNWAY OBJECT FREE AREA
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[Symbol]	[Symbol]	GATE

BUILDING DATA		
BLD. NUMBER	TENANT	TOP OF BUILDING ELEVATION
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2	GECKIN	2151.41
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24	SMITH	2154.61
25	LIFE FLIGHT	2154.61
26	GRANITE AVIATION	2155.28
27	GRANITE AVIATION	2142.05

- NOTES:
- NAVD88 VERTICAL CONTROL DATUM WAS USED.
  - NAD83 COORDINATE SYSTEM WAS USED.
  - THE BUILDING RESTRICTION LINE (BRL) FROM THE RUNWAY CENTERLINE APPROXIMATES A BUILDING HEIGHT OF 20 FEET. IT DOES NOT INCLUDE CONSIDERATION FOR TOPOGRAPHY VARIATIONS THAT COULD REQUIRE MAXIMUM BUILDING HEIGHTS TO BE LOWER.
  - ROADWAY AND RAILROAD ELEVATIONS ARE GROUND ELEVATIONS. SEE SHEET 6 FOR FURTHER DETAIL.
  - FUTURE FENCING TO BE 10' WILDLIFE FENCING.



# AIRPORT LAYOUT PLAN

## FUTURE



JUB PROJECT #	70-13-024	DATE	April 6, 2015
DRAWN BY	ZS		
DESIGN BY	SS		
CHECKED BY	MN		

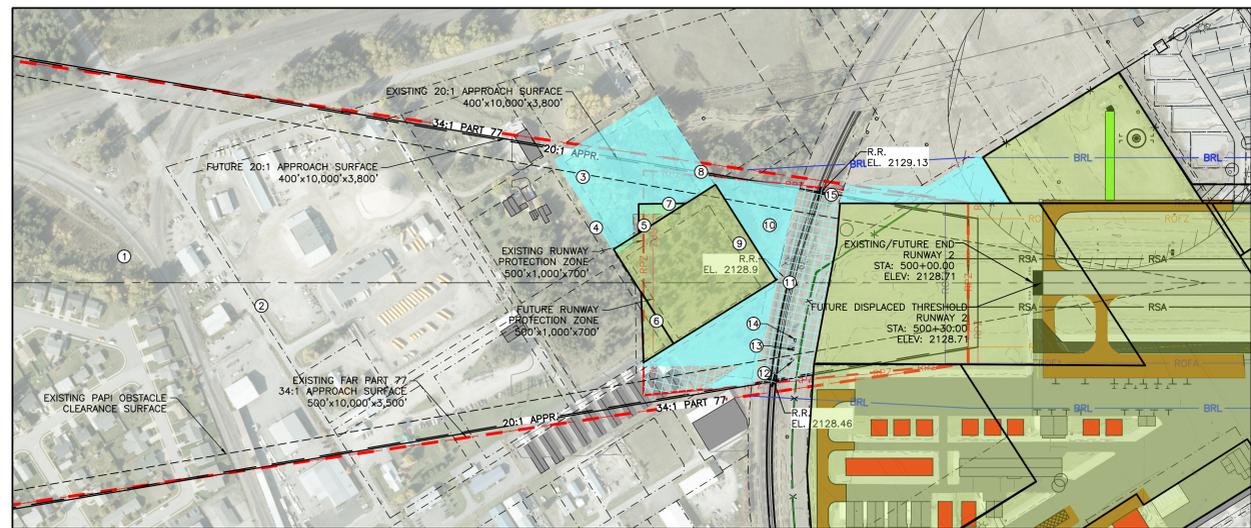
SHEET 4 of 11

FAA APPROVAL	SPONSOR APPROVAL
FEDERAL AVIATION ADMINISTRATION NORTHWEST MOUNTAIN REGION SEATTLE AIRPORTS DISTRICT OFFICE	BONNER COUNTY
DATE	DATE

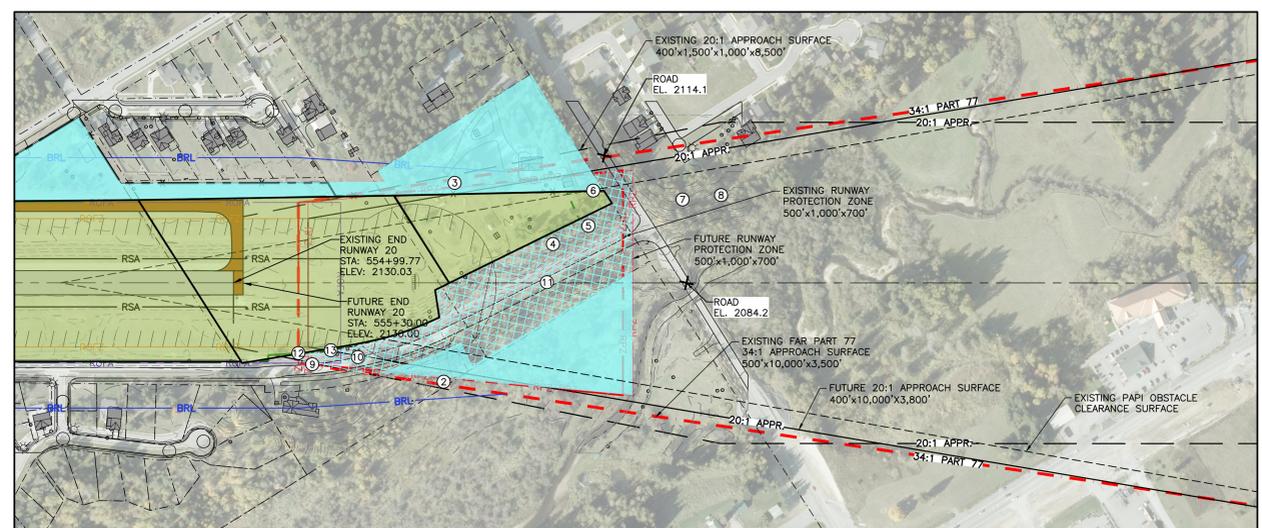
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NO.	DESCRIPTION

FILE: 70-13-024\_C-AF\_4 DATE: April 6, 2015

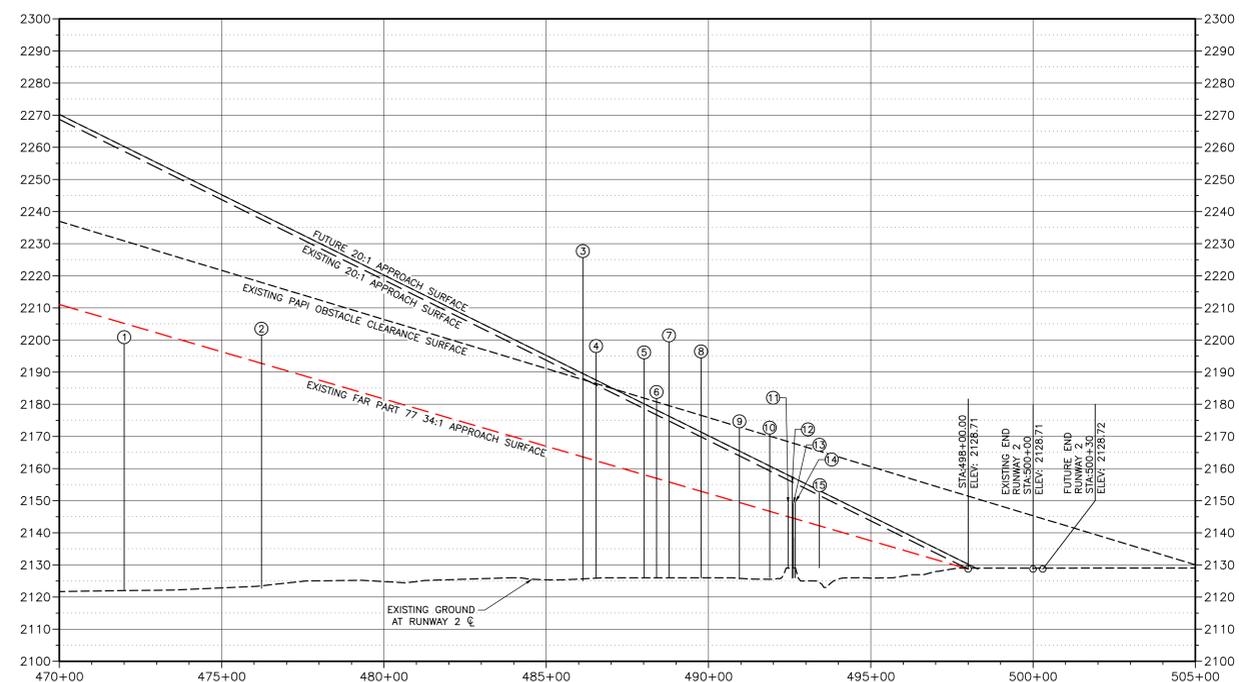




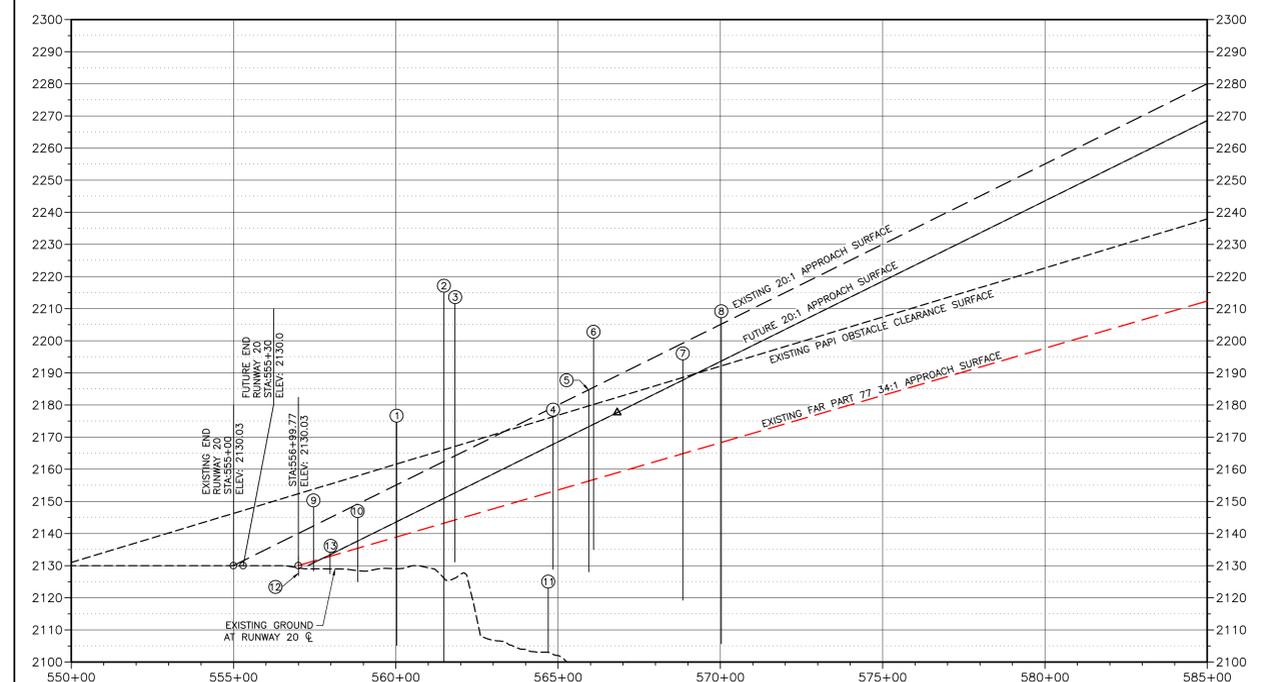
RUNWAY END 2 - PLAN



RUNWAY END 20 - PLAN



RUNWAY END 2 - PROFILE



RUNWAY END 20 - PROFILE

NOTES:  
 1. OBJECT ELEVATIONS IN FEET (NAVD83)  
 2. OBSTRUCTION ELEVATIONS ARE FOR PLANNING PURPOSES ONLY AND WERE NOT SURVEYED. ACTUAL ELEVATIONS SHOULD BE FIELD VERIFIED PRIOR TO ANY PROPOSED DESIGN OR CONSTRUCTION WORK.  
 3. OBSTRUCTION SURVEY DATA WAS OBTAINED IN 2013.

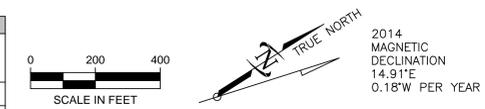
LEGEND		
EXISTING	FUTURE	DESCRIPTION
---	---	PART 77 SURFACE
---	---	APPROACH SURFACE
---	---	AIRFIELD STRIPING
---	---	AIRPORT PROPERTY LINE (APL)
---	---	BUILDING RESTRICTION LINE (BRL)
---	---	RUNWAY OBJECT FREE AREA (ROFA)
---	---	RUNWAY PROTECTION ZONE (RPZ)
---	---	RUNWAY SAFETY AREA (RSA)
---	---	BUILDING/STRUCTURE
---	---	ROADWAY
---	---	AIRPORT MAINTENANCE ROAD
---	---	AIRFIELD PAVEMENT
---	---	EASEMENT
---	---	PROPERTY ACQUISITION
---	---	NAVAID CRITICAL AREA
---	---	AIRPORT FENCE
---	---	PRIVATE FENCE
---	---	CONTOUR LINES
---	---	RAILROAD
---	---	THRESHOLD LIGHTS
---	---	REIL
---	---	OBSTRUCTION CALLOUT

OBJECTS WITHIN RUNWAY 2 APPROACH SURFACE									
NO.	OBJECT	GROUND ELEVATION	TOP ELEVATION	PART 77 (34:1) PENETRATION	EXISTING 20:1 PENETRATION	FUTURE 20:1 PENETRATION	PAPI PENETRATION	PROPOSED ACTION	PROPOSED DATE OF ACTION
1	POLE	2122.30	2198.87	-	-	-	-	NONE	N/A
2	POLE	2122.70	2201.52	9'	-	-	-	MARK OR LIGHT	N/A
3	TREE	2125.00	2225.67	62'	38'	36'	38'	REMOVE	2016
4	TREE	2126.01	2196.10	34'	10'	8'	10'	REMOVE	2016
5	TREE	2126.00	2194.15	36'	16'	14'	12'	REMOVE	2016
6	TREE	2125.88	2181.81	25'	5'	3'	1'	REMOVE	2016
7	TREE	2126.23	2199.45	44'	25'	23'	20'	REMOVE	2016
8	TREE	2125.89	2194.43	42'	25'	23'	18'	REMOVE	2016
9	TREE	2125.56	2172.67	23'	9'	7'	-	REMOVE	2016
10	TREE	2125.97	2170.23	24'	11'	9'	0.6'	REMOVE	2016
11	RAIL ROAD	2128.96	2151.96	4'	-	-	-	NONE	N/A
12	TREE	2125.86	2155.43	11'	-	-	-	REMOVE	2016
13	TREE	2125.98	2149.04	4'	-	-	-	REMOVE	2016
14	TREE	2125.98	2149.54	5'	-	-	-	REMOVE	2016
15	RAIL ROAD	2129.63	2152.63	10'	1.48'	-	-	RELOCATE THRESHOLD	2019

OBJECTS WITHIN RUNWAY 20 APPROACH SURFACE									
NO.	OBJECT	GROUND ELEVATION	TOP ELEVATION	PART 77 (34:1) PENETRATION	EXISTING 20:1 PENETRATION	FUTURE 20:1 PENETRATION	PAPI PENETRATION	PROPOSED ACTION	PROPOSED DATE OF ACTION
1	TREE	2105.15	2198.87	36'	19'	31'	13'	REMOVE	2016
2	TREE	2076.70	2215.13	72'	53'	65'	49'	REMOVE	2016
3	TREE	2131.16	2211.64	67'	47'	59'	45'	REMOVE	2016
4	TREE	2128.80	2176.54	23'	-	9'	0.2'	REMOVE	2016
5	TREE	2128.09	2196.10	28'	-	12'	5'	REMOVE	2016
6	TREE	2129.66	2200.77	44'	15'	27'	21'	REMOVE	2016
7	TREE	2119.41	2194.09	29'	-	7'	6'	REMOVE	2016
8	TREE	2105.69	2207.18	39'	2'	14'	15'	REMOVE	2016
9	ROAD	2128.00	2143.00	12'	5'	13'	-	NONE	N/A
10	ROAD	2125.00	2140.00	5'	-	3'	-	NONE	N/A
11	ROAD	2103.00	2118.00	-	-	-	-	NONE	N/A
12	FENCE	2125.00	2133.00	3'	-	8'	-	RELOCATE ROAD	2019
13	FENCE	2128.2	2134.2	1.5'	-	3'	-	RELOCATE ROAD	2019

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REVISION			
NO.	DESCRIPTION	BY	DATE



## AIRPORT LAYOUT PLAN

### RUNWAY 2-20 INNER APPROACH SURFACES

J-U-B ENGINEERS, INC.

Mead & Hunt

FILE: 70-13-024\_C-AF\_6      DATE: May 14, 2015

JUB PROJ #: 70-13-024

DRAWN BY: ZS

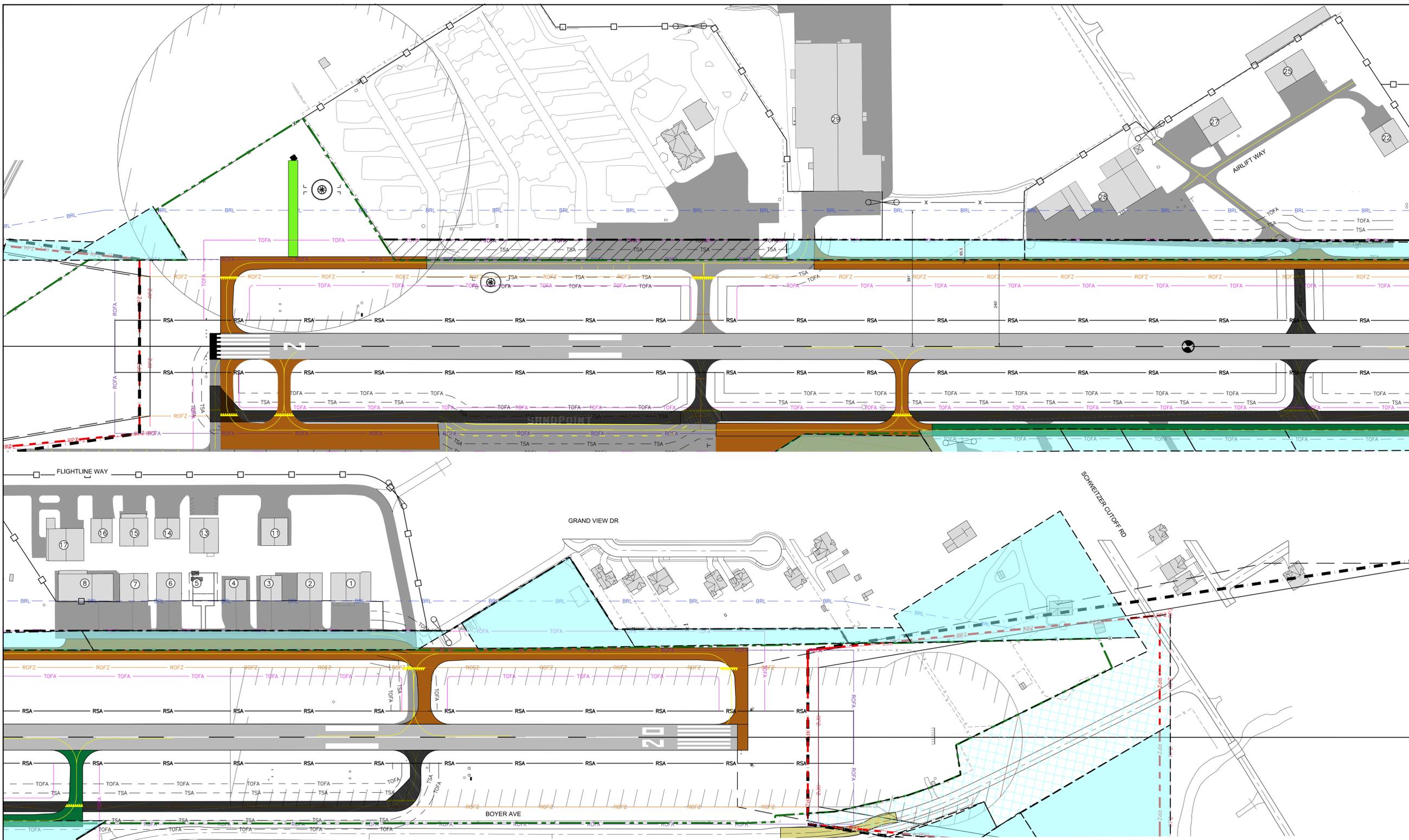
DESIGN BY: SS

CHECKED BY: MN

SHEET 6 of 11



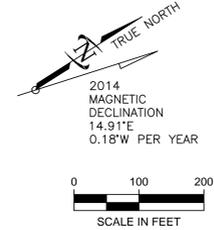




EXISTING		FUTURE		DESCRIPTION	
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	NAVAID CRITICAL AREA
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	AIRPORT FENCE
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	PRIVATE FENCE
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	RAILROAD
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	THRESHOLD LIGHTS
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	REL
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	PAPI / VASI
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	AIRCRAFT TIEDOWN
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	AIRPORT BEACON
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	SEGMENTED CIRCLE
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	WINDSOCK
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	GATE

BUILDING DATA		
BLD. NUMBER	TENANT	TOP OF BUILDING ELEVATION
1	D'ATTILIO, KEN	2158.32
2	CAPAWANA, ROSS/JUDITH	2157.44
3	AUCLAIR, CAROL/MIKE	2152.29
4	DANCHUK, ARTHUR	2164.44
5	DIEDRICH, STEPHEN & BECKY	2142.57
6	LANE, JAMES	2158.62
7	MARTIN, ERNIE	2152.15
8	GLANTZ, RICHARD/JOAN	2161.52

11	FEENSTRA TRUST	2163.52
13	LEE, JAN & PAULA	2155.64
14	INLAND AVIATION SPECIALTIES	2162.78
15	RAPOPORT, MIKE INC	2166.18
16	LANE, THOMAS/JOYCE	2162.02
17	FLIGHTLINE IDAHO LLC	2161.44
22	ANDERSON TRUST	2167.02
25	SANDPOINT HANGARS LLC	2158.01
27	SUGDEN, RICHARD/SUSAN	2159.38
28	FISHBACK, JAMES/ANNETTE	2160.06



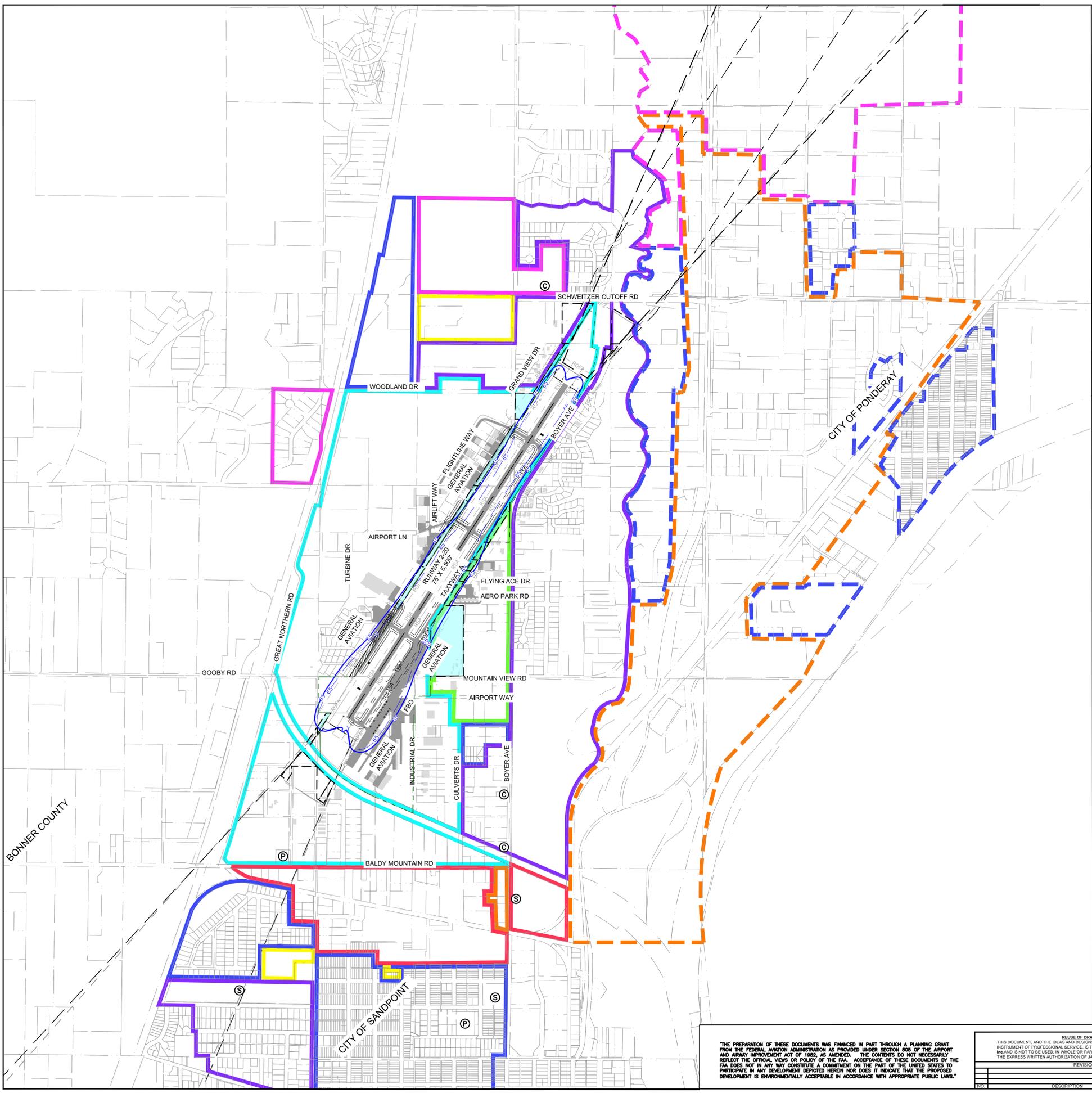
## AIRPORT LAYOUT PLAN

### TERMINAL AREA PLAN (WEST)



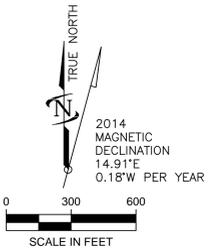
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JUB J-U-B ENGINEERS, INC.	MEAD & HUNT	JUB PROJ #: 70-13-024 DRAWN BY: ZS DESIGN BY: SS CHECKED BY: MN
SHEET 9 of 11		

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EXISTING		FUTURE		DESCRIPTION
—65—	—65—			NOISE CONTOUR 65 DNL
—	—			INDUSTRIAL GENERAL (SANDPOINT)
—	—			INDUSTRIAL TECHNOLOGY (SANDPOINT)
—	—			INDUSTRIAL BUSINESS PARK (SANDPOINT)
—	—			PROFESSIONAL OFFICE (SANDPOINT)
—	—			COMMERCIAL (SANDPOINT)
—	—			RURAL RESIDENTIAL (SANDPOINT)
—	—			SINGLE FAMILY/RESIDENTIAL ZONE (SANDPOINT)
—	—			MULTI-FAMILY/RESIDENTIAL ZONE (SANDPOINT)
—	—			COMMERCIAL (PONDERAY)
—	—			RURAL RESIDENTIAL (PONDERAY)
—	—			MULTI-FAMILY/RESIDENTIAL ZONE (PONDERAY)
—	—			AIRPORT PROPERTY LINE
(P)				PARK
(C)				CHURCH
(S)				SCHOOL

- NOTES:**
- BONNER COUNTY AND CITY OF SANDPOINT HAVE ADOPTED A HAZARDOUS ZONING OVERLAY BASED ON FAR PART 77 IMAGINARY SURFACES
  - A NEW ZONING OVERLAY IS RECOMMENDED AND IT IS TO BE ADOPTED BY BONNER COUNTY, CITY OF SANDPOINT, AND CITY OF PONDERAY



**AIRPORT LAYOUT PLAN**

**LAND USE VICINITY AERIAL**

J-U-B ENGINEERS, INC.

FILE : 70-13-024\_C-AF\_10

JUB PROJ # : 70-13-024

DATE: April 6, 2015

DRAWN BY: ZS

DESIGN BY: SS

CHECKED BY: MN

SHEET 10 of 11

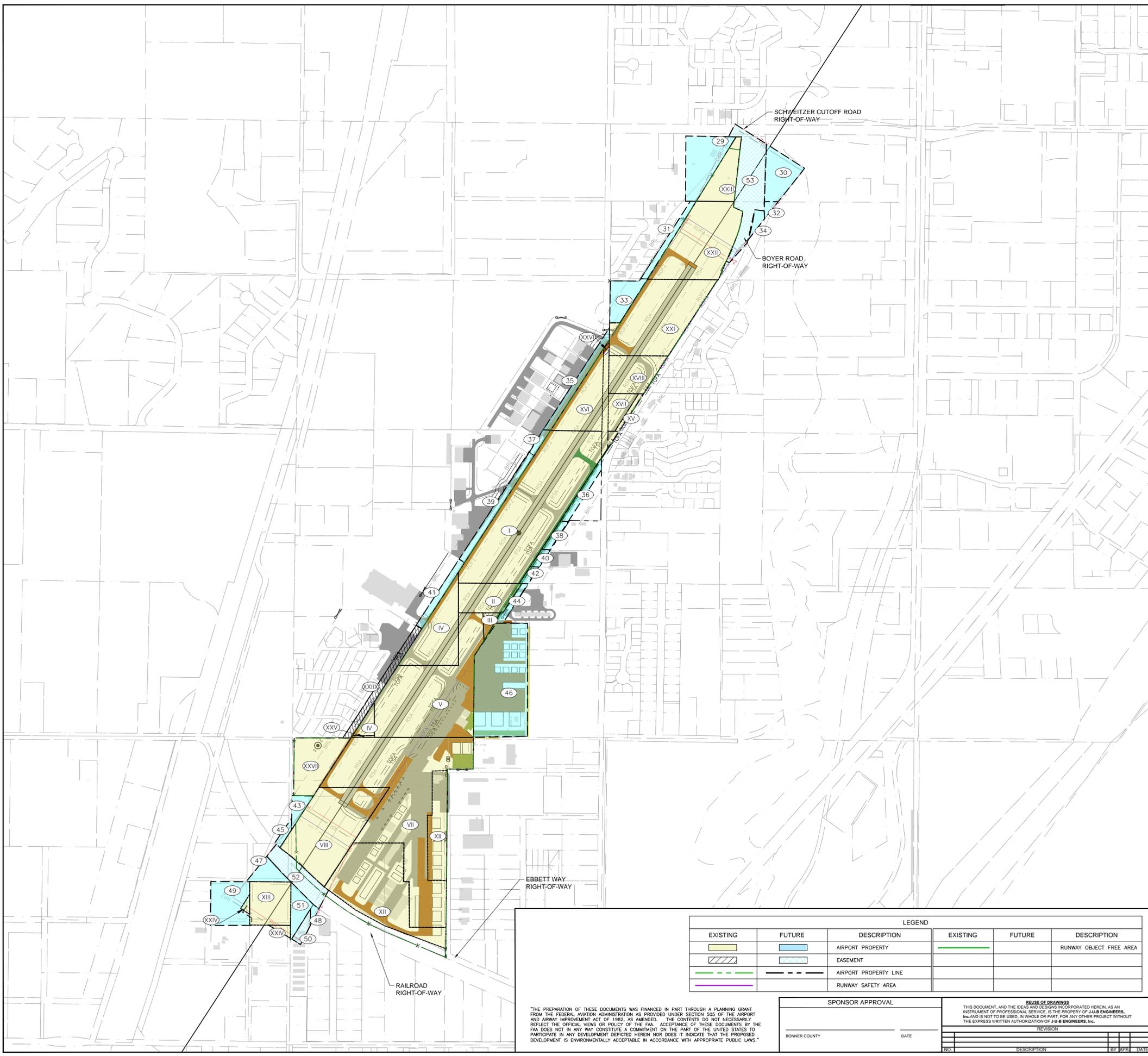
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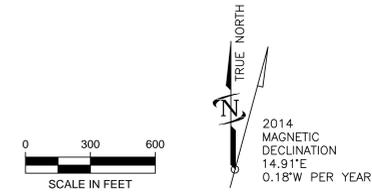
NO.	DESCRIPTION	BY	DATE

P:\01\0000015 - USCE\FE\PROJECTS\AIRPORT\SANDPOINT\70-13-024 SANDPOINT MASTER PLAN\AVIATION\FIGURE 10-13-024\_C-AF\_10.DWG



EXISTING AIRPORT PROPERTY				
PARCEL	FAA PROJECT NO. / TYPE	DATE	ACREAGE	INSTRUMENT NUMBER
I	9-10-050-801	FEB-49	17.59	30425
II	9-10-050-801	MAR-49	3.81	30425
III	9-10-050-801	FEB-49	0.63	30088
IV	9-10-050-801	JUL-49	3.39	31664
V	9-10-050-002	JUL-49	13.9	31626
IX VII	NONE	JAN-91	21.07	385523
VIII	9-10-050-5806	FEB-49	7.82	30359
X	NONE	FEB-49	0.1	30426
XII	NONE	JAN-92	12.16	400153
XIII	NONE	FEB-49	2.8	30147
XV XVII	5-16-0033-01 3-16-0033-02	JAN-88	1.41	344592
XVI	3-16-0033-02	SEP-88	3.8	352083
XVIII	3-16-0033-02	SEP-88	2.96	352637
XIX	3-16-0033-02	NOV-87	0.4	342587
XX	3-16-0033-02	DEC-87	0.13	343947
XXI	3-16-0033-02	NOV-87	8.49	342106
XXII	3-16-0033-02	OCT-87	7.85	NONE
XXIII	3-16-0033-07	MAR-89	1.93	359546
XXIV	3-13-0033-02	JAN-88	0.54	349205
XXV	NONE	JUL-49	0.09	BK 9 PG 93 COMM. JOUR
XXVII	NONE	1998	1.1	
XXVII	NONE		3.7	
XXIX	NONE	JULY-10	1.5	795251

FUTURE AIRPORT PROPERTY				
PARCEL	FAA PROJECT NO. / TYPE	PURPOSE OF ACQUISITION	ACREAGE	GRANTOR
29	FEE	A.P.	3.3	TILLBERG
30	FEE	A.P.	2.3	MARLEY
31	FEE	FUTURE DEV.	1.1	OSBORNE
32	FEE	A.P.	0.2	NEWCOMB
33	FEE	FUTURE DEV.	1.6	TILLBERG
34	FEE	A.P.	0.3	HOWELL
35	FEE	FUTURE DEV.	1.2	OMNI PARK
36	FEE	FUTURE DEV.	0.8	MEHRA
37	FEE	FUTURE DEV.	0.3	GLANTZ
38	FEE	FUTURE DEV.	0.4	AMPM LLC
39	FEE	FUTURE DEV.	1.3	FISHBACK
40	FEE	FUTURE DEV.	0.2	AMPM LLC
41	FEE	FUTURE DEV.	0.9	QUEST
42	FEE	FUTURE DEV.	0.2	PNUEMEX INC
43	FEE	FUTURE DEV.	0.6	COX
44	FEE	FUTURE DEV.	0.6	CARLSON TRUST
45	FEE	A.P.	0.3	COX
46	FEE	FUTURE DEV.	9.6	GUNTER
47	FEE	A.P.	0.9	ALBRIGHT & THURSTON LLC
48	FEE	A.P.	0.2	BNE HOLDINGS LLC
49	FEE	A.P.	2.8	COX
50	EASEMENT	A.P.	0.4	GOOBY TRUST
51	FEE	A.P.	1.1	COX
52	EASEMENT	A.P.	2.2	BNSF
53	EASEMENT	A.P.	4.56	CITY OF SANDPOINT



**AIRPORT LAYOUT PLAN**  
**EXHIBIT A**  
**AIRPORT PROPERTY MAP**



FILE :	70-13-024_C-AF_11	DATE:	May 14, 2015
JUB PROJ # :	70-13-024		
DRAWN BY :	ZS		
DESIGN BY :	SS		
CHECKED BY :	MN		

**SHEET 11 of 11**

LEGEND					
EXISTING	FUTURE	DESCRIPTION	EXISTING	FUTURE	DESCRIPTION
		AIRPORT PROPERTY			RUNWAY OBJECT FREE AREA
		EASEMENT			
		AIRPORT PROPERTY LINE			
		RUNWAY SAFETY AREA			

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SPONSOR APPROVAL	
BONNER COUNTY	DATE

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NO.	REVISION	BY	DATE

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# APPENDIX B ENVIRONMENTAL OVERVIEW

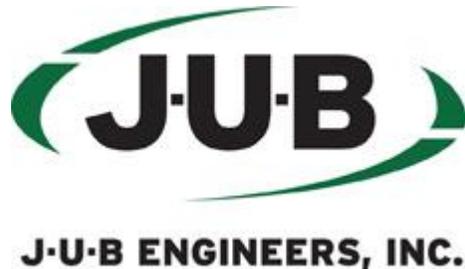
**Prepared by JUB Engineers**

**September 2015**

# APPENDIX B

# ENVIRONMENTAL OVERVIEW

Prepared by:



This chapter of the Master Plan discusses the Airport's environmental setting with regard to features that could affect future planning decisions. Specific environmental features that are pertinent to the Airport in this chapter include: mapped floodplains or floodways, surface water features, wetland features, mapped critical aquifer recharge areas, designated farmland classifications of soils onsite, known hazardous material sites, known Endangered Species Act (ESA) species occurrences, cultural resources, air quality thresholds, and noise. This chapter is organized into the following sections.

- Mapped Floodplains
- Surface Water
- Wetlands
- Critical Aquifer Recharge Areas
- Farmland Classifications of Mapped Soil Types
- Hazardous Material Sites
- Endangered Species Act (ESA) Listed Species Occurrences
- Air Quality Thresholds
- Cultural and Historic Sites Exist on the Airport Property
- Noise
- Summary of Findings
- References Cited

## Mapped Floodplains

Executive Order (E.O.) 11988: Floodplain Management (May 24, 1977) established federal policy for each agency to take action to *...reduce the risk of flood loss, to minimize the impact of floods on human safety, health and welfare, and to restore and preserve the natural and beneficial values served by floodplains in carrying out its responsibilities for (1) acquiring, managing and disposing of federal lands and facilities; (2) providing federally undertaken, financed, or assisted construction and improvements; and (3) conducting Federal activities and programs affecting land use, including but not limited to water and related resources planning, regulating, and licensing activities (42 CFR 26951).*

E.O. 11988 defines a floodplain as lowland and relatively flat areas adjoining inland and coastal waters including flood prone areas of offshore islands, including at a minimum, that area subject to a one percent or greater chance of flooding in any given year. Encroachment onto floodplains can reduce the flood-carrying capacity of the floodplain and extend the flooding hazard beyond the encroachment area.

In 1968, Congress established the National Flood Insurance Program (NFIP). The NFIP is a voluntary mitigation program made available to state and local governments by the Federal Emergency Management Agency (FEMA). FEMA makes flood insurance, grants and loans available in those communities that practice sound floodplain management. The NFIP is administered at the local level.

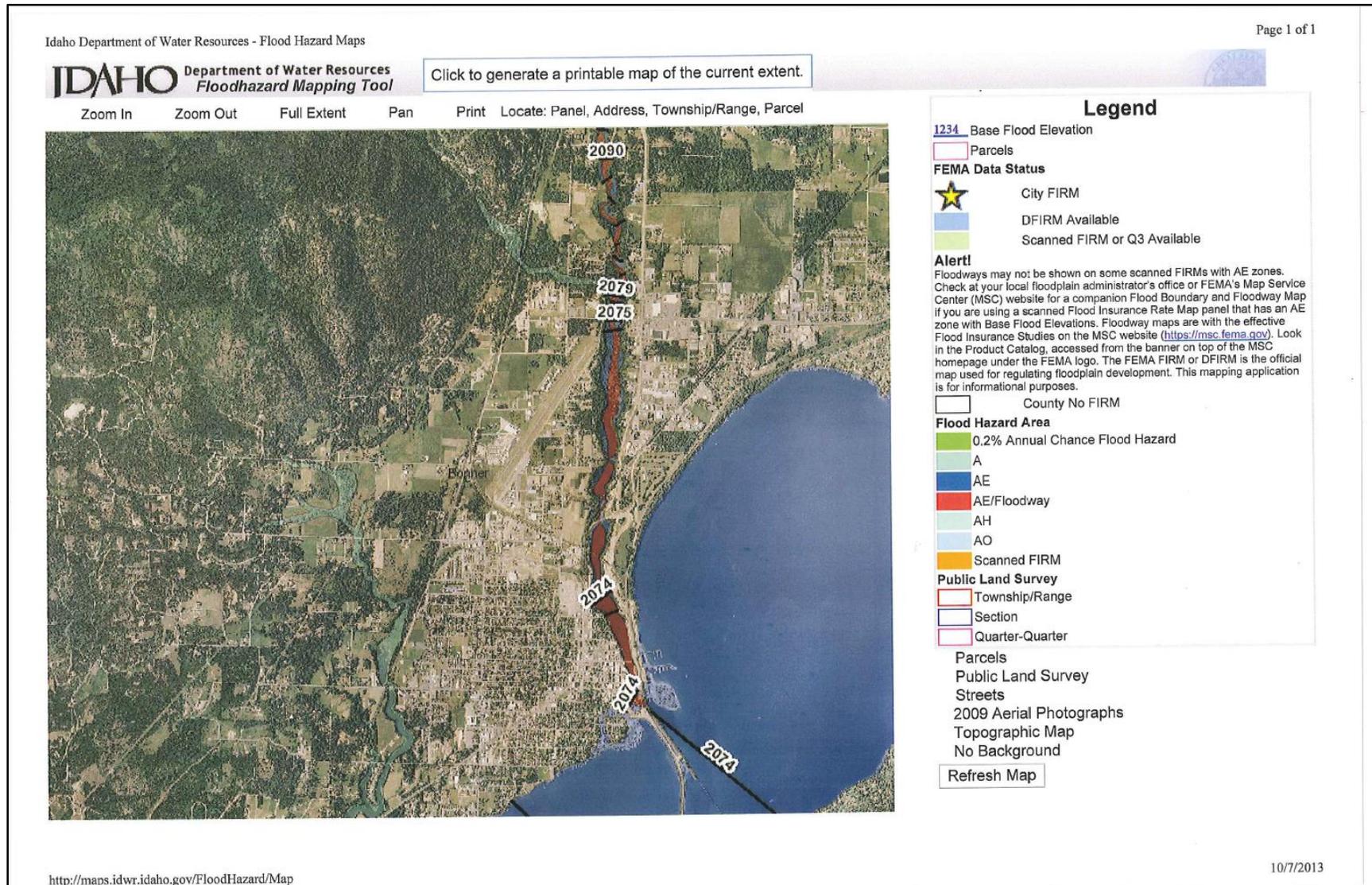
FEMA conducts hydrologic and hydraulic studies through the NFIP, and publishes Flood Insurance Rate Maps (FIRMs) that identify and delineate flood hazard risks for land use planning.

FIRMs identify three zones of flood hazard risks:

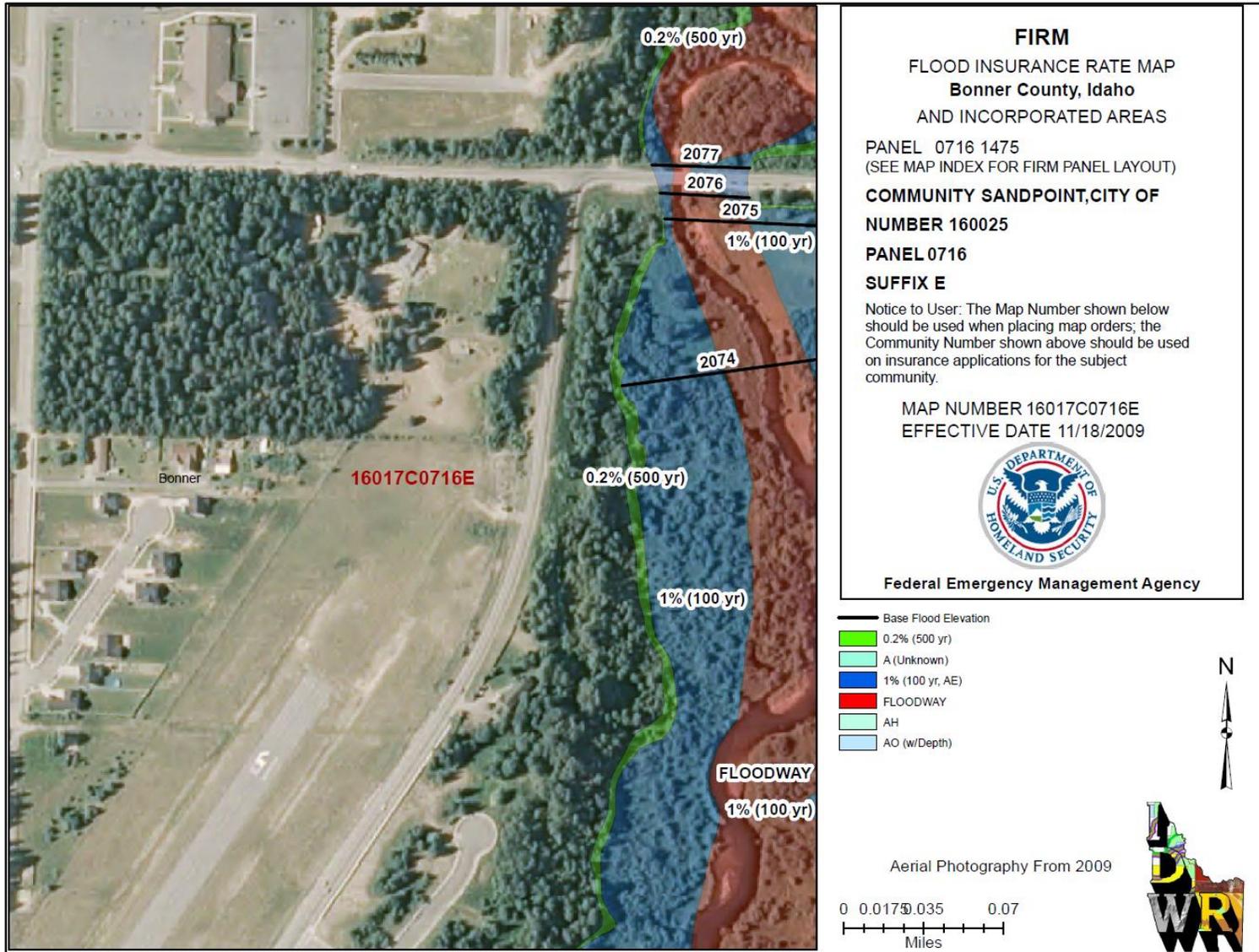
- Flood Zone A corresponds to the 100-year floodplain that is determined by approximate methods. Detailed hydraulic analyses are not performed for such areas. No Base Flood Elevations or depths are shown within this zone. Mandatory flood insurance purchase requirements may apply.
- Flood Zone B corresponds to areas between the limits of the 100-year flood and the 500-year flood or certain areas subject to 100-year flooding with average depths less than one foot or where the contributing drainage area is less than one square mile, or areas protected by levees from the base flood.
- Flood Zone C corresponds to areas of minimal flood potential (500-plus year flood).

According to the FIRM produced through the NFIP for Bonner County, the airport property is in Flood Zone C, outside of the 500-year floodplain (Community Panels No. 16017C0715E & 16017C0716E). **Figures 1 and 2** show illustrations of floodways nearest to the Airport.

Figure 1: Flood Insurance Map (IDWR <http://maps.idwr.idaho.gov/FloodHazard/Map>)



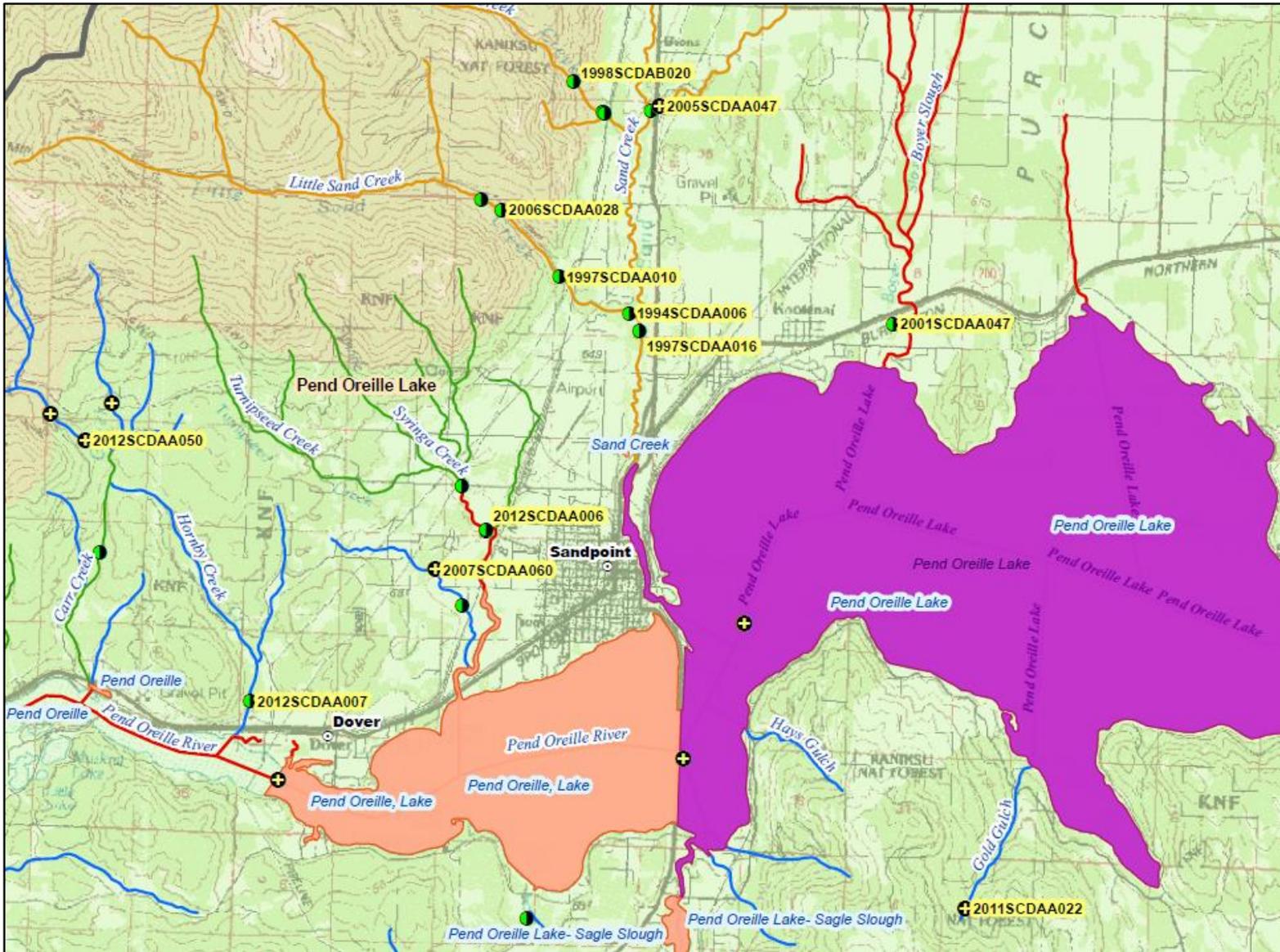
**Figure 2: Zoomed in Flood Insurance Map.** This map show the northern terminus of the Airport where the property gets closest to mapped floodways. (IDWR <http://maps.idwr.idaho.gov/FloodHazard/Map>)



## Surface Water

This section discusses water resources that are located on and near the Airport. The Airport's runway is situated approximately 1 mile northwest of Lake Pend Oreille. Sand Creek, a perennial stream, flows parallel to the airport property a short distance to the east (approximately ½ mile). Portions of the storm water system at the Airport drain to Sand Creek. A section of Syringa Creek is located a short distance to the west (approximately ¼ to ½ mile). No streams cross the boundary of the airport zoning overlay. A visualization of water bodies surrounding the Airport from the Department of Environmental Quality (DEQ) water body map is shown in **Figure 3**.

Figure 3: Nearby Water Bodies (DEQ <http://mapcase.deq.idaho.gov/wq2010/>)



## Wetlands

This section describes wetland areas inside and adjacent to the airport property. Wetlands have been defined by the U.S. Army Corps of Engineers (USACE) and the Environmental Protection Agency (EPA), pursuant to Section 404 of the Clean Water Act (CWA). Wetlands are also defined by E.O. 11990: Protection of Wetlands. The following presents the federal definition of Waters of the U.S., including wetlands. Wetlands are a subset of Waters of the United States and receive protection under Section 404 of the CWA. The term “Waters of the U.S.” as defined in Code of Federal Regulations (33 CFR 328.3[a]; 40 CFR 230.3[s]) includes:

1. *All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.*
2. *All interstate waters including interstate wetlands. (Wetlands are defined by the federal government [CFR, Section 328.3(b), 1991] as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.)*
3. *All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mud flats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce including any such waters:*
  - *that are or could be used by interstate or foreign travelers for recreational or other purposes;*
  - *from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or*
  - *that are used or could be used for industrial purposes by industries in interstate commerce.*
4. *All impoundments of waters otherwise defined as waters of the United States under the definition.*
5. *Tributaries of waters identified in numbers 1 through 4.*
6. *Territorial seas.*
7. *Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in numbers 1 through 6.*

Waters of the U.S. do not include previously converted cropland. Notwithstanding the determination of an area’s status as converted cropland by any other federal agency for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with EPA (328.3[a][8] added 58 FR 45035, Aug. 25, 1993).

Site visits were conducted by James A. Sewell & Associates, LLC. to evaluate potential wetland areas (JAS 2013). The field survey identified a total of 3.43 acres of PEM1C (palustrine, emergent, persistent, seasonally flooded) and PSS1C (palustrine, scrub-shrub, broad-leaved deciduous, seasonally flooded) wetlands on or near the airport property. The locations of the identified wetlands are illustrated in **Figure 4**.

The findings presented in this section have been approved by the USACE (approval file no. NWW-2013-423-C03). The USACE wetland verification for the Sandpoint Airport is valid until August 23<sup>rd</sup>, 2018.

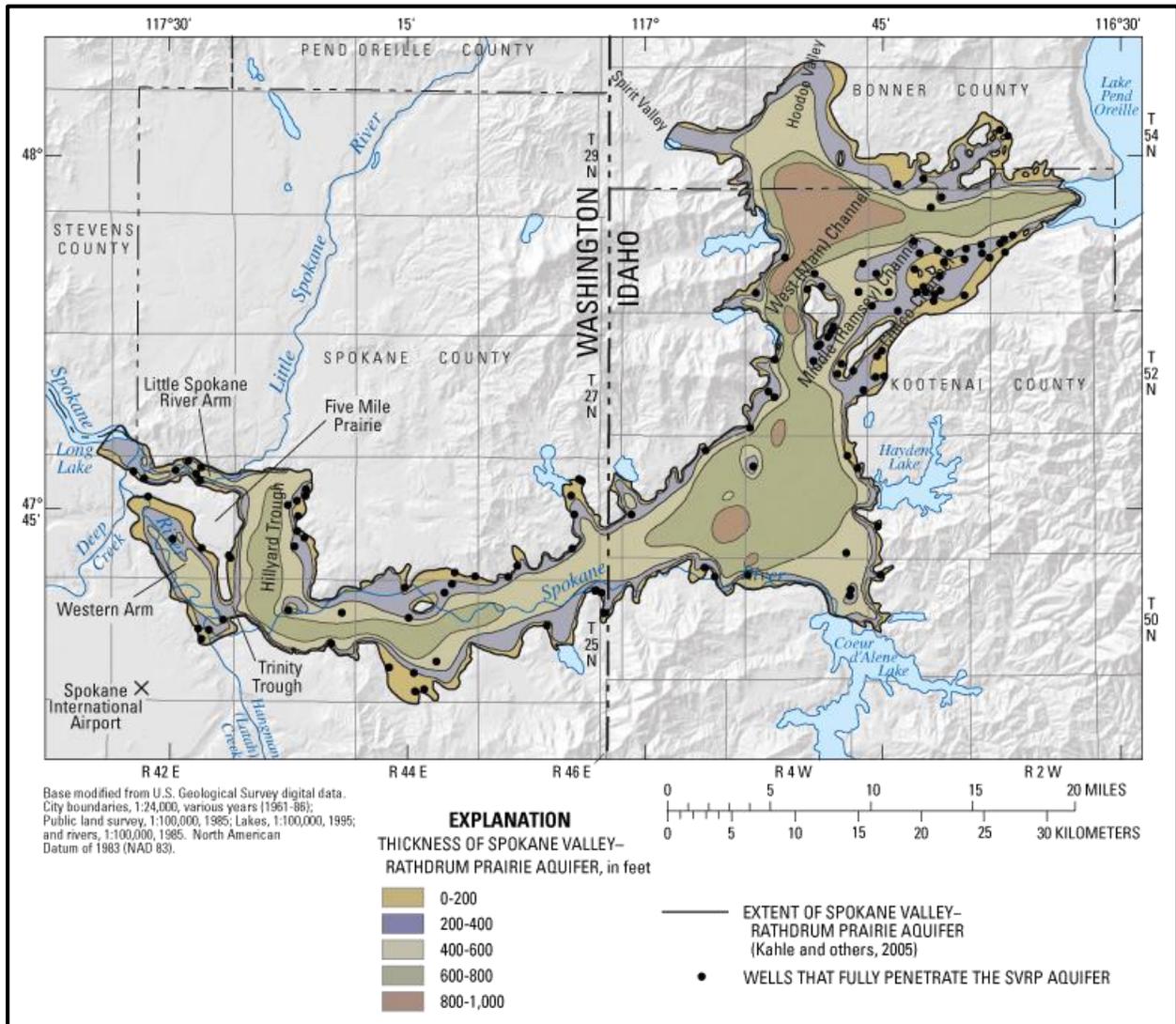
The JAS report also discovered a surplus of wetland mitigation credits for the Sandpoint Airport. According to a memo dated July 31, 2013, the airport has 2.992 pre-paid wetland credits at the Valencia Trust Wetland Bank.



### Critical Aquifer Recharge Areas

The only sensitive resource aquifer within Idaho is the Spokane Valley-Rathdrum Prairie Aquifer (DEQ 2013). No part of the airport property is located within the boundaries of the Spokane Valley-Rathdrum Prairie Aquifer (**Figure 5**).

**Figure 5: Spokane Valley/Rathdrum Prairie Aquifer** (DEQ <http://www.deq.idaho.gov/water-quality/ground-water/aquifers.aspx>)



### Farmland Classifications of Mapped Soil Types

The Federal Farmland Protection Policy Act (FPPA) [Subtitled I of Title XV, Section 1539-1549 of the Agricultural and Food Act of 1981 (Public Law 97-98)] requires federal agencies to *minimize the extent to which federal programs contribute to the unnecessary and irreversible conversion of farmland to*

*nonagricultural uses, and to assure that federal programs are administered in a manner that, to the extent practicable, will be compatible with state, unit of local government, and private programs and policies to protect farmland.* Federal agencies are required to develop and review their policies and procedures to implement the FPPA. The FPPA does not authorize the federal government to regulate the use of private or nonfederal land or, in any way, affect the property rights of owners.

For the purpose of FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance. Farmland that is subject to FPPA requirements does not have to be currently in agricultural production. It can be forestland, pastureland, cropland, or other land, but not water or urban built-up land (US Department of Agriculture (USDA)-Natural Resource Conservation Service (NRCS) 2012).

Prime farmland is defined as land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, oilseed and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides and labor (USDA-NRCS 2012).

Unique farmland is land other than prime farmland that is used for production of specific high-value food and fiber crops. It has favorable soil and climatic conditions and adequate moisture supply to produce economically sustainable yields of high quality crops when treated and managed according to acceptable farming methods (USDA-NRCS 2012).

Farmland of statewide or local importance is land other than prime or unique farmland that is determined and designated as such by state or local governments (USDA-NRCS 2012).

Soils within the airport property meet the criteria for “Prime farmland if drained;” however the land has been developed for airport use. No agricultural lands exist within the airport property. **Table 1** lists the soils on or near the airport property and the associated farmland classification. **Figure 6** shows the locations of the mapped soils.

**Table 1: List of mapped soils on or near the Airport property**

Map ID	Map Unit Name	Farmland Classification
4	Bonner silt loam cool, 0 to 4 percent slopes	Prime farmland
8	Capehorn silt loam, 0 to 2 percent slopes	Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
14	Haploxeralfs and Xerochrepts, 30 to 55 percent slopes	Not prime farmland
31	Mission silt loam, 0 to 2 percent slopes	Prime farmland if drained
33	Mission silt loam, 12 to 30 percent slopes	Not prime farmland
34	Odenson silt loam, 0 to 2 percent slopes	Prime farmland if drained
35	Pend Oreille silt loam, 5 to 45 percent slopes	Not prime farmland



## Hazardous Material Sites

Hazardous materials present at the Airport include: aviation fuels, motor fuels, pesticides, substances used to operate or maintain aircraft, ground vehicles, equipment, and buildings, and various hazardous materials transported to and from the Airport via ground vehicles and aircraft. Their storage, use, and transport at the Airport are controlled by a framework of federal, state, and local regulations.

The Idaho DEQ maintains environmental databases on sites with known contamination and sites that are regulated according to the requirements of state or federal laws. The following is a list of environmental databases maintained by the DEQ.

- Superfund Sites, Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).
- National Priorities List (NPL), priority CERCLA sites.
- Underground Storage Tanks (UST).
- Resource Conservation and Recovery Act (RCRA).
- Leaking Underground Storage Tanks (LUST).
- Brownfield Projects.
- Toxic Release Inventory (TRI).
- Voluntary Release Cleanup Program (VRCP).

A Phase I Environmental Site Assessment was prepared by Columbia Environmental Sciences, Inc. (CESI) for the airport property in February 2013 (Phipps 2013). The investigation found evidence of recognized environmental conditions, but concluded the overall environmental risk associated with the airport property is low. The key findings of the ESA included following:

- Several drums (55-gallon and 35-gallon) were observed on the subject property. Approximately six (6) were associated with Quest Aircraft Co., located on Parcel No. RPS372100002B0A (Lot 25). These drums were in good condition, properly labeled and stored. One of the drums was labeled as Jet A Fuel, a petroleum product. Approximately three (3) to six (6) drums were observed on both Parcel Nos. RPS00000100660A (Lot 39) and RPS00000106900A (Lot 37). These drums were typically older, rusty, not labeled, lying directly on the ground and had unknown contents.
- Two old fuel tanks were observed on Parcel No. RPS00000100660A (Lot 39). Both were relatively small (approximately 150 to 250 gallon) and were likely used in the past to store heating oil. Both tanks appeared to be empty at the time of the investigation and were not connected to any building structures or piping. There were also junked engines and heavy equipment staged on this parcel. Surface soil staining that appears to be petroleum in nature was observed in association with several of the engines and other equipment staged on the site. A petroleum (heavy oil) odor was also observed in this area during the site reconnaissance but it could not be determined whether the odor was from impacted soils on the site or from the heavy equipment currently staged on the property.
- A review of regulatory databases identified nine listed sites within ½-mile of the subject property. Most of the listed sites are located down gradient or a sufficient distance from the subject property, and in the opinion of the investigator (CESI) pose minimal environmental risk. The Airport is listed as an Underground Storage Tank (UST) site. The listing is due to the presence of two operational

UST's that are located on the southeast part of the airport property that was not included in the defined study area.

- There was evidence of dumping on Parcel No. RPS00000106900A (Lot 37). Several piles of old tires, wheels and junked vehicles were observed on the site. There was also an open pipe protruding from the ground on Lot 37 that is potentially an open well.

The assessment also provided a number of recommendations based on the observations that were made during the site investigations. These recommendations included the following actions:

- Identification of the contents and subsequent proper disposal of all discarded drums and other containers that are currently on the subject property parcels. Disposal of engines and other old equipment currently staged on parcels within the study area that potentially contain petroleum products or other hazardous materials that might leak onto the ground surface.
- Removal and proper disposal of any stained soil associated with the discarded drums, containers, old engines or other equipment. Subsequent soil sampling of any heavily stained areas to confirm that the remaining soils are free of contamination.
- Cleanup and proper disposal of the tires and other debris from the Parcel No. RPS00000106900A (Lot 37). Further investigation of the open pipe on Lot 37 to determine its purpose and subsequent measures, such as capping or decommissioning, to ensure that the pipe does not continue to provide an open path to groundwater.

## Endangered Species Act (ESA) Listed Species Occurrences

The information in this section has been collected from a Biological Assessment (BA) that was conducted for the airport property (JUB 2013). At the time of the BA, one endangered, three threatened, two candidate/proposed species, and one designated critical habitat were listed by the U.S. Fish and Wildlife Service (USFWS) as potentially occurring in Bonner County, Idaho. **Table 2** presents the specific ESA listed species identified as potentially occurring in Bonner County as well as the effect determinations from the 2013 BA.

**Table 2: Summary of Potentially Occurring ESA Listed Species and Designated Critical Habitat for the Proposed Project Action Area (USFWS Countywide species listing dated 2/6/2013).**

ESA Listed Species or Critical Habitat	ESA Status	Effects Determination
Selkirk Mountains Woodland Caribou ( <i>Rangifer tarandus caribou</i> )	Endangered	No Effects (NE)
Bull Trout ( <i>Salvelinus confluentus</i> )	Threatened	No Effects (NE)
Bull Trout Designated Critical Habitat	Threatened	No Effects (NE)
Canada Lynx ( <i>Lynx canadensis</i> )	Threatened	No Effects (NE)
Grizzly Bear ( <i>Ursus arctos horribilis</i> )	Threatened	No Effects (NE)
North American Wolverine ( <i>Gulo gulo</i> )	Proposed	No Effects (NE) (Provisional Determination)
Whitebark Pine ( <i>Pinus albicaulis</i> )	Candidate	No Effects (NE) (Provisional Determination)

There is no Essential Fish Habitat (EFH) protected under the Magnuson-Stevens Act within the airport property. Based on the low potential occurrence of species, the habitat within the airport property, and the fact that the area contains existing airfield infrastructure (namely a runway and taxiway), the 2013 BA determined that the airport activities do not have any direct and/or indirect effect on any of the six ESA listed species that have the potential to occur in Bonner County, Idaho.

### **Air Quality Thresholds**

The EPA has established National Ambient Air Quality Standards (NAAQS) for the following criteria pollutants: carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), sulfur dioxide (SO<sub>2</sub>), particulate matter (PM), and lead (Pb). The Clean Air Act (CAA) requires that air quality conditions within all areas of a state be designated with respect to the NAAQS as attainment, maintenance, nonattainment, or unclassifiable. Areas that do not exceed the NAAQS are designated as attainment, while areas that exceed the standards are designated as nonattainment.

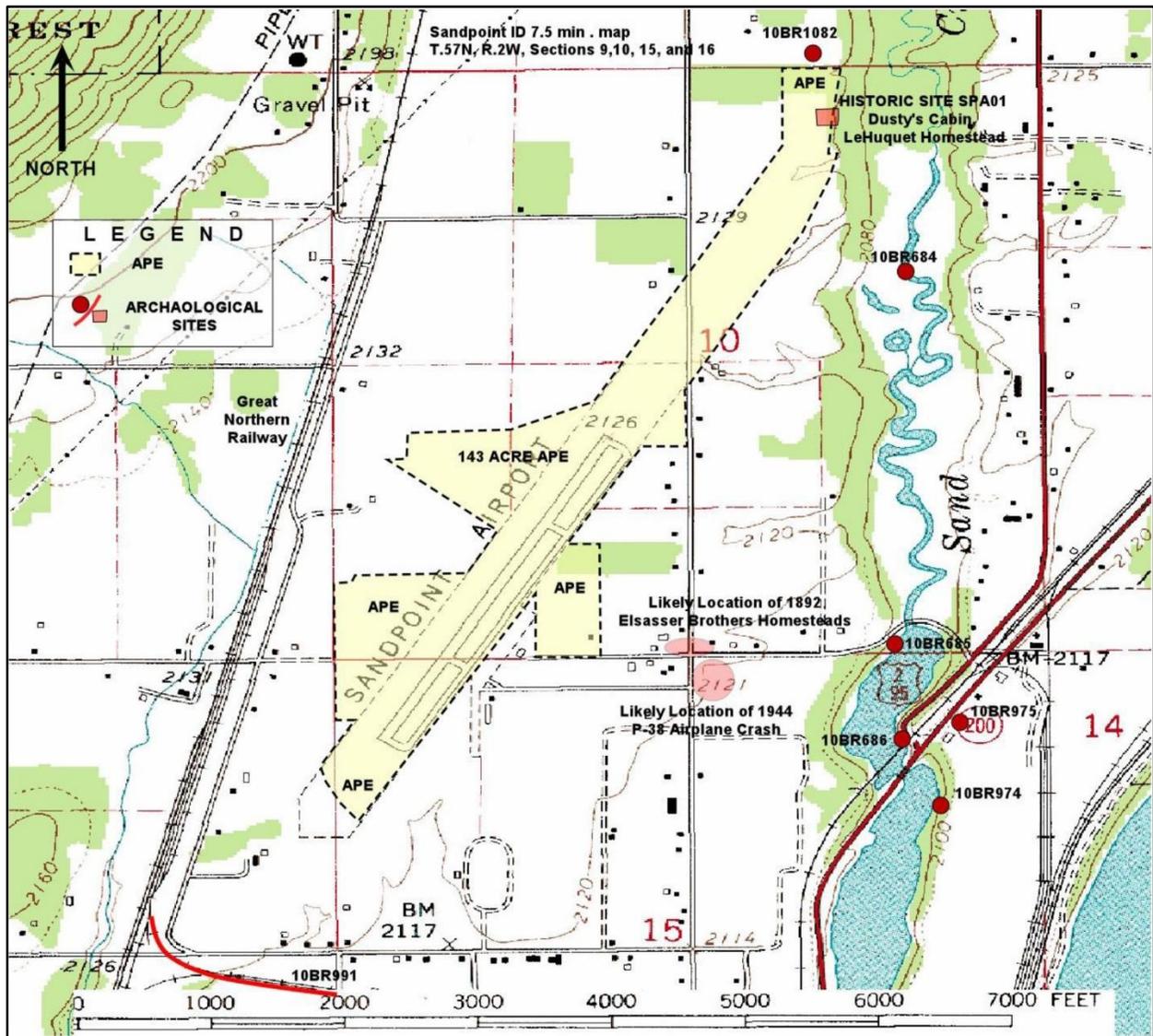
The entire airport property, as well as much of the surrounding areas (defined as Sections 1-3, 9-12, 15, 16, 21, 22, 27, 28 of Range 2 West and Township 57 North; and the western 3/4 of Sections 14, 23, and 26 of the same township and range coordinates) are classified as a nonattainment area for PM-10 (PM less than 10 micrometers in diameter).

### **Cultural and Historic Sites Exist on the Airport Property**

This section discusses the known historic, archaeological, and paleontological resources within the airport property. The National Environmental Policy Act (NEPA) requires agencies to consider the effects of a planned federal undertaking upon the cultural environment, including historical, archaeological, and paleontological resources. In addition to NEPA, planned federal actions must also comply with the National Historic Preservation Act of 1966 (NHPA) (16 USC 470, as amended). Section 106 of the NHPA and its implementing regulations (36 CFR 800) require federal agencies to take into account the effects of their undertakings on historic properties. According to these regulations, a historic property is defined as *any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places ...* (36 CFR 800.16).

Transect Archaeology performed a Class III Cultural Resource inventory for the airport property in February 2013. The cultural resource survey identified one potentially eligible historic site on the airport property, the historic occupation compound of Earl "Dusty" Dustin (SPA01). The location of the identified historic site is illustrated in **Figure 7**.

Figure 7: Historic Site Map (Transect Archaeology 2013)



## Noise

When sound is perceived as unpleasant or disturbingly loud, it is considered noise. The perception of noise is subjective and varies from person to person. Factors which may influence the perception of noise include volume, frequency, atmospheric conditions, background noise, and the nature of the activity that is generating the noise. Airport noise is often measured in day/night average sound level (DNL). DNL represents the total accumulation of all noise over a 24-hour period. In the DNL metric, any operation that occurs between 10 p.m. and 7 a.m. is considered more intrusive and is weighted by a factor of 10 dBA.

Estimations for the area encompassed by the 65 DNL noise contour (for both existing and future conditions) has been evaluated as part of this Master Plan. The estimations are illustrated on sheet 10 of 11 within the Airport Layout Plans. Both the existing and future 65 DNL noise contours are nearly 100% contained within airport property. Therefore, mitigation measures for noise impacts are not considered to be necessary.

## Summary of Findings

This chapter provides an introduction and evaluation of pertinent environmental conditions affecting the Airport. These conditions should be considered as future modifications to the Airport and supporting infrastructure are planned. The following list details the primary factors that may require further attention, coordination and evaluation as future airport plans are developed:

- **Wetlands** – Several portions of wetland areas have been identified within the airport property. Any future developments that would encroach upon the identified wetland areas or associated buffer areas would require coordination with the USACE, USFWS and the Bonner County Planning Department. Such developments would likely require specific permitting and/or mitigation efforts to offset potential future impacts.
- **Hazardous Material Sites** – The Phase I Environmental Site Assessment for the Airport has identified several areas that should receive some level of hazardous material cleanup and/or containment (CESI 2013). Any newly identified areas of concern would require additional investigation.
- **Endangered Species Act (ESA) Listed Species** – The 2013 BA concluded that no ESA listed species would be impacted as a result of airport operations. Further consultation with the USFWS should occur to identify any newly listed species and to address any significant changes in airport activities (e.g. significant increases in the extents or magnitude of potential disturbances).
- **Air Quality Thresholds** – The airport property is located in a nonattainment for PM-10. Given the nonattainment status, future development that could cause increased air pollution emissions may be subject to additional scrutiny. Additional consultation with the EPA and/or Bonner County Planning Department may be necessary if the airport property becomes listed for nonattainment with respect to additional pollutants.
- **Cultural and Historic Properties** – One potentially eligible historic site (SPA01) has been identified near the northeastern limits of the airport property. An archaeological monitor should be utilized for any proposed future developments within 100 feet of the site's boundary to ensure that no buried historic archaeological features are damaged or destroyed without professional documentation.

## References Cited

Barthels, Vincent. June 3, 2013. JUB Engineers Inc. *No Effects Biological Assessment for Sandpoint Airport Runway Relocation Project*.

Department of Environmental Quality (DEQ). 2013. Idaho Department of Environmental Quality – Aquifers. Accessed on September 9, 2013 at <http://www.deq.idaho.gov/water-quality/ground-water/aquifers.aspx>.

Department of Environmental Quality (DEQ). 2010. Final 2010 305(b) Integrated Report. Accessed on September 12, 2013 at <http://mapcase.deq.idaho.gov/wq2010/>.

Idaho Department of Water Resources. 2013. Flood Hazard Mapping Tool. Accessed on October 8, 2013 at <http://maps.idwr.idaho.gov/FloodHazard/Map>.

James A. Sewell & Associates, LLC (JAS). January 16, 2013. *Sandpoint Airport Environmental Assessment Wetland Delineation Report*.

Nakonechny, Lyle. February 4, 2013. Transect Archaeology. Archaeological and Historical Survey. Report # AIP 3-16-0033-11.

Phipps, Deborah. April 11, 2013. Phase I Environmental Site Assessment for: *Sandpoint Airport [and Adjoining Areas of Interest] Property Sandpoint, Bonner County, Idaho*. Columbia Environmental Sciences, Inc. Kennewick, WA.

United States Department of Agriculture (USDA)/Natural Resources Conservation Service (NRCS). 2012. Part 523 – Farmland Protection Policy Act Manual. Accessed on September 27, 2013 at [http://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb1049284.pdf](http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1049284.pdf).

USDA/NRCS. 2013. *Soil Survey*, obtained from Web Soil Survey. Accessed on August 27, 2013 at <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>.

US EPA Green Book website. Particulate Matter (PM-10) Nonattainment Areas, as of December 4, 2012. Accessed on February 19, 2013. 2/19/13 at: <http://www.epa.gov/oaqps001/greenbk/pnp.html#1111>.

United States Geological Survey (USGS). 2013. Scientific Investigations Report 2007–5041. Accessed on September 10, 2013 at <http://pubs.usgs.gov/sir/2007/5041/figure10.html>.



# APPENDIX C WILDLIFE HAZARD SITE VISIT

**Prepared by JUB Engineers; BASH, Inc.; and Mead & Hunt**

**September 2015**

# Wildlife Hazard Site Visit Summary Report

Sandpoint Airport, Bonner County, Idaho  
(September 2015)



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## 1.0 Introduction and Regulatory Background

The Federal Aviation Administration (FAA) is the agency responsible for setting and enforcing Federal Aviation Regulations (FARs). The FAA establishes policies to enhance public safety at air carrier airports holding certificates under FAR Part 139 (also referred to as Title 14, Code of Federal Regulations [CFR Part 139]) and at federally obligated airports.

The Sandpoint Airport (SZT) is a federally obligated airport, as Bonner County receives funds from the FAA to support airport operations and undertake capital improvements. When an airport owner, such as the County, accepts funds from FAA-administered airport financial assistance programs, it must agree to certain obligations and assurances. These obligations require the grant recipient to maintain and operate its airport facilities safely and efficiently in accordance with specified conditions.

FAA has established 37 specific grant assurances which airport operators must adhere to if they are to receive federal funds. Wildlife hazard management is associated with FAA Grant Assurance No. 19.

### 1.1 Need for a Wildlife Hazard Site Visit at the Sandpoint Airport

FAA's Airport Improvement Program (AIP) Grant Assurance No. 19, "Operation and Maintenance," requires any subject airport, after receipt of a new grant for an airport development project, to monitor, evaluate and mitigate risks associated with wildlife hazards on and near federally obligated airports. In particular, such airports are required to conduct Wildlife Hazard Assessments (WHA) or Wildlife Hazard Site Visits (WHSV). SZT is in the process of updating its airport master plan using federal funding. FAA requested that the County conduct a WHSV in association with its master plan update to determine whether a wildlife exclusion fence was necessary at SZT.

The consultant team, J-U-B Engineers Inc., with assistance from Mead & Hunt and BASH, Inc., conducted a WHSV at SZT to identify the presence of potentially hazardous wildlife on and near SZT that could pose risks to aircraft operations and to determine the need for a perimeter wildlife fence. The WHSV was conducted in accordance with the upcoming revised Advisory Circular AC 150/5200-XX titled, "Protocol for the Conduct and Review of Wildlife Hazard Site Visits, Wildlife Hazard Assessments, and Wildlife Hazard Management Plans." A site visit was conducted at SZT by Vincent Barthels and Russell DeFusco on February 24<sup>th</sup> and 25<sup>th</sup>, 2014. The overarching objective of this WHSV was to gather pertinent information and data from a snap-shot site investigation for inclusion in a summary report. The summary report evaluates potential hazards and establishes recommendations to minimize the identified hazards at SZT.

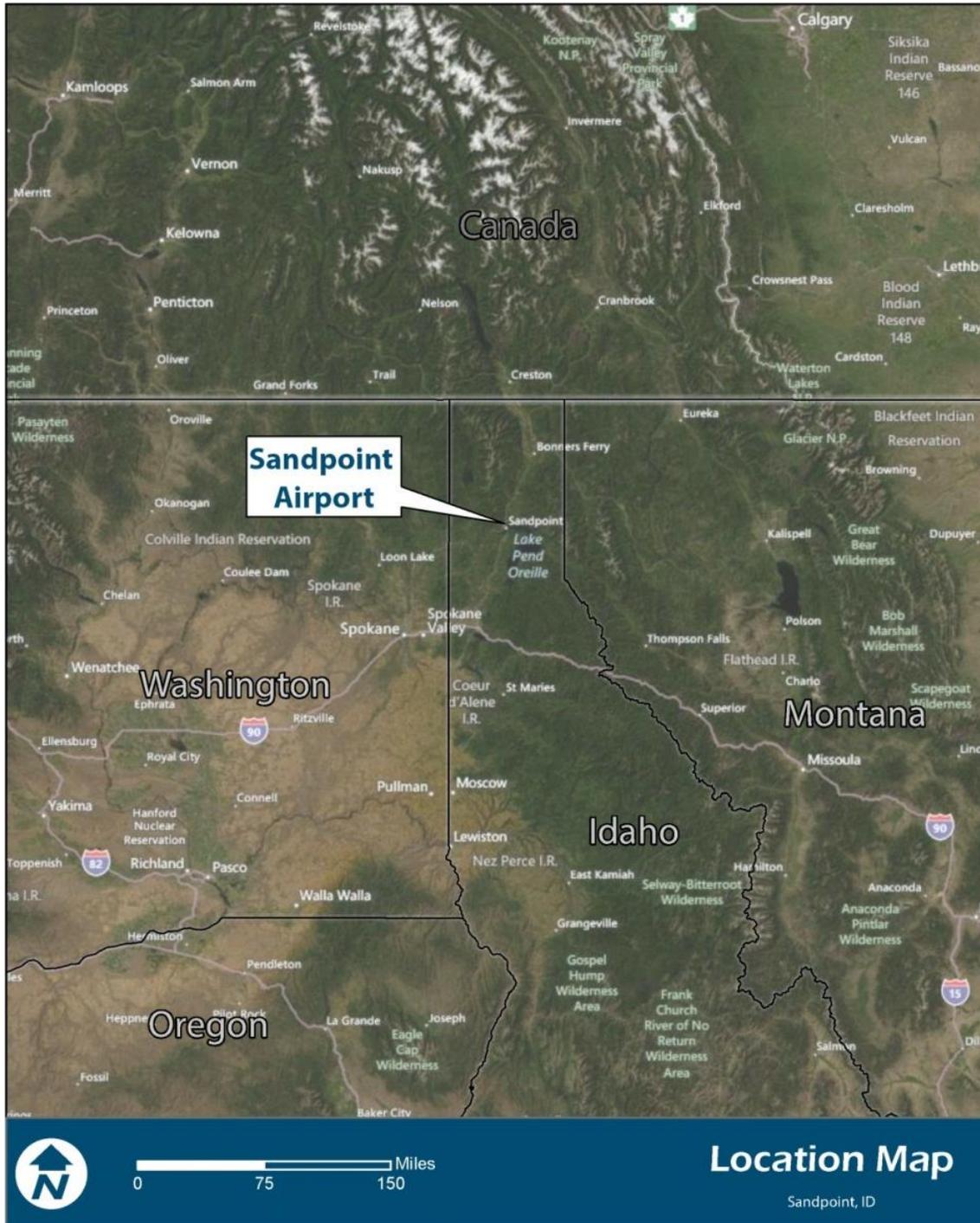
## 2.0 Applicable Airport Information

### 2.1 Airport Location Information

SZT is a public-use airport located in the northern panhandle of Idaho and is within the Environmental Protection Agency's (EPA) Ecoregion 6.2.3 (Figure 1). This region is characterized by rugged topography with mountains, narrow valleys, deep canyons, small glacial lakes, and numerous high gradient perennial streams and rivers. Located in the City of Sandpoint in Bonner County, SZT is approximately 2 miles north of the downtown city center. SZT is located at an elevation of 2,131 feet and is surrounded by residential, commercial, and industrial land uses. Within a five mile radius of the Airport there are several parks, a

golf course, the downtown Sandpoint area, and marinas and beachfront areas along Lake Pend Oreille. Sand Creek and Syringa Creek are located to the west and east of the Airport. Both of these nearby creeks flow southerly until they drain into Lake Pend Oreille.

**Figure 1: Locator map showing the approximate location of SZT.**



## Sandpoint Airport

Many known animal species live and migrate within the areas surrounding the Airport, see Table 1.

**Table 1: List of known animal species in the Sandpoint Area.**

<b>Common Name</b>	<b>Scientific Name</b>
Bear	<i>Ursus americanus</i>
Canada goose	<i>Branta Canadensis</i>
Coyote	<i>Canis latrans</i>
Crow	<i>Corvus brachyrhynchos</i>
Domestic dog	<i>Canis lupus familiaris</i>
Ducks	<i>Anas spp.</i>
Fisher	<i>Martes pennant</i>
Horses	<i>Equus ferus caballus</i>
Moose	<i>Alces alces</i>
Mule deer	<i>Odocoileus hemionus</i>
Ravens	<i>Corvus corax</i>
Red fox	<i>Vulpes vulpes</i>
Ring-billed gull	<i>Larus delawarensis</i>
White-tailed deer	<i>Odocoileus virginianus</i>

## 2.2 Logistical Airport Information

The Airport encompasses an area of approximately 115 acres and has one runway (Runway 1/19), which is 5,500 feet long by 75 feet wide. In 2014, a hangar survey was conducted finding a total of 97 based aircraft at the SZT. Of the 97 based aircraft, 85 percent were single engine piston/turboprop aircraft, 7 percent were helicopters, 4 percent were multi-engine piston/turbo-prop aircraft, 3 percent were other (gliders) and 1 percent were jet aircraft. According to the FAA Terminal Area Forecast (TAF) for 2012, there were a total of 30,216 general aviation (GA) operations at SZT.

## 2.3 Personnel Responsible for Airport Operations

Dave Schuck is the airport manager and operator of SZT. Jason Hauck is the maintenance director at Granite Aviation, the fixed-based operator (FBO). Mr. Schuck and Mr. Hauck were both interviewed in conjunction with this WHSV. Mr. Schuck, Mr. Hauck and two other men work at SZT on a part-time basis. Currently, Mr. Schuck and his staff are responsible for snow removal, mowing and turf management. Wildlife strikes have the potential to go unreported at SZT because the Airport is not staffed full time nor is there an air traffic control tower at the Airport. Both Mr. Schuck and Mr. Hauck are working on standardizing protocol to report wildlife activity and wildlife strikes at SZT.

## 2.4 Recent Airport Improvements

In 1988, the airport was annexed by the City of Sandpoint. The City created an Airport Overlay Zone District restricting the height of structures built within this area (City Ordinance No. 1252). "The Airport Overlay Zone District is established for the purpose of preventing the creation or establishment of hazards to air navigation, as defined, or where such hazards are already created or established, eliminating, removing, altering, mitigating, marking or lighting such airport hazards" (City of Sandpoint 2012). Primary land uses

within the Airport Overlay Zone are reserved for the runway, runway associated right-of-ways, taxiways, hangars and commercial/industrial buildings.

Several recent improvements have occurred at the Airport including reconstruction of the terminal apron, crack sealing portions of damaged pavement, fencing/gate installations and development of several hanger areas adjacent to the runway. Primary hangar development areas consists of: Tamarack, including the recently built FBO building (located on County property southeast of the runway); and SilverWing, which is being developed as a fly-in airpark community (located in the southwestern region of the Airport). Other areas of hangar developments/improvements at SZT include: Quest Aircraft Company, the Fishback property development, OMNI Park, and several private properties along the northern and eastern boundaries of the Airport.

## **2.5 FAA Wildlife Strike Database Records**

Many species have the potential to pose a threat to aircraft safely, however some pose a larger threat than others. The FAA Advisory Circular 150/5200-33B ranked the top 25 species groups found to be most hazardous the aircraft safety. Data was derived from the FAA National Wildlife Strike Database and ranked species based on three criteria: likelihood of damage, major damage to aircraft and effect on flight. Deer and geese rank number one and three, respectfully, on the FAA list of most hazardous species on airports (see Appendix A). Since 1990, three wildlife strikes at SZT have been recorded in the FAA National Wildlife Strike Database: in July 1998 an aircraft struck a Canada goose; in June 2008 an aircraft struck a White-tailed deer; and in August 2012 an aircraft struck a White-tailed deer. The white-tailed deer strike in 2012 caused substantial damage to the aircraft and the deer strike in 2008 destroyed the aircraft. In addition, Mr. Schuck said two more goose strikes have occurred but were not recorded.

## **2.6 Management Practices**

Current wildlife management practices at SZT include the use of cracker shells to frighten away wildlife. Cracker shells are auditory devices that when fired from a shotgun explode loudly. Due to a city ordinance the Sheriff must be called before any guns can be fired within Sandpoint City limits. Additional attempts to deter wildlife include minimizing habitat by frequently mowing field grasses and the elimination of trees on Airport property.

## **2.7 Current Wildlife Hazard Threats and Concerns**

The primary concern with respect to wildlife hazards at the Airport is deer and other ungulates accessing the runway. The fencing around the Airport consists of chain link fencing (6-7 feet typical height) along the western boundary, and barbed wire fencing (3-4 strand and 42 inch typical height) along the eastern, southern and northern boundaries (see Appendix B for a map of the existing perimeter fence).

There are two primary problems in regards to the fencing at SZT, which allow animals unrestricted access to the Airfield. The first problem is the incomplete fencing along the western boundary of the Airport, see photos 3, 9 and 10 in the photo inventory (Appendix C). Due to these gaps, the western boundary fence offers little protection from wildlife hazards. The second problem with the current fencing configuration is that there are a number of through the fence (TTF) agreements with adjacent land owners. Due to the TTF agreements, the existing fencing has a number of breaks at the runway access points. Deer are freely able to access the Airport property through the backyards of properties with TTF agreements, see photos 2, 6, 7 and 8 in the photo inventory.

## 2.8 Current Federal and State Wildlife Control Permits

In February of 2013, the Airport applied for a depredation permit through the Idaho Department of Fish and Game (IDFG). The permit was declined due to the lack of adequate fencing surrounding the Airport. A copy of the IDFG response letter dated March 8, 2013 has been included in Appendix D.

## 2.9 USGS Topo Maps, Airport Maps and Aerial Photos

The approximate Airport property boundaries and places of interest that exist near the Airport are shown on the exhibit located in Appendix E. This exhibit includes boundary lines at 5,000 feet and 10,000 feet from the runway centerline to demonstrate relative distances. A recent USGS topo map that has been overlaid on top of an aerial of Sandpoint and the surrounding area are also included in this report (see Appendix F).

## 3.0 Observations and Findings linked to the Field Surveys

FAA recommends that WHSV efforts include three surveys (morning, midday, and evening) and one nocturnal spotlight survey spanning over a two-day site visit.

### 3.1 Site Monitoring

Evening and spotlight surveys were conducted on February 24<sup>th</sup>; whereas, the morning and midday surveys were conducted on February 25<sup>th</sup>. During these surveys, the primary observations were contained within Airport Operations Area (AOA) and the properties immediately adjacent to the AOA. Secondary observations were also extended to a 10,000 foot radius surrounding the AOA (see Appendix E). The use of a truck for windshield surveys allowed for the extended area around the AOA to be canvassed. Surveys identified the presence of potentially hazardous wildlife on and near SZT, which could pose significant risks to aircraft operations.

### 3.2 Survey Findings

White-tailed deer were observed within the north end of the AOA during the evening/spotlight surveys and several times on adjacent properties surrounding SZT. Suitable and viable white-tailed deer habitat surrounds SZT. The dense montane vegetative communities immediately surrounding SZT, coupled with the creeks and riparian areas in the immediate vicinity, provide foraging and cover opportunities. Hunting deer within the city limits of Sandpoint is strictly prohibited; thereby, deer traversing through the AOA and near the Airport have become somewhat a protected and unmanaged species. **White-tailed deer present the primary hazard at SZT.**

Coyote and fisher tracks were observed in the AOA during the morning and midday surveys. The orientation of the tracks suggest that these species utilize SZT property as a means to travel between areas containing more suitable habitat for foraging and cover. These small mammals also represent a notable threat to aircraft operations at SZT.

Four crows were seen near mid-field of the runway during the midday survey. Several large flocks of Canada geese were observed within a 10,000 foot radius of SZT. The Canada geese that were observed likely represent resident birds. With two geese strikes documented at SZT in the month prior to this survey, Canada geese represent the second principal wildlife hazard at SZT. Open areas with low cut grass (i.e. below six inches) within SZT property limits provide suitable habitat for these avian species.

The Federal Endangered Species Act (ESA) and IDFG regulations offer protection to animal and plant species that are potentially threatened with extinction. Once a species is identified on a state or federal list it cannot be taken or harassed without a special permit or authorization. No federally listed threatened or endangered or state sensitive species were observed during the site visit.

## 4.0 Wildlife Attractants and Management Recommendations

### 4.1 Wildlife Attractants on and near the Airport

The primary wildlife attractants at airports include nearby wetland/riparian areas, agricultural land uses, water bodies, landfills, golf courses, forested/shrub areas, or any other activity/location that would provide habitat or food base for local species in the area. The above named primary attractants, other than landfills, are likely to occur within a 5-mile radius of SZT and contribute to wildlife occurrences on and near the Airport. Please refer to Appendix E for an overview of possible wildlife attractants within the vicinity of the Airport.

Suitable deer habitat surrounds SZT. The majority of trees that are within the airport property have been either removed or thinned to discourage onsite wildlife populations. There are dense patches of trees and shrubs on adjacent properties that attract deer by providing cover from the elements in the form of a thermal blanket (i.e. the thick understory brush of the trees that provide shelter from the cold). Additional attractants to deer near the Airport include the presence of gardens and fruit trees in the back yards of nearby property owners.

Nearby water bodies function as another wildlife attractant. Open waters encourage waterfowl such as ducks or geese to reside in the areas. Due to the large amount of nearby water bodies (i.e., Sand Creek, Lake Pend Oreille, and other small ponds), waterfowl populations at and near the Airport are a major concern. Storm water management facilities at and near the Airport generally contain grass lined ditches that ultimately connect to underground stormwater pipes. If these stormwater features do not receive adequate upkeep (i.e., clearing vegetation and woody debris), they could plug, back-up water, and ultimately contribute to additional waterfowl attractions.

### 4.2 Recommendations

Based on location, wildlife ecology, survey observations and habitat characteristics, it is reasonable to conclude that potentially hazardous wildlife is present and can pose a significant threat to aircraft operations at the Airport. Species that are known to pose hazards to aircraft operations were observed during the site visit, the greatest risk being large mammals such as deer. The IDFG recommends several options for deterring wildlife, specifically deer (see Appendix D). Visual, scent and noise devices have been found to be most effective, especially when used in combination, to scare deer away from a specific area. **Although, in this specific case, an exclusionary perimeter wildlife fence represents the most practical solution to eliminating deer and other small mammals from frequenting SZT.**

The most prevalent wildlife attractions (i.e., nearby forested areas, parks, golf courses and water bodies) are permanent features that cannot be removed. Therefore, the majority of the recommendations provided in this section will focus on making the Airport inaccessible or undesirable to wildlife species that pose a risk to aircraft operations. Based on the number of observations and potential damage due to strikes, the species of greatest concern has been determined to be local deer populations. Other potential wildlife risks that pose a hazard include waterfowl such as geese and ducks.

## Specific recommendations to minimize wildlife hazards at SZT:

1. Construct a wildlife hazard fence along the perimeter of the airport property. In order to maintain TTF agreements and associated access points, the preferred alternative is to work with adjacent property owners that have TTF agreements to install fencing around the back of their property. The recommended fencing design would include a 10 foot chain link fence with 3-strand barbed wire outriggers, and a 4 foot skirt along the bottom that would be buried at a 45 degree angle. Alternatively, if fencing of this level is determined to be too costly, the recommended action would be to utilize the existing fencing; add additional sections to make a complete perimeter; and to repair damaged portions with hog wire or game fencing (see Appendix G & H for fence details recommendations). **Again, a complete and uninterrupted wildlife exclusionary fence is strongly recommended for SZT.**
2. Once an adequate perimeter of fencing has been constructed, the Airport should apply for a depredation permit with the IDFG. Should deer become trapped within the fenced perimeter of SZT, a depredation permit would enable Airport staff the ability to eliminate the known hazard.
3. Maintain grass levels at 6-12 inches to reduce the likelihood that hazardous wildlife will forage or nest within the airport property. During the site visit, some grasses within the AOA appeared to be cut too short (i.e., below 6 inches).
4. Continue to remove or trim trees known to harbor wildlife within SZT property boundary.

## General recommendations to help manage and minimize wildlife hazards:

1. Report any and all wildlife strikes to the FAA Wildlife Strike Database: <http://wildlife.faa.gov/>.
2. Equip and train staff to effectively recognize and respond to wildlife hazards and to document all wildlife control activities.
3. Establish regular wildlife patrols of the Airport to identify hazardous wildlife and to increase frequency of these patrols during spring and fall migration.

## References

City of Sandpoint. 2012. *Sandpoint Comprehensive Plan*. Accessed by web on September 23, 2013 at <http://cityofsandpoint.com/ComprehensivePlan.asp>

City of Sandpoint. 2012. *Sandpoint, Idaho City Code*. Accessed by web on September 23, 2013 at [http://www.sterlingcodifiers.com/codebook/index.php?book\\_id=437](http://www.sterlingcodifiers.com/codebook/index.php?book_id=437)

Sandpoint Airport. 2014. *SandpointAirport.com – Sandpoint Airport – Sandpoint Idaho SZT Airport*. Accessed by web on 3-4-14 at <http://sandpointairport.com/>

Federal Aviation Administration (FAA). 2013. *Wildlife Strike Database and Reporting System*. Accessed by web on March 4, 2014 at <http://wildlife.faa.gov/database.aspx>

U.S. Department of Transportation. DRAFT. Advisory Circular – Protocol for the Conduct and Review of Wildlife Hazard Site Visits, Wildlife Hazard Assessments, and Wildlife Hazard Management Plans. Accessed by web on March 4, 2014 at [http://www.faa.gov/documentLibrary/media/Advisory\\_Circular/draft\\_150\\_5200\\_XX\\_wildlife.pdf](http://www.faa.gov/documentLibrary/media/Advisory_Circular/draft_150_5200_XX_wildlife.pdf)



# APPENDIX D

# SOLID WASTE RECYCLING PLAN

The Federal Aviation Administration (FAA), through the *Modernization and Reform Act of 2012*, expanded the definition of planning projects to include developing a plan for recycling and minimizing the generation of airport solid waste (hereafter, “the Plan”), consistent with applicable state and local recycling laws. FAA Program Guidance Letter (PGL) 12-08 requires that this information be included in airport master plans. This Plan addresses recycling and minimizing the generation of solid waste at the Sandpoint Airport (SZT or “the Airport”). The Plan is organized into the following sections.

- Background
- Solid Waste Management Plan Process
- Solid Waste Management Plan for SZT
  - Existing Conditions
  - Waste Audit
  - Plan to Minimize Solid Waste Generation
  - Operational and Maintenance Requirements
  - Potential Cost Savings or Revenue Generation
- Summary

## Background

The FAA Airports Planning and Environmental Division (APP-400) is developing guidance on the requirements for recycling plans, established by the FAA *Modernization and Reform Act of 2012*. However, until technical guidance is issued by APP-400, Regional Offices (ROs) and Airport District Offices (ADOs) must coordinate with APP-400 on all master plan grants. FAA PGL 12-08 states that planning projects must include: a waste audit; assessment of the feasibility of solid waste recycling at the airport; the minimization of solid waste generated at the airport; the operation and maintenance requirements of the plan, a review of waste management contracts; and the potential for cost savings or even the generation of revenue.

In April 2013, the FAA Office of Airports published *Recycling, Reuse and Waste Reduction at Airports, A Synthesis Document*. This document is a resource for airport sponsors to use when contemplating recycling, reduction, and waste reuse programs and strategies. Waste from airports can be divided into eight types of waste, which are described below.

1. Municipal Solid Waste (MSW) consist of everyday items that are used and then discarded, such as product packaging, furniture, clothing, bottles, food scraps, and newspaper
2. Construction and Demolition Waste (C&D) is generally categorized as MSW and is any non-hazardous solid waste from land clearing, excavation, and/or the construction, demolition, renovation or repair of structures, roads, and utilities. C&D waste commonly includes concrete, wood, metals, drywall, carpet, plastic, pipes, land clearing debris, cardboard, and salvaged building components.
3. Green Waste is categorized as MSW and is referred to as yard waste. Green waste consists of tree, shrub and grass clippings, leaves, weeds, small branches, seeds, pods and similar debris generated by landscape maintenance activities.
4. Food Waste is food that is not consumed or is the waste generated and discarded during food preparation activities. Food Waste is also considered part of the MSW waste stream.
5. Deplaned Waste is a specific type of MSW that is removed from passenger aircraft. These materials include bottles and cans, newspaper and mixed paper, plastic cups, and service ware, food waste, food soiled paper, and paper towels.
6. Lavatory Waste is considered special waste and is generated when the lavatory tanks of commercial service aircraft are emptied and pumped into a lavatory service vehicle. The lavatory waste is transported to a triturator facility for pretreatment prior to discharge into the sanitary sewage system.
7. Spill cleanup and remediation wastes are another type of special waste and includes materials generated during cleanup of spills and/or the remediation of contamination from various types of sites on an airport (i.e., storage tanks, oil and gas production, vehicular leaks, spills from maintenance activities, etc.).
8. Hazardous waste are covered by regulations outlining legal handling, treatment, or disposal and must be handled in accordance with federal regulations.

This guidance provides recommendations on what to consider to establish a waste reduction and recycling plan, and the steps needed to implement one.

## Solid Waste Management Plan Process

According to the FAA's *Synthesis Document*, the first step in the waste identification process is to establish a point of contact, and dialogue with the airport management. For the Plan to be successful, airport management must fully support and understand the benefits of implementation.

The second step is to start a waste identification process, which is intended to determine a baseline of information on the existing recycling and waste management practices. The waste identification offers insight into airport facility locations that generate waste; the amount of waste generated in each facility; the types of waste generated; the type of collection system such as a centralized or decentralized system, single-stream, multi-stream, or post-treatment separation; the types recycling materials generated; and the waste-related cost for trash and recycling containers, along with hauling, and disposal. Records to consider during the waste assessment include: purchasing, inventory, maintenance, and operating logs; supply and equipment invoices; waste hauling and disposal records; and a review of the waste management contracts.

The third step is to conduct a facility walk through. This provides a first-hand perspective of the waste handling operations and practices. During the facility walk-through, waste is to be tracked on how it moves through the airport, while assessing the existing space and equipment for waste management. An assessment of recycling operations and procedures is recommended, along with observing the solid waste disposal contractor activities. A key to gaining an understanding of the current operations and procedures at the airport is to interview the janitorial/custodial staff, regarding day to day waste management operations.

The fourth step is a waste audit. On average, a waste audit will analyze from one to five business days' worth of waste. Typically, the janitorial/custodial staff will use specially marked bags to determine the origin of the waste and make categorization of the waste easier during the audit. Finally, each bag is weighed and sorted according to the waste categories described earlier.

After identifying the types of waste generated at the airport and the current practices of waste management, the next step is to devise waste minimization strategies and determine the feasibility of recycling. Minimizing waste or a waste stream can come in different forms including waste redirection, repurposing, reuse, separation, or other means that lessen the volume of waste. Methods include, but not necessarily limited to: utilizing refillable or reusable janitorial containers; reduction of bulk packaging; use of compostable plastic material; use of trash compactors; small-scale composting; reuse of shipping pallets, landscape designs that reduce green waste; mulching grass clippings and other landscape waste; and cardboard bailers and bins strategically located near loading docks. Recycling feasibility is determined by technical, logistical, and economic factors to determine if there are markets or access for the airport's generated recyclable materials. The research recommended includes a study of state and local governmental ordinances to determine the recycling requirements and guidelines in the area, as well as the consideration of alternatives to waste management, giving consideration to cost comparisons between local providers. The EPA's *WasteWise* Program is recommended to be used as a reference when communicating with local waste management providers.

Communication, continuing education, and ongoing outreach with each of the airport groups and awareness each plays in the plan is pivotal to success. It is recommended that the airport share data and metrics about the positive impact the Plan is having on the environment with the public and stakeholders. It is recommended that monitoring be conducted regularly to measure the results against specific goals established. Finally, airport management should consider initiatives and promotions that will help promote the long-term success of the Plan.

### **Solid Waste Management Plan for SZT**

Applying the solid waste management process detailed above to SZT is provided in the following narrative.

#### **Existing Conditions**

After discussions with the Airport Manager in May 2014 and a review of waste collection and recycling contracts and policies, the following existing conditions are present at SZT.

- SZT does have scheduled commercial air service or hold a Federal Aviation Regulations (FAR) Part 139 Certificate; therefore, the Airport does not have deplaned waste to manage.
- The Airport has a Fixed Based Operator (FBO) located on the field, and the FBO manages its solid waste through a contract with Waste Management, Inc. (Waste Management). As of June 2014, Waste Management does not offer recycling services to commercial clients in Sandpoint.
- The Airport does not have staff offices at the Airport. Trash produced by the staff is removed by the individual as the Airport does not have waste collection on site.
- It is estimated by Airport staff that less than a ton of solid waste leaves the Airport every year.
- The Airport does have hangars, but according to the Sandpoint Airport Rules and Regulations, Section 5.7 *Garbage and Waste Removal*: “Lessee agrees to cause to be removed, promptly at its own expense from the leased premises, all waste, including all petroleum products, garbage and rubbish and agrees not to deposit the same, except temporality in connection with collection for removal, on any part of the leased premises, the drainage system or other property of the County constituting the Airport.” Every hangar tenant is responsible for the management of their own waste.
- The Airport does require construction waste recycling standards to be included in all construction contracts.
- The Airport utilizes a mulch mowing system to reduce green waste, and to maintain the health of the plants and local watersheds.

#### **Waste Audit**

As the Airport does not have a centralized dumpster to collect solid waste at the Airport; therefore, a waste audit was not performed as part of this Master Plan Update.

#### **Plan to Minimize Solid Waste Generation**

Understanding the existing conditions and waste management practices in place at SZT, a plan to minimize solid waste generation at the Airport can be developed.

SZT is within the City of Sandpoint, but is managed by Bonner County. Solid waste is managed by Waste Management within the City of Sandpoint, and through a system of solid waste collection sites with Bonner County. At SZT, Airport Staff are responsible for the removal of the solid waste they generate. While Waste Management conducts the removal of the waste generated by the FBO.

Bonner County offers a volunteer recycling program, which includes the recycling of various paper, aluminum cans, and cardboard. These items must be separated prior to delivery to a solid waste collection site. Once the items are delivered to the solid waste collection site, the items can be placed into pre-assigned bins associated with each recyclable type.

While Waste Management does not offer a recycling container service that can be implemented at the commercial locations such as the FBO, recyclable materials such as paper, cardboard, and metals can be collected together and delivered to Pacific Steel & Recycling, which is located in the City of Sandpoint.

Steps that can be taken to implement a solid waste recycling plan at SZT include:

- Airport Staff and tenants target the most common recyclable items that can be collected in Bonner County; such as paper, cardboard, and aluminum, separating materials prior to delivery to Bonner County Solid Waste Transfer Sites.
- The Airport FBO is recommended to target items collected by Pacific Steel & Recycling, such as paper, cardboard, metal, and batteries. As this will allow for single stream collection of recyclables.
- Place a recycling container inside the FBO, adjacent to existing trash collection, allowing transient aircraft operators, passengers, and airport tenants to recycle materials.
- Sign and label the recycling containers properly; informing the users on the allowable recyclables to be placed in the container, such as paper, newspaper, magazines, cardboard, metal cans, and aluminum cans.
- Implement source reduction when selecting materials for delivery to the Airport from vendors by asking for materials that contain the least amount of packaging.

### **Operational and Maintenance Requirements**

The Airport's operational and maintenance requirements to implement the Solid Waste Recycling Plan at the SZT are not forecast to change from the current requirements. Additional attention by the Airport staff will be needed to be sure to reduce solid waste generation, by implementing a sort process focusing on paper, cardboard, and aluminum.

### **Potential Cost Savings or Revenue Generation**

SZT Airport Management self-estimated that approximately a ton or 2,000 pounds of solid waste is generated every year at the Airport. The EPA estimates that a cubic yard of uncompacted municipal solid waste will weigh approximately 200 pounds. Using the average weight per cubic yard of solid waste SZT is producing approximately 10 cubic yards of solid waste per year. Currently, Bonner County charges \$13.00 per cubic yard of loose commercial waste at the solid waste collection sites. The cost estimate for SZT for solid waste management is approximately \$130 per year, based upon a ton of uncompacted waste.

Bonner County collects paper, aluminum and cardboard at the solid waste collection sites. Bonner County also estimates that of the waste generated in the County 38 percent is from paper, 18 percent is from yard trimmings, 8 percent is from metals, 8 percent is from plastic, 7 percent is from glass, 7 percent is from food waste, and 14 percent is classified as other. Bonner County collects paper, cardboard, and aluminum, meaning that if the Airport and tenants generate trash like the “average” user in Bonner County – they can recycle up to 46 percent of their solid waste.

A 46 percent reduction in solid waste generation would result in only 1,080 pounds being generated by the Airport annually, resulting in a cost savings of approximately \$60 per year.

### **Summary**

The intent of the Solid Waste Recycling Plan is to develop a plan for recycling and reducing the solid waste generated at the Airport. SZT has the potential to increase recycling, and reduce solid waste generation at the Airport by following the applicable State and local recycling guidelines and implementing the recommended strategies.

Using the waste audit as a baseline for solid waste generation at SZT, by focusing on paper, cardboard and aluminum separation, there is the potential to reduce waste generation.

Once the key steps are in place for the SZT Solid Waste Recycling Plan, it is recommended that the Airport routinely reviews and monitors the success of the plan, making revisions where necessary, and constantly balancing the operational and maintenance costs with potential cost reductions resulting from the implementation of additional solid waste reduction strategies.



# APPENDIX E ACTIVITY DATA

Prepared by Mead & Hunt

September 2015

# DRAFT APPENDIX E

# Activity Data

Prepared by:



Research in support of determining what aircraft types operate at SZT included a hangar survey, completed in February 2014, review of fuel records for calendar year 2013, and FlightAware aircraft operations records from October 2012 to September 2013. Each data collection effort acquired the most recent data available at the time the research was conducted. The was collected to support aviation activity forecasts, documented in **Chapter 2**, and to determine existing and future facility requirements, documented in **Chapter 3**.

In addition to gathering hard data, airport management interviewed key tenants (Quest Aircraft and Tamarack Aerospace Group) to gather the insight and opinions of the managers of these organizations. This information is also considered in aviation activity forecasts, with the consideration that opinions of business owners are subject to bias, and must be reviews as such.

The results of the research efforts are described in **Chapter 1**, **Chapter 2**, and **Chapter 3**. This appendix presents the baseline data that was used to prepare these summaries.

**F.1 February 2014 Hangar Survey**

<b>Manufacturer</b>	<b>Model</b>	<b>Sub</b>	<b>AAC</b>	<b>ADG</b>	<b>ARC</b>	<b>BA Type</b>
AERO COMMANDER	TURBO COMMANDER	680-E	A	II	A-II	MULTI-ENGINE TURBO
AEROFAB	LAKE	LA-250	A	II	A-II	SINGLE ENGINE
ALON	AIRCOUPE	A2	A	I	A-I	SINGLE ENGINE
BEECHCRAFT	BONANZA	A35	A	I	A-I	SINGLE ENGINE
BEECHCRAFT	BONANZA	A36	A	I	A-I	SINGLE ENGINE
BEECHCRAFT	SUNDOWNER	C23	A	I	A-I	SINGLE ENGINE
BEECHCRAFT	SKIPPER	MODEL 77	A	I	A-I	SINGLE ENGINE
CESSNA		140	A	I	A-I	SINGLE ENGINE
CESSNA		140	A	I	A-I	SINGLE ENGINE
CESSNA	COMMUTER	150	A	I	A-I	SINGLE ENGINE
CESSNA	COMMUTER	150	A	I	A-I	SINGLE ENGINE
CESSNA		170	A	I	A-I	SINGLE ENGINE
CESSNA		170	A	I	A-I	SINGLE ENGINE
CESSNA	SKYHAWK	172	A	I	A-I	SINGLE ENGINE
CESSNA	SKYHAWK	172	A	I	A-I	SINGLE ENGINE
CESSNA	SKYHAWK	172	A	I	A-I	SINGLE ENGINE
CESSNA	SKYHAWK	172	A	I	A-I	SINGLE ENGINE
CESSNA	SKYHAWK	172	A	I	A-I	SINGLE ENGINE
CESSNA	SKYHAWK	172	A	I	A-I	SINGLE ENGINE
CESSNA	SKYHAWK	172	A	I	A-I	SINGLE ENGINE
CESSNA	SKYLARK	175	A	I	A-I	SINGLE ENGINE
CESSNA	SKYLANE	182	B	I	B-I	SINGLE ENGINE
CESSNA	SKYLANE	182	B	I	B-I	SINGLE ENGINE
CESSNA	SKYLANE	182	B	I	B-I	SINGLE ENGINE
CESSNA	SKYWAGON	185	B	I	B-I	SINGLE ENGINE
CESSNA	SKYWAGON	185	B	I	B-I	SINGLE ENGINE
CESSNA	SKYWAGON	185	B	I	B-I	SINGLE ENGINE
CESSNA	SUPER SKYWAGON	206	B	I	B-I	SINGLE ENGINE
CESSNA	SUPER SKYWAGON	206	B	I	B-I	SINGLE ENGINE
CESSNA	CENTURION	210	B	I	B-I	SINGLE ENGINE
CESSNA	CENTURION	210	B	I	B-I	SINGLE ENGINE
CESSNA	CENTURION	210	B	I	B-I	SINGLE ENGINE

*Collected February 2014*

Manufacturer	Model	Sub	AAC	ADG	ARC	BA Type
CESSNA		310	B	I	B-I	MULTI-ENGINE PISTON
CESSNA	CONQUEST 2	411	B	II	B-II	MULTI-ENGINE TURBO
CESSNA	CITATIONJET	CJ1/2/3	B	II	B-II	JET
CIRRUS		SR20	A	I	A-I	SINGLE ENGINE
CIRRUS		SR22	A	I	A-I	SINGLE ENGINE
CUBCRAFTERS	CARBON CUB		A	I	A-I	SINGLE ENGINE
CUBCRAFTERS	CARBON CUB		A	I	A-I	SINGLE ENGINE
DEHAVILAND	BEAVER	DGC-1B-2-S5	A	II	A-II	SINGLE ENGINE
DENNEY	KITFOX		A	I	A-I	SINGLE ENGINE
DENNEY	KITFOX		A	I	A-I	SINGLE ENGINE
EXPERIMENTAL			A	I	A-I	SINGLE ENGINE
EXTRA		300	A	I	A-I	SINGLE ENGINE
FOUND	BUSHHAWK	FBA-2	A	I	A-I	SINGLE ENGINE
GLASAIR	SPORTSMAN	2+2	A	I	A-I	SINGLE ENGINE
HELICOPTER			H	H	H-H	HELICOPTER
HELICOPTER			H	H	H-H	HELICOPTER
HELICOPTER			H	H	H-H	HELICOPTER
HELICOPTER			H	H	H-H	HELICOPTER
HELICOPTER			H	H	H-H	HELICOPTER
HELICOPTER			H	H	H-H	HELICOPTER
HELICOPTER			H	H	H-H	HELICOPTER
HELIO	COURIER		A	I	A-I	SINGLE ENGINE
LANCAIR		4P	A	I	A-I	SINGLE ENGINE
OTHER	GLIDER		A	II	A-II	OTHER
OTHER	GLIDER		A	II	A-II	OTHER
OTHER	GLIDER		A	II	A-II	OTHER
PIPER	CUB	J-3	A	I	A-I	SINGLE ENGINE
PIPER	CUB	J-3	A	I	A-I	SINGLE ENGINE
PIPER	CHEROKEE	PA028	A	I	A-I	SINGLE ENGINE
PIPER	SUPER CUB	PA-18	A	I	A-I	SINGLE ENGINE
PIPER	SUPER CUB	PA-18	A	I	A-I	SINGLE ENGINE
PIPER	SUPER CUB	PA-18	A	I	A-I	SINGLE ENGINE
<i>Collected February 2014</i>						

<b>Manufacturer</b>	<b>Model</b>	<b>Sub</b>	<b>AAC</b>	<b>ADG</b>	<b>ARC</b>	<b>BA Type</b>
PIPER	SUPER CUB	PA-18	A	I	A-I	SINGLE ENGINE
PIPER	SUPER CUB	PA-18	A	I	A-I	SINGLE ENGINE
PIPER	PACER	PA-20	A	I	A-I	SINGLE ENGINE
PIPER	PACER	PA-20	A	I	A-I	SINGLE ENGINE
PIPER	ARROW	PA-28	A	I	A-I	SINGLE ENGINE
PIPER	MERIDIAN	PA-46	A	I	A-I	SINGLE ENGINE
PIPER	AEROSTAR		B	I	B-I	MULTI-ENGINE TURBO
PIPISTREL	LSA		A	I	A-I	SINGLE ENGINE
QUEST	KODIAK		A	I	A-I	SINGLE ENGINE
QUEST	KODIAK		A	I	A-I	SINGLE ENGINE
QUEST	KODIAK		A	I	A-I	SINGLE ENGINE
RANS	COURIER	S7	A	I	A-I	SINGLE ENGINE
REPUBLIC	SEABEE	RC-3	A	I	A-I	SINGLE ENGINE
ROCKWELL	COMMANDER	112	A	I	A-I	SINGLE ENGINE
PROGRESSIVE AERODYNE	SEAYRAY		A	I	A-I	SINGLE ENGINE
TAYLORCRAFT	UNKNOWN		A	I	A-I	SINGLE ENGINE
UNKNOWN	SINGLE ENGINE		A	I	A-I	SINGLE ENGINE
UNKNOWN	SINGLE ENGINE		A	I	A-I	SINGLE ENGINE
UNKNOWN	SINGLE ENGINE		A	I	A-I	SINGLE ENGINE
UNKNOWN	SINGLE ENGINE		A	I	A-I	SINGLE ENGINE
UNKNOWN	SINGLE ENGINE		A	I	A-I	SINGLE ENGINE
UNKNOWN	SINGLE ENGINE		A	I	A-I	SINGLE ENGINE
UNKNOWN	SINGLE ENGINE		A	I	A-I	SINGLE ENGINE
UNKNOWN	SINGLE ENGINE		A	I	A-I	SINGLE ENGINE
UNKNOWN	SINGLE ENGINE		A	I	A-I	SINGLE ENGINE
UNKNOWN	SINGLE ENGINE		A	I	A-I	SINGLE ENGINE
UNKNOWN	SINGLE ENGINE		A	I	A-I	SINGLE ENGINE
UNKNOWN	SINGLE ENGINE		A	I	A-I	SINGLE ENGINE
UNKNOWN	SINGLE ENGINE		A	I	A-I	SINGLE ENGINE
VANS		RV-4	A	I	A-I	SINGLE ENGINE
VANS		RV-8	A	I	A-I	SINGLE ENGINE
VANS		RV-8	A	I	A-I	SINGLE ENGINE
VANS		RV-8	A	I	A-I	SINGLE ENGINE
VANS		RV-9	A	I	A-I	SINGLE ENGINE
ZENITH	UNKNOWN		A	I	A-I	SINGLE ENGINE
<i>Collected February 2014</i>						



Type Name	Ident	AAC	ADG	ARC	IS JET	Type Name	Ident	AAC	ADG	ARC	IS JET	Type Name	Ident	AAC	ADG	ARC	IS JET
AUGUSTA WESLAND HELO	526LF	H	H	H-H	N	BEECH SUPER KING AIR 200	12170	B	II	B-II	N	CESSNA 172 SKYHAWK	NOT LEDGIBLE	A	I	A-I	N
AUGUSTA WESLAND HELO	526LF	H	H	H-H	N	BEECH SUPER KING AIR 200	654FM	B	II	B-II	N	CESSNA 172 SKYHAWK	85345	A	I	A-I	N
AUGUSTA WESLAND HELO	526LF	H	H	H-H	N	BEECH SUPER KING AIR 200	276H	B	II	B-II	N	CESSNA 172 SKYHAWK	5933A	A	I	A-I	N
AUGUSTA WESLAND HELO	526LF	H	H	H-H	N	BEECH SUPER KING AIR 200	276H	B	II	B-II	N	CESSNA 172 SKYHAWK	NOT LEDGIBLE	A	I	A-I	N
AUGUSTA WESLAND HELO	526LF	H	H	H-H	N	BEECH SUPER KING AIR 200	276H	B	II	B-II	N	CESSNA 177B	30826	A	I	A-I	N
AUGUSTA WESLAND HELO	526LF	H	H	H-H	N	BEECH SUPER KING AIR 200	6545M	B	II	B-II	N	CESSNA 180 SKYWAGON	180PX	A	I	A-I	N
AUGUSTA WESLAND HELO	526LF	H	H	H-H	N	BEECH SUPER KING AIR 200	654FM	B	II	B-II	N	CESSNA 180 SKYWAGON	15ZF	A	I	A-I	N
AUGUSTA WESLAND HELO	526LF	H	H	H-H	N	BEECH SUPER KING AIR 200	654FM	B	II	B-II	N	CESSNA 182 SKYLANE	3410S	B	I	B-I	N
AUGUSTA WESLAND HELO	526LF	H	H	H-H	N	BEECH SUPER KING AIR 200	654FM	B	II	B-II	N	CESSNA 182 SKYLANE	3463F	B	I	B-I	N
AUGUSTA WESLAND HELO	526LF	H	H	H-H	N	BEECH SUPER KING AIR 200	654FM	B	II	B-II	N	CESSNA 182 SKYLANE	3082F	B	I	B-I	N
AUGUSTA WESLAND HELO	526LF	H	H	H-H	N	BEECH SUPER KING AIR 200	N654FM	B	II	B-II	N	CESSNA 182 SKYLANE	3082F	B	I	B-I	N
AUGUSTA WESLAND HELO	526LF	H	H	H-H	N	BEECH SUPER KING AIR 200	NOT LEDGIBLE	B	II	B-II	N	CESSNA 182 SKYLANE	NOT LEDGIBLE	B	I	B-I	N
AUGUSTA WESLAND HELO	526LF	H	H	H-H	N	BEECH SUPER KING AIR 200	N654FM	B	II	B-II	N	CESSNA 182 SKYLANE	3082F	B	I	B-I	N
AUGUSTA WESLAND HELO	526LF	H	H	H-H	N	BEECH SUPER KING AIR 200	N654FM	B	II	B-II	N	CESSNA 182 SKYLANE	66177	B	I	B-I	N
AUGUSTA WESLAND HELO	526LF	H	H	H-H	N	BEECH SUPER KING AIR 200	792BP	B	II	B-II	N	CESSNA 185 SKYWAGON	70006	B	I	B-I	N
AUGUSTA WESLAND HELO	526LF	H	H	H-H	N	BEECH SUPER KING AIR 200	792BP	B	II	B-II	N	CESSNA 185 SKYWAGON	70006	B	I	B-I	N
AUGUSTA WESLAND HELO	526LF	H	H	H-H	N	BEECH SUPER KING AIR 300	791BP	B	II	B-II	N	CESSNA 185 SKYWAGON	70006	B	I	B-I	N
AUGUSTA WESLAND HELO	526LF	H	H	H-H	N	BEECH SUPER KING AIR 300	791BP	B	II	B-II	N	CESSNA 185 SKYWAGON	63195	A	I	A-I	N
AUGUSTA WESLAND HELO	526LF	H	H	H-H	N	BEECHJET 400	NOT LEDGIBLE	C	I	C-I	Y	CESSNA 185 SKYWAGON	4946E	A	I	A-I	N
AUGUSTA WESLAND HELO	526LF	H	H	H-H	N	BEECHJET 400	491TM	C	I	C-I	Y	CESSNA 208 CARAVAN	9697F	B	I	B-I	N
AUGUSTA WESLAND HELO	526LF	H	H	H-H	N	BELL 206	NOT LEDGIBLE	H	H	H-H	N	CESSNA 210 CENTURION	6363L	A	I	A-I	N
AUGUSTA WESLAND HELO	526LF	H	H	H-H	N	BELL 206	801CL	H	H	H-H	N	CESSNA 210 CENTURION	725RP	A	I	A-I	N
AUGUSTA WESLAND HELO	526LF	H	H	H-H	N	BELL 206	801CL	H	H	H-H	N	CESSNA 310	376J	B	I	B-I	N
AUGUSTA WESLAND HELO	526LF	H	H	H-H	N	BELL 206	801CL	H	H	H-H	N	CESSNA 310	376J	B	I	B-I	N
AUGUSTA WESLAND HELO	526LF	H	H	H-H	N	BELL, UH-1H (HELICOPTER)	N676TH	H	H	H-H	N	CESSNA 310	N530	A	I	A-I	N
AUGUSTA WESLAND HELO	526LF	H	H	H-H	N	Boeing Stearman 75	1756M	A	I	A-I	N	CESSNA 337D	1CD	A	I	A-I	N
AUGUSTA WESLAND HELO	526LF	H	H	H-H	N	CESSNA 140	76743	A	I	A-I	N	CESSNA 340	37362	B	I	B-I	N
AUGUSTA WESLAND HELO	526LF	H	H	H-H	N	CESSNA 140	N4086N	A	I	A-I	N	CESSNA 340	NOT LEDGIBLE	B	I	B-I	N
AUGUSTA WESLAND HELO	526LF	H	H	H-H	N	CESSNA 150	1663Q	A	I	A-I	N	CESSNA 340	NOT LEDGIBLE	B	I	B-I	N
AUGUSTA WESLAND HELO	526LF	H	H	H-H	N	CESSNA 150	11458	A	I	A-I	N	CESSNA CITATION EXCEL	NOT LEDGIBLE	B	II	B-II	Y
BAC P84 JET PROVST MK.5A	N313A	B	I	B-I	Y	CESSNA 150	10496	A	I	A-I	N	CESSNA CITATION EXCEL	NOT PROVIDED	B	II	B-II	Y
BEECH 36 BONANZA	NOT LEDGIBLE	A	I	A-I	N	CESSNA 170	2531D	A	I	A-I	N	CESSNA CITATION EXCEL	9063??	B	II	B-II	Y
BEECH 36 BONANZA	1918D	A	I	A-I	N	CESSNA 170	8365A	A	I	A-I	N	CESSNA CITATION II	NOT LEDGIBLE	B	II	B-II	Y
BEECH 58 BARON	204G	B	I	B-I	N	CESSNA 172 SKYHAWK	NOT LEDGIBLE	A	I	A-I	N	CESSNA CITATION III	955KC	B	II	B-II	Y
BEECH 58 BARON	204G	B	I	B-I	N	CESSNA 172 SKYHAWK	NOT LEDGIBLE	A	I	A-I	N	CESSNA CITATION III	955KC	B	II	B-II	Y
BEECH 60 DUKE	11VC	B	I	B-I	N	CESSNA 172 SKYHAWK	3082E	A	I	A-I	N	CESSNA CITATION MUSTANG	862GS	B	I	B-I	Y
BEECH E18S-9700	90001	B	II	B-II	N	CESSNA 172 SKYHAWK	3082E	A	I	A-I	N	CESSNA CITATION MUSTANG	NOT PROVIDED	B	I	B-I	Y
BEECH F90	69084	B	I	B-I	N	CESSNA 172 SKYHAWK	3082E	A	I	A-I	N	CESSNA CITATION SOVERIGN	955KC	B	II	B-II	Y
BEECH KING AIR 100	866A	B	I	B-I	N	CESSNA 172 SKYHAWK	3082E	A	I	A-I	N	CESSNA CITATION SOVERIGN	NOT PROVIDED	B	II	B-II	Y
<i>From Granite Aviation Fuel Records for Calendar Year 2013</i>						<i>From Granite Aviation Fuel Records for Calendar Year 2013</i>						<i>From Granite Aviation Fuel Records for Calendar Year 2013</i>					

Type Name	Ident	AAC	ADG	ARC	IS JET	Type Name	Ident	AAC	ADG	ARC	IS JET	Type Name	Ident	AAC	ADG	ARC	IS JET
CESSNA CITATION SOVERIGN	N955KC	B	II	B-II	Y	EMBRAER PHENOM 100	175EM	B	I	B-I	Y	EUROCOPTER AS350	N810LF	H	H	H-H	N
CESSNA CITATION V	N601QS	B	II	B-II	Y	EMBRAER PHENOM 100	175EM	B	I	B-I	Y	EUROCOPTER AS350	N810LF	H	H	H-H	N
CESSNA CITATION V	700NK	B	II	B-II	Y	EMBRAER PHENOM 100	175EM	B	I	B-I	Y	EUROCOPTER AS350	N810LF	H	H	H-H	N
CESSNA CITATION V	670QS	B	II	B-II	Y	EMBRAER PHENOM 100	NOT PROVIDED	B	I	B-I	Y	EUROCOPTER AS350	810LF	H	H	H-H	N
CESSNA CITATION V	647QS	B	II	B-II	Y	EMBRAER PHENOM 100	N175EM	B	I	B-I	Y	EUROCOPTER AS350	810LF	H	H	H-H	N
CESSNA CITATION X	NOT LEDGIBLE	C	II	C-II	Y	EMBRAER PHENOM 100	N175EM	B	I	B-I	Y	EUROCOPTER AS350	810LF	H	H	H-H	N
CESSNA CITATION X	767X	C	II	C-II	Y	EUROCOPTER AS350	20HX	H	H	H-H	N	EUROCOPTER AS350	810LF	H	H	H-H	N
CESSNA CITATION X	997Q5	C	II	C-II	Y	EUROCOPTER AS350	810LF	H	H	H-H	N	EUROCOPTER AS350	810LF	H	H	H-H	N
CESSNA CITATIONJET CJ1	86LA	B	II	B-II	Y	EUROCOPTER AS350	810LF	H	H	H-H	N	EUROCOPTER AS350	810LF	H	H	H-H	N
CESSNA CITATIONJET CJ1	86LA	B	II	B-II	Y	EUROCOPTER AS350	810LF	H	H	H-H	N	EUROCOPTER AS350	810LF	H	H	H-H	N
CESSNA CITATIONJET CJ1	57FL	B	II	B-II	Y	EUROCOPTER AS350	810LF	H	H	H-H	N	EUROCOPTER AS350	810LF	H	H	H-H	N
CESSNA CITATIONJET CJ1	86LA	B	II	B-II	Y	EUROCOPTER AS350	848BP	H	H	H-H	N	EUROCOPTER AS350	810LF	H	H	H-H	N
CESSNA CITATIONJET CJ1	86LA	B	II	B-II	Y	EUROCOPTER AS350	20HX	H	H	H-H	N	EUROCOPTER AS350	810LF	H	H	H-H	N
CESSNA CITATIONJET CJ1	86LA	B	II	B-II	Y	EUROCOPTER AS350	N810LF	H	H	H-H	N	EXPERIMENTAL	9010U	A	I	A-I	N
CESSNA CITATIONJET CJ1	86LA	B	II	B-II	Y	EUROCOPTER AS350	810LF	H	H	H-H	N	EXPERIMENTAL	39918	A	I	A-I	N
CESSNA CITATIONJET CJ1	86LA	B	II	B-II	Y	EUROCOPTER AS350	N810LF	H	H	H-H	N	EXPERIMENTAL	NOT LEDGIBLE	A	I	A-I	N
CESSNA CITATIONJET CJ1	86LA	B	II	B-II	Y	EUROCOPTER AS350	N810LF	H	H	H-H	N	GRUMMAN AA-5B	81078	A	I	A-I	N
CESSNA CITATIONJET CJ1	NOT PROVIDED	B	II	B-II	Y	EUROCOPTER AS350	N810LF	H	H	H-H	N	HAWKER 1000	800WD	B	I	B-I	Y
CESSNA CITATIONJET CJ1	NOT PROVIDED	B	II	B-II	Y	EUROCOPTER AS350	N810LF	H	H	H-H	N	HAWKER 800	NOT PROVIDED	C	II	C-II	Y
CESSNA CITATIONJET CJ1	NOT PROVIDED	B	II	B-II	Y	EUROCOPTER AS350	N810LF	H	H	H-H	N	HAWKER 800	NOT PROVIDED	C	II	C-II	Y
CESSNA CITATIONJET CJ1	NOT PROVIDED	B	II	B-II	Y	EUROCOPTER AS350	N810LF	H	H	H-H	N	HEISDORFFER ROGER	942P	A	I	A-I	N
CESSNA CITATIONJET CJ1	NOT PROVIDED	B	II	B-II	Y	EUROCOPTER AS350	N810LF	H	H	H-H	N	HELICOPTER	N53DFU	H	H	H-H	N
CESSNA CITATIONJET CJ1	NOT LEDGIBLE	B	II	B-II	Y	EUROCOPTER AS350	N810LF	H	H	H-H	N	HELICOPTER	G-J-EL	H	H	H-H	N
CESSNA CITATIONJET CJ1	N86LA	B	II	B-II	Y	EUROCOPTER AS350	N810LF	H	H	H-H	N	HUGHES HELO	911VC	H	H	H-H	N
CESSNA CITATIONJET CJ2	194SJ	B	II	B-II	Y	EUROCOPTER AS350	N810LF	H	H	H-H	N	LEARJET 35	581PH	D	I	D-I	Y
CHALLENGER 300	541FX	B	II	B-II	Y	EUROCOPTER AS350	N810LF	H	H	H-H	N	LEARJET 45	45VB	C	I	C-I	Y
CHALLENGER 600	513MJ	C	II	C-II	Y	EUROCOPTER AS350	N810LF	H	H	H-H	N	LEARJET 45	217J	C	I	C-I	Y
CIRRUS - TAMARACK	102W	A	I	A-I	N	EUROCOPTER AS350	N810LF	H	H	H-H	N	LEARJET 45	387HA	C	I	C-I	Y
COZY MARK IV	N484BD	A	I	A-I	N	EUROCOPTER AS350	N810LF	H	H	H-H	N	LEARJET 45	NOT PROVIDED	C	I	C-I	Y
CUBCRAFTERS CC11-160	544CP	A	I	A-I	N	EUROCOPTER AS350	N810LF	H	H	H-H	N	LEARJET 45	NOT PROVIDED	C	I	C-I	Y
DEHAVILAND DHC-2	4334Y	A	I	A-I	N	EUROCOPTER AS350	N810LF	H	H	H-H	N	LEARJET 45	45VB	C	I	C-I	Y
DEHAVILAND DHC-2	4334Y	A	I	A-I	N	EUROCOPTER AS350	N810LF	H	H	H-H	N	MAULE MT-7	NOT LEDGIBLE	A	I	A-I	N
ECLIPSE 500	NOT PROVIDED	B	I	B-I	Y	EUROCOPTER AS350	N810LF	H	H	H-H	N	MD HELI	900FF	H	H	H-H	N
ECLIPSE 500	N855M	B	I	B-I	Y	EUROCOPTER AS350	N810LF	H	H	H-H	N	MD HELI	1600Q	H	H	H-H	N
EMBRAER PHENOM 100	175EM	B	I	B-I	Y	EUROCOPTER AS350	N810LF	H	H	H-H	N	MD HELI	1600Q	H	H	H-H	N
EMBRAER PHENOM 100	175EM	B	I	B-I	Y	EUROCOPTER AS350	N810LF	H	H	H-H	N	MOONEY M-20G	3910N	A	I	A-I	N
EMBRAER PHENOM 100	175EM	B	I	B-I	Y	EUROCOPTER AS350	N810LF	H	H	H-H	N	PILATUS AIRCRAFT LTD , PC-12/47E	948MR	A	II	A-II	N
EMBRAER PHENOM 100	175EM	B	I	B-I	Y	EUROCOPTER AS350	N810LF	H	H	H-H	N	PILATUS PC-12	903PP	A	I	A-I	N
EMBRAER PHENOM 100	175EM	B	I	B-I	Y	EUROCOPTER AS350	N810LF	H	H	H-H	N	PILATUS PC-12	N214CS	A	II	A-II	N
<i>From Granite Aviation Fuel Records for Calendar Year 2013</i>						<i>From Granite Aviation Fuel Records for Calendar Year 2013</i>						<i>From Granite Aviation Fuel Records for Calendar Year 2013</i>					

Type Name	Ident	AAC	ADG	ARC	IS JET	Type Name	Ident	AAC	ADG	ARC	IS JET	Type Name	Ident	AAC	ADG	ARC	IS JET
PIPER CUB	495KM	A	I	A-I	N	QUEST KODIAK	490KQ	A	I	A-I	N	QUEST KODIAK	87KQ	A	I	A-I	N
PIPER PA-11	5050H	A	I	A-I	N	QUEST KODIAK	490KQ	A	I	A-I	N	QUEST KODIAK	23KQ	A	I	A-I	N
PIPER PA-18 CUB	432Y	A	I	A-I	N	QUEST KODIAK	490KQ	A	I	A-I	N	QUEST KODIAK	NOT LEDGIBLE	A	I	A-I	N
PIPER PA-18 CUB	432Y	A	I	A-I	N	QUEST KODIAK	490KQ	A	I	A-I	N	QUEST KODIAK	102KQ	A	I	A-I	N
PIPER PA-18 CUB	193T	A	I	A-I	N	QUEST KODIAK	490KQ	A	I	A-I	N	QUEST KODIAK	NOT LEDGIBLE	A	I	A-I	N
PIPER PA-24 COMMANCHE	N7000P	A	I	A-I	N	QUEST KODIAK	490KQ	A	I	A-I	N	QUEST KODIAK	102KQ	A	I	A-I	N
PIPER PA-24 COMMANCHE	N7000P	A	I	A-I	N	QUEST KODIAK	490KQ	A	I	A-I	N	QUEST KODIAK	900KQ	A	I	A-I	N
PIPER PA-28 CHEROKEE	NOT LEDGIBLE	A	I	A-I	N	QUEST KODIAK	490KQ	A	I	A-I	N	QUEST KODIAK	995MF	A	I	A-I	N
PIPER PA-28 CHEROKEE	N40004	A	I	A-I	N	QUEST KODIAK	490KQ	A	I	A-I	N	ROBINSON R44	NOT LEDGIBLE	H	H	H-H	N
PIPER PA-30	7334Y	B	I	B-I	N	QUEST KODIAK	490KQ	A	I	A-I	N	ROCKWELL INTERNATIONAL, 690A	N690DS	A	II	A-II	N
PIPER PA-46 MALIBU	700CG	A	I	A-I	N	QUEST KODIAK	490KQ	A	I	A-I	N	ROTORCRAFT 206B	99NW	H	H	H-H	N
PIPER PA-46 MALIBU	700CG	A	I	A-I	N	QUEST KODIAK	490KQ	A	I	A-I	N	ROTORCRAFT 206-L4	304CP	H	H	H-H	N
PIPER PA-46 MALIBU	700CG	A	I	A-I	N	QUEST KODIAK	490KQ	A	I	A-I	N	ROTORCRAFT 369FF	369FF	H	H	H-H	N
PIPER PA-46 MALIBU	700CG	A	I	A-I	N	QUEST KODIAK	490KQ	A	I	A-I	N	ROTORCRAFT 369FF	369FF	H	H	H-H	N
PIPER PA-46 MALIBU	700CG	A	I	A-I	N	QUEST KODIAK	490KQ	A	I	A-I	N	ROTORCRAFT 369FF	369FF	H	H	H-H	N
PIPER PA-46 MALIBU	700CG	A	I	A-I	N	QUEST KODIAK	490KQ	A	I	A-I	N	ROTORCRAFT 369FF	369FF	H	H	H-H	N
PIPER PA-46 MALIBU	700CG	A	I	A-I	N	QUEST KODIAK	78KQ	A	I	A-I	N	ROTORCRAFT 369FF	369FF	H	H	H-H	N
PIPER PA-46 MALIBU	700CG	A	I	A-I	N	QUEST KODIAK	78KQ	A	I	A-I	N	ROTORCRAFT 369FF	369FF	H	H	H-H	N
PIPER PA-46 MALIBU	700CG	A	I	A-I	N	QUEST KODIAK	78KQ	A	I	A-I	N	ROTORCRAFT 369FF	369FF	H	H	H-H	N
PIPER PA-46 MALIBU	90SE	A	I	A-I	N	QUEST KODIAK	78KQ	A	I	A-I	N	ROTORCRAFT 369FF	369FF	H	H	H-H	N
PIPER PA-46 MALIBU	46TD	A	I	A-I	N	QUEST KODIAK	NOT LEDGIBLE	A	I	A-I	N	ROTORCRAFT 369FF	369FF	H	H	H-H	N
Piper PA-60	27NP	A	I	A-I	N	QUEST KODIAK	NOT LEDGIBLE	A	I	A-I	N	Rotorcraft MBB-BK 117 C-2	145	H	H	H-H	N
PITTS S-2S	99MF	A	I	A-I	N	QUEST KODIAK	NOT LEDGIBLE	A	I	A-I	N	ROTORCRAFT R66	27DB	H	H	H-H	N
PROGRESSIVE AERODYNE SEA RAY	NOT LEDGIBLE	A	I	A-I	N	QUEST KODIAK	NOT LEDGIBLE	A	I	A-I	N	ROTORCRAFT R66	7078V	H	H	H-H	N
QUEST KODIAK	856TC	A	I	A-I	N	QUEST KODIAK	NOT LEDGIBLE	A	I	A-I	N	SOCATA TBM-700	850SC	A	I	A-I	N
QUEST KODIAK	N93KQ	A	I	A-I	N	QUEST KODIAK	NOT LEDGIBLE	A	I	A-I	N	SOCATA TBM-700	850WK	A	I	A-I	N
QUEST KODIAK	490KQ	A	I	A-I	N	QUEST KODIAK	NOT LEDGIBLE	A	I	A-I	N	SPORT FLIGHT ASTRA S-2	3115C	A	I	A-I	N
QUEST KODIAK	572SG	A	I	A-I	N	QUEST KODIAK	NOT LEDGIBLE	A	I	A-I	N	STAUTER ROBERT , RV-6A	512W	A	I	A-I	N
QUEST KODIAK	838SA	A	I	A-I	N	QUEST KODIAK	97KQ	A	I	A-I	N	UNKNWN PREMIER JETS	NOT LEDGIBLE	J	J	J-J	Y
QUEST KODIAK	N89KQ	A	I	A-I	N	QUEST KODIAK	98KQ	A	I	A-I	N	UNKNWN PREMIER JETS	NOT LEDGIBLE	J	J	J-J	Y
QUEST KODIAK	490KQ	A	I	A-I	N	QUEST KODIAK	97KQ	A	I	A-I	N	UNKWN HELO	NOT LEDGIBLE	H	H	H-H	N
QUEST KODIAK	838SA	A	I	A-I	N	QUEST KODIAK	995KQ	A	I	A-I	N	VANS RV-4	NOT LEDGIBLE	A	I	A-I	N
QUEST KODIAK	N88KQ	A	I	A-I	N	QUEST KODIAK	503KQ	A	I	A-I	N	VANS RV-6	191BJ	A	I	A-I	N
QUEST KODIAK	90001	A	I	A-I	N	QUEST KODIAK	23EG	A	I	A-I	N	VANS RV-9	91RV	A	I	A-I	N
QUEST KODIAK	90001	A	I	A-I	N	QUEST KODIAK	9010U	A	I	A-I	N	<i>From Granite Aviation Fuel Records for Calendar Year 2013</i>					
QUEST KODIAK	90001	A	I	A-I	N	QUEST KODIAK	50KQ	A	I	A-I	N						
QUEST KODIAK	90001	A	I	A-I	N	QUEST KODIAK	98KQ	A	I	A-I	N						
QUEST KODIAK	90001	A	I	A-I	N	QUEST KODIAK	NOT LEDGIBLE	A	I	A-I	N						
QUEST KODIAK	490KQ	A	I	A-I	N	QUEST KODIAK	NOT LEDGIBLE	A	I	A-I	N						
<i>From Granite Aviation Fuel Records for Calendar Year 2013</i>						<i>From Granite Aviation Fuel Records for Calendar Year 2013</i>											

F.3 October 2012 to September 2013 FlightAware Data

Type Name	Type	Ident	AAC	ADG	ARC	Owner	Owner Location	OWNER TYPE	JET	TYPE	Origin	Destination	Departure Time	Arrival Time	Enroute
UNKNOWN	BLK	BLK1	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	KGPI	KSZZ	8/8/2012 0:49	8/8/2012 1:17	0:28
UNKNOWN	BLK	BLK1	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	KSZZ	KFCM	8/8/2012 1:35	8/8/2012 3:44	2:09
BEECH 58 BARON	BE58/G	N53MT	A	I	A-I	KSZZ LLC	1185 JEFFRES LN SANDPOINT ID 838648469	INDIVIDUAL/CLUB	N	PROP-ME	KSZZ	KALW	8/8/2012 16:42	8/8/2012 17:30	0:48
BEECH SUPER KING AIR 200	BE20/G	N456PF	B	II	B-II	MONSON RANCHES SNAKE RIVER ORCHARD LLC	63615 E JACOBS RD NE BENTON CITY WA 993208568	BUSINESS	N	PROP-ME	KPSC	KSZZ	8/8/2012 20:03	8/8/2012 20:40	0:37
BEECH SUPER KING AIR 200	BE20/G	N456PF	B	II	B-II	MONSON RANCHES SNAKE RIVER ORCHARD LLC	63615 E JACOBS RD NE BENTON CITY WA 993208568	BUSINESS	N	PROP-ME	KSZZ	KPSC	8/8/2012 21:43	8/8/2012 22:28	0:45
CESSNA 172 SKYHAWK	C172/G	N19698	A	I	A-I	NORTHERN AIR INC	64602 HIGHWAY 2 BONNERS FERRY ID 838055211	AIR TAXI	N	PROP-SE	KGEG	KSZZ	8/8/2012 22:39	8/8/2012 23:18	0:39
QUEST KODIAK	KODI/G	N621TX	A	I	A-I	KUWINDA AIR LLC	415 W WALL ST STE 300 MIDLAND TX 797014437	BUSINESS	N	PROP-SE	KSZZ	KCYS	8/8/2012 23:30	8/8/2012 23:30	n/a
BEECH SUPER KING AIR 200	BE20/G	N456PF	B	II	B-II	MONSON RANCHES SNAKE RIVER ORCHARD LLC	63615 E JACOBS RD NE BENTON CITY WA 993208568	BUSINESS	N	PROP-ME	KPSC	KSZZ	8/9/2012 3:35	8/9/2012 4:09	0:34
BEECH SUPER KING AIR 200	BE20/G	N456PF	B	II	B-II	MONSON RANCHES SNAKE RIVER ORCHARD LLC	63615 E JACOBS RD NE BENTON CITY WA 993208568	BUSINESS	N	PROP-ME	KSZZ	KPSC	8/9/2012 4:34	8/9/2012 5:06	0:32
CESSNA CITATION V	C560/L	N444RF	B	II	B-II	CASCADIAN I LLC	11624 SE 5TH ST STE 200 BELLEVUE WA 980053590	BUSINESS	Y	JET	KRNT	KSZZ	8/9/2012 12:41	8/9/2012 13:21	0:40
CESSNA CITATION V	C560/Q	N444RF	B	II	B-II	CASCADIAN I LLC	11624 SE 5TH ST STE 200 BELLEVUE WA 980053590	BUSINESS	Y	JET	KSZZ	KPDX	8/9/2012 13:44	8/9/2012 14:44	1:00
CESSNA CITATION V	C560/L	N561VP	B	II	B-II	JJ AVIATION LLC	78-505 OLD AVENUE 52 LA QUINTA CA 92253	AIR TAXI	Y	JET	KSDL	KSZZ	8/9/2012 22:31	8/10/2012 1:01	2:30
CESSNA CITATION V	C560/Q	N444RF	B	II	B-II	CASCADIAN I LLC	11624 SE 5TH ST STE 200 BELLEVUE WA 980053590	BUSINESS	Y	JET	KBOI	KSZZ	8/9/2012 23:16	8/10/2012 0:06	0:50
CESSNA CITATION V	C560/L	N444RF	B	II	B-II	CASCADIAN I LLC	11624 SE 5TH ST STE 200 BELLEVUE WA 980053590	BUSINESS	Y	JET	KSZZ	KRNT	8/10/2012 0:30	8/10/2012 1:21	0:51
PILATUS PC-12	PC12/G	ASP612	A	II	A-II	AirSprint	Canada	AIR TAXI	N	PROP-SE	KGPI	KSZZ	8/10/2012 14:41	8/10/2012 15:19	0:38
CESSNA CITATIONJET CJ2	C25A/Q	N52AG	B	II	B-II	ICM INC	310 N 1ST ST COLWICH KS 670309655	BUSINESS	Y	JET	KOMA	KSZZ	8/10/2012 15:38	8/10/2012 18:43	3:05
BEECH KING AIR 90	BE9L/G	N954BS	B	II	B-II	RICK FRANKLIN CORP	PO BOX 365 LEBANON OR 973550365	BUSINESS	N	PROP-ME	KSLE	KSZZ	8/10/2012 20:55	8/10/2012 22:26	1:31
BEECH KING AIR 90	BE9L/G	N954BS	B	II	B-II	RICK FRANKLIN CORP	PO BOX 365 LEBANON OR 973550365	BUSINESS	N	PROP-ME	KSZZ	S30	8/10/2012 23:39	8/11/2012 1:13	1:34
BEECH KING AIR 90	BE9L/G	N445CR	B	II	B-II	PACIFIC AIR NORTHWEST LLC	822 S HIGHWAY 395 # 506 HERMISTON OR 978382621	AIR TAXI	N	PROP-ME	KUAO	KSZZ	8/11/2012 0:29	8/11/2012 2:09	1:40
BEECH KING AIR 90	BE9L/G	N445CR	B	II	B-II	PACIFIC AIR NORTHWEST LLC	822 S HIGHWAY 395 # 506 HERMISTON OR 978382621	AIR TAXI	N	PROP-ME	KSZZ	KPSC	8/11/2012 2:31	8/11/2012 2:31	0:00
BEECH KING AIR 90	BE9L/G	N445CR	B	II	B-II	PACIFIC AIR NORTHWEST LLC	822 S HIGHWAY 395 # 506 HERMISTON OR 978382621	AIR TAXI	N	PROP-ME	KSZZ	KHRI	8/11/2012 2:31	8/11/2012 3:21	0:50
PIAGGIO P180 AVANTI	P180/Q	VNR159	B	I	B-I	Avantair	Fairfield New Jersey	AIR TAXI	N	PROP-ME	KAPC	KSZZ	8/11/2012 17:28	8/11/2012 19:25	1:57
PIAGGIO P180 AVANTI	P180/Q	VNR159	B	I	B-I	Avantair	Fairfield New Jersey	AIR TAXI	N	PROP-ME	KSZZ	KDIJ	8/11/2012 20:42	8/11/2012 21:38	0:56
CESSNA CITATIONJET CJ2	C25B/Q	N52AG	B	II	B-II	ICM INC	310 N 1ST ST COLWICH KS 670309655	BUSINESS	Y	JET	KSZZ	KICT	8/11/2012 22:06	8/12/2012 0:37	2:31
CESSNA CITATIONJET CJ2	C25A/Q	N6UB	B	II	B-II	SILVERLEAF AVIATION LLC	6477 HWY 93 SOUTH UNIT 136 WHITEFISH MT 59937	AIR TAXI	Y	JET	KAPA	KSZZ	8/12/2012 17:30	8/12/2012 19:57	2:27
PILATUS PC-12	PC12/G	ASP612	A	II	A-II	AirSprint	Canada	AIR TAXI	N	PROP-SE	KSZZ	CYEG	8/12/2012 19:03	8/12/2012 20:29	1:26
BEECH KING AIR 90	BE9L/G	N87Q	B	II	B-II	DYNAMIC AVLEASE INC	1402 AIRPORT RD BRIDGEWATER VA 228123534	AIR TAXI	N	PROP-ME	KMLS	KSZZ	8/12/2012 20:58	8/12/2012 23:30	2:32
BEECH KING AIR 90	BE9L/G	N954BS	B	II	B-II	RICK FRANKLIN CORP	PO BOX 365 LEBANON OR 973550365	BUSINESS	N	PROP-ME	KSLE	KSZZ	8/12/2012 23:09	8/13/2012 0:38	1:29
CESSNA CITATION V	C560/L	N561VP	B	II	B-II	JJ AVIATION LLC	78-505 OLD AVENUE 52 LA QUINTA CA 92253	AIR TAXI	Y	JET	KSZZ	KSDL	8/12/2012 23:19	8/13/2012 1:40	2:21
CESSNA 172 SKYHAWK	C172/G	N517U	A	I	A-I	REGISTRATION PENDING	PO BOX 10001 MOSCOW ID 838430201	BUSINESS	N	PROP-SE	KBVS	KSZZ	8/13/2012 12:58	8/13/2012 12:58	n/a
BEECH KING AIR 90	BE9L/G	N445CR	B	II	B-II	PACIFIC AIR NORTHWEST LLC	822 S HIGHWAY 395 # 506 HERMISTON OR 978382621	AIR TAXI	N	PROP-ME	KPSC	KSZZ	8/13/2012 13:35	8/13/2012 14:22	0:47
BEECH KING AIR 90	BE9L/G	N445CR	B	II	B-II	PACIFIC AIR NORTHWEST LLC	822 S HIGHWAY 395 # 506 HERMISTON OR 978382621	AIR TAXI	N	PROP-ME	KSZZ	KBKE	8/13/2012 15:15	8/13/2012 16:16	1:01
CIRRUS SR-22	SR22/G	N775AH	A	I	A-I	CIRRUS DESIGN CORP	4515 TAYLOR CIR DULUTH MN 558111548	BUSINESS	N	PROP-SE	KISN	KSZZ	8/13/2012 18:43	8/13/2012 21:48	3:05
BEECH KING AIR 90	BE9L/G	N954BS	B	II	B-II	RICK FRANKLIN CORP	PO BOX 365 LEBANON OR 973550365	BUSINESS	N	PROP-ME	KSZZ	KSLE	8/13/2012 23:23	8/14/2012 0:56	1:33
PIPER PA-28 CHEROKEE	P28A/G	N4995F	A	I	A-I	SKORINA FRANK K	116 STANTON ST WALLA WALLA WA 993622057	INDIVIDUAL/CLUB	N	PROP-SE	KHRI	KSZZ	8/14/2012 17:35	8/14/2012 21:10	3:34
PIPER PA-28 CHEROKEE	P28A/G	N4995F	A	I	A-I	SKORINA FRANK K	116 STANTON ST WALLA WALLA WA 993622057	INDIVIDUAL/CLUB	N	PROP-SE	KHRI	KSZZ	8/14/2012 22:54	8/14/2012 22:54	n/a
CIRRUS SR-22	SR22/G	N775AH	A	I	A-I	CIRRUS DESIGN CORP	4515 TAYLOR CIR DULUTH MN 558111548	BUSINESS	N	PROP-SE	KSZZ	KGFK	8/15/2012 14:54	8/15/2012 18:26	3:32
PIAGGIO P180 AVANTI	P180/L	VNR196	B	I	B-I	Avantair	Fairfield New Jersey	AIR TAXI	N	PROP-ME	KASE	KSZZ	8/15/2012 19:33	8/15/2012 21:42	2:09
CESSNA CITATIONJET CJ1	C525/Q	N6UB	B	II	B-II	SILVERLEAF AVIATION LLC	6477 HWY 93 SOUTH UNIT 136 WHITEFISH MT 59937	AIR TAXI	Y	JET	KSZZ	CYYC	8/15/2012 19:35	8/15/2012 19:35	n/a
QUEST KODIAK	KODI/G	N490KQ	A	I	A-I	QUEST AIRCRAFT CO LLC	1200 TURBINE DR SANDPOINT ID 83864	BUSINESS	N	PROP-SE	KSZZ	KSZZ	8/15/2012 22:00	8/15/2012 22:00	n/a
PIAGGIO P180 AVANTI	PC12/G	VNR196	B	I	B-I	Avantair	Fairfield New Jersey	AIR TAXI	N	PROP-ME	KSZZ	KBFI	8/15/2012 22:20	8/15/2012 23:15	0:55
CESSNA 172 SKYHAWK	C172/G	N19698	A	I	A-I	NORTHERN AIR INC	64602 HIGHWAY 2 BONNERS FERRY ID 838055211	AIR TAXI	N	PROP-SE	KCOE	KSZZ	8/16/2012 5:40	8/16/2012 6:16	0:36
CESSNA CITATION III	C680/Q	N955KC	B	II	B-II	BGST LLC	9311 E VIA DE VENTURA SCOTTSDALE AZ 852583423	BUSINESS	Y	JET	KGEG	KSZZ	8/16/2012 12:42	8/16/2012 12:57	0:15
CESSNA CITATION III	C680/Q	N955KC	B	II	B-II	BGST LLC	9311 E VIA DE VENTURA SCOTTSDALE AZ 852583423	BUSINESS	Y	JET	KSZZ	KBOI	8/16/2012 13:51	8/16/2012 14:41	0:50
CESSNA CITATIONJET CJ1	C525/L	N739LN	B	II	B-II	MONTICELLO AIR LLC	2450 AIRPORT RD NAPA CA 94558	AIR TAXI	Y	JET	KAPC	KSZZ	8/16/2012 17:52	8/16/2012 19:51	1:59
CESSNA CITATION III	C680/Q	N955KC	B	II	B-II	BGST LLC	9311 E VIA DE VENTURA SCOTTSDALE AZ 852583423	BUSINESS	Y	JET	KBOI	KSZZ	8/16/2012 19:54	8/16/2012 20:42	0:48
CESSNA CITATION III	C680/Q	N955KC	B	II	B-II	BGST LLC	9311 E VIA DE VENTURA SCOTTSDALE AZ 852583423	BUSINESS	Y	JET	KSZZ	KGEG	8/16/2012 21:00	8/16/2012 21:18	0:18
BEECH 58 BARON	BE58/G	N53MT	A	I	A-I	KSZZ LLC	1185 JEFFRES LN SANDPOINT ID 838648469	INDIVIDUAL/CLUB	N	PROP-ME	KMSO	KSZZ	8/16/2012 23:22	8/17/2012 0:06	0:44
UNKNOWN	BLK	BLK2	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	KBIS	KSZZ	8/17/2012 15:36	8/17/2012 17:27	1:51
CESSNA CITATIONJET CJ1	C525/L	N245SP	B	II	B-II	SIERRA PAPA INC	3838 SAN DIMAS ST B-231 BAKERSFIELD CA 93301	AIR TAXI	Y	JET	KSBA	KSZZ	8/17/2012 17:10	8/17/2012 19:31	2:21
CESSNA CITATION III	C650/Q	N126MT	B	II	B-II	WELLS CAPITAL INC	6200 THE CORNERS PKWY NORCROSS GA 300923365	BUSINESS	Y	JET	KSTP	KSZZ	8/17/2012 18:17	8/17/2012 20:59	2:42
UNKNOWN	BLK	BLK3	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	KSZZ	KABR	8/17/2012 18:46	8/17/2012 20:35	1:49
SOCATA TBM-850	TBM8/L	N4884M	B	I	B-I	TICHENOR MCHENRY T JR	100 CRESCENT CT STE 700 DALLAS TX 752012112	INDIVIDUAL/CLUB	N	PROP-SE	PASI	KSZZ	8/17/2012 20:09	8/17/2012 23:19	3:10
CESSNA CITATION III	C650/Q	N126MT	B	II	B-II	WELLS CAPITAL INC	6200 THE CORNERS PKWY NORCROSS GA 300923365	BUSINESS	Y	JET	KSZZ	KMYL	8/17/2012 22:39	8/17/2012 23:14	0:35
SOCATA TBM-850	TBM8/L	N4884M	B	I	B-I	TICHENOR MCHENRY T JR	100 CRESCENT CT STE 700 DALLAS TX 752012112	INDIVIDUAL/CLUB	N	PROP-SE	KSZZ	KJAC	8/18/2012 0:15	8/18/2012 0:15	n/a
CESSNA CITATION EXCEL	C56X/L	EJA696	B	II	B-II	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KOTH	KSZZ	8/18/2012 22:14	8/18/2012 23:23	1:09
CESSNA CITATION EXCEL	C56X/L	EJA696	B	II	B-II	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KSZZ	KBDN	8/19/2012 15:34	8/19/2012 16:00	0:26
CESSNA CITATION EXCEL	C56X/L	EJA696	B	II	B-II	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KSZZ	KOTH	8/19/2012 15:34	8/19/2012 16:55	1:21
BEECH SUPER KING AIR 200	BE20/L	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KUAO	KSZZ	8/19/2012 17:04	8/19/2012 18:23	1:19
CESSNA CITATIONJET CJ1	C525/K	N245SP	B	II	B-II	SIERRA PAPA INC	3838 SAN DIMAS ST B-231 BAKERSFIELD CA 93301	AIR TAXI	Y	JET	KSZZ	KSBA	8/19/2012 18:48	8/19/2012 21:18	2:30
BEECH SUPER KING AIR 200	BE20/R	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KSZZ	KUAO	8/19/2012 18:50	8/19/2012 20:13	1:23
CESSNA CITATIONJET CJ1	C525/L	N739LN	B	II	B-II	MONTICELLO AIR LLC	2450 AIRPORT RD NAPA CA 94558	AIR TAXI	Y	JET	KSZZ	KAPC	8/19/2012 21:36	8/19/2012 23:51	2:15
MOONEY M-20	M20P/G	N2224F	A	I	A-I	E C NELSON INC	4615 BEAR RIVER DR RIO OSO CA 956749625	BUSINESS	N	PROP-SE	KSZZ	KMYV	8/20/2012 13:32	8/20/2012 17:20	3:48
PIPER PA-28 CHEROKEE	P28A/G	N4511S	A	I	A-I	OWENS JOHN P MD DBA	137 MAGELLAN ST CAPITOLA CA 950102318	BUSINESS	N	PROP-SE	KSZZ	KYKM	8/20/2012 15:08	8/20/2012 16:42	1:34
LEARJET 40	LJ40/Q	N288AS	C	I	C-I	AIR SIERRA AVIATION INC	100 BAYVIEW CIR STE 4500 NEWPORT BEACH CA 926608912	AIR TAXI	Y	JET	KSBA	KSZZ	8/20/2012 1		

Type Name	Type	Ident	AAC	ADG	ARC	Owner	Owner Location	OWNER TYPE	JET	TYPE	Origin	Destination	Departure Time	Arrival Time	Enroute	
CESSNA 310	C310/G	N376J	B	I	B-I	VAISALA INC	194 S TAYLOR AVE LOUISVILLE CO 800273024	BUSINESS	N	PROP-ME	KSZT	KGCC	8/22/2012 20:25	8/22/2012 22:44	2:19	
PIPER PA-46 MALIBU	P46T/G	N72HC	A	I	A-I	SCHALLER PAUL DTRUSTEE	113 HIDDEN SPRING RD SANDPOINT ID 838646264	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KPAE	8/22/2012 21:21	8/22/2012 22:30	1:08	
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KSZT	KUAO	8/22/2012 22:15	8/22/2012 23:48	1:33	
PILATUS PC-12	PC12/R	N125BP	A	II	A-II	BLUE SKY AERO LLC	4478 DEER RIDGE RD DANVILLE CA 945066017	AIR TAXI	N	PROP-SE	KSZT	KPDJ	8/23/2012 14:16	8/23/2012 15:34	1:18	
HAWKER 800	H25B/Q	KOW412	C	II	C-II	Unknown Owner		BUSINESS	Y	JET	KDWH	KSZT	8/23/2012 16:13	8/23/2012 19:59	3:46	
CESSNA CITATION EXCEL	C56X/L	EJA580	B	II	B-II	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	38S	KSZT	8/23/2012 19:12	8/23/2012 19:46	0:34	
CESSNA CITATION EXCEL	C56X/L	EJA580	B	II	B-II	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KSZT	KBFI	8/23/2012 22:40	8/23/2012 23:29	0:49	
BEECH KING AIR 90	BE9L/G	N954BS	B	II	B-II	RICK FRANKLIN CORP	PO BOX 365 LEBANON OR 973550365	BUSINESS	N	PROP-ME	KSZT	S30	8/23/2012 23:24	8/24/2012 1:11	1:47	
BEECH KING AIR 90	BE9L/G	N954BS	B	II	B-II	RICK FRANKLIN CORP	PO BOX 365 LEBANON OR 973550365	BUSINESS	N	PROP-ME	KSZT	KSLE	KSZT	8/23/2012 23:24	8/24/2012 0:42	1:18
CESSNA CITATIONJET CJ1	C525/Q	N6UB	B	II	B-II	SILVERLEAF AVIATION LLC	6477 HWY 93 SOUTH UNIT 136 WHITEFISH MT 59937	AIR TAXI	Y	JET	KDVT	KSZT	8/24/2012 17:31	8/24/2012 20:31	3:00	
LEARJET 40	LJ40/Q	N288AS	C	I	C-I	AIR SIERRA AVIATION INC	100 BAYVIEW CIR STE 4500 NEWPORT BEACH CA 926608912	AIR TAXI	Y	JET	KMRY	KSZT	8/24/2012 17:45	8/24/2012 19:31	1:46	
PIPER PA-46 MALIBU	PA46/G	N72HC	A	I	A-I	SCHALLER PAUL DTRUSTEE	113 HIDDEN SPRING RD SANDPOINT ID 838646264	INDIVIDUAL/CLUB	N	PROP-SE	KPAE	KSZT	8/24/2012 18:08	8/24/2012 19:17	1:09	
BEECH 24 SIERRA	BE24/A	AEROSTAR	A	I	A-I	PLASTERTECH LLC	HC 33 BOX 41 LAS VEGAS NV 891619257	BUSINESS	N	PROP-SE	KMUO	KSZT	8/24/2012 19:50	8/24/2012 21:45	1:55	
BEECH 24 SIERRA	BE24/G	N66433	A	I	A-I	MC NAMARA DONALD	15125 210TH AVE NE WOODINVILLE WA 980777621	INDIVIDUAL/CLUB	N	PROP-SE	KPAE	KSZT	8/24/2012 19:58	8/24/2012 21:50	1:52	
LEARJET 40	LJ40/Q	N288AS	C	I	C-I	AIR SIERRA AVIATION INC	100 BAYVIEW CIR STE 4500 NEWPORT BEACH CA 926608912	AIR TAXI	Y	JET	KSZT	KSBA	8/24/2012 21:23	8/24/2012 23:23	2:00	
UNKNOWN	BLK	BLK4	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	KSZT	KBCE	8/25/2012 15:59	8/25/2012 19:33	3:34	
PILATUS PC-12	PC12/R	N948MR	A	II	A-II	RANEY MICHAEL E TRUSTEE	2747 PARADISE RD UNIT 3104 LAS VEGAS NV 891099073	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KTVL	8/25/2012 17:08	8/25/2012 19:34	2:26	
PIPER PA-42 CHEYENNE	PAY2/I	N58PL	B	I	B-I	EXEC AIR MONTANA INC	2430 AIRPORT RD HELENA MT 596011234	AIR TAXI	N	PROP-ME	KGPI	KSZT	8/25/2012 19:55	8/25/2012 20:25	0:30	
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	S21	KSZT	8/25/2012 20:35	8/25/2012 21:01	0:26	
PIPER PA-42 CHEYENNE	PAY1/G	N58PL	B	I	B-I	EXEC AIR MONTANA INC	2430 AIRPORT RD HELENA MT 596011234	AIR TAXI	N	PROP-ME	KSZT	KCOE	8/25/2012 22:22	8/25/2012 22:38	0:16	
BEECH SUPER KING AIR 200	BE20/L	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KUAO	KSZT	8/25/2012 22:35	8/25/2012 23:52	1:17	
CESSNA CITATIONJET CJ1	C525/L	N86LA	B	II	B-II	BINGHAM LEASING & SALES LLC	3035 N HIGHLAND AVE JACKSON TN 383053411	AIR TAXI	Y	JET	KSZT	KSZT	8/26/2012 1:04	8/26/2012 1:56	0:52	
BEECH KING AIR 90	BE9L/G	N954BS	B	II	B-II	RICK FRANKLIN CORP	PO BOX 365 LEBANON OR 973550365	BUSINESS	N	PROP-ME	KSLE	KSZT	8/26/2012 22:39	8/27/2012 0:05	1:26	
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KSZT	KLMT	8/27/2012 0:08	8/27/2012 2:13	2:05	
BEECH KING AIR 90	BE9L/G	N954BS	B	II	B-II	RICK FRANKLIN CORP	PO BOX 365 LEBANON OR 973550365	BUSINESS	N	PROP-ME	KSZT	KSLE	8/27/2012 0:35	8/27/2012 2:18	1:43	
CESSNA CITATION EXCEL	C56X/L	EJA588	B	II	B-II	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KBFI	KSZT	8/27/2012 0:46	8/27/2012 1:28	0:42	
CESSNA CITATION EXCEL	C56X/L	EJA588	B	II	B-II	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KSZT	KBFI	8/27/2012 2:32	8/27/2012 3:21	0:49	
BEECH 36 BONANZA	BE35/G	N2343V	A	I	A-I	ATI AVIATION LLC	11 WHITE OAK LN WOODBRIDGE CT 065251136	INDIVIDUAL/CLUB	N	PROP-SE	KBFI	KSZT	8/27/2012 16:06	8/27/2012 16:06	n/a	
QUEST KODIAK	KODI/G	N150K	A	I	A-I	JACKSON 50 LLC	3422 OLD CAPITOL TRL STE 1150 WILMINGTON DE 198086124	BUSINESS	N	PROP-SE	KSZT	KDIJ	8/27/2012 21:38	8/27/2012 21:38	n/a	
BEECH 36 BONANZA	BE35/G	N2343V	A	I	A-I	ATI AVIATION LLC	11 WHITE OAK LN WOODBRIDGE CT 065251136	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KBFI	8/27/2012 23:28	8/28/2012 1:23	1:55	
BEECH 58 BARON	BE58/G	N53MT	A	I	A-I	KSZT LLC	1185 JEFFRES LN SANDPOINT ID 838648469	INDIVIDUAL/CLUB	N	PROP-ME	KSZT	KSUN	8/28/2012 14:03	8/28/2012 15:19	1:16	
PILATUS PC-12	PC12/R	N948MR	A	II	A-II	RANEY MICHAEL E TRUSTEE	2747 PARADISE RD UNIT 3104 LAS VEGAS NV 891099073	INDIVIDUAL/CLUB	N	PROP-SE	KTVL	KSZT	8/28/2012 18:02	8/28/2012 20:02	2:00	
CESSNA CITATIONJET CJ1	C525/L	N86LA	B	II	B-II	BINGHAM LEASING & SALES LLC	3035 N HIGHLAND AVE JACKSON TN 383053411	AIR TAXI	Y	JET	KCOE	KSZT	8/28/2012 18:19	8/28/2012 19:11	0:52	
HAWKER 800	H25B/Q	KOW412	C	II	C-II	Unknown Owner		BUSINESS	Y	JET	KSZT	KDWH	8/28/2012 18:43	8/28/2012 22:11	3:28	
BEECH 58 BARON	BE58/G	N53MT	A	I	A-I	KSZT LLC	1185 JEFFRES LN SANDPOINT ID 838648469	INDIVIDUAL/CLUB	N	PROP-ME	KMRY	KSZT	8/28/2012 20:39	8/28/2012 20:39	n/a	
BEECH 58 BARON	BE58/G	N53MT	A	I	A-I	KSZT LLC	1185 JEFFRES LN SANDPOINT ID 838648469	INDIVIDUAL/CLUB	N	PROP-ME	KSJC	KSZT	8/28/2012 20:39	8/28/2012 20:39	n/a	
PILATUS PC-12	PC12/G	N948MR	A	II	A-II	RANEY MICHAEL E TRUSTEE	2747 PARADISE RD UNIT 3104 LAS VEGAS NV 891099073	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KVGT	8/28/2012 20:48	8/29/2012 0:48	4:00	
CESSNA CITATIONJET CJ1	C525/L	N86LA	B	II	B-II	BINGHAM LEASING & SALES LLC	3035 N HIGHLAND AVE JACKSON TN 383053411	AIR TAXI	Y	JET	KSZT	KPDJ	8/29/2012 14:27	8/29/2012 15:47	1:20	
QUEST KODIAK	KODI/G	N72KQ	A	I	A-I	QUEST AIRCRAFT CO LLC	1200 TURBINE DR SANDPOINT ID 83864	BUSINESS	N	PROP-SE	KSZT	KSJC	8/31/2012 14:44	8/31/2012 17:57	3:13	
UNKNOWN	BLK	BLK4	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	KOGD	KSZT	8/31/2012 18:52	8/31/2012 21:43	2:51	
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KUAO	KSZT	8/31/2012 20:36	8/31/2012 21:48	1:12	
ROCKWELL TURBO COMMANDER 690	AC90/G	N480K	B	I	B-I	THOMPSON NATHAN	9195 GUNBARREL RIDGE RD BOULDER CO 803015501	INDIVIDUAL/CLUB	N	PROP-ME	KEIK	KSZT	8/31/2012 21:44	9/1/2012 0:44	3:00	
HAWKER 800	H25B/Q	NSH146	C	II	C-II	DB Aviation	Phone: +1-847-263-5600 Waukegan IL	AIR TAXI	Y	JET	KSGR	KSZT	8/31/2012 21:49	9/1/2012 1:29	3:40	
BEECH SUPER KING AIR 200	BE20/R	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KSZT	KUAO	8/31/2012 22:17	8/31/2012 23:49	1:32	
CESSNA CITATION II	C550/Q	N888RL	B	II	B-II	BOZEMAN JET SERVICES LLC	2275 W KOCH ST BOZEMAN MT 597186853	AIR TAXI	Y	JET	KBZN	KSZT	8/31/2012 22:59	8/31/2012 23:58	0:59	
CESSNA CITATION II	C550/Q	N888RL	B	II	B-II	BOZEMAN JET SERVICES LLC	2275 W KOCH ST BOZEMAN MT 597186853	AIR TAXI	Y	JET	KSZT	KOTH	9/1/2012 0:16	9/1/2012 1:53	1:37	
CESSNA 172 SKYHAWK	C172/G	N739LU	A	I	A-I	DESROSIER ROBERT J	PO BOX 330 BROWNING MT 594170330	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KMWH	9/1/2012 16:39	9/1/2012 17:55	1:16	
CESSNA CITATIONJET CJ1	C525/L	N86LA	B	II	B-II	BINGHAM LEASING & SALES LLC	3035 N HIGHLAND AVE JACKSON TN 383053411	AIR TAXI	Y	JET	KPDJ	KSZT	9/1/2012 19:47	9/1/2012 20:45	0:58	
BEECH 36 BONANZA	BE36/G	N125T	A	I	A-I	BISPLINGHOFF RONS STRUSTEE	178 MILL RD NORTH HAMPTON NH 038622217	BUSINESS	N	PROP-SE	KBIL	KSZT	9/2/2012 15:29	9/2/2012 17:56	2:27	
BEECH SUPER KING AIR 200	BE20/A	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KUAO	KSZT	9/2/2012 16:24	9/2/2012 17:40	1:16	
CESSNA 172 SKYHAWK	C172/G	N739LU	A	I	A-I	DESROSIER ROBERT J	PO BOX 330 BROWNING MT 594170330	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KLWS	9/2/2012 17:20	9/2/2012 17:20	n/a	
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KSZT	KUAO	9/2/2012 19:00	9/2/2012 20:12	1:12	
CESSNA 172 SKYHAWK	C172/G	N739LU	A	I	A-I	DESROSIER ROBERT J	PO BOX 330 BROWNING MT 594170330	INDIVIDUAL/CLUB	N	PROP-SE	KPDT	KSZT	9/2/2012 23:00	9/3/2012 0:48	1:48	
CESSNA 206 STATIONAIR	C206/G	N619CB	B	I	B-I	BEERS ROYCE L TRUSTEE	2122 S LAKE LEELANAU DR LAKE LEELANAU MI 496539453	INDIVIDUAL/CLUB	N	PROP-SE	KHVR	KSZT	9/2/2012 23:01	9/3/2012 1:01	2:00	
BEECH 36 BONANZA	BE36/G	N125T	A	I	A-I	BISPLINGHOFF RONS STRUSTEE	178 MILL RD NORTH HAMPTON NH 038622217	BUSINESS	N	PROP-SE	KSZT	KBLI	9/2/2012 23:36	9/3/2012 1:46	2:10	
HAWKER 800	H25B/L	NSH146	C	II	C-II	DB Aviation	Phone: +1-847-263-5600 Waukegan IL	AIR TAXI	Y	JET	KSZT	KSGR	9/3/2012 19:09	9/3/2012 22:36	3:27	
CESSNA CITATION II	C550/Q	N888RL	B	II	B-II	BOZEMAN JET SERVICES LLC	2275 W KOCH ST BOZEMAN MT 597186853	AIR TAXI	Y	JET	KOTH	KSZT	9/3/2012 22:05	9/3/2012 23:30	1:25	
ROCKWELL TURBO COMMANDER 690	TBM7/R	N480K	B	I	B-I	THOMPSON NATHAN	9195 GUNBARREL RIDGE RD BOULDER CO 803015501	INDIVIDUAL/CLUB	N	PROP-ME	KSZT	KEIK	9/3/2012 23:15	9/4/2012 1:55	2:40	
CESSNA CITATION II	C550/Q	N888RL	B	II	B-II	BOZEMAN JET SERVICES LLC	2275 W KOCH ST BOZEMAN MT 597186853	AIR TAXI	Y	JET	KSZT	KBZN	9/3/2012 23:57	9/4/2012 0:47	0:50	
PIPER PA-46 MALIBU	PA46/G	N72HC	A	I	A-I	SCHALLER PAUL DTRUSTEE	113 HIDDEN SPRING RD SANDPOINT ID 838646264	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KPAE	9/4/2012 0:32	9/4/2012 2:00	1:28	
BEECH 36 BONANZA	BE36/G	N1000T	A	I	A-I	HAUGHTON DOUGLAS L	PO BOX 2807 POULSBORO WA 983702807	INDIVIDUAL/CLUB	N	PROP-SE	KPWT	KSZT	9/5/2012 14:19	9/5/2012 15:38	1:19	
CESSNA CITATION III	C680/Q	EJM242	B	II	B-II	Executive Jet Management		AIR TAXI	Y	JET	KLAS	KSZT	9/5/2012 16:53	9/5/2012 16:53	n/a	
CESSNA CITATION III	C680/Q	EJM242	B	II	B-II	Executive Jet Management		AIR TAXI	Y	JET	KSZT	KIAD	9/5/2012 22:22	9/6/2012 2:07	3:45	
CESSNA CITATIONJET CJ1	C525/Q	N6UB	B	II	B-II	SILVERLEAF AVIATION LLC	6477 HWY 93 SOUTH UNIT 136 WHITEFISH MT 59937	AIR TAXI	Y	JET	KSZT	KAPA	9/6/2012 20:01	9/6/2012 22:06		

Type Name	Type	Ident	AAC	ADG	ARC	Owner	Owner Location	OWNER TYPE	JET	TYPE	Origin	Destination	Departure Time	Arrival Time	Enroute
EMBRAER PHENOM 100	E50P/L	N175EM	B	I	B-I	BIG BLUE EXPRESS INC	12829 W DODGE RD STE 202 OMAHA NE 681542188	AIR TAXI	Y	JET	KAHQ	KSZT	9/12/2012 11:47	9/12/2012 15:01	3:14
PIPER PA-30 COMANCHE	P32R/G	N88AP	A	I	A-I	POWERS A H	48204 GAYLORD RD MYRTLE POINT OR 974588713	INDIVIDUAL/CLUB	N	PROP-SE	KPAE	KSZT	9/12/2012 16:13	9/12/2012 17:30	1:17
CESSNA CITATION 1SP	C501/L	N505JH	B	I	B-I	JACKSON HOLE AIR CHARTER INC	PO BOX 489 JACKSON WY 830010489	AIR TAXI	Y	JET	PIH026084	KSZT	9/12/2012 20:56	9/12/2012 20:56	n/a
CESSNA CITATION 1SP	C501/L	N505JH	B	I	B-I	JACKSON HOLE AIR CHARTER INC	PO BOX 489 JACKSON WY 830010489	AIR TAXI	Y	JET	DJ045030	KSZT	9/12/2012 20:56	9/12/2012 20:56	n/a
CIRRUS SR-22	SR22/Q	N3851C	A	I	A-I	SNYDER STEVEN E	150 CARRIAGE LN BURNSVILLE MN 553065082	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KMLS	9/13/2012 14:13	9/13/2012 16:46	2:33
CHALLENGER 300	CL30/Q	LXJ532	B	II	B-II	Bombardier Aerospace/Business Jet		BUSINESS	Y	JET	KSTL	KSZT	9/13/2012 15:19	9/13/2012 18:29	3:10
QUEST KODIAK	KODI/R	N838SA	A	I	A-I	SPIRIT AIR INC	64 MILLER LN SALMON ID 834675163	AIR TAXI	N	PROP-SE	KSMN	KSZT	9/13/2012 16:15	9/13/2012 17:53	1:38
EMBRAER PHENOM 100	E50P/L	N175EM	B	I	B-I	BIG BLUE EXPRESS INC	12829 W DODGE RD STE 202 OMAHA NE 681542188	AIR TAXI	Y	JET	KAHQ	KSZT	9/13/2012 17:10	9/13/2012 17:10	n/a
ROCKWELL TURBO COMMANDER 690	AC90/G	N161AL	B	I	B-I	AERO AIR LLC	2050 NE 25TH AVE HILLSBORO OR 971245964	AIR TAXI	N	PROP-ME	KBFI	KSZT	9/13/2012 19:13	9/13/2012 20:14	1:01
ROCKWELL TURBO COMMANDER 690	AC90/G	N161AL	B	I	B-I	AERO AIR LLC	2050 NE 25TH AVE HILLSBORO OR 971245964	AIR TAXI	N	PROP-ME	KSZT	KBFI	9/13/2012 20:43	9/13/2012 21:52	1:09
CESSNA CITATIONJET CJ1	C525/Q	HBVOF	B	II	B-II	CJet SA		AIR TAXI	Y	JET	KJAC	KSZT	9/13/2012 21:28	9/13/2012 22:50	1:22
BEECH 58 BARON	BE58/G	N53MT	A	I	A-I	KSZT LLC	1185 JEFFRES LN SANDPOINT ID 838648469	INDIVIDUAL/CLUB	N	PROP-ME	KSZT	KEUG	9/13/2012 21:55	9/14/2012 0:00	2:05
EMBRAER ERJ-135	E135/Q	OPT910	C	II	C-II	Flight Options	Johnson City NY	AIR TAXI	Y	JET	KLAS	KSZT	9/14/2012 14:48	9/14/2012 16:52	2:04
BEECH 58 BARON	BE58/G	N204G	A	I	A-I	WAIT REXFORD J DBA	2416 CADES WAY VISTA CA 920817830	BUSINESS	N	PROP-ME	KSZT	KTRK	9/14/2012 15:46	9/14/2012 15:46	n/a
EMBRAER ERJ-135	E55P/Q	OPT910	C	II	C-II	Flight Options	Johnson City NY	AIR TAXI	Y	JET	KSZT	KPAE	9/14/2012 17:44	9/14/2012 18:31	0:47
PIPER PA-46 MALIBU	PA46/G	N72HC	A	I	A-I	SCHALLER PAUL DTRUSTEE	113 HIDDEN SPRING RD SANDPOINT ID 838646264	INDIVIDUAL/CLUB	N	PROP-SE	KPAE	KSZT	9/14/2012 18:19	9/14/2012 19:39	1:20
QUEST KODIAK	KODI/G	N838SA	A	I	A-I	SPIRIT AIR INC	64 MILLER LN SALMON ID 834675163	AIR TAXI	N	PROP-SE	KSZT	KSMN	9/14/2012 23:23	9/15/2012 0:23	1:00
PIPER PA-46 MALIBU	P46T/G	N41484	A	I	A-I	MR BULTS INC	2631 E 139TH BURNHAM IL 60633	BUSINESS	N	PROP-SE	KBPP	KSZT	9/15/2012 12:45	9/15/2012 16:08	3:23
CHALLENGER 300	CL30/Q	LXJ532	B	II	B-II	Bombardier Aerospace/Business Jet		BUSINESS	Y	JET	KSZT	KLAS	9/15/2012 15:03	9/15/2012 16:53	1:50
CIRRUS SR-22	FA10/Q	N512CP	A	I	A-I	PETERSON MARK W	1411 24TH AVE LEWISTON ID 835016346	INDIVIDUAL/CLUB	N	PROP-SE	KLWS	KSZT	9/15/2012 17:05	9/15/2012 17:50	0:45
BEECHJET 400	BE40/Q	N485CT	C	I	C-I	AIRCRAFT HOLDING CO ONE LLC	2101 COUNTY RD 6 WEST ELKHART IN 465147742	AIR TAXI	Y	JET	KEGE	KSZT	9/15/2012 17:24	9/15/2012 19:23	1:59
PIAGGIO P180 AVANTI	P180/L	VNR104	B	I	B-I	Avantair	Fairfield New Jersey	AIR TAXI	N	PROP-ME	KAPC	KSZT	9/15/2012 18:19	9/15/2012 20:17	1:58
BEECHJET 400	BE40/Q	N485CT	C	I	C-I	AIRCRAFT HOLDING CO ONE LLC	2101 COUNTY RD 6 WEST ELKHART IN 465147742	AIR TAXI	Y	JET	KSZT	KMDD	9/15/2012 21:04	9/16/2012 0:05	3:01
CESSNA CITATIONJET CJ1	C525/Q	HBVOF	B	II	B-II	CJet SA		AIR TAXI	Y	JET	KSZT	CYYJ	9/15/2012 21:11	9/15/2012 22:10	0:59
PIAGGIO P180 AVANTI	P180/Q	VNR104	B	I	B-I	Avantair	Fairfield New Jersey	AIR TAXI	N	PROP-ME	KSZT	KSCL	9/15/2012 21:16	9/15/2012 22:50	1:34
CHALLENGER 600	CL60/Q	LXJ337	C	II	C-II	Bombardier Aerospace/Business Jet		AIR TAXI	Y	JET	KOTH	KSZT	9/16/2012 12:47	9/16/2012 13:57	1:10
QUEST KODIAK	KODI/G	N63HC	A	I	A-I	HOYT AVIATION CONSULTANTS LLC	3815 RICKENBACKER ST STE 103 BOISE ID 837055099	BUSINESS	N	PROP-SE	KSZT	KBOI	9/16/2012 14:38	9/16/2012 15:51	1:13
CHALLENGER 600	CL60/Q	LXJ337	C	II	C-II	Bombardier Aerospace/Business Jet		AIR TAXI	Y	JET	KSZT	KSTL	9/16/2012 15:42	9/16/2012 18:28	2:46
CESSNA 210 CENTURION	C210/G	N600SG	A	I	A-I	PERLOT MATHEW M	PO BOX 26 RILEY OR 977580026	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	S21	9/16/2012 16:04	9/16/2012 18:07	2:03
PIPER PA-46 MALIBU	P46T/G	N41484	A	I	A-I	MR BULTS INC	2631 E 139TH BURNHAM IL 60633	BUSINESS	N	PROP-SE	KSZT	KBPP	9/16/2012 17:33	9/16/2012 20:09	2:36
GLADSTAR	GLDSTR	N878RE	A	I	A-I	HATLER DONALD W	2129 N COOL SPRINGS AVE KUNA ID 836343440	INDIVIDUAL/CLUB	N	PROP-SE	KMAN	KSZT	9/16/2012 20:22	9/16/2012 20:22	n/a
VANS RV-7	RV7/A	N374RS	A	I	A-I	EVENSON ROGER J	2294 W NOBLE HEIGHTS DR TUCSON AZ 857424482	INDIVIDUAL/CLUB	N	PROP-SE	KBIL	KSZT	9/17/2012 14:59	9/17/2012 14:59	n/a
VANS RV-7	RV7/G	N374RS	A	I	A-I	EVENSON ROGER J	2294 W NOBLE HEIGHTS DR TUCSON AZ 857424482	INDIVIDUAL/CLUB	N	PROP-SE	BIL300031	KSZT	9/17/2012 14:59	9/17/2012 14:59	n/a
CESSNA CITATIONJET CJ1	C525/Q	N6UB	B	II	B-II	SILVERLEAF AVIATION LLC	6477 HWY 93 SOUTH UNIT 136 WHITEFISH MT 59937	AIR TAXI	Y	JET	KDVT	KSZT	9/17/2012 16:36	9/17/2012 19:45	3:09
CESSNA CITATIONJET CJ2	C25A/L	N333BD	B	II	B-II	SABINE AIRCRAFT LLC	600 E WHALEY ST LONGVIEW TX 756016525	AIR TAXI	Y	JET	KCOD	KSZT	9/17/2012 16:45	9/17/2012 17:55	1:10
CESSNA CITATIONJET CJ2	C25A/Q	N333BD	B	II	B-II	SABINE AIRCRAFT LLC	600 E WHALEY ST LONGVIEW TX 756016525	AIR TAXI	Y	JET	KSZT	KSHV	9/17/2012 18:41	9/17/2012 22:18	3:37
BEECH 36 BONANZA	BE36/G	N227Q	A	I	A-I	MCKINLEY WILLIAM C	50 HARBORVIEW DR UNIT 1 PORT TOWNSEND WA 983689552	INDIVIDUAL/CLUB	N	PROP-SE	CVV	KSZT	9/17/2012 20:11	9/17/2012 20:11	n/a
CESSNA CITATION 1SP	C501/L	N505JH	B	I	B-I	JACKSON HOLE AIR CHARTER INC	PO BOX 489 JACKSON WY 830010489	AIR TAXI	Y	JET	KSZT	KDJJ	9/17/2012 22:43	9/17/2012 23:58	1:15
PIPER PA-46 MALIBU	PA46/G	N72HC	A	I	A-I	SCHALLER PAUL DTRUSTEE	113 HIDDEN SPRING RD SANDPOINT ID 838646264	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KPAE	9/17/2012 23:44	9/18/2012 1:01	1:17
HAWKER 800	H25B/Q	OPT812	C	II	C-II	Flight Options	Johnson City NY	AIR TAXI	Y	JET	KARV	KSZT	9/18/2012 11:11	9/18/2012 14:10	2:59
HAWKER 800	H25B/Q	OPT812	C	II	C-II	Flight Options	Johnson City NY	AIR TAXI	Y	JET	KSZT	KIAD	9/18/2012 15:28	9/18/2012 19:37	4:09
CESSNA CITATION EXCEL	C56X/L	EJA644	B	II	B-II	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KUAO	KSZT	9/18/2012 17:13	9/18/2012 18:06	0:53
CESSNA CITATION EXCEL	C56X/L	EJA644	B	II	B-II	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KSZT	KPAH	9/18/2012 19:28	9/18/2012 22:45	3:17
BEECH KING AIR 90	BE9L/G	N711KP	B	II	B-II	AS2G LLC	2300 SW 1ST AVE STE 200 PORTLAND OR 972015047	BUSINESS	N	PROP-ME	KPDX	KSZT	9/18/2012 20:19	9/18/2012 21:46	1:27
BEECH 36 BONANZA	BE36/L	N892JD	A	I	A-I	DE ANZA BUILDING MAINTENANCE INC	920 W FREMONT AVE SUNNYVALE CA 940873020	BUSINESS	N	PROP-SE	KSZT	CYLW	9/19/2012 0:22	9/19/2012 1:23	1:01
BEECH SUPER KING AIR 200	BE20/G	N121TD	B	II	B-II	IDAHO DEPARTMENT OF LAW ENFORCEMENT	3483 RICKENBACKER ST BOISE ID 837055018	GOVERNMENT	N	PROP-ME	KBOI	KSZT	9/19/2012 12:42	9/19/2012 13:58	1:16
BEECH 58 BARON	BE58/G	N53MT	A	I	A-I	KSZT LLC	1185 JEFFRES LN SANDPOINT ID 838648469	INDIVIDUAL/CLUB	N	PROP-ME	KSZT	KGPI	9/19/2012 15:18	9/19/2012 15:57	0:39
PIPER PA-30 COMANCHE	PA30/G	N8938Y	A	I	A-I	GRIFFITH & JOHANSSON	4211 27TH AVE NW GIG HARBOR WA 983351729	BUSINESS	N	PROP-SE	KPWT	KSZT	9/19/2012 17:03	9/19/2012 17:15	0:12
PIAGGIO P180 AVANTI	P180/Q	VNR157	B	I	B-I	Avantair	Fairfield New Jersey	AIR TAXI	N	PROP-ME	KEGE	KSZT	9/19/2012 18:17	9/19/2012 20:22	2:05
BEECH KING AIR 90	BE9L/G	N711KP	B	II	B-II	AS2G LLC	2300 SW 1ST AVE STE 200 PORTLAND OR 972015047	BUSINESS	N	PROP-ME	KSZT	KPDX	9/19/2012 18:36	9/19/2012 20:02	1:26
BEECH SUPER KING AIR 200	BE20/R	N121TD	B	II	B-II	IDAHO DEPARTMENT OF LAW ENFORCEMENT	3483 RICKENBACKER ST BOISE ID 837055018	GOVERNMENT	N	PROP-ME	KSZT	KBOI	9/19/2012 22:44	9/19/2012 23:57	1:13
BEECH 58 BARON	BE55/G	N53MT	A	I	A-I	KSZT LLC	1185 JEFFRES LN SANDPOINT ID 838648469	INDIVIDUAL/CLUB	N	PROP-ME	KGPI	KSZT	9/20/2012 2:25	9/20/2012 3:03	0:38
PIPER PA-46 MALIBU	PA46/G	N72HC	A	I	A-I	SCHALLER PAUL DTRUSTEE	113 HIDDEN SPRING RD SANDPOINT ID 838646264	INDIVIDUAL/CLUB	N	PROP-SE	KPAE	KSZT	9/21/2012 18:11	9/21/2012 19:35	1:24
CESSNA CITATIONJET CJ1	C525/Q	N6UB	B	II	B-II	SILVERLEAF AVIATION LLC	6477 HWY 93 SOUTH UNIT 136 WHITEFISH MT 59937	AIR TAXI	Y	JET	KSZT	KBFI	9/21/2012 19:00	9/21/2012 19:53	0:53
QUEST KODIAK	KODI/G	N490KQ	A	I	A-I	QUEST AIRCRAFT CO LLC	1200 TURBINE DR SANDPOINT ID 83864	BUSINESS	N	PROP-SE	KSFF	KSZT	9/21/2012 23:35	9/21/2012 23:49	0:14
BEECH SUPER KING AIR 200	BE20/G	N332M	B	II	B-II	HARALAMBOS LLC	1 CABALLEROS RD ROLLING HILLS CA 902745285	BUSINESS	N	PROP-ME	KMEV	KSZT	9/22/2012 19:04	9/22/2012 21:02	1:58
CESSNA 210 CENTURION	C210/G	N9512Y	A	I	A-I	PALMER GEORGE J III	2013 BRIDGE WATER DR LAKE MARY FL 32746	INDIVIDUAL/CLUB	N	PROP-SE	KSHR	KSZT	9/23/2012 16:57	9/23/2012 19:31	2:34
PIPER PA-46 MALIBU	PA46/G	N72HC	A	I	A-I	SCHALLER PAUL DTRUSTEE	113 HIDDEN SPRING RD SANDPOINT ID 838646264	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KPAE	9/23/2012 23:21	9/24/2012 0:36	1:15
BEECH SUPER KING AIR 200	BE20/G	N332M	B	II	B-II	HARALAMBOS LLC	1 CABALLEROS RD ROLLING HILLS CA 902745285	BUSINESS	N	PROP-ME	KSZT	CYCG	9/24/2012 18:23	9/24/2012 18:47	0:24
CESSNA CITATIONJET CJ1	C525/Q	N6UB	B	II	B-II	SILVERLEAF AVIATION LLC	6477 HWY 93 SOUTH UNIT 136 WHITEFISH MT 59937	AIR TAXI	Y	JET	KBFI	KSZT	9/24/2012 18:58	9/24/2012 19:46	0:48
BEECH KING AIR 90	BE9L/G	N711KP	B	II	B-II	AS2G LLC	2300 SW 1ST AVE STE 200 PORTLAND OR 972015047	BUSINESS	N	PROP-ME	KPDX	KSZT	9/24/2012 20:50	9/24/2012 22:18	1:28
LEARJET 45	LJ45/Q	N435HH	C	I	C-I	AMERICAN AIR LLC	1750 NORTHWEST FRONT AVE STE 106 PORTLAND OR 97209	AIR TAXI	Y	JET	KRDM	KSZT	9/24/2012 21:16	9/24/2012 22:06	0:50
LEARJET 45	LJ45/Q	N435HH	C	I	C-I	AMERICAN AIR LLC	1750 NORTHWEST FRONT AVE STE 106 PORTLAND OR 97209	AIR TAXI	Y	JET	KSZT	KHIO	9/24/2012 22:33	9/24/2012 23:25	0:52
BEECH KING AIR 90	BE9L/G	N711KP	B	II	B-II	AS2G LLC	2300 SW 1ST AVE STE 200 PORTLAND OR 972015047	BUSINESS	N	PROP-ME	KSZT	KPWT	9/24/2012 23:41	9/25/2012 0:50	1:09
BEECH KING AIR 90	BE9L/G	N711KP	B	II	B-II	AS2G LLC	2300 SW 1ST AVE STE 200 PORTLAND OR 97201504								

Type Name	Type	Ident	AAC	ADG	ARC	Owner	Owner Location	OWNER TYPE	JET	TYPE	Origin	Destination	Departure Time	Arrival Time	Enroute
CESSNA 210 CENTURION	C210/G	N9512Y	A	I	A-I	PALMER GEORGE J III	2013 BRIDGE WATER DR LAKE MARY FL 32746	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KGRI	9/28/2012 15:52	9/28/2012 21:25	5:33
SOCATA TBM-850	TBM8/L	N3GS	B	I	B-I	SCHAEFFER AVIATION LLC	747 SW MILL VIEW WAY BEND OR 977021556	AIR TAXI	N	PROP-SE	KSZT	F70	9/28/2012 17:49	9/28/2012 21:06	3:17
PIPER PA-46 MALIBU	PA46/G	N72HC	A	I	A-I	SCHALLER PAUL DTRUSTEE	113 HIDDEN SPRING RD SANDPOINT ID 838646264	INDIVIDUAL/CLUB	N	PROP-SE	KPAE	KSZT	9/28/2012 18:11	9/28/2012 19:20	1:09
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KUAO	KSZT	9/30/2012 17:18	9/30/2012 18:37	1:19
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KSZT	KUAO	9/30/2012 19:38	9/30/2012 21:07	1:29
PIPER PA-46 MALIBU	PA46/G	N72HC	A	I	A-I	SCHALLER PAUL DTRUSTEE	113 HIDDEN SPRING RD SANDPOINT ID 838646264	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KPAE	10/1/2012 0:37	10/1/2012 2:14	1:37
CESSNA CITATION 1SP	C25X/U	N505JH	B	I	B-I	JACKSON HOLE AIR CHARTER INC	PO BOX 489 JACKSON WY 830010489	AIR TAXI	Y	JET	PIH025086	KSZT	10/3/2012 20:44	10/3/2012 21:58	1:14
PIPER PA-32 SARATOGA	P32R/G	N8165R	A	I	A-I	GARRETT DESIGN INC	124 VILLAGE LN UNIT 511 SANDPOINT ID 838646439	BUSINESS	N	PROP-SE	KGNG	KSZT	10/4/2012 19:43	10/4/2012 21:50	2:07
CESSNA 180 SKYWAGON	C185/G	N1682C	A	I	A-I	MAJERLE KARL J	62019 CONLEY RD COVE OR 978248501	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KALW	10/5/2012 19:40	10/5/2012 21:01	1:21
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KUAO	KSZT	10/6/2012 19:06	10/6/2012 20:34	1:28
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KSZT	KUAO	10/6/2012 21:25	10/6/2012 22:27	1:02
PIPER PA-28 CHEROKEE	P28A/G	N4511S	A	I	A-I	OWENS JOHN P MD DBA	137 MAGELLAN ST CAPITOLA CA 950102318	BUSINESS	N	PROP-SE	KSZT	KYKM	10/7/2012 17:58	10/7/2012 19:31	1:33
BEECHJET 400	BE40/L	OPT422	C	I	C-I	Flight Options	Johnson City NY	AIR TAXI	Y	JET	KJAC	KSZT	10/7/2012 18:35	10/7/2012 19:45	1:10
CIRRUS SR-22	SR22/G	N102W	A	I	A-I	TAMARACK AEROSPACE GROUP INC	3717 OMNI PKWY SANDPOINT ID 838640254	BUSINESS	N	PROP-SE	KSZT	KPIH	10/7/2012 18:45	10/7/2012 21:45	3:00
CIRRUS SR-22	SR22/A	N202W	A	I	A-I	Unknown Owner	United States of America (USA)	BUSINESS	N	PROP-SE	KSZT	KPIH	10/7/2012 18:45	10/7/2012 21:04	2:19
BEECHJET 400	BE40/L	OPT422	C	I	C-I	Flight Options	Johnson City NY	AIR TAXI	Y	JET	KSZT	KTRM	10/7/2012 21:18	10/7/2012 23:31	2:13
BEECH 58 BARON	BE58/G	N53MT	A	I	A-I	KSZT LLC	1185 JEFFRES LN SANDPOINT ID 838648469	INDIVIDUAL/CLUB	N	PROP-ME	KSZT	KGCD	10/8/2012 15:30	10/8/2012 16:45	1:15
CESSNA CITATION X	C750/Q	N717XJ	C	II	C-II	XOJET INC	TWO GRAND CENTRAL TOWER 140 E 45TH ST NEW YORK NY 100173144	AIR TAXI	Y	JET	KDWH	KSZT	10/8/2012 15:51	10/8/2012 19:15	3:24
PIPER PA-28 CHEROKEE	P28R/G	N521X	A	I	A-I	SPOKANE TURBINE CENTER	5627 E RUTTER AVE SPOKANE WA 992121337	AIR TAXI	N	PROP-SE	KSZT	KCOE	10/8/2012 17:43	10/8/2012 18:12	0:29
CESSNA CITATION X	C750/Q	N717XJ	C	II	C-II	XOJET INC	TWO GRAND CENTRAL TOWER 140 E 45TH ST NEW YORK NY 100173144	AIR TAXI	Y	JET	KSZT	KVNY	10/8/2012 21:24	10/8/2012 23:20	1:56
CESSNA CITATION 1SP	C501/L	N505JH	B	I	B-I	JACKSON HOLE AIR CHARTER INC	PO BOX 489 JACKSON WY 830010489	AIR TAXI	Y	JET	KSZT	KDIJ	10/8/2012 22:29	10/8/2012 23:27	0:58
BEECH 58 BARON	BE58/G	N53MT	A	I	A-I	KSZT LLC	1185 JEFFRES LN SANDPOINT ID 838648469	INDIVIDUAL/CLUB	N	PROP-ME	KMPI	KSZT	10/10/2012 21:43	10/11/2012 0:54	3:11
CESSNA CITATION EXCEL	C56X/L	EJA583	B	II	B-II	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KBNZ	KSZT	10/12/2012 13:14	10/12/2012 14:04	0:50
LEARJET 45	LJ45/L	N88AF	C	I	C-I	LAKEVIEW	PO BOX 104 KLAMATH FALLS OR 976010006	BUSINESS	Y	JET	KENW	KSZT	10/12/2012 13:23	10/12/2012 16:45	3:22
BEECH KING AIR 90	BE9L/G	N445CR	B	II	B-II	PACIFIC AIR NORTHWEST LLC	822 S HIGHWAY 395 # 506 HERMISTON OR 978382621	AIR TAXI	N	PROP-ME	KRIW	KSZT	10/12/2012 14:56	10/12/2012 17:03	2:07
CESSNA CITATION EXCEL	C56X/L	EJA583	B	II	B-II	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KSZT	KSEA	10/12/2012 15:01	10/12/2012 15:51	0:50
CESSNA CITATION X	C750/Q	N765XJ	C	II	C-II	RELATED CITATION LLC	60 COLUMBUS CIR NEW YORK NY 100235802	AIR TAXI	Y	JET	KSFO	KSZT	10/12/2012 15:42	10/12/2012 17:16	1:34
LEARJET 31	LJ31/L	N164AL	C	I	C-I	AERO AIR LLC	2050 NE 25TH AVE HILLSBORO OR 971245964	AIR TAXI	Y	JET	KBFI	KSZT	10/12/2012 16:13	10/12/2012 16:58	0:45
CESSNA CITATIONJET C.J2	C25A/L	N57FL	B	II	B-II	COLORADO JET LLC	C/O TAC AIR 7425 S PEORIA CIRCLE ENGLEWOOD CO 80112	AIR TAXI	Y	JET	KAPA	KSZT	10/12/2012 17:23	10/12/2012 19:33	2:10
BEECH KING AIR 90	BE9L/G	N445CR	B	II	B-II	PACIFIC AIR NORTHWEST LLC	822 S HIGHWAY 395 # 506 HERMISTON OR 978382621	AIR TAXI	N	PROP-ME	KSZT	KPSC	10/12/2012 17:25	10/12/2012 18:16	0:51
PIPER PA-46 MALIBU	PA46/G	N72HC	A	I	A-I	SCHALLER PAUL DTRUSTEE	113 HIDDEN SPRING RD SANDPOINT ID 838646264	INDIVIDUAL/CLUB	N	PROP-SE	KPAE	KSZT	10/12/2012 17:55	10/12/2012 19:11	1:16
LEARJET 31	LJ35/L	N164AL	C	I	C-I	AERO AIR LLC	2050 NE 25TH AVE HILLSBORO OR 971245964	AIR TAXI	Y	JET	KSZT	KPAE	10/12/2012 18:04	10/12/2012 18:53	0:49
CESSNA CITATION X	C750/Q	N765XJ	C	II	C-II	RELATED CITATION LLC	60 COLUMBUS CIR NEW YORK NY 100235802	AIR TAXI	Y	JET	KSZT	KDWH	10/12/2012 18:11	10/12/2012 21:22	3:11
QUEST KODIAK	KODI/G	N9034Z	A	I	A-I	ELLIS WENDELL K	HC 63 BOX 1415 GAKONA AK 99586-9405	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KPAE	10/12/2012 23:09	10/13/2012 0:51	1:42
QUEST KODIAK	KODI/G	N9010U	A	I	A-I	SMITH STEPHEN R	470 CORNERSTONE AVE SEYMOUR IN 47274-2885	INDIVIDUAL/CLUB	N	PROP-SE	KPAE	KSZT	10/13/2012 2:11	10/13/2012 3:28	1:17
CESSNA CITATION V	C560/L	EJA809	B	II	B-II	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KDIK	KSZT	10/13/2012 14:43	10/13/2012 16:44	2:01
QUEST KODIAK	KODI/G	N726RS	A	I	A-I	SUGDEN RICHARD	PO BOX 70 WILSON WY 830140070	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KDIJ	10/13/2012 18:01	10/13/2012 19:59	1:58
CESSNA CITATION V	C560/L	EJA809	B	II	B-II	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KSZT	KMSP	10/13/2012 19:57	10/13/2012 22:26	2:29
LEARJET 45	LJ60/Q	N88AF	C	I	C-I	LAKEVIEW	PO BOX 104 KLAMATH FALLS OR 976010006	BUSINESS	Y	JET	KSZT	KENW	10/14/2012 18:55	10/14/2012 21:56	3:01
BEECH KING AIR 90	BE9L/G	N445CR	B	II	B-II	PACIFIC AIR NORTHWEST LLC	822 S HIGHWAY 395 # 506 HERMISTON OR 978382621	AIR TAXI	N	PROP-ME	KPSC	KSZT	10/14/2012 19:48	10/14/2012 20:40	0:52
BEECH KING AIR 90	BE9L/G	N445CR	B	II	B-II	PACIFIC AIR NORTHWEST LLC	822 S HIGHWAY 395 # 506 HERMISTON OR 978382621	AIR TAXI	N	PROP-ME	KSZT	KMYV	10/14/2012 22:10	10/15/2012 1:08	2:58
PIPER PA-46 MALIBU	PA46/G	N72HC	A	I	A-I	SCHALLER PAUL DTRUSTEE	113 HIDDEN SPRING RD SANDPOINT ID 838646264	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KSZT	10/14/2012 22:43	10/15/2012 0:28	1:45
CESSNA CITATIONJET C.J2	C25A/L	N57FL	B	II	B-II	COLORADO JET LLC	C/O TAC AIR 7425 S PEORIA CIRCLE ENGLEWOOD CO 80112	AIR TAXI	Y	JET	KSZT	KAPA	10/15/2012 17:37	10/15/2012 19:51	2:14
CESSNA 206 STATIONAIR	C206/G	N619CB	B	I	B-I	BEERS ROYCE L TRUSTEE	2122 S LAKE LEELANAU DR LAKE LEELANAU MI 496539453	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KBIS	10/17/2012 14:16	10/17/2012 17:59	3:43
BEECH 36 BONANZA	BE33/A	N789J	A	I	A-I	COOPER TODD C	26206 E SUNSET MEADOWS LOOP KENNEWICK WA 993387504	INDIVIDUAL/CLUB	N	PROP-SE	KPSC	KSZT	10/17/2012 14:18	10/17/2012 15:17	0:59
PIPER AEROSTAR	AEST/G	N35FD	B	I	B-I	YOUNG LIVING ESSENTIAL OILS LC	3125 W EXECUTIVE PKWY LEHI UT 84043	BUSINESS	N	PROP-ME	KPVU	KSZT	10/18/2012 16:47	10/18/2012 19:40	2:53
PILATUS PC-12	PC12/G	N354WA	A	II	A-II	11 AIR SERVICES LLC	1825 23RD AVE N FARGO ND 581021829	AIR TAXI	N	PROP-SE	KBOI	KSZT	10/18/2012 17:32	10/18/2012 18:51	1:19
PILATUS PC-12	PC12/G	N354WA	A	II	A-II	11 AIR SERVICES LLC	1825 23RD AVE N FARGO ND 581021829	AIR TAXI	N	PROP-SE	KSZT	KBOI	10/18/2012 23:44	10/19/2012 0:59	1:15
PIPER PA-46 MALIBU	PA46/G	N646CA	A	I	A-I	MT MGT LLC	1351 DICKINSON ST # A MISSOULA MT 598023411	AIR TAXI	N	PROP-SE	KSZT	KSFF	10/21/2012 22:29	10/21/2012 23:02	0:33
CESSNA CITATIONJET CJ1	C525/Q	N861A	B	II	B-II	BALLEW FRED A	1042 SANBORN LOS ANGELES CA 90029	BUSINESS	Y	JET	KSZT	KGEG	10/23/2012 17:34	10/23/2012 19:50	2:16
CESSNA CITATIONJET CJ1	C525/G	N86LA	B	II	B-II	BINGHAM LEASING & SALES LLC	3035 N HIGHLAND AVE JACKSON TN 383053411	BUSINESS	Y	JET	KSZT	KSZT	10/23/2012 17:34	10/23/2012 17:43	0:09
CESSNA CITATIONJET CJ1	C525/G	N86LA	B	II	B-II	BINGHAM LEASING & SALES LLC	3035 N HIGHLAND AVE JACKSON TN 383053411	AIR TAXI	Y	JET	KSZT	KSZT	10/23/2012 23:48	10/24/2012 1:15	1:27
QUEST KODIAK	KODI/G	N76KQ	A	I	A-I	FAYARD ENTERPRISES LLC	7300 THOMPSON MILL RD WAKE FOREST NC 275879087	BUSINESS	N	PROP-SE	KSZT	KICT	10/24/2012 14:56	10/24/2012 20:41	5:45
BEECH SUPER KING AIR 200	BE20/G	N267CB	B	II	B-II	DELTA CORE CHARTER SERVICES LLC	BOEING FIELD 7149 PERIMETER RD S SEATTLE WA 981083845	AIR TAXI	N	PROP-ME	KBFI	KSZT	10/24/2012 17:11	10/24/2012 18:14	1:03
QUEST KODIAK	KODI/G	N500KQ	A	I	A-I	QUEST AIRCRAFT COMPANY LLC	1200 TURBINE DRIVE SANDPOINT ID 83864	BUSINESS	N	PROP-SE	KSZT	KMCC	10/24/2012 17:30	10/24/2012 21:40	4:10
BEECH 58 BARON	BE58/G	N3811X	A	I	A-I	BRIDGHAM DAVID	10 BENNING ST PMB 244 WEST LEBANON NH 037843402	INDIVIDUAL/CLUB	N	PROP-ME	KGTF	KSZT	10/24/2012 17:41	10/24/2012 19:15	1:34
CESSNA CITATION 1SP	C501/Q	N505JH	B	I	B-I	JACKSON HOLE AIR CHARTER INC	PO BOX 489 JACKSON WY 830010489	AIR TAXI	Y	JET	KDIJ	KSZT	10/24/2012 18:54	10/24/2012 20:03	1:09
CIRRUS SR-22	SR22/G	N102W	A	I	A-I	TAMARACK AEROSPACE GROUP INC	3717 OMNI PKWY SANDPOINT ID 838640254	BUSINESS	N	PROP-SE	KBOI	KSZT	10/24/2012 21:51	10/25/2012 0:30	2:38
BEECH SUPER KING AIR 200	BE20/G	N267CB	B	II	B-II	DELTA CORE CHARTER SERVICES LLC	BOEING FIELD 7149 PERIMETER RD S SEATTLE WA 981083845	AIR TAXI	N	PROP-ME	KSZT	KBFI	10/25/2012 18:19	10/25/2012 19:26	1:07
CESSNA CITATIONJET CJ1	C525/W	N86LA	B	II	B-II	BINGHAM LEASING & SALES LLC	3035 N HIGHLAND AVE JACKSON TN 383053411	AIR TAXI	Y	JET	KSZT	KCPR	10/26/2012 16:20	10/26/2012 18:07	1:47
BEECH SUPER KING AIR 200	BE20/R	N121TD	B	II	B-II	IDAHO DEPARTMENT OF LAW ENFORCEMENT	3483 RICKENBACKER ST BOISE ID 837055018	GOVERNMENT	N	PROP-ME	KPUW	KSZT	10/26/2012 17:03	10/26/2012 17:34	0:31
BEECH SUPER KING AIR 200	BE20/R	N121TD	B	II	B-II	IDAHO DEPARTMENT OF LAW ENFORCEMENT	3483 RICKENBACKER ST BOISE ID 837055018	GOVERNMENT	N	PROP-ME	KSZT	KBOI	10/26/2012 20:09	10/26/2012 21:48	1:39
QUEST KODIAK	KODI/G	N500KQ	A	I	A-I	QUEST AIRCRAFT COMPANY LLC	1200 TURBINE DRIVE SANDPOINT ID 83864	BUSINESS	N	PROP-SE	KMCC	KSZT	10/26/2012 22:0		

Type Name	Type	Ident	AAC	ADG	ARC	Owner	Owner Location	OWNER TYPE	JET	TYPE	Origin	Destination	Departure Time	Arrival Time	Enroute
CESSNA 182 SKYLANE	C182/G	N8534S	B	I	B-I	GERKEN DAVID V	540 PONDER POINT DR SANDPOINT ID 838648668	INDIVIDUAL/CLUB	N	PROP-SE	KSFF	KSZT	11/3/2012 20:03	11/3/2012 20:29	0:26
PILATUS PC-12	PC12/G	N846PW	A	II	A-II	RMB WESTERN STATES CONSULTING LLC	3131 OLD STAGE RD CENTRAL POINT OR 975021478	BUSINESS	N	PROP-SE	KGDV	KSZT	11/4/2012 17:24	11/4/2012 19:55	2:31
PILATUS PC-12	PC12/G	N846PW	A	II	A-II	RMB WESTERN STATES CONSULTING LLC	3131 OLD STAGE RD CENTRAL POINT OR 975021478	BUSINESS	N	PROP-SE	KSZT	KMOD	11/4/2012 20:39	11/4/2012 23:26	2:47
CESSNA 172 SKYHAWK	C172/G	N3082E	A	I	A-I	SILVERWING FLIGHT SERVICES LLC	1100 AIRPORT WAY SANDPOINT ID 838648271	BUSINESS	N	PROP-SE	KSFF	KSZT	11/4/2012 23:24	11/4/2012 23:56	0:32
BEECH SUPER KING AIR 200	BE20/G	N267CB	B	II	B-II	DELTA CORE CHARTER SERVICES LLC	BOEING FIELD 7149 PERIMETER RD S SEATTLE WA 981083845	AIR TAXI	N	PROP-ME	KBFI	KSZT	11/5/2012 15:22	11/5/2012 16:31	1:09
BEECH 58 BARON	BE58/G	N53MT	A	I	A-I	KSZT LLC	1185 JEFFRES LN SANDPOINT ID 838648469	INDIVIDUAL/CLUB	N	PROP-ME	KSZT	KGEG	11/5/2012 15:29	11/5/2012 16:07	0:38
BEECH 58 BARON	BE58/G	N53MT	A	I	A-I	KSZT LLC	1185 JEFFRES LN SANDPOINT ID 838648469	INDIVIDUAL/CLUB	N	PROP-ME	KGEG	KSZT	11/5/2012 16:32	11/5/2012 17:19	0:47
BEECH SUPER KING AIR 200	BE20/G	N267CB	B	II	B-II	DELTA CORE CHARTER SERVICES LLC	BOEING FIELD 7149 PERIMETER RD S SEATTLE WA 981083845	AIR TAXI	N	PROP-ME	KSZT	KHRI	11/5/2012 17:27	11/5/2012 18:44	1:17
PIPER PA-34 SENECA	PA34/G	N8514C	A	I	A-I	SPIRIT AIR INC	64 MILLER LN SALMON ID 834675163	AIR TAXI	N	PROP-ME	KSMN	KSZT	11/6/2012 15:50	11/6/2012 17:28	1:38
CESSNA 441 CONQUEST	C441/L	SVX102	B	II	B-II	Security Aviation	Anchorage AK	AIR TAXI	N	PROP-ME	PAKT	KSZT	11/6/2012 18:18	11/6/2012 20:43	2:25
CESSNA 441 CONQUEST	C441/G	SVX102	B	II	B-II	Security Aviation	Anchorage AK	AIR TAXI	N	PROP-ME	KSZT	KMEZ	11/6/2012 21:04	11/7/2012 1:02	3:58
CESSNA 172 SKYHAWK	C172/G	N739LU	A	I	A-I	DESROSIER ROBERT J	PO BOX 330 BROWNING MT 594170330	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KSZT	11/7/2012 19:17	11/7/2012 20:29	1:12
CESSNA CITATIONJET CJ2	C25A/L	N52AG	B	II	B-II	WELLS FARGO BANK NORTHWEST NA TRUSTEE	260 N CHARLES LINDBERGH DR MAC U1240-012 SALT LAKE CITY UT 84116	BUSINESS	Y	JET	KICT	KSZT	11/8/2012 13:04	11/8/2012 16:13	3:09
CESSNA CITATION V	C560/L	KNZ700	B	II	B-II	Unknown Owner		BUSINESS	Y	JET	KSHV	KSZT	11/8/2012 14:44	11/8/2012 18:36	3:52
UNKNOWN	BLK	BLK1	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	3S9	KSZT	11/8/2012 18:07	11/8/2012 19:01	0:54
UNKNOWN	BLK	BLK1	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	KSZT	KEAT	11/8/2012 19:22	11/8/2012 20:04	0:42
CESSNA CITATION V	C560/L	KNZ700	B	II	B-II	Unknown Owner		BUSINESS	Y	JET	KSZT	KSHV	11/8/2012 19:24	11/8/2012 22:52	3:28
QUEST KODIAK	KODI/G	N9010U	A	I	A-I	SMITH STEPHEN R	470 CORNERSTONE AVE SEYMOUR IN 47274-2885	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KPAE	11/8/2012 22:30	11/8/2012 23:52	1:22
QUEST KODIAK	KODI/G	N90001	A	I	A-I	CARPET TOWN INC	PO BOX 230 WESTONS MILLS NY 14788	BUSINESS	N	PROP-SE	KPAE	KSZT	11/9/2012 0:25	11/9/2012 1:52	1:27
UNKNOWN	BLK	BLK2	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	KGEG	KSZT	11/9/2012 22:18	11/9/2012 22:32	0:14
UNKNOWN	BLK	BLK2	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	KSZT	KLWS	11/9/2012 23:01	11/9/2012 23:45	0:44
CESSNA 172 SKYHAWK	C172/G	N739LU	A	I	A-I	DESROSIER ROBERT J	PO BOX 330 BROWNING MT 594170330	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KALW	11/10/2012 19:42	11/10/2012 22:01	2:19
CESSNA 182 SKYLANE	C182/G	N2961Y	B	I	B-I	GARCIA KALE B	17640 SE 295TH ST KENT WA 98042	INDIVIDUAL/CLUB	N	PROP-SE	KSFF	KSZT	11/10/2012 20:34	11/10/2012 21:14	0:40
CESSNA CITATIONJET CJ2	C25A/L	N52AG	B	II	B-II	WELLS FARGO BANK NORTHWEST NA TRUSTEE	260 N CHARLES LINDBERGH DR MAC U1240-012 SALT LAKE CITY UT 84116	BUSINESS	Y	JET	KSZT	KICT	11/10/2012 20:38	11/10/2012 23:31	2:53
CESSNA 182 SKYLANE	C182/G	N2961Y	B	I	B-I	GARCIA KALE B	17640 SE 295TH ST KENT WA 98042	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KOMK	11/10/2012 21:52	11/10/2012 23:00	1:08
CESSNA 340	C340/G	N341HC	B	I	B-I	SAND KEVIN MICHAEL TRUSTEE	16140 NE 42ND CT REDMOND WA 980525247	INDIVIDUAL/CLUB	N	PROP-ME	KPAE	KSZT	11/14/2012 17:58	11/14/2012 19:14	1:16
BEECH 58 BARON	BE58/G	N53MT	A	I	A-I	KSZT LLC	1185 JEFFRES LN SANDPOINT ID 838648469	INDIVIDUAL/CLUB	N	PROP-ME	KSZT	KGEG	11/14/2012 20:05	11/14/2012 20:34	0:29
BEECH 58 BARON	BE58/G	N53MT	A	I	A-I	KSZT LLC	1185 JEFFRES LN SANDPOINT ID 838648469	INDIVIDUAL/CLUB	N	PROP-ME	KGEG	KSZT	11/14/2012 21:35	11/14/2012 22:03	0:28
GULFSTREAM JETPROP COMMANDER	AC95/R	N83WA	B	II	B-II	R & C AVIATION LLC	1498 SE TECH CENTER PL STE 150 VANCOUVER WA 986835518	AIR TAXI	N	PROP-ME	KPDX	KSZT	11/15/2012 0:02	11/15/2012 1:25	1:23
GULFSTREAM JETPROP COMMANDER	AC95/R	N83WA	B	II	B-II	R & C AVIATION LLC	1498 SE TECH CENTER PL STE 150 VANCOUVER WA 986835518	AIR TAXI	N	PROP-ME	KSZT	KHIO	11/15/2012 1:43	11/15/2012 3:10	1:27
QUEST KODIAK	KODI/G	N491KQ	A	I	A-I	SPOKANE TURBINE CENTER	5627 E RUTTER AVE SPOKANE WA 992121337	BUSINESS	N	PROP-SE	KSFF	KSZT	11/15/2012 18:29	11/15/2012 19:22	0:52
BEECH SUPER KING AIR 200	BE20/R	N792BP	B	II	B-II	U S DEPARTMENT OF ENERGY	PO BOX 3621 PORTLAND OR 972083621	GOVERNMENT	N	PROP-ME	KPDX	KSZT	11/15/2012 18:53	11/15/2012 20:06	1:13
BEECH SUPER KING AIR 200	BE20/G	N792BP	B	II	B-II	U S DEPARTMENT OF ENERGY	PO BOX 3621 PORTLAND OR 972083621	GOVERNMENT	N	PROP-ME	KSZT	KPDX	11/15/2012 21:16	11/15/2012 22:41	1:25
CESSNA 340	C340/G	N341HC	B	I	B-I	SAND KEVIN MICHAEL TRUSTEE	16140 NE 42ND CT REDMOND WA 980525247	INDIVIDUAL/CLUB	N	PROP-ME	KSZT	KPAE	11/15/2012 23:58	11/16/2012 1:20	1:22
CESSNA 340	C340/G	N341H	B	I	B-I	Unknown Owner	United States of America (USA)	BUSINESS	N	PROP-ME	KSZT	KPAE	11/15/2012 23:58	11/16/2012 1:11	1:13
CESSNA 421 CHANCELLOR	C425/G	N21SG	B	I	B-I	TWO ONE SIERRA GOLF LLC	3516 SW 110TH ST SEATTLE WA 981461760	INDIVIDUAL/CLUB	N	PROP-ME	KBFI	KSZT	11/16/2012 20:14	11/16/2012 21:28	1:14
QUEST KODIAK	KODI/G	N9034Z	A	I	A-I	ELLIS WENDELL K	HC 63 BOX 1415 GAKONA AK 99586-9405	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KPAE	11/21/2012 23:31	11/22/2012 1:09	1:38
QUEST KODIAK	KODI/G	N9010U	A	I	A-I	SMITH STEPHEN R	470 CORNERSTONE AVE SEYMOUR IN 47274-2885	INDIVIDUAL/CLUB	N	PROP-SE	KPAE	KSZT	11/22/2012 1:47	11/22/2012 3:16	1:29
PIPER PA-46 MALIBU	PA46/G	N72HC	A	I	A-I	SCHALLER PAUL DTRUSTEE	113 HIDDEN SPRING RD SANDPOINT ID 838646264	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KPAE	11/25/2012 23:08	11/26/2012 0:38	1:30
CESSNA 340	COL4/T	N431HC	B	I	B-I	Unknown Owner	United States of America (USA)	BUSINESS	N	PROP-ME	KPAE	KSZT	11/26/2012 16:13	11/26/2012 17:09	0:56
DASSAULT FALCON 10	FA10/Q	N42G	B	I	B-I	ALTAIR AVIATION LLC	PO BOX 16552 MISSOULA MT 598086552	AIR TAXI	Y	JET	KGCK	KSZT	11/26/2012 20:56	11/26/2012 23:28	2:32
DASSAULT FALCON 10	EA50/L	N42G	B	I	B-I	ALTAIR AVIATION LLC	PO BOX 16552 MISSOULA MT 598086552	AIR TAXI	Y	JET	KSZT	KMSO	11/26/2012 23:57	11/27/2012 0:21	0:24
CESSNA 340	C340/G	N341HC	B	I	B-I	SAND KEVIN MICHAEL TRUSTEE	16140 NE 42ND CT REDMOND WA 980525247	INDIVIDUAL/CLUB	N	PROP-ME	KSZT	KPAE	11/27/2012 0:08	11/27/2012 1:25	1:17
QUEST KODIAK	KODI/G	N959WB	A	I	A-I	OPEN DOOR AVIATION LLC	2400 EASTMAN AVE OXNARD CA 930305187	AIR TAXI	N	PROP-SE	KSZT	KBFI	11/27/2012 15:02	11/27/2012 16:52	1:50
QUEST KODIAK	KODI/G	N959WB	A	I	A-I	OPEN DOOR AVIATION LLC	2400 EASTMAN AVE OXNARD CA 930305187	AIR TAXI	N	PROP-SE	KBFI	KSZT	11/28/2012 0:54	11/28/2012 2:18	1:24
CESSNA 172 SKYHAWK	C172/U	N738BS	A	I	A-I	AIRCRAFT SOLUTIONS LLC	8125 W PILOT DR SPOKANE WA 992245723	BUSINESS	N	PROP-SE	KGEG	KSZT	11/28/2012 22:19	11/28/2012 22:56	0:37
BEECH 58 BARON	BE58/G	N53MT	A	I	A-I	KSZT LLC	1185 JEFFRES LN SANDPOINT ID 838648469	INDIVIDUAL/CLUB	N	PROP-ME	KSZT	KEUL	11/30/2012 22:54	12/1/2012 0:44	1:50
BEECH 58 BARON	BE58/G	N53MT	A	I	A-I	KSZT LLC	1185 JEFFRES LN SANDPOINT ID 838648469	INDIVIDUAL/CLUB	N	PROP-ME	KEUL	KSZT	12/2/2012 20:45	12/2/2012 21:59	1:14
QUEST KODIAK	KODI/G	N60KQ	A	I	A-I	FAYARD ENTERPRISES LLC	7300 THOMPSON MILL RD WAKE FOREST NC 275879087	BUSINESS	N	PROP-SE	KCPR	KSZT	12/5/2012 18:43	12/5/2012 23:05	4:22
QUEST KODIAK	KODI/G	N90001	A	I	A-I	CARPET TOWN INC	PO BOX 230 WESTONS MILLS NY 14788	BUSINESS	N	PROP-SE	KSZT	KPAE	12/8/2012 0:38	12/8/2012 2:23	1:45
QUEST KODIAK	KODI/G	N9034Z	A	I	A-I	ELLIS WENDELL K	HC 63 BOX 1415 GAKONA AK 99586-9405	INDIVIDUAL/CLUB	N	PROP-SE	KPAE	KSZT	12/8/2012 3:12	12/8/2012 4:27	1:15
CESSNA 310	C310/G	N372CC	B	I	B-I	EAGLE FLYERS II LLC	11329 E STATE ROAD 32 ZIONSVILLE IN 460779757	AIR TAXI	N	PROP-ME	KGIC	KSZT	12/8/2012 19:21	12/8/2012 20:09	0:48
CESSNA 310	C310/G	N372CC	B	I	B-I	EAGLE FLYERS II LLC	11329 E STATE ROAD 32 ZIONSVILLE IN 460779757	AIR TAXI	N	PROP-ME	KSZT	KLAR	12/9/2012 16:45	12/9/2012 19:44	2:59
BEECH 58 BARON	BE58/A	N53MT	A	I	A-I	KSZT LLC	1185 JEFFRES LN SANDPOINT ID 838648469	INDIVIDUAL/CLUB	N	PROP-ME	KSZT	KBFI	12/10/2012 16:22	12/10/2012 18:16	1:54
VANS RV-6	HXB/G	N718AM	A	I	A-I	ROTH LONNIE R	13714 E EVERETT AVE SPOKANE VALLEY WA 992163005	INDIVIDUAL/CLUB	N	PROP-SE	KSFF	KSZT	12/10/2012 19:58	12/10/2012 20:27	0:29
VANS RV-6	HXB/A	N718AM	A	I	A-I	ROTH LONNIE R	13714 E EVERETT AVE SPOKANE VALLEY WA 992163005	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KSFF	12/10/2012 21:21	12/10/2012 21:46	0:25
QUEST KODIAK	KODI/G	N9034Z	A	I	A-I	ELLIS WENDELL K	HC 63 BOX 1415 GAKONA AK 99586-9405	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KPAE	12/11/2012 0:03	12/11/2012 1:38	1:35
BEECH 58 BARON	BE58/R	N53MT	A	I	A-I	KSZT LLC	1185 JEFFRES LN SANDPOINT ID 838648469	INDIVIDUAL/CLUB	N	PROP-ME	KBFI	KSZT	12/11/2012 2:30	12/11/2012 3:49	1:19
SOCATA TBM-850	TBM8/Q	N850AW	B	I	B-I	POTCAKE HOLDINGS LLC	PO BOX 2399 WINTER PARK FL 327902399	BUSINESS	N	PROP-SE	KGPI	KSZT	12/11/2012 16:47	12/11/2012 17:26	0:39
SOCATA TBM-850	TBM8/Q	N850AW	B	I	B-I	POTCAKE HOLDINGS LLC	PO BOX 2399 WINTER PARK FL 327902399	BUSINESS	N	PROP-SE	KSZT	KSLC	12/11/2012 20:29	12/11/2012 22:14	1:45
BEECH 58 BARON	BE58/R	N53MT	A	I	A-I	KSZT LLC	1185 JEFFRES LN SANDPOINT ID 838648469	INDIVIDUAL/CLUB	N	PROP-ME	KHLN	KSZT	12/12/2012 20:18	12/12/2012 21:47	1:29
BEECH 58 BARON	BE58/G	N53MT	A	I	A-I	KSZT LLC	1185 JEFFRES LN SANDPOINT ID 838648469	INDIVIDUAL/CLUB	N	PROP-ME	KSZT	KSFF	12/14/2012 19:27	12/14/2012 20:00	0:33
PIPER PA-46 MALIBU	PA46/G	N72HC	A	I	A-I	SCHALLER PAUL DTRUSTEE	113 HIDDEN SPRING RD SANDPOINT ID 838646264	INDIVIDUAL/CLUB	N	PROP-SE	KPAE	KSZT	12/14/2012 19:35	12/14/2012 21:02	1:27
QUEST KODIAK	KODI/G	N959WB	A	I	A-I	OPEN DOOR AVIATION LLC	2400 EASTMAN AVE OXNARD CA 930305187	AIR TAXI	N	PROP-SE	KSZT	KEKO	12/1		

Type Name	Type	Ident	AAC	ADG	ARC	Owner	Owner Location	OWNER TYPE	JET	TYPE	Origin	Destination	Departure Time	Arrival Time	Enroute
CESSNA 210 CENTURION	C210/G	N732JY	A	I	A-I	SIMCHUK GEORGE J	3341 NW STARVIEW DR BEND OR 977011146	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KBDN	12/22/2012 17:16	12/22/2012 19:26	2:10
CESSNA CITATION EXCEL	C56X/Q	EJA669	B	II	B-II	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KLBF	KSZT	12/22/2012 17:22	12/22/2012 19:49	2:27
UNKNOWN	BLK	BLK5	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	0S9	KSZT	12/22/2012 18:04	12/22/2012 18:50	0:46
UNKNOWN	BLK	BLK5	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	KSZT	KUAO	12/22/2012 20:03	12/22/2012 21:05	1:02
CESSNA CITATION EXCEL	C56X/Q	EJA669	B	II	B-II	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KSZT	KMSO	12/22/2012 20:58	12/22/2012 21:32	0:34
BEECH 58 BARON	BE58/G	N53MT	A	I	A-I	KSZT LLC	1185 JEFFRES LN SANDPOINT ID 838648469	INDIVIDUAL/CLUB	N	PROP-ME	KSZT	KUAO	12/23/2012 19:49	12/23/2012 21:39	1:50
CESSNA 210 CENTURION	C210/G	N732JY	A	I	A-I	SIMCHUK GEORGE J	3341 NW STARVIEW DR BEND OR 977011146	INDIVIDUAL/CLUB	N	PROP-SE	KMFR	KSZT	12/25/2012 17:34	12/25/2012 20:08	2:34
BEECH SUPER KING AIR 200	BE20/W	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KUAO	KSZT	12/26/2012 17:07	12/26/2012 18:29	1:22
HAWKER 800	H25B/Q	N278XJ	C	II	C-II	AIRCRAFT HOLDING CO ONE LLC	2101 CR 6 WEST ELKHART IN 46514	AIR TAXI	Y	JET	KDWH	KSZT	12/26/2012 17:55	12/26/2012 22:00	4:05
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KSZT	KUAO	12/26/2012 19:29	12/26/2012 21:03	1:34
BEECH 58 BARON	BE58/G	N53MT	A	I	A-I	KSZT LLC	1185 JEFFRES LN SANDPOINT ID 838648469	INDIVIDUAL/CLUB	N	PROP-ME	KPAE	KSZT	12/26/2012 20:17	12/26/2012 21:37	1:20
CESSNA 210 CENTURION	C210/G	N732JY	A	I	A-I	SIMCHUK GEORGE J	3341 NW STARVIEW DR BEND OR 977011146	INDIVIDUAL/CLUB	N	PROP-SE	KMFR	KSZT	12/26/2012 21:27	12/27/2012 0:18	2:51
HAWKER 800	H25B/L	N278XJ	C	II	C-II	AIRCRAFT HOLDING CO ONE LLC	2101 CR 6 WEST ELKHART IN 46514	AIR TAXI	Y	JET	KSZT	KVNY	12/26/2012 23:13	12/27/2012 1:25	2:12
UNKNOWN	BLK	BLK5	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	KUAO	KSZT	12/27/2012 17:45	12/27/2012 18:42	0:57
UNKNOWN	BLK	BLK5	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	KSZT	CYYJ	12/27/2012 20:20	12/27/2012 21:19	0:59
LEARJET 45	LJ45/L	N403DP	C	I	C-I	CRITICAL AIR RESPONSE ENTERPRISES LLC	PO BOX 14628 ALBUQUERQUE NM 871914628	BUSINESS	Y	JET	KPHX	KSZT	12/28/2012 20:33	12/28/2012 22:55	2:22
LEARJET 35	LJ40/Q	N403DP	D	I	D-I	CRITICAL AIR RESPONSE ENTERPRISES LLC	PO BOX 14628 ALBUQUERQUE NM 871914628	BUSINESS	Y	JET	KSZT	KABQ	12/29/2012 1:08	12/29/2012 3:22	2:14
UNKNOWN	BLK	BLK6	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	KLWS	KSZT	12/29/2012 1:54	12/29/2012 2:35	0:41
UNKNOWN	BLK	BLK6	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	KSZT	KPDX	12/29/2012 3:06	12/29/2012 4:35	1:29
QUEST KODIAK	KODI/G	N420Q	A	I	A-I	CUTTER SOUTHWEST AIRCRAFT SALES LLC	2802 E OLD TOWER RD PHOENIX AZ 850346000	AIR TAXI	N	PROP-SE	KSZT	KPHX	12/30/2012 16:26	12/30/2012 21:52	5:26
BEECH SUPER KING AIR 200	BE20/W	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KUAO	KSZT	12/30/2012 17:54	12/30/2012 19:27	1:33
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KSZT	KUAO	12/30/2012 20:08	12/30/2012 21:17	1:09
HAWKER 800	H25B/L	N278XJ	C	II	C-II	AIRCRAFT HOLDING CO ONE LLC	2101 CR 6 WEST ELKHART IN 46514	AIR TAXI	Y	JET	KGEG	KSZT	12/31/2012 18:31	12/31/2012 18:45	0:14
CESSNA CITATION EXCEL	C56X/Q	EJA663	B	II	B-II	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KLAS	KSZT	12/31/2012 18:59	12/31/2012 21:08	2:09
HAWKER 800	H25B/L	N278XJ	C	II	C-II	AIRCRAFT HOLDING CO ONE LLC	2101 CR 6 WEST ELKHART IN 46514	AIR TAXI	Y	JET	KSZT	KIAH	12/31/2012 19:32	12/31/2012 23:26	3:54
CESSNA CITATION EXCEL	C56X/Q	EJA663	B	II	B-II	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KSZT	KSFO	12/31/2012 22:24	1/1/2013 0:21	1:57
CESSNA 182 SKYLANE	C182/G	N2278Y	B	I	B-I	MEDICAL MANAGEMENT INC	PO BOX 5328 BOISE ID 837050328	BUSINESS	N	PROP-SE	KBOI	KSZT	1/2/2013 17:47	1/2/2013 20:16	2:29
CESSNA CITATION EXCEL	C56X/L	EJA658	B	II	B-II	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KSFO	KSZT	1/2/2013 20:27	1/2/2013 22:21	1:54
CESSNA CITATION EXCEL	C56X/L	EJA658	B	II	B-II	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KSZT	CYVR	1/2/2013 23:58	1/3/2013 0:45	0:47
CESSNA 182 SKYLANE	C182/G	N2278Y	B	I	B-I	MEDICAL MANAGEMENT INC	PO BOX 5328 BOISE ID 837050328	BUSINESS	N	PROP-SE	KSZT	KBOI	1/4/2013 0:16	1/4/2013 2:35	2:19
CESSNA 172 SKYHAWK	C172/G	N739LH	A	I	A-I	DESROSIER ROBERT J	PO BOX 330 BROWNING MT 594170330	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KSFF	1/5/2013 19:58	1/5/2013 21:01	1:03
CESSNA CITATIONJET CJ1	C525/L	N739LN	B	II	B-II	MONTICELLO AIR LLC	2450 AIRPORT RD NAPA CA 94558	AIR TAXI	Y	JET	KAPC	KSZT	1/11/2013 18:45	1/11/2013 21:04	2:19
QUEST KODIAK	KODI/G	N78KQ	A	I	A-I	QUEST AIRCRAFT COMPANY LLC	1200 TURBINE DR SANDPOINT ID 83864	BUSINESS	N	PROP-SE	KSZT	KBFI	1/11/2013 20:12	1/11/2013 21:35	1:23
QUEST KODIAK	KODI/R	N78KQ	A	I	A-I	QUEST AIRCRAFT COMPANY LLC	1200 TURBINE DR SANDPOINT ID 83864	BUSINESS	N	PROP-SE	KBFI	KSZT	1/12/2013 1:24	1/12/2013 2:49	1:25
PIPER PA-34 SENECA	PA34/G	N8514C	A	I	A-I	SPIRIT AIR INC	64 MILLER LN SALMON ID 834675163	AIR TAXI	N	PROP-ME	KSMN	KSZT	1/12/2013 16:49	1/12/2013 18:28	1:39
PIPER PA-34 SENECA	PA34/G	N8514C	A	I	A-I	SPIRIT AIR INC	64 MILLER LN SALMON ID 834675163	AIR TAXI	N	PROP-ME	KSZT	KSMN	1/12/2013 22:58	1/12/2013 23:56	0:58
CESSNA CITATIONJET CJ1	C525/L	N86LA	B	II	B-II	BINGHAM LEASING & SALES LLC	3035 N HIGHLAND AVE JACKSON TN 383053411	AIR TAXI	Y	JET	KSZT	KBDN	1/14/2013 8:34	1/14/2013 10:06	1:32
BEECH 58 BARON	BE58/G	N204G	w	I	w-I	WAIT REXFORD J DBA	2416 CADES WAY VISTA CA 920817830	BUSINESS	N	PROP-ME	KSTS	KSZT	1/15/2013 17:18	1/15/2013 21:21	4:03
QUEST KODIAK	KODI/G	N79KQ	A	I	A-I	QUEST AIRCRAFT CO LLC	1200 TURBINE DR SANDPOINT ID 83864	BUSINESS	N	PROP-SE	KSZT	KBIL	1/15/2013 21:25	1/15/2013 23:21	1:56
CESSNA CITATIONJET CJ1	C525/L	N739LN	B	II	B-II	MONTICELLO AIR LLC	2450 AIRPORT RD NAPA CA 94558	AIR TAXI	Y	JET	KSZT	KAPC	1/15/2013 23:09	1/16/2013 1:09	2:00
QUEST KODIAK	KODI/G	N60KQ	A	I	A-I	FAYARD ENTERPRISES LLC	7300 THOMPSON MILL RD WAKE FOREST NC 275879087	BUSINESS	N	PROP-SE	KSZT	KICT	1/16/2013 17:04	1/16/2013 22:13	5:09
PILATUS PC-12	PC12/G	N948MR	A	II	A-II	RANEY MICHAEL E TRUSTEE	2747 PARADISE RD UNIT 3104 LAS VEGAS NV 891099073	INDIVIDUAL/CLUB	N	PROP-SE	KBFI	KSZT	1/17/2013 23:07	1/18/2013 0:06	0:59
QUEST KODIAK	KODI/G	N9034Z	A	I	A-I	ELLIS WENDELL K	HC 63 BOX 1415 GAKONA AK 99586-9405	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KPAE	1/19/2013 0:07	1/19/2013 2:06	1:59
CESSNA CITATIONJET CJ1	C525/W	N86LA	B	II	B-II	BINGHAM LEASING & SALES LLC	3035 N HIGHLAND AVE JACKSON TN 383053411	AIR TAXI	Y	JET	KJAC	KSZT	1/19/2013 0:15	1/19/2013 2:00	1:45
QUEST KODIAK	KODI/G	N9034Z	A	I	A-I	ELLIS WENDELL K	HC 63 BOX 1415 GAKONA AK 99586-9405	INDIVIDUAL/CLUB	N	PROP-SE	KBFI	KSZT	1/19/2013 4:04	1/19/2013 5:24	1:20
BEECH 58 BARON	BE58/G	N204G	A	I	A-I	WAIT REXFORD J DBA	2416 CADES WAY VISTA CA 920817830	BUSINESS	N	PROP-ME	KSZT	KCRQ	1/19/2013 20:35	1/20/2013 2:01	5:26
PILATUS PC-12	PC12/G	N948MR	A	II	A-II	RANEY MICHAEL E TRUSTEE	2747 PARADISE RD UNIT 3104 LAS VEGAS NV 891099073	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KVGT	1/19/2013 22:16	1/20/2013 1:20	3:04
QUEST KODIAK	KODI/G	N9034Z	A	I	A-I	ELLIS WENDELL K	HC 63 BOX 1415 GAKONA AK 99586-9405	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KPAE	1/20/2013 22:50	1/21/2013 0:19	1:29
QUEST KODIAK	KODI/G	N9010U	A	I	A-I	SMITH STEPHEN R	470 CORNERSTONE AVE SEYMOUR IN 47274-2885	INDIVIDUAL/CLUB	N	PROP-SE	KPAE	KSZT	1/21/2013 0:55	1/21/2013 2:20	1:25
CESSNA CITATION 1SP	C501/Q	N505JH	B	I	B-I	JACKSON HOLE AIR CHARTER INC	PO BOX 489 JACKSON WY 830010489	AIR TAXI	Y	JET	KDIJ	KSZT	1/24/2013 17:43	1/24/2013 19:04	1:21
CESSNA CITATION 1SP	C525/L	N505JH	B	I	B-I	JACKSON HOLE AIR CHARTER INC	PO BOX 489 JACKSON WY 830010489	AIR TAXI	Y	JET	R MLP 316 69	KSZT	1/24/2013 17:43	1/24/2013 19:23	1:40
CESSNA CITATION 1SP	C501/Q	N505JH	B	I	B-I	JACKSON HOLE AIR CHARTER INC	PO BOX 489 JACKSON WY 830010489	AIR TAXI	Y	JET	KSZT	KPSP	1/24/2013 21:31	1/25/2013 0:40	3:09
CESSNA CITATION 1SP	C501/L	N505JH	B	I	B-I	JACKSON HOLE AIR CHARTER INC	PO BOX 489 JACKSON WY 830010489	AIR TAXI	Y	JET	KPSP	KSZT	1/26/2013 19:52	1/26/2013 22:29	2:37
CESSNA CITATION 1SP	C501/Q	N505JH	B	I	B-I	JACKSON HOLE AIR CHARTER INC	PO BOX 489 JACKSON WY 830010489	AIR TAXI	Y	JET	KSZT	KDIJ	1/26/2013 23:11	1/27/2013 0:15	1:04
CESSNA CITATIONJET CJ1	C525/L	N86LA	B	II	B-II	BINGHAM LEASING & SALES LLC	3035 N HIGHLAND AVE JACKSON TN 383053411	AIR TAXI	Y	JET	KSZT	KCOE	1/29/2013 0:29	1/29/2013 0:56	0:27
CESSNA CITATIONJET CJ1	C525/L	N86LA	B	II	B-II	BINGHAM LEASING & SALES LLC	3035 N HIGHLAND AVE JACKSON TN 383053411	AIR TAXI	Y	JET	KCOE	KSZT	1/29/2013 20:04	1/29/2013 22:20	2:16
CESSNA CITATION 1SP	C501/Q	N505JH	B	I	B-I	JACKSON HOLE AIR CHARTER INC	PO BOX 489 JACKSON WY 830010489	AIR TAXI	Y	JET	KDIJ	KSZT	1/30/2013 21:26	1/30/2013 22:42	1:16
QUEST KODIAK	KODI/G	N74KQ	A	I	A-I	QUEST AIRCRAFT COMPANY LLC	1200 TURBINE DR SANDPOINT ID 83864	BUSINESS	N	PROP-SE	KEPH	KSZT	1/31/2013 0:18	1/31/2013 1:05	0:47
QUEST KODIAK	KODI/G	N74KQ	A	I	A-I	QUEST AIRCRAFT COMPANY LLC	1200 TURBINE DR SANDPOINT ID 83864	BUSINESS	N	PROP-SE	KSFF	KSZT	1/31/2013 22:23	1/31/2013 22:55	0:32
QUEST KODIAK	KODI/G	N9010U	A	I	A-I	SMITH STEPHEN R	470 CORNERSTONE AVE SEYMOUR IN 47274-2885	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KPAE	2/1/2013 1:43	2/1/2013 3:37	1:54
QUEST KODIAK	KODI/G	N9034Z	A	I	A-I	ELLIS WENDELL K	HC 63 BOX 1415 GAKONA AK 99586-9405	INDIVIDUAL/CLUB	N	PROP-SE	KPAE	KSZT	2/1/2013 4:29	2/1/2013 5:58	1:29
PIPER PA-46 MALIBU	PA46/G	N512WA	A	I	A-I	ROCKY MOUNTAIN AVIATION LLC	14355 KEIL RD NE STE 11 AURORA OR 970029411	AIR TAXI	N	PROP-SE	KBOI	KSZT	2/1/2013 14:34	2/1/2013 16:13	1:39
PIPER PA-46 MALIBU	PA46/G	N512WA	A	I	A-I	ROCKY MOUNTAIN AVIATION LLC	14355 KEIL RD NE STE 11 AURORA OR 970029411	AIR TAXI	N	PROP-SE	KSZT	KBOI	2/1/2013 16:52	2/1/2013 18:02	1:10
CESSNA 172 SKYHAWK	C72R/A	N5171U	A	I	A-I	FLYING NOVA LLC	PO BOX 10001 MOSCOW ID 838430201	AIR TAXI	N	PROP-SE	KPUW	KSZT	2/2/2013 21:55	2/2/2013 22:21	0:25
CESSNA 310	C310/G	N376J	B	I	B-I	VAISALA INC	194 S TAYLOR AVE LOUISVILLE CO 800273024	BUSINESS	N	PROP-ME	KEKS	KSZT			

Type Name	Type	Ident	AAC	ADG	ARC	Owner	Owner Location	OWNER TYPE	JET	TYPE	Origin	Destination	Departure Time	Arrival Time	Enroute
QUEST KODIAK	KODI/G	N246JH	A	I	A-I	HUMMER JOHN	5335 MEADOWS RD STE 190 LAKE OSWEGO OR 970353152	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KMWH	2/7/2013 20:07	2/7/2013 21:16	1:09
QUEST KODIAK	KODI/G	N246JH	A	I	A-I	HUMMER JOHN	5335 MEADOWS RD STE 190 LAKE OSWEGO OR 970353152	INDIVIDUAL/CLUB	N	PROP-SE	KMWH	KSZT	2/7/2013 22:31	2/7/2013 23:33	1:02
PILATUS PC-12	PC12/G	N948MR	A	II	A-II	RANEY MICHAEL E TRUSTEE	2747 PARADISE RD UNIT 3104 LAS VEGAS NV 891099073	INDIVIDUAL/CLUB	N	PROP-SE	KBFI	KSZT	2/8/2013 23:07	2/9/2013 0:12	1:05
QUEST KODIAK	KODI/G	N246JH	A	I	A-I	HUMMER JOHN	5335 MEADOWS RD STE 190 LAKE OSWEGO OR 970353152	INDIVIDUAL/CLUB	N	PROP-SE	KLWS	KSZT	2/8/2013 23:37	2/9/2013 0:19	0:42
BEECH 58 BARON	BE58/G	N53MT	A	I	A-I	KSZT LLC	1185 JEFFRES LN SANDPOINT ID 838648469	INDIVIDUAL/CLUB	N	PROP-ME	KSZT	KRNT	2/9/2013 16:51	2/9/2013 18:19	1:28
QUEST KODIAK	KODI/G	N246JH	A	I	A-I	HUMMER JOHN	5335 MEADOWS RD STE 190 LAKE OSWEGO OR 970353152	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KAPC	2/9/2013 17:22	2/9/2013 20:37	3:15
BEECH 58 BARON	BE58/A	N53MT	A	I	A-I	KSZT LLC	1185 JEFFRES LN SANDPOINT ID 838648469	INDIVIDUAL/CLUB	N	PROP-ME	KDJ	KSZT	2/9/2013 22:30	2/10/2013 0:25	1:55
PILATUS PC-12	PC12/G	N10PF	A	II	A-II	AIR OPPORTUNITIES LLC	6133 FREEPORT BLVD SACRAMENTO CA 958223509	AIR TAXI	N	PROP-SE	KSZT	KSAC	2/10/2013 2:12	2/10/2013 4:31	2:19
PILATUS PC-12	PC12/R	N948MR	A	II	A-II	RANEY MICHAEL E TRUSTEE	2747 PARADISE RD UNIT 3104 LAS VEGAS NV 891099073	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KBFI	2/11/2013 21:52	2/11/2013 23:16	1:24
PIAGGIO P180 AVANTI	P180/L	VNR176	B	I	B-I	Avantair	Fairfield New Jersey	AIR TAXI	N	PROP-ME	KPAE	KSZT	2/12/2013 20:36	2/12/2013 21:33	0:57
PIAGGIO P180 AVANTI	P180/Q	VNR176	B	I	B-I	Avantair	Fairfield New Jersey	AIR TAXI	N	PROP-ME	KSZT	KPAE	2/12/2013 23:01	2/13/2013 0:00	0:59
QUEST KODIAK	KODI/G	N77KQ	A	I	A-I	JAARS INC	PO BOX 248 WAXHAW NC 281730248	BUSINESS	N	PROP-SE	KSZT	KBIL	2/13/2013 17:07	2/13/2013 19:00	1:53
CESSNA 210 CENTURION	C210/G	N732JY	A	I	A-I	SIMCHUK GEORGE J	3341 NW STARVIEW DR BEND OR 977011146	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KMFR	2/16/2013 16:02	2/16/2013 19:17	3:15
CIRRUS SR-22	SR22/G	N10ZV	A	I	A-I	TAMARACK AEROSPACE GROUP INC	3717 OMNI PKWY SANDPOINT ID 838640254	BUSINESS	N	PROP-SE	KSZT	KPUW	2/17/2013 16:24	2/17/2013 17:24	1:00
QUEST KODIAK	KODI/G	N490KQ	A	I	A-I	QUEST AIRCRAFT CO LLC	1200 TURBINE DR SANDPOINT ID 83864	BUSINESS	N	PROP-SE	KSZT	KSZT	2/19/2013 21:03	2/19/2013 22:48	1:45
EMBRAER PHENOM 100	E50P/L	N175EM	B	I	B-I	BIG BLUE EXPRESS INC	12829 W DODGE RD STE 202 OMAHA NE 681542188	AIR TAXI	Y	JET	KOMA	KSZT	2/20/2013 12:04	2/20/2013 15:01	2:57
CESSNA 425	C425/G	N425EZ	B	I	B-I	MAT-LEE FARMS INC	PO BOX 1315 BROWNFIELD TX 793161315	BUSINESS	N	PROP-ME	KLBB	KSZT	2/20/2013 12:09	2/20/2013 16:33	4:24
CESSNA CITATION EXCEL	C56X/Q	EJA615	B	II	B-II	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KBZN	KSZT	2/20/2013 15:03	2/20/2013 15:51	0:48
CESSNA CITATION EXCEL	C56X/Q	EJA615	B	II	B-II	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KSZT	KBFI	2/20/2013 17:01	2/20/2013 18:14	1:13
CESSNA 425	C441/G	N425EZ	B	I	B-I	MAT-LEE FARMS INC	PO BOX 1315 BROWNFIELD TX 793161315	BUSINESS	N	PROP-ME	KSZT	KRTN	2/20/2013 22:18	2/21/2013 1:56	3:38
QUEST KODIAK	KODI/G	N9035C	A	I	A-I	MD HELICOPTERS INC	4555 E MCDOWELL RD MESA AZ 85215-9734	AIR TAXI	N	PROP-SE	KSZT	KPAE	2/20/2013 23:15	2/21/2013 0:49	1:34
QUEST KODIAK	KODI/G	N9045C	A	I	A-I	MD HELICOPTERS INC	4555 E MCDOWELL RD MESA AZ 85215-9734	AIR TAXI	N	PROP-SE	KSZT	KPAE	2/20/2013 23:15	2/21/2013 1:02	1:47
QUEST KODIAK	KODI/G	N90001	A	I	A-I	CARPET TOWN INC	PO BOX 230 WESTONS MILLS NY 14788	BUSINESS	N	PROP-SE	KPAE	KSZT	2/21/2013 1:26	2/21/2013 2:49	1:23
EMBRAER PHENOM 100	E50P/L	N175EM	B	I	B-I	BIG BLUE EXPRESS INC	12829 W DODGE RD STE 202 OMAHA NE 681542188	AIR TAXI	Y	JET	KSZT	KAHQ	2/21/2013 5:18	2/21/2013 7:56	2:38
CESSNA CITATIONJET CJ1	C525/L	N739LN	B	II	B-II	MONTICELLO AIR LLC	2450 AIRPORT RD NAPA CA 94558	AIR TAXI	Y	JET	KAPC	KSZT	2/21/2013 16:52	2/21/2013 19:03	2:11
CESSNA CITATION X	C750/Q	EJA946	C	II	C-II	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KBFI	KSZT	2/22/2013 21:56	2/22/2013 22:27	0:31
CESSNA CITATIONJET CJ1	C525/L	N739LN	B	II	B-II	MONTICELLO AIR LLC	2450 AIRPORT RD NAPA CA 94558	AIR TAXI	Y	JET	KSZT	KAPC	2/25/2013 23:42	2/26/2013 1:38	1:56
CESSNA CITATION 1SP	C501/L	N505JH	B	I	B-I	JACKSON HOLE AIR CHARTER INC	PO BOX 489 JACKSON WY 830010489	AIR TAXI	Y	JET	KDJ	KSZT	2/27/2013 23:00	2/28/2013 0:15	1:15
QUEST KODIAK	KODI/G	N63HC	A	I	A-I	HOYT AVIATION CONSULTANTS LLC	3815 RICKENBACKER ST STE 103 BOISE ID 837055099	BUSINESS	N	PROP-SE	KBOI	KSZT	2/28/2013 16:57	2/28/2013 19:05	2:08
BEECH 58 BARON	BE58/G	N53MT	A	I	A-I	KSZT LLC	1185 JEFFRES LN SANDPOINT ID 838648469	INDIVIDUAL/CLUB	N	PROP-ME	KDEW	KSZT	2/28/2013 22:45	2/28/2013 23:21	0:36
UNKNOWN	BLK	BLK2	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	KLWS	KSZT	3/1/2013 5:13	3/1/2013 5:53	0:40
UNKNOWN	BLK	BLK2	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	KSZT	KGEG	3/1/2013 6:15	3/1/2013 6:40	0:25
BEECHJET 400	BE40/Q	N499TM	C	I	C-I	AIRCRAFT HOLDING COMPANY ONE LLC	2101 COUNTY ROAD 6 UNIT 15 ELKHART IN 465147742	AIR TAXI	Y	JET	KAPA	KSZT	3/2/2013 18:36	3/2/2013 20:53	2:17
BEECHJET 400	BE40/Q	N499TM	C	I	C-I	AIRCRAFT HOLDING COMPANY ONE LLC	2101 COUNTY ROAD 6 UNIT 15 ELKHART IN 465147742	AIR TAXI	Y	JET	KSZT	KMDD	3/2/2013 22:02	3/3/2013 0:48	2:46
CESSNA 400	COL4/G	N661WB	B	I	B-I	GRATSINGER SCOTT	21030 SW TURNER LN HILLSBORO OR 971238738	INDIVIDUAL/CLUB	N	PROP-SE	KHIO	KSZT	3/4/2013 15:20	3/4/2013 17:09	1:49
CESSNA 400	C414/G	N661WB	B	I	B-I	GRATSINGER SCOTT	21030 SW TURNER LN HILLSBORO OR 971238738	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KHIO	3/4/2013 19:17	3/4/2013 21:05	1:48
CESSNA CITATION 1SP	C501/L	N505JH	B	I	B-I	JACKSON HOLE AIR CHARTER INC	PO BOX 489 JACKSON WY 830010489	AIR TAXI	Y	JET	KSZT	KBOI	3/4/2013 23:17	3/5/2013 0:11	0:54
QUEST KODIAK	KODI/G	N9035C	A	I	A-I	MD HELICOPTERS INC	4555 E MCDOWELL RD MESA AZ 85215-9734	AIR TAXI	N	PROP-SE	KPAE	KSZT	3/5/2013 20:41	3/5/2013 22:03	1:22
BEECH 58 BARON	BE58/G	N53MT	A	I	A-I	KSZT LLC	1185 JEFFRES LN SANDPOINT ID 838648469	INDIVIDUAL/CLUB	N	PROP-ME	KSZT	KSFF	3/7/2013 13:24	3/7/2013 13:54	0:30
QUEST KODIAK	KODI/G	N458TP	A	I	A-I	P W FEENSTRA CONSTRUCTION INC	18521 E QUEEN CREEK RD STE 105-480 QUEEN CREEK AZ 851425864	BUSINESS	N	PROP-SE	KCHD	KSZT	3/8/2013 13:23	3/8/2013 18:19	4:56
QUEST KODIAK	KODI/G	N9034Z	A	I	A-I	ELLIS WENDELL K	HC 63 BOX 1415 GAKONA AK 99586-9405	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KPAE	3/10/2013 18:25	3/10/2013 20:08	1:43
CESSNA CITATION X	C750/Q	OPT721	C	II	C-II	Flight Options	Johnson City NY	AIR TAXI	Y	JET	KCOE	KSZT	3/11/2013 14:29	3/11/2013 14:36	0:07
CESSNA CITATION X	C750/Q	OPT721	C	II	C-II	Flight Options	Johnson City NY	AIR TAXI	Y	JET	KSZT	KVNY	3/11/2013 15:54	3/11/2013 18:02	2:08
UNKNOWN	BLK	BLK7	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	KGTF	KSZT	3/14/2013 19:50	3/14/2013 20:32	0:42
UNKNOWN	BLK	BLK7	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	KSZT	KROA	3/15/2013 15:08	3/15/2013 18:50	3:41
PIPER PA-32 SARATOGA	P32R/G	N8165R	A	I	A-I	GARRETT DESIGN INC	124 VILLAGE LN UNIT 511 SANDPOINT ID 838646439	BUSINESS	N	PROP-SE	KSZT	KBOI	3/15/2013 17:44	3/15/2013 19:35	1:51
QUEST KODIAK	KODI/G	N974JB	A	I	A-I	BRICE INCORPORATED	PO BOX 70668 FAIRBANKS AK 997070668	BUSINESS	N	PROP-SE	KSZT	PAKT	3/15/2013 19:28	3/16/2013 0:07	4:39
CESSNA 180 SKYWAGON	C185/G	N185NJ	A	I	A-I	HANSON DENNIS A	E 8202 18TH AVENUE SPOKANE WA 99212	INDIVIDUAL/CLUB	N	PROP-SE	58WA	KSZT	3/18/2013 15:39	3/18/2013 16:24	0:45
CESSNA 441 CONQUEST	C441/G	N922HP	B	II	B-II	MCCOY PETROLEUM CORP	8080 E CENTRAL AVE STE 300 WICHITA KS 672062366	BUSINESS	N	PROP-ME	KCPR	KSZT	3/18/2013 18:19	3/18/2013 21:13	2:54
CESSNA 180 SKYWAGON	C188/G	N185NJ	A	I	A-I	HANSON DENNIS A	E 8202 18TH AVENUE SPOKANE WA 99212	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KSFF	3/18/2013 19:51	3/18/2013 20:26	0:35
PIPER PA-32 SARATOGA	P32R/G	N8165R	A	I	A-I	GARRETT DESIGN INC	124 VILLAGE LN UNIT 511 SANDPOINT ID 838646439	BUSINESS	N	PROP-SE	KMYL	KSZT	3/19/2013 0:33	3/19/2013 2:17	1:44
UNKNOWN	BLK	BLK8	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	KDWH	KSZT	3/19/2013 14:46	3/19/2013 18:59	4:13
CESSNA CITATION 1SP	C501/Q	N505JH	B	I	B-I	JACKSON HOLE AIR CHARTER INC	PO BOX 489 JACKSON WY 830010489	AIR TAXI	Y	JET	KDJ	KSZT	3/19/2013 15:47	3/19/2013 17:00	1:13
QUEST KODIAK	KODI/R	N85KQ	A	I	A-I	SPECIALIZED AIRCRAFT SERVICES INC	400 N WOODLAWN ST STE 102 WICHITA KS 672084331	AIR TAXI	N	PROP-SE	KSZT	47K	3/19/2013 16:34	3/19/2013 20:56	4:22
CESSNA 441 CONQUEST	C501/L	N922HP	B	II	B-II	MCCOY PETROLEUM CORP	8080 E CENTRAL AVE STE 300 WICHITA KS 672062366	BUSINESS	N	PROP-ME	KSZT	KA AO	3/19/2013 23:02	3/20/2013 2:04	3:02
BEECHJET 400	BE40/L	N491TM	C	I	C-I	AIRCRAFT HOLDING CO ONE LLC	2101 COUNTY ROAD 6 ELKHART IN 465147742	AIR TAXI	Y	JET	KSFO	KSZT	3/19/2013 23:18	3/20/2013 1:16	1:58
QUEST KODIAK	KODI/G	N838SA	A	I	A-I	SPIRIT AIR INC	64 MILLER LN SALMON ID 834675163	AIR TAXI	N	PROP-SE	KSMN	KSZT	3/20/2013 0:48	3/20/2013 2:16	1:28
BEECHJET 400	BE40/L	N491TM	C	I	C-I	AIRCRAFT HOLDING CO ONE LLC	2101 COUNTY ROAD 6 ELKHART IN 465147742	AIR TAXI	Y	JET	KSZT	KGEG	3/20/2013 1:40	3/20/2013 1:58	0:18
CESSNA CITATION EXCEL	C56X/Q	EJA682	B	II	B-II	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KPDX	KSZT	3/20/2013 14:25	3/20/2013 15:17	0:52
CESSNA CITATION EXCEL	C56X/Q	EJA682	B	II	B-II	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KSZT	KASE	3/20/2013 16:39	3/20/2013 18:32	1:53
CESSNA CITATION 1SP	C501/Q	N505JH	B	I	B-I	JACKSON HOLE AIR CHARTER INC	PO BOX 489 JACKSON WY 830010489	AIR TAXI	Y	JET	KSZT	KDJ	3/20/2013 19:48	3/20/2013 21:13	1:25
CESSNA CITATION 1SP	C501/Q	N505JH	B	I	B-I	JACKSON HOLE AIR CHARTER INC	PO BOX 489 JACKSON WY 830010489	AIR TAXI	Y	JET	KDJ	KSZT	3/20/2013 22:29	3/20/2013 23:51	1:22
CESSNA CITATIONJET CJ1	C525/L	N739LN	B	II	B-II	MONTICELLO AIR LLC	2450 AIRPORT RD NAPA CA 94558	AIR TAXI	Y	JET	KAPC	KSZT	3/21/2013 18:00	3/21/2013 20:04	2:04
BEECHJET 400	BE40/Q	N491TM	C	I	C-I	AIRCRAFT HOLDING CO ONE LLC	2101 COUNTY ROAD 6 ELKHART IN 465147742	AIR TAXI	Y	JET	KGEG	KSZT	3/21/2013 18:10	3/21/2013 18:36	0:26
BEECHJET 400	BE40/Q	N491TM	C	I	C-I	AIRCRAFT HOLDING CO ONE LLC	2101 COUNTY ROAD 6 ELKHART IN 465147742	AIR TAXI	Y	JET	KSZT	KSMO	3/21/2013 19:38	3/21/2013 22:13	2:35
QUEST KODIAK	KODI/G	N572SG	A												

Type Name	Type	Ident	AAC	ADG	ARC	Owner	Owner Location	OWNER TYPE	JET	TYPE	Origin	Destination	Departure Time	Arrival Time	Enroute	
PIPER PA-46 MALIBU	PA46/G	N72HC	A	I	A-I	SCHALLER PAUL DTRUSTEE	113 HIDDEN SPRING RD SANDPOINT ID 838646264	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KSCK	3/25/2013 18:03	3/25/2013 21:47	3:44	
CESSNA CITATION 1SP	C501/Q	N505JH	B	I	B-I	JACKSON HOLE AIR CHARTER INC	PO BOX 489 JACKSON WY 830010489	AIR TAXI	Y	JET	KSZT	KDIJ	3/25/2013 22:31	3/25/2013 23:29	0:58	
PIPER PA-46 MALIBU	P46T/G	N512WA	A	I	A-I	ROCKY MOUNTAIN AVIATION LLC	14355 KEIL RD NE STE 11 AURORA OR 970029411	AIR TAXI	N	PROP-SE	KSZT	KWMC	3/26/2013 16:07	3/26/2013 18:05	1:58	
QUEST KODIAK	KODI/R	N10PZ	A	I	A-I	PAXTON AVIATION INC	3511 SILVERSIDE RD STE 105 WILMINGTON DE 198104902	BUSINESS	N	PROP-SE	U42	KSZT		3/26/2013 23:36	3/27/2013 2:26	2:50
PIPER PA-46 MALIBU	PA46/G	N512WA	A	I	A-I	ROCKY MOUNTAIN AVIATION LLC	14355 KEIL RD NE STE 11 AURORA OR 970029411	AIR TAXI	N	PROP-SE	KWMC	KSZT		3/27/2013 0:55	3/27/2013 2:55	2:00
BEECH SUPER KING AIR 200	BE20/R	N792BP	B	II	B-II	U S DEPARTMENT OF ENERGY	PO BOX 3621 PORTLAND OR 972083621	GOVERNMENT	N	PROP-ME	KPDX	KSZT		3/27/2013 15:19	3/27/2013 16:27	1:08
QUEST KODIAK	KODI/G	N838SA	A	I	A-I	SPIRIT AIR INC	64 MILLER LN SALMON ID 834675163	AIR TAXI	N	PROP-SE	KSZT	KSMN		3/27/2013 20:54	3/27/2013 22:35	1:41
BEECH SUPER KING AIR 200	BE20/G	N792BP	B	II	B-II	U S DEPARTMENT OF ENERGY	PO BOX 3621 PORTLAND OR 972083621	GOVERNMENT	N	PROP-ME	KSZT	KPDX		3/27/2013 23:45	3/28/2013 1:05	1:20
ROCKWELL TURBO COMMANDER 690	AC90/G	N690DS	B	I	B-I	TITLE FINANCIAL GROUP LLC	PO BOX 580 BLACKFOOT ID 832210580	BUSINESS	N	PROP-ME	KSZT	U02		3/28/2013 20:49	3/28/2013 22:08	1:19
PIPER PA-46 MALIBU	PA46/G	N512WA	A	I	A-I	ROCKY MOUNTAIN AVIATION LLC	14355 KEIL RD NE STE 11 AURORA OR 970029411	AIR TAXI	N	PROP-SE	KSZT	KWMC		3/29/2013 13:18	3/29/2013 15:27	2:09
BEECH 58 BARON	BE58/G	N204G	A	I	A-I	WAIT REXFORD J DBA	2416 CADES WAY VISTA CA 920817830	BUSINESS	N	PROP-ME	KSTS	KSZT		3/29/2013 21:24	3/30/2013 0:50	3:26
PIPER PA-46 MALIBU	PA46/G	N512WA	A	I	A-I	ROCKY MOUNTAIN AVIATION LLC	14355 KEIL RD NE STE 11 AURORA OR 970029411	AIR TAXI	N	PROP-SE	KPAO	KSZT		3/30/2013 22:06	3/31/2013 0:52	2:46
HAWKER 800	H25B/Q	TMC404	C	II	C-II	Travel Management Company, LTD		AIR TAXI	Y	JET	KEKM	KSZT		3/31/2013 12:24	3/31/2013 16:14	3:50
HAWKER 800	H25C/Q	TMC404	C	II	C-II	Travel Management Company, LTD		AIR TAXI	Y	JET	KSZT	KSGR		3/31/2013 17:47	3/31/2013 21:37	3:50
ROCKWELL TURBO COMMANDER 690	AC90/G	N162AL	B	I	B-I	AERO AIR LLC	2050 NE 25TH AVE HILLSBORO OR 971245964	AIR TAXI	N	PROP-ME	KYKM	KSZT		4/1/2013 1:54	4/1/2013 2:44	0:50
ROCKWELL TURBO COMMANDER 690	AC90/G	N162AL	B	I	B-I	AERO AIR LLC	2050 NE 25TH AVE HILLSBORO OR 971245964	AIR TAXI	N	PROP-ME	KSZT	KBFI		4/1/2013 3:15	4/1/2013 4:19	1:04
BEECH 58 BARON	BE58/G	N204G	A	I	A-I	WAIT REXFORD J DBA	2416 CADES WAY VISTA CA 920817830	BUSINESS	N	PROP-ME	KSZT	KSTS		4/1/2013 16:17	4/1/2013 19:36	3:19
CESSNA 210 CENTURION	C210/G	N732JY	A	I	A-I	SIMCHUK GEORGE J	3341 NW STARVIEW DR BEND OR 977011146	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KRNT		4/1/2013 17:49	4/1/2013 19:20	1:31
CESSNA P210	C10T/G	N725RP	B	I	B-I	MCDOWELL PHARMACEUTICAL LLC	15700 COLLEGE BLVD STE 100 LENEXA KS 662191473	BUSINESS	N	PROP-SE	KCDR	KSZT		4/1/2013 19:00	4/1/2013 22:32	3:32
CESSNA P210	C10T/G	N725RP	B	I	B-I	MCDOWELL PHARMACEUTICAL LLC	15700 COLLEGE BLVD STE 100 LENEXA KS 662191473	BUSINESS	N	PROP-SE	KSZT	PAKT		4/2/2013 16:33	4/2/2013 20:58	4:25
PIPER PA-44 SEMINOLE	P46T/G	N450JA	A	I	A-I	HILLSBORO AVIATION INC	3565 NE CORNELL RD HILLSBORO OR 971246374	AIR TAXI	N	PROP-ME	KTTD	KSZT		4/2/2013 17:26	4/2/2013 19:29	2:03
CESSNA 210 CENTURION	C210/G	N732JY	A	I	A-I	SIMCHUK GEORGE J	3341 NW STARVIEW DR BEND OR 977011146	INDIVIDUAL/CLUB	N	PROP-SE	KRNT	KSZT		4/2/2013 22:33	4/3/2013 0:04	1:31
PIAGGIO P180 AVANTI	P180/L	VNR104	B	I	B-I	Avantair	Fairfield New Jersey	AIR TAXI	N	PROP-ME	KOAK	KSZT		4/2/2013 23:51	4/3/2013 1:59	2:08
PIAGGIO P180 AVANTI	P180/Q	VNR104	B	I	B-I	Avantair	Fairfield New Jersey	AIR TAXI	N	PROP-ME	KSZT	KOAK		4/3/2013 15:21	4/3/2013 17:54	2:33
QUEST KODIAK	KODI/G	N490KQ	A	I	A-I	QUEST AIRCRAFT CO LLC	1200 TURBINE DR SANDPOINT ID 83864	BUSINESS	N	PROP-SE	KSZT	KSZT		4/3/2013 17:39	4/3/2013 18:21	0:42
QUEST KODIAK	KODI/G	N82HK	A	I	A-I	QUEST AIRCRAFT COMPANY LLC	1200 TURBINE SANDPOINT ID 838647942	BUSINESS	N	PROP-SE	KSZT	KGY		4/3/2013 18:22	4/3/2013 21:56	3:34
CESSNA 310	C310/G	N376J	B	I	B-I	VAISALA INC	194 S TAYLOR AVE LOUISVILLE CO 800273024	BUSINESS	N	PROP-ME	KSZT	KBPP		4/3/2013 19:49	4/3/2013 22:18	2:29
BEECH KING AIR 90	BE9L/G	N445CR	B	II	B-II	PACIFIC AIR NORTHWEST LLC	822 S HIGHWAY 395 # 506 HERMISTON OR 978382621	AIR TAXI	N	PROP-ME	KPDT	KSZT		4/4/2013 1:26	4/4/2013 2:19	0:53
BEECH KING AIR 90	BE9L/G	N445CR	B	II	B-II	PACIFIC AIR NORTHWEST LLC	822 S HIGHWAY 395 # 506 HERMISTON OR 978382621	AIR TAXI	N	PROP-ME	KSZT	KPSC		4/4/2013 2:45	4/4/2013 3:44	0:59
EMBRAER PHENOM 100	E50P/L	N175EM	B	I	B-I	BIG BLUE EXPRESS INC	12829 W DODGE RD STE 202 OMAHA NE 681542188	AIR TAXI	Y	JET	KAHQ	KSZT		4/4/2013 17:47	4/4/2013 21:22	3:35
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KUAO	KSZT		4/4/2013 21:13	4/4/2013 22:39	1:26
QUEST KODIAK	KODI/G	N572SG	A	I	A-I	ADVENTAIRE LLC	4103 55TH ST SE MINOT ND 587018001	BUSINESS	N	PROP-SE	KSZT	KMOT		4/4/2013 22:07	4/5/2013 1:04	2:57
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KSZT	KUAO		4/4/2013 23:24	4/5/2013 0:59	1:35
CESSNA 210 CENTURION	C210/G	N732JY	A	I	A-I	SIMCHUK GEORGE J	3341 NW STARVIEW DR BEND OR 977011146	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KMFR		4/5/2013 17:16	4/5/2013 20:50	3:34
BEECH KING AIR 90	BE9L/R	N445CR	B	II	B-II	PACIFIC AIR NORTHWEST LLC	822 S HIGHWAY 395 # 506 HERMISTON OR 978382621	AIR TAXI	N	PROP-ME	KPSC	KSZT		4/6/2013 15:36	4/6/2013 16:21	0:45
BEECH KING AIR 90	BE9L/R	N445CR	B	II	B-II	PACIFIC AIR NORTHWEST LLC	822 S HIGHWAY 395 # 506 HERMISTON OR 978382621	AIR TAXI	N	PROP-ME	KSZT	KPDT		4/6/2013 17:35	4/6/2013 18:33	0:58
EMBRAER PHENOM 100	E50P/L	N175EM	B	I	B-I	BIG BLUE EXPRESS INC	12829 W DODGE RD STE 202 OMAHA NE 681542188	AIR TAXI	Y	JET	KSZT	KVGT		4/6/2013 20:47	4/6/2013 23:23	2:36
PIPER PA-46 MALIBU	P46T/R	N512WA	A	I	A-I	ROCKY MOUNTAIN AVIATION LLC	14355 KEIL RD NE STE 11 AURORA OR 970029411	AIR TAXI	N	PROP-SE	KSZT	KSEA		4/6/2013 22:22	4/7/2013 0:23	2:01
PIPER PA-46 MALIBU	PA46/G	N512WA	A	I	A-I	ROCKY MOUNTAIN AVIATION LLC	14355 KEIL RD NE STE 11 AURORA OR 970029411	AIR TAXI	N	PROP-SE	KSEA	KSZT		4/7/2013 1:09	4/7/2013 2:19	1:10
PIPER PA-46 MALIBU	PA46/G	N512WA	A	I	A-I	ROCKY MOUNTAIN AVIATION LLC	14355 KEIL RD NE STE 11 AURORA OR 970029411	AIR TAXI	N	PROP-SE	KSZT	KBOI		4/7/2013 14:14	4/7/2013 15:48	1:34
PIPER PA-28 CHEROKEE	P28A/G	N4511S	A	I	A-I	OWENS JOHN P MD DBA	137 MAGELLAN ST CAPITOLA CA 950102318	BUSINESS	N	PROP-SE	KCOE	KSZT		4/8/2013 19:36	4/8/2013 19:52	0:16
PILATUS PC-12	PC12/G	N75NG	A	II	A-II	JUNIPER VALLEY LLC	PO BOX 4657 SALEM OR 973028657	BUSINESS	N	PROP-SE	R MLP 292 77	KSZT		4/8/2013 22:23	4/8/2013 22:30	0:07
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KUAO	KSZT		4/9/2013 19:11	4/9/2013 20:40	1:29
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KSZT	KUAO		4/9/2013 21:09	4/9/2013 22:28	1:19
QUEST KODIAK	KODI/G	N78KQ	A	I	A-I	QUEST AIRCRAFT COMPANY LLC	1200 TURBINE DR SANDPOINT ID 83864	BUSINESS	N	PROP-SE	KSZT	KBFI		4/11/2013 13:09	4/11/2013 14:53	1:44
QUEST KODIAK	KODI/G	N88KQ	A	I	A-I	KEYSTONE AVIATION LLC	303 N 2370 W SALT LAKE CITY UT 841162948	AIR TAXI	N	PROP-SE	KDEW	KSZT		4/11/2013 18:30	4/11/2013 18:52	0:22
QUEST KODIAK	KODI/T	N78KQ	A	I	A-I	QUEST AIRCRAFT COMPANY LLC	1200 TURBINE DR SANDPOINT ID 83864	BUSINESS	N	PROP-SE	KBFI	KSZT		4/11/2013 21:58	4/11/2013 23:23	1:25
BEECH KING AIR 90	BE9L/R	N445CR	B	II	B-II	PACIFIC AIR NORTHWEST LLC	822 S HIGHWAY 395 # 506 HERMISTON OR 978382621	AIR TAXI	N	PROP-ME	KPDT	KSZT		4/12/2013 1:15	4/12/2013 2:55	1:40
BEECH KING AIR 90	BE9L/R	N445CR	B	II	B-II	PACIFIC AIR NORTHWEST LLC	822 S HIGHWAY 395 # 506 HERMISTON OR 978382621	AIR TAXI	N	PROP-ME	KPDT	KSZT		4/12/2013 3:46	4/12/2013 4:37	0:51
BEECH KING AIR 90	BE9L/R	N445CR	B	II	B-II	PACIFIC AIR NORTHWEST LLC	822 S HIGHWAY 395 # 506 HERMISTON OR 978382621	AIR TAXI	N	PROP-ME	KSZT	KPSC		4/12/2013 4:59	4/12/2013 5:45	0:46
QUEST KODIAK	KODI/G	N572SG	A	I	A-I	ADVENTAIRE LLC	4103 55TH ST SE MINOT ND 587018001	BUSINESS	N	PROP-SE	KMOT	KSZT		4/14/2013 16:37	4/14/2013 20:22	3:45
BEECH KING AIR 90	BE9L/R	N445CR	B	II	B-II	PACIFIC AIR NORTHWEST LLC	822 S HIGHWAY 395 # 506 HERMISTON OR 978382621	AIR TAXI	N	PROP-ME	KPSC	KSZT		4/15/2013 12:47	4/15/2013 13:34	0:47
BEECH KING AIR 90	BE9L/R	N445CR	B	II	B-II	PACIFIC AIR NORTHWEST LLC	822 S HIGHWAY 395 # 506 HERMISTON OR 978382621	AIR TAXI	N	PROP-ME	KSZT	KPDX		4/15/2013 14:15	4/15/2013 15:43	1:28
CESSNA P210	C10T/G	N725RP	B	I	B-I	MCDOWELL PHARMACEUTICAL LLC	15700 COLLEGE BLVD STE 100 LENEXA KS 662191473	BUSINESS	N	PROP-SE	PAGK	KSZT		4/17/2013 17:20	4/17/2013 23:18	5:58
QUEST KODIAK	KODI/G	N69KQ	A	I	A-I	BACHSCHMIDT WILLIAM	PO BOX 1396 INGLIS FL 344491396	INDIVIDUAL/CLUB	N	PROP-SE	KSLC	KSZT		4/17/2013 20:34	4/17/2013 23:58	3:24
CESSNA P210	CL30/Q	N725RP	B	I	B-I	MCDOWELL PHARMACEUTICAL LLC	15700 COLLEGE BLVD STE 100 LENEXA KS 662191473	BUSINESS	N	PROP-SE	KSZT	KAIA		4/18/2013 16:17	4/18/2013 19:40	3:23
CESSNA 210 CENTURION	C210/G	N732JY	A	I	A-I	SIMCHUK GEORGE J	3341 NW STARVIEW DR BEND OR 977011146	INDIVIDUAL/CLUB	N	PROP-SE	KRNT	KSZT		4/18/2013 20:26	4/18/2013 22:01	1:35
QUEST KODIAK	KODI/G	N572SG	A	I	A-I	ADVENTAIRE LLC	4103 55TH ST SE MINOT ND 587018001	BUSINESS	N	PROP-SE	KSZT	KMOT		4/19/2013 20:43	4/19/2013 21:16	0:33
QUEST KODIAK	KODI/G	N572SG	A	I	A-I	ADVENTAIRE LLC	4103 55TH ST SE MINOT ND 587018001	BUSINESS	N	PROP-SE	KSZT	KMOT		4/20/2013 0:05	4/20/2013 0:00	n/a
QUEST KODIAK	KODI/G	N90001	A	I	A-I	CARPET TOWN INC	PO BOX 230 WESTONS MILLS NY 14788	BUSINESS	N	PROP-SE	KSZT	KPAE		4/23/2013 18:11	4/23/2013 19:35	1:24
QUEST KODIAK	KODI/G	N90001	A	I	A-I	CARPET TOWN INC	PO BOX 230 WESTONS MILLS NY 14788	BUSINESS	N	PROP-SE	KPAE	KSZT		4/23/2013 21:22	4/23/2013 22:45	1:23
QUEST KODIAK	KODI/G	N90001	A	I	A-I	CARPET TOWN INC	PO BOX 230 WESTONS MILLS NY 14788	BUSINESS</								

Type Name	Type	Ident	AAC	ADG	ARC	Owner	Owner Location	OWNER TYPE	JET	TYPE	Origin	Destination	Departure Time	Arrival Time	Enroute
CESSNA CITATION EXCEL	C56X/Q	EJA670	B	II	B-II	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KSZT	KTIW	4/29/2013 15:57	4/29/2013 17:00	1:03
BEECH 36 BONANZA	BE35/G	N789J	A	I	A-I	COOPER TODD C	26206 E SUNSET MEADOWS LOOP KENNEWICK WA 993387504	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KPSC	4/29/2013 19:23	4/29/2013 20:29	1:06
CIRRUS SR-22	SR22/G	N10ZW	A	I	A-I	TAMARACK AEROSPACE GROUP INC	3717 OMNI PKWY SANDPOINT ID 838640254	BUSINESS	N	PROP-SE	KSZT	KVGT	4/29/2013 22:04	4/30/2013 3:12	5:08
PIPER PA-32 SARATOGA	P32R/G	N8165R	A	I	A-I	GARRETT DESIGN INC	124 VILLAGE LN UNIT 511 SANDPOINT ID 838646439	BUSINESS	N	PROP-SE	KSZT	KAWO	4/30/2013 18:36	4/30/2013 19:59	1:23
PIPER AEROSTAR	AEST/G	N35FD	B	I	B-I	YOUNG LIVING ESSENTIAL OILS LC	3125 W EXECUTIVE PKWY LEHI UT 84043	BUSINESS	N	PROP-ME	KSZT	KPVU	5/2/2013 19:15	5/2/2013 21:22	2:07
PIPER PA-28 CHEROKEE	P28R/A	N2965W	A	I	A-I	CENTENNIAL AVIATION LLC	1815 N 14TH ST BOISE ID 837022641	AIR TAXI	N	PROP-SE	KBOI	KSZT	5/2/2013 23:38	5/3/2013 1:44	2:05
PIPER AEROSTAR	AEST/G	N35FD	B	I	B-I	YOUNG LIVING ESSENTIAL OILS LC	3125 W EXECUTIVE PKWY LEHI UT 84043	BUSINESS	N	PROP-ME	KPVU	KSZT	5/3/2013 13:25	5/3/2013 16:02	2:37
PIPER PA-32 SARATOGA	P32R/G	N8165R	A	I	A-I	GARRETT DESIGN INC	124 VILLAGE LN UNIT 511 SANDPOINT ID 838646439	BUSINESS	N	PROP-SE	KAWO	KSZT	5/3/2013 20:40	5/3/2013 22:14	1:34
PIPER AEROSTAR	AEST/G	N35FD	B	I	B-I	YOUNG LIVING ESSENTIAL OILS LC	3125 W EXECUTIVE PKWY LEHI UT 84043	BUSINESS	N	PROP-ME	KSZT	KSLC	5/4/2013 19:18	5/4/2013 21:39	2:21
PILATUS PC-12	PC12/R	N948MR	A	II	A-II	RANEY MICHAEL E TRUSTEE	2747 PARADISE RD UNIT 3104 LAS VEGAS NV 891099073	INDIVIDUAL/CLUB	N	PROP-SE	KVGT	KSZT	5/6/2013 17:17	5/6/2013 20:21	3:04
PIPER PA-46 MALIBU	P46T/G	N72HC	A	I	A-I	SCHALLER PAUL DTRUSTEE	113 HIDDEN SPRING RD SANDPOINT ID 838646264	INDIVIDUAL/CLUB	N	PROP-SE	KUAO	KSZT	5/7/2013 20:07	5/7/2013 21:56	1:49
PILATUS PC-12	PC12/R	N75NG	A	II	A-II	JUNIPER VALLEY LLC	PO BOX 4657 SALEM OR 973028657	BUSINESS	N	PROP-SE	KSFF	KSZT	5/8/2013 0:38	5/8/2013 0:53	0:15
PILATUS PC-12	PC12/R	N948MR	A	II	A-II	RANEY MICHAEL E TRUSTEE	2747 PARADISE RD UNIT 3104 LAS VEGAS NV 891099073	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KBFI	5/8/2013 16:12	5/8/2013 17:12	1:00
PILATUS PC-12	PC12/R	N75NG	A	II	A-II	JUNIPER VALLEY LLC	PO BOX 4657 SALEM OR 973028657	BUSINESS	N	PROP-SE	KSZT	63S	5/8/2013 20:00	5/8/2013 20:19	0:19
CESSNA CITATION 1SP	C501/Q	N505JH	B	I	B-I	JACKSON HOLE AIR CHARTER INC	PO BOX 489 JACKSON WY 830010489	AIR TAXI	Y	JET	KDJ	KSZT	5/8/2013 20:36	5/8/2013 21:44	1:08
CIRRUS SR-22	SR22/G	N10ZW	A	I	A-I	TAMARACK AEROSPACE GROUP INC	3717 OMNI PKWY SANDPOINT ID 838640254	BUSINESS	N	PROP-SE	KSZT	KELN	5/9/2013 15:02	5/9/2013 17:04	2:02
QUEST KODIAK	KODI/G	N69KQ	A	I	A-I	BACHSCHMIDT WILLIAM	PO BOX 1396 INGLIS FL 344491396	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KSMN	5/9/2013 15:40	5/9/2013 17:05	1:25
CESSNA CITATIONJET CJ1	C525/G	N86LA	B	II	B-II	BINGHAM LEASING & SALES LLC	3035 N HIGHLAND AVE JACKSON TN 383053411	AIR TAXI	Y	JET	KSZT	KSZT	5/10/2013 16:00	5/10/2013 19:31	3:31
CESSNA CITATIONJET CJ1	C525/L	N739LN	B	II	B-II	MONTICELLO AIR LLC	2450 AIRPORT RD NAPA CA 94558	AIR TAXI	Y	JET	KAPC	KSZT	5/10/2013 16:32	5/10/2013 18:45	2:13
LANCAIR PROPJET 4	LNP4/G	N6XG	A	I	A-I	HATCH HYRUM G	700 N DOBSON RD UNIT 16 CHANDLER AZ 852246973	INDIVIDUAL/CLUB	N	PROP-SE	KSLC	KSZT	5/10/2013 21:25	5/10/2013 23:21	1:56
CESSNA CITATIONJET CJ1	C525/L	N739LN	B	II	B-II	MONTICELLO AIR LLC	2450 AIRPORT RD NAPA CA 94558	AIR TAXI	Y	JET	KSZT	KAPC	5/10/2013 21:46	5/10/2013 23:36	1:50
LANCAIR PROPJET 4	LJ31/L	N6XG	A	I	A-I	HATCH HYRUM G	700 N DOBSON RD UNIT 16 CHANDLER AZ 852246973	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KCHD	5/11/2013 20:26	5/11/2013 23:28	3:02
PIPER PA-30 COMANCHE	PA30/G	N12FS	A	I	A-I	NELSON DON	925 LUDWICK AVE BLAINE WA 982305109	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	CYQL	5/11/2013 21:43	5/11/2013 22:20	0:37
CESSNA 206 STATIONAIR	C206/G	N619CB	B	I	B-I	BEERS ROYCE L TRUSTEE	2122 S LAKE LEELANAU DR LAKE LEELANAU MI 496539453	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	12ID	5/12/2013 14:25	5/12/2013 16:01	1:36
CESSNA CITATION 1SP	C501/Q	N505JH	B	I	B-I	JACKSON HOLE AIR CHARTER INC	PO BOX 489 JACKSON WY 830010489	AIR TAXI	Y	JET	KSZT	KDJ	5/13/2013 22:01	5/13/2013 23:15	1:14
PIPER PA-46 MALIBU	PA46/G	N72HC	A	I	A-I	SCHALLER PAUL DTRUSTEE	113 HIDDEN SPRING RD SANDPOINT ID 838646264	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KRAP	5/14/2013 15:44	5/14/2013 18:24	2:40
QUEST KODIAK	KODI/G	N10PZ	A	I	A-I	PAXTON AVIATION INC	3511 SILVERSIDE RD STE 105 WILMINGTON DE 198104902	BUSINESS	N	PROP-SE	KSZT	KSFF	5/16/2013 16:09	5/16/2013 16:39	0:30
QUEST KODIAK	KODI/G	N10PZ	A	I	A-I	PAXTON AVIATION INC	3511 SILVERSIDE RD STE 105 WILMINGTON DE 198104902	BUSINESS	N	PROP-SE	KSFF	KSZT	5/16/2013 16:59	5/16/2013 17:29	0:30
CESSNA 182 SKYLANE	C182/G	N61705	B	I	B-I	SAKAS JULIUS V	202 LANDS END LN SEQUIM WA 983828300	INDIVIDUAL/CLUB	N	PROP-SE	KBFI	KSZT	5/16/2013 18:44	5/16/2013 20:21	1:37
BEECH KING AIR 90	BE9L/R	N445CR	B	II	B-II	PACIFIC AIR NORTHWEST LLC	822 S HIGHWAY 395 # 506 HERMISTON OR 978382621	AIR TAXI	N	PROP-ME	KCOS	KSZT	5/17/2013 19:07	5/17/2013 22:39	3:32
CESSNA CITATION MUSTANG	C510/Q	N949JB	B	I	B-I	BULT EQUIPMENT LLC	28261 S KEDZIE AVE MONEE IL 604499796	BUSINESS	Y	JET	C56	KSZT	5/17/2013 19:09	5/17/2013 23:30	4:21
BEECH KING AIR 90	BE9L/R	N445CR	B	II	B-II	PACIFIC AIR NORTHWEST LLC	822 S HIGHWAY 395 # 506 HERMISTON OR 978382621	AIR TAXI	N	PROP-ME	KSZT	KPSC	5/17/2013 23:11	5/17/2013 23:59	0:48
PIPER PA-46 MALIBU	P46T/G	N700CG	A	I	A-I	ROCKY MOUNTAIN AVIATION LLC	14355 KEIL RD NE STE 11 AURORA OR 970029411	AIR TAXI	N	PROP-SE	KBIS	KSZT	5/17/2013 23:17	5/18/2013 2:20	3:03
PIPER PA-46 MALIBU	P46T/G	N700CG	A	I	A-I	ROCKY MOUNTAIN AVIATION LLC	14355 KEIL RD NE STE 11 AURORA OR 970029411	AIR TAXI	N	PROP-SE	KSZT	KGPI	5/19/2013 17:56	5/19/2013 18:45	0:49
CESSNA CITATION MUSTANG	C510/Q	N949JB	B	I	B-I	BULT EQUIPMENT LLC	28261 S KEDZIE AVE MONEE IL 604499796	BUSINESS	Y	JET	KSZT	C56	5/19/2013 23:46	5/20/2013 4:03	4:17
PIPER AEROSTAR	AEST/G	N35FD	B	I	B-I	YOUNG LIVING ESSENTIAL OILS LC	3125 W EXECUTIVE PKWY LEHI UT 84043	BUSINESS	N	PROP-ME	KPVU	KSZT	5/20/2013 13:09	5/20/2013 15:41	2:32
PIPER PA-28 CHEROKEE	P28T/G	N4511S	A	I	A-I	OWENS JOHN P MD DBA	137 MAGELLAN ST CAPITOLA CA 950102318	BUSINESS	N	PROP-SE	KSZT	KCIC	5/20/2013 17:17	5/20/2013 21:29	4:12
QUEST KODIAK	KODI/G	N838SA	A	I	A-I	SPIRIT AIR INC	64 MILLER LN SALMON ID 834675163	AIR TAXI	N	PROP-SE	KSMN	KSZT	5/22/2013 17:56	5/22/2013 19:29	1:33
BEECH 58 BARON	BE58/G	N53MT	A	I	A-I	KSZT LLC	1185 JEFFRES LN SANDPOINT ID 838648469	INDIVIDUAL/CLUB	N	PROP-ME	KSZT	KRNO	5/22/2013 23:14	5/23/2013 2:12	2:58
BEECH 58 BARON	BE58/G	N53MT	A	I	A-I	KSZT LLC	1185 JEFFRES LN SANDPOINT ID 838648469	INDIVIDUAL/CLUB	N	PROP-ME	KGCD	KSZT	5/23/2013 22:17	5/23/2013 23:28	1:11
CHALLENGER 300	CL30/Q	LXJ522	B	II	B-II	Bombardier Aerospace/Business Jet		BUSINESS	Y	JET	KSGR	KSZT	5/25/2013 11:58	5/25/2013 15:34	3:36
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KUAO	KSZT	5/25/2013 16:22	5/25/2013 17:41	1:19
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KSZT	KUAO	5/25/2013 18:12	5/25/2013 19:39	1:27
PIPER PA-46 MALIBU	PA46/G	N9120Y	A	I	A-I	DISCOVERY MANAGEMENT LLC	1301 SCOTT ST MISSOULA MT 598022428	AIR TAXI	N	PROP-SE	KMSO	KSZT	5/27/2013 15:22	5/27/2013 16:08	0:46
CHALLENGER 300	CL30/Q	LXJ522	B	II	B-II	Bombardier Aerospace/Business Jet		BUSINESS	Y	JET	KSZT	KSGR	5/27/2013 19:03	5/27/2013 22:33	3:30
PIPER PA-46 MALIBU	PA46/G	N9120Y	A	I	A-I	DISCOVERY MANAGEMENT LLC	1301 SCOTT ST MISSOULA MT 598022428	AIR TAXI	N	PROP-SE	KSZT	KMSO	5/27/2013 20:25	5/27/2013 21:04	0:39
BEECH 58 BARON	BE58/G	N53MT	A	I	A-I	KSZT LLC	1185 JEFFRES LN SANDPOINT ID 838648469	INDIVIDUAL/CLUB	N	PROP-ME	KSZT	KGCD	5/27/2013 22:06	5/27/2013 23:38	1:32
BEECH 58 BARON	BE58/A	N53MT	A	I	A-I	KSZT LLC	1185 JEFFRES LN SANDPOINT ID 838648469	INDIVIDUAL/CLUB	N	PROP-ME	KSUN	KSZT	5/28/2013 2:20	5/28/2013 3:57	1:37
PIPER PA-46 MALIBU	P46T/R	N700CG	A	I	A-I	ROCKY MOUNTAIN AVIATION LLC	14355 KEIL RD NE STE 11 AURORA OR 970029411	AIR TAXI	N	PROP-SE	KBOI	KSZT	5/28/2013 23:35	5/29/2013 1:17	1:42
PIPER PA-46 MALIBU	P46T/G	N700CG	A	I	A-I	ROCKY MOUNTAIN AVIATION LLC	14355 KEIL RD NE STE 11 AURORA OR 970029411	AIR TAXI	N	PROP-SE	KSZT	KBOI	5/29/2013 20:30	5/29/2013 21:55	1:25
CESSNA CITATION 1SP	C501/Q	N505JH	B	I	B-I	JACKSON HOLE AIR CHARTER INC	PO BOX 489 JACKSON WY 830010489	AIR TAXI	Y	JET	KDJ	KSZT	5/29/2013 21:15	5/29/2013 22:23	1:08
QUEST KODIAK	KODI/G	N838SA	A	I	A-I	SPIRIT AIR INC	64 MILLER LN SALMON ID 834675163	AIR TAXI	N	PROP-SE	KSZT	KSMN	5/30/2013 20:13	5/30/2013 21:39	1:26
QUEST KODIAK	KODI/G	N491KQ	A	I	A-I	SPOKANE TURBINE CENTER	5627 E RUTTER AVE SPOKANE WA 992121337	BUSINESS	N	PROP-SE	KMWH	KSZT	5/30/2013 21:40	5/30/2013 22:31	0:51
BEECH 58 BARON	BE58/G	N53MT	A	I	A-I	KSZT LLC	1185 JEFFRES LN SANDPOINT ID 838648469	INDIVIDUAL/CLUB	N	PROP-ME	KSZT	KPDX	5/31/2013 7:59	5/31/2013 9:39	1:40
BEECH 58 BARON	BE58/G	N53MT	A	I	A-I	KSZT LLC	1185 JEFFRES LN SANDPOINT ID 838648469	INDIVIDUAL/CLUB	N	PROP-ME	KPDY	KSZT	5/31/2013 12:08	5/31/2013 13:50	1:42
CESSNA 414 CHANCELLOR	C421/G	N3689Z	B	I	B-I	TETON AVIATION LLC	PO BOX 1866 IDAHO FALLS ID 834031866	AIR TAXI	N	PROP-ME	KGTF	KSZT	5/31/2013 19:32	5/31/2013 20:41	1:09
PILATUS PC-12	AEST/R	N172JS	A	II	A-II	SCOTT J B	501 BAYBROOK CT BOISE ID 837063915	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KBOI	5/31/2013 21:52	5/31/2013 23:03	1:11
QUEST KODIAK	KODI/G	N93KQ	A	I	A-I	BANK OF UTAH TRUSTEE	200 E SOUTH TEMPLE STE 210 SALT LAKE CITY UT 841111346	BUSINESS	N	PROP-SE	KSZT	KSGS	6/1/2013 16:05	6/1/2013 21:58	5:53
CIRRUS SR-22	SR22/G	N25HW	A	I	A-I	PLASTERTECH LLC	HC 33 BOX 41 LAS VEGAS NV 891619257	BUSINESS	N	PROP-SE	KVGT	KSZT	6/1/2013 16:40	6/1/2013 21:18	4:38
CESSNA CITATION III	C680/Q	N955KC	B	II	B-II	BGST LLC	9311 E VIA DE VENTURA SCOTTSDALE AZ 852583423	BUSINESS	Y	JET	KSDL	KSZT	6/1/2013 16:48	6/1/2013 19:03	2:15
BEECH 58 BARON	BE58/G	N53MT	A	I	A-I	KSZT LLC	1185 JEFFRES LN SANDPOINT ID 838648469	INDIVIDUAL/CLUB	N	PROP-ME	KCOE	KSZT	6/2/2013 20:29	6/2/2013 20:43	0:14
LEARJET 60	M7/G	ELJ984	C	I	C-I	Delta Private Jets		AIR TAXI	Y	JET	KTYR	KSZT	6/3/2013 14:49	6/3/2013 18:35	3:46
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KUAO	KSZT	6/3/2013 18:53	6/3/2013 20:12	1:19
CESSNA CITATION 1SP	C501/Q	N505JH													

Type Name	Type	Ident	AAC	ADG	ARC	Owner	Owner Location	OWNER TYPE	JET	TYPE	Origin	Destination	Departure Time	Arrival Time	Enroute
SOCATA TBM-850	TBM8/L	N3GS	B	I	B-I	SCHAEFFER AVIATION LLC	747 SW MILL VIEW WAY BEND OR 977021556	AIR TAXI	N	PROP-SE	KSZT	F70	7/14/2013 23:44	7/15/2013 3:15	3:31
CESSNA CITATION II	C550/Q	N84EC	B	II	B-II	PHI AIR LLC	1077 GATEWAY LOOP ROAD SUITE A SPRINGFIELD OR 97477	AIR TAXI	Y	JET	KSZT	KEUG	7/15/2013 0:14	7/15/2013 1:32	1:18
CESSNA 340	C340/G	N68236	B	I	B-I	C-340 LLC	16319 75TH PL W EDMONDS WA 980264913	INDIVIDUAL/CLUB	N	PROP-ME	KSZT	KBFI	7/15/2013 1:13	7/15/2013 2:43	1:30
HAWKER 800	H25B/L	EJA858	C	II	C-II	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KSZT	KAPA	7/15/2013 1:42	7/15/2013 3:42	2:00
PILATUS PC-12	PC12/G	N214CS	A	II	A-II	CC AIR LLC	435 E SHORE DR STE 120 BOISE ID 836165754	AIR TAXI	N	PROP-SE	KLWS	KSZT	7/16/2013 14:06	7/16/2013 14:38	0:32
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KUAO	KSZT	7/16/2013 16:21	7/16/2013 17:39	1:18
CESSNA CITATION III	C680/Q	N955KC	B	II	B-II	BGST LLC	9311 E VIA DE VENTURA SCOTTSDALE AZ 852583423	BUSINESS	Y	JET	KSZT	KSDL	7/16/2013 16:31	7/16/2013 18:51	2:20
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KSZT	KUAO	7/16/2013 18:33	7/16/2013 20:07	1:34
PIPER PA-46 MALIBU	PA46/G	N72HC	A	I	A-I	SCHALLER PAUL DTRUSTEE	113 HIDDEN SPRING RD SANDPOINT ID 838646264	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KPAO	7/16/2013 18:36	7/16/2013 23:13	4:37
CESSNA 180 SKYWAGON	C185/G	N496JS	A	I	A-I	SNEDDEN VEHICLES LLC	PO BOX 852 SANDPOINT ID 838640851	BUSINESS	N	PROP-SE	KSZT	KAWO	7/16/2013 20:01	7/16/2013 22:25	2:24
CESSNA CITATION EXCEL	C56X/Q	EJA592	B	II	B-II	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KPDX	KSZT	7/17/2013 23:40	7/18/2013 0:26	0:46
CESSNA CITATION EXCEL	C56X/Q	EJA592	B	II	B-II	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KSZT	KBFI	7/18/2013 2:41	7/18/2013 3:30	0:49
CESSNA CITATION X	C750/Q	XOJ792	C	II	C-II	XOJET	Brisbane CA	AIR TAXI	Y	JET	KBOI	KSZT	7/18/2013 18:34	7/18/2013 19:17	0:43
PILATUS PC-12	PC12/G	N846PW	A	II	A-II	RMB WESTERN STATES CONSULTING LLC	3131 OLD STAGE RD CENTRAL POINT OR 975021478	BUSINESS	N	PROP-SE	KMOD	KSZT	7/19/2013 13:03	7/19/2013 15:46	2:43
CESSNA CITATION X	C750/Q	XOJ792	C	II	C-II	XOJET	Brisbane CA	AIR TAXI	Y	JET	KSZT	KMDW	7/19/2013 17:25	7/19/2013 20:09	2:44
PIPER PA-46 MALIBU	P46T/G	N72HC	A	I	A-I	SCHALLER PAUL DTRUSTEE	113 HIDDEN SPRING RD SANDPOINT ID 838646264	INDIVIDUAL/CLUB	N	PROP-SE	KPAO	KSZT	7/19/2013 18:30	7/19/2013 22:05	3:35
PIPER AEROSTAR	AEST/G	N27NP	B	I	B-I	TIMBERLINE HELICOPTERS INC	1926 INDUSTRIAL DR SANDPOINT ID 838648244	AIR TAXI	N	PROP-ME	PAPG	KSZT	7/19/2013 22:52	7/20/2013 2:06	3:14
BEECH KING AIR 90	BE9L/G	N888GD	B	II	B-II	CAPITOL DISTRIBUTING INC	3500 COMMERCIAL CT MERIDIAN ID 83642	BUSINESS	N	PROP-ME	KBFI	KSZT	7/20/2013 1:34	7/20/2013 2:40	1:06
BEECH KING AIR 90	BE9L/G	N888GD	B	II	B-II	CAPITOL DISTRIBUTING INC	3500 COMMERCIAL CT MERIDIAN ID 83642	BUSINESS	N	PROP-ME	KSZT	KBOI	7/20/2013 2:57	7/20/2013 4:13	1:16
CESSNA CITATION X	C750/Q	XOJ792	C	II	C-II	XOJET	Brisbane CA	AIR TAXI	Y	JET	KMDW	KSZT	7/20/2013 10:49	7/20/2013 13:51	3:02
CESSNA CITATION X	C750/Q	XOJ792	C	II	C-II	XOJET	Brisbane CA	AIR TAXI	Y	JET	KSZT	KOGD	7/20/2013 14:18	7/20/2013 15:22	1:04
CESSNA CITATION MUSTANG	C510/Q	N949JB	B	I	B-I	BULT EQUIPMENT LLC	28261 S KEDZIE AVE MONEE IL 604499796	BUSINESS	Y	JET	KSZT	C56	7/20/2013 14:38	7/20/2013 18:09	3:31
PIPER PA-46 MALIBU	PA46/G	N9126V	A	I	A-I	GRAND RIVER EMERGENCY DEPARTMENT CONSULTANTS LLC	1150 RICHARDS RD DUBUQUE IA 520030228	BUSINESS	N	PROP-SE	KSZT	KBDN	7/20/2013 14:48	7/20/2013 16:40	1:52
PIPER PA-30 COMANCHE	PA30/A	N12FS	A	I	A-I	NELSON DON	925 LUDWICK AVE BLAINE WA 982305109	INDIVIDUAL/CLUB	N	PROP-SE	KBVS	KSZT	7/20/2013 15:28	7/20/2013 16:41	1:13
LEARJET 40	LJ45/Q	N44LG	C	I	C-I	ALYESKA AVIATION LLC	2415 T AVE ANACORTES WA 982212887	AIR TAXI	Y	JET	KBVS	KSZT	7/20/2013 15:59	7/20/2013 16:40	0:41
CESSNA CITATION X	C750/Q	EJA961	C	II	C-II	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KBFI	KSZT	7/20/2013 16:55	7/20/2013 17:34	0:39
CESSNA CITATION III	C680/Q	N955KC	B	II	B-II	BGST LLC	9311 E VIA DE VENTURA SCOTTSDALE AZ 852583423	BUSINESS	Y	JET	KSDL	KSZT	7/20/2013 17:05	7/20/2013 19:19	2:14
BEECHJET 400	BE40/Q	OPT474	C	I	C-I	Flight Options	Johnson City NY	AIR TAXI	Y	JET	KTRK	KSZT	7/20/2013 18:41	7/20/2013 20:09	1:28
CESSNA CITATION X	C750/Q	EJA961	C	II	C-II	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KSZT	KRNA	7/20/2013 19:06	7/20/2013 21:15	2:09
CESSNA CITATION III	C680/Q	N955KC	B	II	B-II	BGST LLC	9311 E VIA DE VENTURA SCOTTSDALE AZ 852583423	BUSINESS	Y	JET	KSZT	KGEG	7/20/2013 19:49	7/20/2013 20:04	0:15
BEECHJET 400	BE40/Q	OPT474	C	I	C-I	Flight Options	Johnson City NY	AIR TAXI	Y	JET	KSZT	KPUB	7/20/2013 20:56	7/20/2013 22:58	2:02
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	S05	KSZT	7/20/2013 20:57	7/20/2013 22:53	1:56
LEARJET 40	LJ40/Q	N44LG	C	I	C-I	ALYESKA AVIATION LLC	2415 T AVE ANACORTES WA 982212887	AIR TAXI	Y	JET	KSZT	KBVS	7/20/2013 22:32	7/20/2013 23:11	0:39
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KSZT	KUAO	7/20/2013 23:24	7/21/2013 0:52	1:28
PILATUS PC-12	PC12/G	N846PW	A	II	A-II	RMB WESTERN STATES CONSULTING LLC	3131 OLD STAGE RD CENTRAL POINT OR 975021478	BUSINESS	N	PROP-SE	KSZT	KMFR	7/21/2013 17:07	7/21/2013 19:08	2:01
QUEST KODIAK	KODI/G	N726RS	A	I	A-I	SUGDEN RICHARD	PO BOX 70 WILSON WY 830140070	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KDJ	7/21/2013 21:56	7/22/2013 0:00	2:04
QUEST KODIAK	KODI/G	N82HK	A	I	A-I	QUEST AIRCRAFT COMPANY LLC	1200 TURBINE SANDPOINT ID 838647942	BUSINESS	N	PROP-SE	KCPR	KSZT	7/21/2013 22:07	7/22/2013 1:11	3:04
BEECH KING AIR 90	BE9L/G	N888GD	B	II	B-II	CAPITOL DISTRIBUTING INC	3500 COMMERCIAL CT MERIDIAN ID 83642	BUSINESS	N	PROP-ME	KBOI	KSZT	7/22/2013 10:51	7/22/2013 12:14	1:23
BEECH KING AIR 90	BE9L/G	N888GD	B	II	B-II	CAPITOL DISTRIBUTING INC	3500 COMMERCIAL CT MERIDIAN ID 83642	BUSINESS	N	PROP-ME	KSZT	KBFI	7/22/2013 13:01	7/22/2013 14:19	1:18
BEECH KING AIR 90	BE9L/R	N445CR	B	II	B-II	PACIFIC AIR NORTHWEST LLC	822 S HIGHWAY 395 # 506 HERMISTON OR 978382621	AIR TAXI	N	PROP-ME	KPSC	KSZT	7/22/2013 13:38	7/22/2013 14:26	0:48
PIPER PA-28 CHEROKEE	P28A/I	N6919J	A	I	A-I	OBEREMOK ROMAN NIKOLYOEVICH	1637 E BEACON LN SPOKANE WA 992178748	INDIVIDUAL/CLUB	N	PROP-SE	KGEG	KSZT	7/22/2013 14:01	7/22/2013 14:34	0:33
BEECH KING AIR 90	BE9L/R	N445CR	B	II	B-II	PACIFIC AIR NORTHWEST LLC	822 S HIGHWAY 395 # 506 HERMISTON OR 978382621	AIR TAXI	N	PROP-ME	KSZT	KPSC	7/22/2013 15:50	7/22/2013 16:38	0:48
CIRRUS SR-22	SR22/G	N629BH	A	I	A-I	BEYOND HOPE LLC	17200 CHENAL PKWY STE 300 LITTLE ROCK AR 722235965	BUSINESS	N	PROP-SE	KAIA	KSZT	7/22/2013 16:59	7/22/2013 21:25	4:26
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KUAO	KSZT	7/22/2013 17:17	7/22/2013 18:34	1:17
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KSZT	KUAO	7/22/2013 19:22	7/22/2013 20:48	1:26
CIRRUS SR-22	SR22/G	N10ZM	A	I	A-I	TAMARACK AEROSPACE GROUP INC	3717 OMNI PKWY SANDPOINT ID 838640254	BUSINESS	N	PROP-SE	KSZT	KBKE	7/22/2013 19:52	7/22/2013 21:25	1:33
CESSNA CITATION 1SP	C501/Q	N505JH	B	I	B-I	JACKSON HOLE AIR CHARTER INC	PO BOX 489 JACKSON WY 830010489	AIR TAXI	Y	JET	KDJ	KSZT	7/23/2013 23:49	7/24/2013 1:02	1:13
PIPER PA-46 MALIBU	P46T/G	N700CG	A	I	A-I	ROCKY MOUNTAIN AVIATION LLC	14355 KEIL RD NE STE 11 AURORA OR 970029411	AIR TAXI	N	PROP-SE	KPAO	KSZT	7/24/2013 0:10	7/24/2013 1:26	1:16
PIPER PA-46 MALIBU	P46T/G	N700CG	A	I	A-I	ROCKY MOUNTAIN AVIATION LLC	14355 KEIL RD NE STE 11 AURORA OR 970029411	AIR TAXI	N	PROP-SE	KPAO	KSZT	7/24/2013 0:29	7/24/2013 3:08	2:39
PIPER PA-46 MALIBU	PA46/G	N646CA	A	I	A-I	MT MGT LLC	1351 DICKINSON ST # A MISSOULA MT 598023411	AIR TAXI	N	PROP-SE	KSZT	52S	7/24/2013 13:15	7/24/2013 14:45	1:30
PIPER PA-46 MALIBU	PA46/G	N646CA	A	I	A-I	MT MGT LLC	1351 DICKINSON ST # A MISSOULA MT 598023411	AIR TAXI	N	PROP-SE	KSZT	52S	7/24/2013 14:56	7/24/2013 15:24	0:28
CESSNA CITATION III	C680/Q	N955KC	B	II	B-II	BGST LLC	9311 E VIA DE VENTURA SCOTTSDALE AZ 852583423	BUSINESS	Y	JET	KGEG	KSZT	7/24/2013 15:52	7/24/2013 16:22	0:30
CESSNA CITATION III	C680/Q	N955KC	B	II	B-II	BGST LLC	9311 E VIA DE VENTURA SCOTTSDALE AZ 852583423	BUSINESS	Y	JET	KSZT	KSDL	7/24/2013 18:10	7/24/2013 20:30	2:20
PIPER PA-46 MALIBU	P46T/G	N646CA	A	I	A-I	MT MGT LLC	1351 DICKINSON ST # A MISSOULA MT 598023411	AIR TAXI	N	PROP-SE	52S	KSZT	7/24/2013 18:43	7/24/2013 17:46	n/a
QUEST KODIAK	KODI/G	N490KQ	A	I	A-I	QUEST AIRCRAFT CO LLC	1200 TURBINE DR SANDPOINT ID 83864	BUSINESS	N	PROP-SE	KSZT	KSZT	7/24/2013 20:56	7/24/2013 22:17	1:21
PIPER PA-46 MALIBU	P46T/G	N700CG	A	I	A-I	ROCKY MOUNTAIN AVIATION LLC	14355 KEIL RD NE STE 11 AURORA OR 970029411	AIR TAXI	N	PROP-SE	KSZT	KSEA	7/24/2013 22:22	7/24/2013 23:40	1:18
PIPER PA-46 MALIBU	P46T/G	N700CG	A	I	A-I	ROCKY MOUNTAIN AVIATION LLC	14355 KEIL RD NE STE 11 AURORA OR 970029411	AIR TAXI	N	PROP-SE	KSEA	KSZT	7/25/2013 1:11	7/25/2013 2:16	1:05
BEECH KING AIR 90	BE9L/R	N445CR	B	II	B-II	PACIFIC AIR NORTHWEST LLC	822 S HIGHWAY 395 # 506 HERMISTON OR 978382621	AIR TAXI	N	PROP-ME	KPSC	KSZT	7/25/2013 1:53	7/25/2013 2:40	0:47
BEECH KING AIR 90	BE9L/R	N445CR	B	II	B-II	PACIFIC AIR NORTHWEST LLC	822 S HIGHWAY 395 # 506 HERMISTON OR 978382621	AIR TAXI	N	PROP-ME	KSZT	KPSC	7/25/2013 3:08	7/25/2013 3:58	0:50
PIPER PA-32 SARATOGA	P32R/G	N8165R	A	I	A-I	GARRETT DESIGN INC	124 VILLAGE LN UNIT 511 SANDPOINT ID 838646439	BUSINESS	N	PROP-SE	KSZT	0S9	7/25/2013 20:32	7/25/2013 22:15	1:43
CESSNA CITATIONJET CJ2	C25A/L	ASP510	B	II	B-II	AirSprint	Canada	AIR TAXI	Y	JET	KGPI	KSZT	7/25/2013 23:35	7/26/2013 0:19	0:44
CESSNA CITATIONJET CJ2	C25A/L	ASP510	B	II	B-II	AirSprint	Canada	AIR TAXI	Y	JET	KSZT	CYLW	7/26/2013 14:35	7/26/2013 15:20	0:45
PIPER PA-42 CHEYENNE	PAY1/G	N824VA	B	I	B-I	MATHESON ELAINE	4801 W 19TH AVE KENNEWICK WA 993381807	INDIVIDUAL/CLUB	N	PROP-ME	KBFI	KSZT	7/26/2013 18:01	7/26/2013 19:06	1:05
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KUAO	KSZT	7/26/2013 18:11	7/26/2013 19:29	1:18
QUEST KODIAK	KODI/G	N9010U	A	I	A-I										

Type Name	Type	Ident	AAC	ADG	ARC	Owner	Owner Location	OWNER TYPE	JET	TYPE	Origin	Destination	Departure Time	Arrival Time	Enroute
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KUAO	KSZT	7/29/2013 17:19	7/29/2013 18:40	1:21
CESSNA CITATION X	C750/Q	EJA997	C	II	C-II	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KCHS	KSZT	7/29/2013 19:21	7/29/2013 23:44	4:23
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KSZT	KUAO	7/29/2013 19:35	7/29/2013 21:03	1:28
CESSNA CITATION MUSTANG	C510/L	N862GS	B	I	B-I	BUZZARD AVIATION LLC	8590 KILBARCHAN CT TRUCKEE CA 961615206	AIR TAXI	Y	JET	KOAK	KSZT	7/31/2013 1:32	7/31/2013 2:26	0:53
CESSNA CITATION MUSTANG	C510/L	N862GS	B	I	B-I	BUZZARD AVIATION LLC	8590 KILBARCHAN CT TRUCKEE CA 961615206	AIR TAXI	Y	JET	KOAK	KSZT	7/31/2013 1:49	7/31/2013 3:47	1:58
CESSNA CITATIONJET CJ2	C25A/L	N57FL	B	II	B-II	COLORADO JET LLC	C/O TAC AIR 7425 S PEORIA CIRCLE ENGLEWOOD CO 80112	AIR TAXI	Y	JET	KAPA	KSZT	7/31/2013 16:10	7/31/2013 18:28	2:18
CESSNA CITATION MUSTANG	C510/L	N862GS	B	I	B-I	BUZZARD AVIATION LLC	8590 KILBARCHAN CT TRUCKEE CA 961615206	AIR TAXI	Y	JET	KSZT	KFLD	7/31/2013 17:08	7/31/2013 20:20	3:12
PILATUS PC-12	PC12/G	N846PW	A	II	A-II	RMB WESTERN STATES CONSULTING LLC	3131 OLD STAGE RD CENTRAL POINT OR 975021478	BUSINESS	N	PROP-SE	KMOD	KSZT	7/31/2013 22:15	8/1/2013 0:40	2:25
PIPER PA-46 MALIBU	P46T/G	N700CG	A	I	A-I	ROCKY MOUNTAIN AVIATION LLC	14355 KEIL RD NE STE 11 AURORA OR 970029411	AIR TAXI	N	PROP-SE	KSZT	KSEA	8/1/2013 21:44	8/1/2013 22:53	1:09
PIPER PA-46 MALIBU	P46T/G	N700CG	A	I	A-I	ROCKY MOUNTAIN AVIATION LLC	14355 KEIL RD NE STE 11 AURORA OR 970029411	AIR TAXI	N	PROP-SE	KSEA	KSZT	8/2/2013 1:20	8/2/2013 2:36	1:16
CHALLENGER 600	SR22/G	LXJ345	C	II	C-II	Bombardier Aerospace/Business Jet		BUSINESS	Y	JET	KDAL	KSZT	8/2/2013 12:10	8/2/2013 16:09	3:59
PILATUS PC-12	PC12/R	N577BF	A	II	A-II	POOL PLANE LLC	15 LAKE BELLEVUE DR STE 102 BELLEVUE WA 980052485	AIR TAXI	N	PROP-SE	KRNT	KSZT	8/3/2013 1:04	8/3/2013 2:17	1:13
UNKNOWN	BLK	BLK3	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	65S	KSZT	8/3/2013 13:29	8/3/2013 13:57	0:28
UNKNOWN	BLK	BLK3	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	KSZT	KSFF	8/3/2013 14:48	8/3/2013 15:20	0:32
PIPER PA-32 SARATOGA	P32R/G	N8165R	A	I	A-I	GARRETT DESIGN INC	124 VILLAGE LN UNIT 511 SANDPOINT ID 838646439	BUSINESS	N	PROP-SE	KGIC	KSZT	8/3/2013 17:14	8/3/2013 18:18	1:04
CESSNA CITATIONJET CJ2	C25A/Q	N57FL	B	II	B-II	COLORADO JET LLC	C/O TAC AIR 7425 S PEORIA CIRCLE ENGLEWOOD CO 80112	AIR TAXI	Y	JET	KSZT	KAPA	8/3/2013 18:26	8/3/2013 20:26	2:00
PIPER PA-46 MALIBU	P46T/G	N46TD	A	I	A-I	1116 LLC	2000 124TH AVE NE STE B108 BELLEVUE WA 980052117	AIR TAXI	N	PROP-SE	S50	KSZT	8/3/2013 18:42	8/3/2013 20:14	1:32
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KUAO	KSZT	8/3/2013 19:08	8/3/2013 20:36	1:28
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KSZT	KUAO	8/3/2013 21:15	8/3/2013 22:27	1:12
LEARJET 45	LJ45/Q	N217MJ	C	I	C-I	CRYSTAL	1750 DELTA WATERS RD STE 102 PMB 223 MEDFORD OR 975049181	BUSINESS	Y	JET	KSZT	KENW	8/3/2013 21:16	8/3/2013 23:57	2:41
CESSNA 180 SKYWAGON	C185/G	N180LT	A	I	A-I	TUGAW LESLIE T	PO BOX 552 OKANOGAN WA 988400552	INDIVIDUAL/CLUB	N	PROP-SE	R BZN 301 8	KSZT	8/4/2013 13:53	8/4/2013 16:01	2:08
PILATUS PC-12	PC12/G	N846PW	A	II	A-II	RMB WESTERN STATES CONSULTING LLC	3131 OLD STAGE RD CENTRAL POINT OR 975021478	BUSINESS	N	PROP-SE	KSZT	KMOD	8/4/2013 17:27	8/4/2013 20:23	2:56
BEECH 58 BARON	BE58/G	N53MT	A	I	A-I	KSZT LLC	1185 JEFFRES LN SANDPOINT ID 838648469	INDIVIDUAL/CLUB	N	PROP-ME	KOAK	KSZT	8/4/2013 21:43	8/5/2013 0:57	3:14
UNKNOWN	BLK	BLK13	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	KSUS	KSZT	8/5/2013 12:00	8/5/2013 15:26	3:26
EMBRAER PHENOM 100	E50P/Q	N585TV	B	I	B-I	ISSUE V INC	13861 ROSECRANS AVE SANTA FE SPRINGS CA 906705207	BUSINESS	Y	JET	KLGB	KSZT	8/5/2013 14:28	8/5/2013 16:41	2:13
UNKNOWN	BLK	BLK14	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	KMDD	KSZT	8/5/2013 17:11	8/5/2013 20:21	3:10
UNKNOWN	BLK	BLK14	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	KSZT	KSBP	8/5/2013 21:10	8/5/2013 23:28	2:18
UNKNOWN	BLK	BLK13	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	KSZT	KYKM	8/5/2013 21:35	8/5/2013 22:14	0:39
EMBRAER PHENOM 100	E55P/Q	N585TV	B	I	B-I	ISSUE V INC	13861 ROSECRANS AVE SANTA FE SPRINGS CA 906705207	BUSINESS	Y	JET	KSZT	KRAE	8/5/2013 22:19	8/5/2013 23:45	1:26
EMBRAER PHENOM 100	E50P/L	N175EM	B	I	B-I	BIG BLUE EXPRESS INC	12829 W DODGE RD STE 202 OMAHA NE 681542188	AIR TAXI	Y	JET	KAHQ	KSZT	8/6/2013 20:37	8/6/2013 23:51	3:14
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KUAO	KSZT	8/7/2013 16:13	8/7/2013 17:34	1:21
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KSZT	KUAO	8/7/2013 18:43	8/7/2013 20:02	1:19
CESSNA CITATION 1SP	C501/Q	N505JH	B	I	B-I	JACKSON HOLE AIR CHARTER INC	PO BOX 489 JACKSON WY 830010489	AIR TAXI	Y	JET	KDJ	KSZT	8/7/2013 22:07	8/7/2013 23:17	1:10
PIPER PA-28 CHEROKEE	P28A/U	N4511S	A	I	A-I	OWENS JOHN P MD DBA	137 MAGELLAN ST CAPITOLA CA 950102318	BUSINESS	N	PROP-SE	KYKM	KSZT	8/8/2013 1:18	8/8/2013 2:46	1:28
PIPER PA-46 MALIBU	P46T/G	N700CG	A	I	A-I	ROCKY MOUNTAIN AVIATION LLC	14355 KEIL RD NE STE 11 AURORA OR 970029411	AIR TAXI	N	PROP-SE	KSZT	KSEA	8/8/2013 15:46	8/8/2013 17:15	1:29
PIPER PA-32 SARATOGA	P32R/G	N8165R	A	I	A-I	GARRETT DESIGN INC	124 VILLAGE LN UNIT 511 SANDPOINT ID 838646439	BUSINESS	N	PROP-SE	KSZT	KMHR	8/8/2013 15:52	8/8/2013 19:59	4:07
CESSNA CITATION III	C680/Q	N955KC	B	II	B-II	BGST LLC	9311 E VIA DE VENTURA SCOTTSDALE AZ 852583423	BUSINESS	Y	JET	KSDL	KSZT	8/8/2013 16:08	8/8/2013 18:20	2:12
QUEST KODIAK	KODI/G	N490KQ	A	I	A-I	QUEST AIRCRAFT CO LLC	1200 TURBINE DR SANDPOINT ID 83864	BUSINESS	N	PROP-SE	KSZT	KSZT	8/8/2013 16:42	8/8/2013 18:09	1:27
PIPER PA-46 MALIBU	P46T/G	N700CG	A	I	A-I	ROCKY MOUNTAIN AVIATION LLC	14355 KEIL RD NE STE 11 AURORA OR 970029411	AIR TAXI	N	PROP-SE	KSEA	KSZT	8/8/2013 18:11	8/8/2013 19:16	1:05
CESSNA CITATION III	C680/Q	N955KC	B	II	B-II	BGST LLC	9311 E VIA DE VENTURA SCOTTSDALE AZ 852583423	BUSINESS	Y	JET	KSZT	KMDW	8/8/2013 18:50	8/8/2013 21:49	2:59
QUEST KODIAK	KODI/G	N572SG	A	I	A-I	ADVENTAIRE LLC	4103 55TH ST SE MINOT ND 587018001	BUSINESS	N	PROP-SE	KMOT	KSZT	8/9/2013 0:58	8/9/2013 5:08	4:10
QUEST KODIAK	KODI/G	N9034Z	A	I	A-I	ELLIS WENDELL K	HC 63 BOX 1415 GAKONA AK 99586-9405	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KPAE	8/9/2013 14:17	8/9/2013 15:42	1:25
CESSNA CITATION III	C680/Q	N955KC	B	II	B-II	BGST LLC	9311 E VIA DE VENTURA SCOTTSDALE AZ 852583423	BUSINESS	Y	JET	KMDW	KSZT	8/9/2013 19:39	8/9/2013 22:56	3:17
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KUAO	KSZT	8/9/2013 20:00	8/9/2013 21:23	1:23
QUEST KODIAK	KODI/G	N572SG	A	I	A-I	ADVENTAIRE LLC	4103 55TH ST SE MINOT ND 587018001	BUSINESS	N	PROP-SE	KSZT	554	8/9/2013 21:44	8/10/2013 0:34	2:50
CESSNA CITATIONJET CJ1	C525/Q	N86LA	B	II	B-II	BINGHAM LEASING & SALES LLC	3035 N HIGHLAND AVE JACKSON TN 383053411	AIR TAXI	Y	JET	R GEG 56 84	KSZT	8/9/2013 21:54	8/9/2013 22:21	0:27
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KSZT	KUAO	8/9/2013 22:18	8/9/2013 23:38	1:20
CESSNA CITATIONJET CJ3	C25B/Q	N80HE	B	II	B-II	RILEY CREEK-MONTANA LLC	N 10643 AIRPORT DR HAYDEN ID 838359742	BUSINESS	Y	JET	KSZT	KBFI	8/9/2013 22:23	8/9/2013 23:12	0:49
CESSNA CITATION III	C680/Q	N955KC	B	II	B-II	BGST LLC	9311 E VIA DE VENTURA SCOTTSDALE AZ 852583423	BUSINESS	Y	JET	KSZT	KGEG	8/9/2013 23:13	8/9/2013 23:29	0:16
CESSNA 210 CENTURION	C210/G	N2AK	A	I	A-I	FELTS FIELD AVIATION INC	6205 E RUTTER AVE SPOKANE WA 992121444	AIR TAXI	N	PROP-SE	KBTM	KSZT	8/9/2013 23:33	8/10/2013 1:17	1:44
CESSNA CITATION 1SP	C501/Q	N505JH	B	I	B-I	JACKSON HOLE AIR CHARTER INC	PO BOX 489 JACKSON WY 830010489	AIR TAXI	Y	JET	KSZT	KDJ	8/10/2013 16:37	8/10/2013 17:41	1:04
PIPER PA-46 MALIBU	P46T/G	N700CG	A	I	A-I	ROCKY MOUNTAIN AVIATION LLC	14355 KEIL RD NE STE 11 AURORA OR 970029411	AIR TAXI	N	PROP-SE	KSZT	KPAO	8/10/2013 17:06	8/10/2013 20:23	3:17
EMBRAER PHENOM 100	E50P/L	N175EM	B	I	B-I	BIG BLUE EXPRESS INC	12829 W DODGE RD STE 202 OMAHA NE 681542188	AIR TAXI	Y	JET	KSZT	KAHQ	8/10/2013 20:42	8/10/2013 23:24	2:42
CESSNA CITATION 1SP	C501/Q	N505JH	B	I	B-I	JACKSON HOLE AIR CHARTER INC	PO BOX 489 JACKSON WY 830010489	AIR TAXI	Y	JET	KDJ	KSZT	8/10/2013 21:58	8/10/2013 23:03	1:05
PIPER PA-46 MALIBU	P46T/G	N700CG	A	I	A-I	ROCKY MOUNTAIN AVIATION LLC	14355 KEIL RD NE STE 11 AURORA OR 970029411	AIR TAXI	N	PROP-SE	KPAO	KSZT	8/10/2013 22:11	8/11/2013 0:51	2:40
PIPER PA-46 MALIBU	PA46/G	N46TD	A	I	A-I	1116 LLC	2000 124TH AVE NE STE B108 BELLEVUE WA 980052117	AIR TAXI	N	PROP-SE	S50	KSZT	8/11/2013 17:06	8/11/2013 18:39	1:33
PIPER PA-46 MALIBU	PA46/G	N46TDE	A	I	A-I	Unknown Owner	United States of America (USA)	BUSINESS	N	PROP-SE	S50	KSZT	8/11/2013 17:06	8/11/2013 18:33	1:27
QUEST KODIAK	KODI/G	N490KQ	A	I	A-I	QUEST AIRCRAFT CO LLC	1200 TURBINE DR SANDPOINT ID 83864	BUSINESS	N	PROP-SE	KSZT	KCOE	8/12/2013 16:51	8/12/2013 17:24	0:33
EMBRAER PHENOM 100	E55P/Q	EJA304	B	I	B-I	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KSLC	KSZT	8/12/2013 17:49	8/12/2013 19:06	1:17
EMBRAER PHENOM 100	E50P/L	EJA304	B	I	B-I	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KSZT	KSAN	8/12/2013 21:02	8/12/2013 23:36	2:34
CESSNA CITATION 1SP	C501/Q	N505JH	B	I	B-I	JACKSON HOLE AIR CHARTER INC	PO BOX 489 JACKSON WY 830010489	AIR TAXI	Y	JET	KSZT	KDJ	8/12/2013 21:52	8/12/2013 22:57	1:05
CESSNA CITATION III	C680/Q	N955KC	B	II	B-II	BGST LLC	9311 E VIA DE VENTURA SCOTTSDALE AZ 852583423	BUSINESS	Y	JET	KGEG	KSZT	8/13/2013 15:30	8/13/2013 15:43	0:13
PIPER PA-46 MALIBU	P46T/G	N700CG	A	I	A-I	ROCKY MOUNTAIN AVIATION LLC	14355 KEIL RD NE STE 11 AURORA OR 970029411	AIR TAXI	N	PROP-SE	KSZT	KSEA	8/13/2013 15:39	8/13/2013 16:51	1:12
SOCATA TBM-850	TBM8/L	N836EA	B	I	B-I	JL AVIATION LLC	3675 W T C JESTER BLVD HOUSTON TX 770185048	AIR TAXI	N	PROP-SE	KBOI	KSZT	8/13/2013 17:01	8/13/2013 18:16	1:15
CESSNA CITATION III	C680/Q	N955KC	B	II	B-II	BGST LLC	9311 E VIA DE VENTURA SCOTTSDALE AZ 852583423								

Type Name	Type	Ident	AAC	ADG	ARC	Owner	Owner Location	OWNER TYPE	JET	TYPE	Origin	Destination	Departure Time	Arrival Time	Enroute
CESSNA CITATIONJET CJ1	C525/L	N739LN	B	II	B-II	MONTICELLO AIR LLC	2450 AIRPORT RD NAPA CA 94558	AIR TAXI	Y	JET	KAPC	KSZT	8/14/2013 22:31	8/15/2013 0:31	2:00
PILATUS PC-12	PC12/R	N214CS	A	II	A-II	CC AIR LLC	435 E SHORE DR STE 120 BOISE ID 836165754	AIR TAXI	N	PROP-SE	KLWS	KSZT	8/14/2013 23:13	8/14/2013 23:47	0:34
PIPER PA-46 MALIBU	PA46/G	N5320N	A	I	A-I	WHITE PINES LEASING LLC	3557 NELSON RD CLOQUET MN 557209406	AIR TAXI	N	PROP-SE	KMLS	KSZT	8/15/2013 0:11	8/15/2013 2:06	1:55
PIPER PA-46 MALIBU	P46T/G	N700CG	A	I	A-I	ROCKY MOUNTAIN AVIATION LLC	14355 KEIL RD NE STE 11 AURORA OR 970029411	AIR TAXI	N	PROP-SE	KSEA	KSZT	8/15/2013 0:25	8/15/2013 1:26	1:01
HAWKER 800	H25B/Q	OPT831	C	II	C-II	Flight Options	Johnson City NY	AIR TAXI	Y	JET	KGZS	KSZT	8/15/2013 13:06	8/15/2013 17:14	4:08
PILATUS PC-12	PC12/R	N214CS	A	II	A-II	CC AIR LLC	435 E SHORE DR STE 120 BOISE ID 836165754	AIR TAXI	N	PROP-SE	KSZT	63S	8/15/2013 14:20	8/15/2013 14:39	0:19
SOCATA TBM-700	TBM7/R	N850WK	A	I	A-I	DENALI LEASING CO INC	2510 N POST RD ANCHORAGE AK 995011757	AIR TAXI	N	PROP-SE	KSUN	KSZT	8/15/2013 15:32	8/15/2013 16:42	1:10
BEECH KING AIR 90	BE9T/G	N69084	B	II	B-II	J R HELICOPTERS LEASING LLC	605 UMATILLA AVE APT 403 UMATILLA OR 978829658	AIR TAXI	N	PROP-ME	KYKM	KSZT	8/15/2013 15:54	8/15/2013 16:43	0:49
BEECH KING AIR 90	BE9T/G	N69084	B	II	B-II	J R HELICOPTERS LEASING LLC	605 UMATILLA AVE APT 403 UMATILLA OR 978829658	AIR TAXI	N	PROP-ME	KSZT	KYKM	8/15/2013 17:18	8/15/2013 18:19	1:01
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KUAO	KSZT	8/15/2013 19:09	8/15/2013 20:22	1:13
SOCATA TBM-700	TBM7/R	N850WK	A	I	A-I	DENALI LEASING CO INC	2510 N POST RD ANCHORAGE AK 995011757	AIR TAXI	N	PROP-SE	KSZT	KSUN	8/15/2013 19:39	8/15/2013 21:06	1:27
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KSZT	KUAO	8/15/2013 21:05	8/15/2013 22:38	1:33
CESSNA 206 STATIONAIR	C206/U	N9428G	B	I	B-I	AIRCRAFT ADVENTURES LLC	4167 MITCHELL WAY BELLINGHAM WA 982269104	AIR TAXI	N	PROP-SE	KBLI	KSZT	8/16/2013 13:00	8/16/2013 14:58	1:58
CESSNA 182 SKYLANE	C182/G	N61705	B	I	B-I	SAKAS JULIUS V	202 LANDS END LN SEQUIM WA 983828300	INDIVIDUAL/CLUB	N	PROP-SE	W28	KSZT	8/16/2013 13:07	8/16/2013 14:57	1:50
BEECH SUPER KING AIR 200	BE20/R	TTE299	B	II	B-II	Avcenter		AIR TAXI	N	PROP-ME	KPIH	KSZT	8/16/2013 15:17	8/16/2013 16:45	1:28
CIRRUS SR-22	SR22/G	N610GB	A	I	A-I	CIRRUS DESIGN CORP	4515 TAYLOR CIR DULUTH MN 558111548	BUSINESS	N	PROP-SE	KBFI	KSZT	8/16/2013 17:32	8/16/2013 18:34	1:02
BEECH SUPER KING AIR 200	BE20/G	N299AV	B	II	B-II	MULLEN INVESTMENTS II LLC	PO BOX 42 SODA SPRINGS ID 832760042	BUSINESS	N	PROP-ME	KSZT	KPIH	8/16/2013 17:45	8/16/2013 19:23	1:38
PIPER PA-46 MALIBU	P46T/G	N700CG	A	I	A-I	ROCKY MOUNTAIN AVIATION LLC	14355 KEIL RD NE STE 11 AURORA OR 970029411	AIR TAXI	N	PROP-SE	KSZT	KPAO	8/16/2013 18:50	8/16/2013 22:09	3:19
UNKNOWN	BLK	BLK15	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	KASE	KSZT	8/16/2013 19:58	8/16/2013 21:45	1:47
UNKNOWN	BLK	BLK15	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	KSZT	KSUN	8/16/2013 22:25	8/16/2013 23:14	0:49
CIRRUS SR-22	SR22/G	N25HW	A	I	A-I	PLASTERTECH LLC	HC 33 BOX 41 LAS VEGAS NV 891619257	BUSINESS	N	PROP-SE	KVGT	KSZT	8/18/2013 16:00	8/18/2013 20:12	4:12
PIPER PA-46 MALIBU	P46T/G	N700CG	A	I	A-I	ROCKY MOUNTAIN AVIATION LLC	14355 KEIL RD NE STE 11 AURORA OR 970029411	AIR TAXI	N	PROP-SE	KPAO	KSZT	8/18/2013 17:13	8/18/2013 20:00	2:47
BEECH SUPER KING AIR 200	BE20/G	N712GJ	B	II	B-II	NUCOR INC	PO BOX 112 RIVERTON WY 825010037	BUSINESS	N	PROP-ME	KRIW	KSZT	8/18/2013 18:45	8/18/2013 20:38	1:53
BEECH 58 BARON	BE58/G	N122PG	A	I	A-I	MCGAW THOMAS D	409 YOSEMITE CT PETALUMA CA 949541519	INDIVIDUAL/CLUB	N	PROP-ME	O69	KSZT	8/19/2013 15:10	8/19/2013 19:16	4:06
CESSNA CITATIONJET CJ1	C525/Q	N6UB	B	II	B-II	SILVERLEAF AVIATION LLC	6477 HWY 93 SOUTH UNIT 136 WHITEFISH MT 59937	AIR TAXI	Y	JET	KSZT	KAPA	8/19/2013 15:27	8/19/2013 17:37	2:10
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KUAO	KSZT	8/19/2013 16:34	8/19/2013 17:52	1:18
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KSZT	KUAO	8/19/2013 19:35	8/19/2013 21:07	1:32
CESSNA CITATION 1SP	C501/Q	N505JH	B	I	B-I	JACKSON HOLE AIR CHARTER INC	PO BOX 489 JACKSON WY 830010489	AIR TAXI	Y	JET	KSZT	KDJ	8/19/2013 22:21	8/19/2013 23:23	1:02
PILATUS PC-12	PC12/R	N903PP	A	II	A-II	AIR PACIFIC LLC	PO BOX 2099 SALEM OR 973082099	AIR TAXI	N	PROP-SE	KPVU	KSZT	8/19/2013 23:25	8/20/2013 1:34	2:09
CESSNA CITATION X	C750/Q	OPT737	C	II	C-II	Flight Options	Johnson City NY	AIR TAXI	Y	JET	KPWK	KSZT	8/20/2013 14:24	8/20/2013 17:23	2:59
CESSNA CITATION X	C750/Q	OPT737	C	II	C-II	Flight Options	Johnson City NY	AIR TAXI	Y	JET	KSZT	KGZS	8/20/2013 18:12	8/20/2013 21:26	3:14
CESSNA CITATIONJET CJ1	C525/L	N739LN	B	II	B-II	MONTICELLO AIR LLC	2450 AIRPORT RD NAPA CA 94558	AIR TAXI	Y	JET	KSZT	KAPC	8/20/2013 23:22	8/20/2013 19:38	n/a
HAWKER 800	WW24/Q	SJE3	C	II	C-II	Unknown Owner		BUSINESS	Y	JET	KGPI	KSZT	8/20/2013 23:44	8/21/2013 0:05	0:21
CESSNA CITATIONJET CJ3	C10T/G	N80HE	B	II	B-II	RILEY CREEK-MONTANA LLC	N 10643 AIRPORT DR HAYDEN ID 838359742	BUSINESS	Y	JET	KSDL	KSZT	8/21/2013 17:57	8/21/2013 20:27	2:30
BEECH SUPER KING AIR 200	BE20/G	N712GJ	B	II	B-II	NUCOR INC	PO BOX 112 RIVERTON WY 825010037	BUSINESS	N	PROP-ME	KSZT	KRIW	8/21/2013 18:19	8/21/2013 19:52	1:33
PILATUS PC-12	PC12/R	N903PP	A	II	A-II	AIR PACIFIC LLC	PO BOX 2099 SALEM OR 973082099	AIR TAXI	N	PROP-SE	KSZT	KPVU	8/22/2013 5:39	8/22/2013 7:45	2:06
LEARJET 45	LJ45/Q	N435HH	C	I	C-I	AMERICAN AIR LLC	1750 NORTHWEST FRONT AVE STE 106 PORTLAND OR 97209	AIR TAXI	Y	JET	KBOI	KSZT	8/22/2013 18:09	8/22/2013 18:57	0:48
LEARJET 45	LJ45/Q	N435HH	C	I	C-I	AMERICAN AIR LLC	1750 NORTHWEST FRONT AVE STE 106 PORTLAND OR 97209	AIR TAXI	Y	JET	KSZT	KHIO	8/22/2013 19:15	8/22/2013 20:11	0:56
PIPER PA-46 MALIBU	P46T/G	N700CG	A	I	A-I	ROCKY MOUNTAIN AVIATION LLC	14355 KEIL RD NE STE 11 AURORA OR 970029411	AIR TAXI	N	PROP-SE	KSZT	KBFI	8/22/2013 20:43	8/22/2013 21:57	1:14
BEECH 36 BONANZA	BE36/G	N1581W	A	I	A-I	HIGH DESERT GEOCULTURE LLC	ATTN: SHUMAN R MOORE 890 SCHELLBOURNE ST RENO NV 895117634	BUSINESS	N	PROP-SE	KGTF	KSZT	8/23/2013 13:45	8/23/2013 15:20	1:35
LEARJET 35	LJ35/W	N50AK	D	I	D-I	RAINIER JETS LLC	1232 CHOPTANK RD MIDDLETOWN DE 19709	AIR TAXI	Y	JET	KOLM	KSZT	8/23/2013 15:52	8/23/2013 16:39	0:47
BEECH 58 BARON	BE55/G	N122PG	A	I	A-I	MCGAW THOMAS D	409 YOSEMITE CT PETALUMA CA 949541519	INDIVIDUAL/CLUB	N	PROP-ME	KSZT	O69	8/23/2013 16:13	8/23/2013 20:23	4:10
BEECHJET 400	BE40/Q	N975BD	C	I	C-I	DP64 LLC	9737 EAGLE RANCH RD NW ALBUQUERQUE NM 871145501	BUSINESS	Y	JET	KPHX	KSZT	8/23/2013 16:30	8/23/2013 18:45	2:15
LEARJET 35	LJ35/W	N50AK	D	I	D-I	RAINIER JETS LLC	1232 CHOPTANK RD MIDDLETOWN DE 19709	AIR TAXI	Y	JET	KSZT	KOLM	8/23/2013 17:16	8/23/2013 18:10	0:54
CESSNA CITATION III	C680/Q	N955KC	B	II	B-II	BGST LLC	9311 E VIA DE VENTURA SCOTTSDALE AZ 852583423	BUSINESS	Y	JET	KSDL	KSZT	8/23/2013 18:39	8/23/2013 20:43	2:04
CESSNA 180 SKYWAGON	C185/A	N59SA	A	I	A-I	FORE HENRY R	1937 VIA DI SALERNO PLEASANTON CA 945662121	INDIVIDUAL/CLUB	N	PROP-SE	ECA	KSZT	8/23/2013 20:01	8/24/2013 0:59	4:58
QUEST KODIAK	KODI/G	N9010U	A	I	A-I	SMITH STEPHEN R	470 CORNERSTONE AVE SEYMOUR IN 47274-2885	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KPAE	8/24/2013 1:31	8/24/2013 3:01	1:30
PIPER PA-42 CHEYENNE	PA44/G	N824VA	B	I	B-I	MATHESON ELAINE	4801 W 19TH AVE KENNEWICK WA 993381807	INDIVIDUAL/CLUB	N	PROP-ME	KSZT	KPSC	8/24/2013 19:33	8/24/2013 20:24	0:51
PIPER PA-46 MALIBU	P46T/R	N700CG	A	I	A-I	ROCKY MOUNTAIN AVIATION LLC	14355 KEIL RD NE STE 11 AURORA OR 970029411	AIR TAXI	N	PROP-SE	KBFI	KSZT	8/24/2013 19:47	8/24/2013 20:52	1:05
PIPER PA-46 MALIBU	PA46/G	N389MA	A	I	A-I	L & L INVESTMENTS LLC	101 AZALEA DR CUTTOFF GRANTS PASS OR 97526	BUSINESS	N	PROP-SE	3S8	KSZT	8/24/2013 20:44	8/24/2013 22:31	1:47
PIPER PA-46 MALIBU	PA46/G	N389MA	A	I	A-I	L & L INVESTMENTS LLC	101 AZALEA DR CUTTOFF GRANTS PASS OR 97526	BUSINESS	N	PROP-SE	KSZT	3S8	8/25/2013 16:48	8/25/2013 18:58	2:10
BEECHJET 400	BE40/Q	N975BD	C	I	C-I	DP64 LLC	9737 EAGLE RANCH RD NW ALBUQUERQUE NM 871145501	BUSINESS	Y	JET	KSZT	KPHX	8/25/2013 21:20	8/26/2013 0:01	2:41
BEECHJET 400	BE40/Q	TMC435	C	I	C-I	Travel Management Company, LTD		AIR TAXI	Y	JET	36U	KSZT	8/25/2013 21:33	8/25/2013 22:56	1:23
BEECHJET 400	BE40/Q	N435CT	C	I	C-I	AIRCRAFT HOLDING CO ONE LLC	2101 COUNTY ROAD 6 ELKHART IN 465147742	AIR TAXI	Y	JET	KSZT	KBOI	8/26/2013 14:15	8/26/2013 15:20	1:05
PIPER PA-46 MALIBU	P46T/G	N700CG	A	I	A-I	ROCKY MOUNTAIN AVIATION LLC	14355 KEIL RD NE STE 11 AURORA OR 970029411	AIR TAXI	N	PROP-SE	KSZT	KJAC	8/26/2013 16:22	8/26/2013 17:58	1:36
CIRRUS SR-22	SR22/T	N214TW	A	I	A-I	MAG-KNIGHT INC	18302 121ST ST SE SNOHOMISH WA 982903650	BUSINESS	N	PROP-SE	S43	KSZT	8/26/2013 17:48	8/26/2013 19:06	1:17
CESSNA CITATION III	C680/Q	N955KC	B	II	B-II	BGST LLC	9311 E VIA DE VENTURA SCOTTSDALE AZ 852583423	BUSINESS	Y	JET	KSZT	CYHM	8/26/2013 19:16	8/26/2013 22:35	3:19
PIPER PA-46 MALIBU	P46T/R	N700CG	A	I	A-I	ROCKY MOUNTAIN AVIATION LLC	14355 KEIL RD NE STE 11 AURORA OR 970029411	AIR TAXI	N	PROP-SE	KJAC	KSZT	8/26/2013 20:23	8/26/2013 22:03	1:40
UNKNOWN	BLK	BLK16	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	KKLS	KSZT	8/27/2013 14:15	8/27/2013 15:05	0:50
UNKNOWN	BLK	BLK16	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	KSZT	KPIH	8/27/2013 15:30	8/27/2013 16:34	1:04
CESSNA CITATIONJET CJ1	C25A/L	N86UB	B	II	B-II	Unknown Owner	United States of America (USA)	BUSINESS	Y	JET	KAPA	KSZT	8/27/2013 18:11	8/27/2013 20:32	2:21
CESSNA CITATION X	C750/Q	EJA903	C	II	C-II	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KBFI	KSZT	8/27/2013 22:19	8/27/2013 22:57	0:38
UNKNOWN	BLK	BLK16	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	KPIH	KSZT	8/27/2013 23:39	8/28/2013 0:41	1:02
CESSNA CITATIONJET CJ1	C525/Q	N525HX	B	II	B-II	HELICOPTER EXPRESS INC	2025 FLIGHTWAY DR CHAMBLEE GA 303413349	AIR TAXI	Y	JET	KBOI	KSZT	8/28/2013 0:25	8/28/2013 1:17	0:52
UNKNOWN	BLK	BLK16	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	KSZT	KKLS	8/28/2013 0:55		

Type Name	Type	Ident	AAC	ADG	ARC	Owner	Owner Location	OWNER TYPE	JET	TYPE	Origin	Destination	Departure Time	Arrival Time	Enroute
CESSNA CITATION III	C680/Q	N955KC	B	II	B-II	BGST LLC	9311 E VIA DE VENTURA SCOTTSDALE AZ 852583423	BUSINESS	Y	JET	KSDL	KSZT	8/31/2013 17:20	8/31/2013 19:32	2:12
CESSNA CITATION III	C680/Q	N955KC	B	II	B-II	BGST LLC	9311 E VIA DE VENTURA SCOTTSDALE AZ 852583423	BUSINESS	Y	JET	KSZT	KGEG	8/31/2013 19:46	8/31/2013 20:05	0:19
BEECH KING AIR 90	BE9L/G	N902DB	B	II	B-II	EXEC AIR MONTANA INC	2430 AIRPORT RD HELENA MT 596011234	AIR TAXI	N	PROP-ME	KGPI	KSZT	8/31/2013 20:15	8/31/2013 20:51	0:36
BEECH KING AIR 90	BE9L/R	N445CR	B	II	B-II	PACIFIC AIR NORTHWEST LLC	822 S HIGHWAY 395 # 506 HERMISTON OR 978382621	AIR TAXI	N	PROP-ME	KHRI	KSZT	8/31/2013 21:38	8/31/2013 22:32	0:54
BEECH KING AIR 90	BE9L/G	N902DB	B	II	B-II	EXEC AIR MONTANA INC	2430 AIRPORT RD HELENA MT 596011234	AIR TAXI	N	PROP-ME	KSZT	KCOE	8/31/2013 22:54	8/31/2013 23:06	0:12
BEECH KING AIR 90	BE9L/R	N445CR	B	II	B-II	PACIFIC AIR NORTHWEST LLC	822 S HIGHWAY 395 # 506 HERMISTON OR 978382621	AIR TAXI	N	PROP-ME	KSZT	KPSC	9/1/2013 0:44	9/1/2013 1:34	0:50
CESSNA 182 SKYLANE	C182/G	N772PJ	B	I	B-I	BAUM JOHN E TRUSTEE	1022 GRAY FOX CIR PLEASANTON CA 945666968	INDIVIDUAL/CLUB	N	PROP-SE	KMFR	KSZT	9/1/2013 17:44	9/1/2013 20:31	2:47
CIRRUS SR-22	SR22/G	N102W	A	I	A-I	TAMARACK AEROSPACE GROUP INC	3717 OMNI PKWY SANDPOINT ID 838640254	BUSINESS	N	PROP-SE	KSZT	KFHR	9/1/2013 18:00	9/1/2013 19:30	1:30
CIRRUS SR-22	SR22/G	N580SR	A	I	A-I	NEXT GEN LEASING LLC	11120 NE 2ND ST STE 100 BELLEVUE WA 980045848	AIR TAXI	N	PROP-SE	KPAE	KSZT	9/1/2013 18:28	9/1/2013 20:05	1:37
BEECH KING AIR 90	BE9L/R	N445CR	B	II	B-II	PACIFIC AIR NORTHWEST LLC	822 S HIGHWAY 395 # 506 HERMISTON OR 978382621	AIR TAXI	N	PROP-ME	KPSC	KSZT	9/2/2013 18:18	9/2/2013 19:04	0:46
BEECH 36 BONANZA	BE35/A	N5931S	A	I	A-I	RENTON FLYERS INC	7425 114TH AVE SE NEWCASTLE WA 980561019	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KRNT	9/2/2013 18:19	9/2/2013 20:06	1:47
BEECH KING AIR 90	BE9L/R	N445CR	B	II	B-II	PACIFIC AIR NORTHWEST LLC	822 S HIGHWAY 395 # 506 HERMISTON OR 978382621	AIR TAXI	N	PROP-ME	KSZT	KHRI	9/2/2013 19:29	9/2/2013 20:33	1:04
BEECH KING AIR 90	BE9L/G	N681EV	B	II	B-II	SOFT LANDING LLC	4218 N STEARMAN AVE PASCO WA 993017111	AIR TAXI	N	PROP-ME	KSZT	KPSC	9/2/2013 19:50	9/2/2013 20:40	0:50
CESSNA 182 SKYLANE	C182/G	N772PJ	B	I	B-I	BAUM JOHN E TRUSTEE	1022 GRAY FOX CIR PLEASANTON CA 945666968	AIR TAXI	N	PROP-SE	KSZT	KGTF	9/2/2013 20:31	9/2/2013 22:11	1:40
PIPER PA-46 MALIBU	P46T/G	N700CG	A	I	A-I	ROCKY MOUNTAIN AVIATION LLC	14355 KEIL RD NE STE 11 AURORA OR 970029411	AIR TAXI	N	PROP-SE	KSZT	KLVK	9/2/2013 23:15	9/3/2013 3:07	3:52
PIPER PA-46 MALIBU	P46T/G	N700CG	A	I	A-I	ROCKY MOUNTAIN AVIATION LLC	14355 KEIL RD NE STE 11 AURORA OR 970029411	AIR TAXI	N	PROP-SE	KPAO	KSZT	9/3/2013 19:24	9/3/2013 21:54	2:30
PILATUS PC-12	PC12/G	N846PW	A	II	A-II	RMB WESTERN STATES CONSULTING LLC	3131 OLD STAGE RD CENTRAL POINT OR 975021478	BUSINESS	N	PROP-SE	KMOD	KSZT	9/4/2013 14:31	9/4/2013 17:29	2:58
CHALLENGER 300	CL60/Q	XOJ546	B	II	B-II	XOJET	Brisbane CA	AIR TAXI	Y	JET	KSEA	KSZT	9/4/2013 16:12	9/4/2013 16:55	0:43
ECLIPSE 500	EA50/L	N120EA	B	I	B-I	UF EQUIPMENT LLC	4901 GULF SHORE BLVD N APT 1204 NAPLES FL 341033466	BUSINESS	Y	JET	KEKS	KSZT	9/4/2013 16:19	9/4/2013 17:26	1:07
CHALLENGER 300	CL30/Q	XOJ546	B	II	B-II	XOJET	Brisbane CA	AIR TAXI	Y	JET	KSZT	KDWH	9/4/2013 18:06	9/4/2013 21:32	3:26
QUEST KODIAK	AC90/G	N9034Z	A	I	A-I	ELLIS WENDELL K	HC 63 BOX 1415 GAKONA AK 99586-9405	INDIVIDUAL/CLUB	N	PROP-SE	KPAE	KSZT	9/4/2013 21:03	9/4/2013 22:28	1:25
CESSNA CITATIONJET CJ2	C25A/L	ASP510	B	II	B-II	AirSprint	Canada	AIR TAXI	Y	JET	KGPI	KSZT	9/5/2013 2:23	9/5/2013 3:00	0:37
CESSNA CITATIONJET CJ2	C25A/L	ASP510	B	II	B-II	AirSprint	Canada	AIR TAXI	Y	JET	KSZT	CYYC	9/5/2013 3:52	9/5/2013 4:28	0:36
CESSNA CITATION III	C680/Q	N955KC	B	II	B-II	BGST LLC	9311 E VIA DE VENTURA SCOTTSDALE AZ 852583423	BUSINESS	Y	JET	KGEG	KSZT	9/5/2013 16:12	9/5/2013 16:25	0:13
ECLIPSE 500	E135/Q	N120EA	B	I	B-I	UF EQUIPMENT LLC	4901 GULF SHORE BLVD N APT 1204 NAPLES FL 341033466	BUSINESS	Y	JET	KSZT	KOSH	9/5/2013 17:43	9/5/2013 21:21	3:38
CESSNA CITATION III	C680/L	N955KC	B	II	B-II	BGST LLC	9311 E VIA DE VENTURA SCOTTSDALE AZ 852583423	BUSINESS	Y	JET	KSZT	CYXS	9/5/2013 18:18	9/5/2013 19:20	1:02
PILATUS PC-12	PC12/R	N214CS	A	II	A-II	CC AIR LLC	435 E SHORE DR STE 120 BOISE ID 836165754	AIR TAXI	N	PROP-SE	KOMK	KSZT	9/5/2013 22:28	9/5/2013 23:01	0:33
PILATUS PC-12	PC12/R	N214CS	A	II	A-II	CC AIR LLC	435 E SHORE DR STE 120 BOISE ID 836165754	AIR TAXI	N	PROP-SE	KSZT	KSFF	9/6/2013 14:15	9/6/2013 14:35	0:20
PIPER PA-46 MALIBU	P46T/G	N700CG	A	I	A-I	ROCKY MOUNTAIN AVIATION LLC	14355 KEIL RD NE STE 11 AURORA OR 970029411	AIR TAXI	N	PROP-SE	KSZT	KPAO	9/6/2013 22:15	9/7/2013 1:23	3:08
CESSNA CITATIONJET CJ1	C525/Q	N551FP	B	II	B-II	IFP AIR LLC	6911 S YOSEMITE ST CENTENNIAL CO 801121426	AIR TAXI	Y	JET	KAPA	KSZT	9/7/2013 15:53	9/7/2013 18:07	2:14
PIPER AEROSTAR	AEST/G	N27NP	B	I	B-I	TIMBERLINE HELICOPTERS INC	1926 INDUSTRIAL DR SANDPOINT ID 838648244	AIR TAXI	N	PROP-ME	KSZT	KBFI	9/7/2013 17:21	9/7/2013 18:46	1:25
PIPER PA-46 MALIBU	P46T/G	N700CG	A	I	A-I	ROCKY MOUNTAIN AVIATION LLC	14355 KEIL RD NE STE 11 AURORA OR 970029411	AIR TAXI	N	PROP-SE	KPAO	KSZT	9/7/2013 19:58	9/7/2013 22:39	2:41
PILATUS PC-12	PC12/G	N846PW	A	II	A-II	RMB WESTERN STATES CONSULTING LLC	3131 OLD STAGE RD CENTRAL POINT OR 975021478	BUSINESS	N	PROP-SE	KSZT	KMOD	9/8/2013 15:34	9/8/2013 18:30	2:56
CESSNA CITATIONJET CJ2	C25A/L	ASP510	B	II	B-II	AirSprint	Canada	AIR TAXI	Y	JET	KGPI	KSZT	9/8/2013 18:44	9/8/2013 19:27	0:43
CESSNA CITATIONJET CJ1	C525/Q	N6UB	B	II	B-II	SILVERLEAF AVIATION LLC	6477 HWY 93 SOUTH UNIT 136 WHITEFISH MT 59937	AIR TAXI	Y	JET	KSZT	KAPA	9/8/2013 18:51	9/8/2013 21:12	2:21
CESSNA CITATIONJET CJ2	C25A/Q	ASP510	B	II	B-II	AirSprint	Canada	AIR TAXI	Y	JET	KSZT	CYEG	9/8/2013 20:08	9/8/2013 21:08	1:00
CESSNA CITATION MUSTANG	C510/Q	N949JB	B	I	B-I	BULT EQUIPMENT LLC	28261 S KEDZIE AVE MONEE IL 604499796	BUSINESS	Y	JET	KSZT	C56	9/8/2013 21:47	9/9/2013 1:42	3:55
CESSNA 210 CENTURION	C210/G	N9512Y	A	I	A-I	PALMER GEORGE J III	2013 BRIDGE WATER DR LAKE MARY FL 32746	INDIVIDUAL/CLUB	N	PROP-SE	KMYL	KSZT	9/8/2013 22:27	9/8/2013 23:54	1:27
CESSNA CITATION 1SP	C501/Q	N505JH	B	I	B-I	JACKSON HOLE AIR CHARTER INC	PO BOX 489 JACKSON WY 830010489	AIR TAXI	Y	JET	KSZT	KDJJ	9/8/2013 22:56	9/8/2013 23:58	1:02
CESSNA CITATION II	C550/L	N521TM	B	II	B-II	IDAHO POWER COMPANY	1221 WEST IDAHO BOISE ID 83702	BUSINESS	Y	JET	KSZT	KBOI	9/9/2013 14:10	9/9/2013 15:23	1:13
CESSNA CITATION II	C550/L	N521TM	B	II	B-II	IDAHO POWER COMPANY	1221 WEST IDAHO BOISE ID 83702	BUSINESS	Y	JET	KSZT	KBOI	9/9/2013 17:14	9/9/2013 18:10	0:56
BEECH 36 BONANZA	BE35/G	N2343V	A	I	A-I	ATI AVIATION LLC	11 WHITE OAK LN WOODBRIDGE CT 065251136	INDIVIDUAL/CLUB	N	PROP-SE	KBFI	KSZT	9/9/2013 17:28	9/9/2013 18:54	1:26
BEECHJET 400	BE40/Q	TMC499	C	I	C-I	Travel Management Company. LTD		AIR TAXI	Y	JET	KBIS	KSZT	9/9/2013 17:53	9/9/2013 19:41	1:48
BEECHJET 400	BE40/Q	TMC499	C	I	C-I	Travel Management Company. LTD		AIR TAXI	Y	JET	KSZT	KMDD	9/9/2013 20:56	9/9/2013 23:59	3:03
BEECH 36 BONANZA	BE33/R	N2343V	A	I	A-I	ATI AVIATION LLC	11 WHITE OAK LN WOODBRIDGE CT 065251136	AIR TAXI	N	PROP-SE	KSZT	KBFI	9/9/2013 23:30	9/10/2013 1:02	1:32
CESSNA CITATIONJET CJ1	C525/Q	N551FP	B	II	B-II	IFP AIR LLC	6911 S YOSEMITE ST CENTENNIAL CO 801121426	AIR TAXI	Y	JET	KSZT	KAPA	9/10/2013 0:26	9/10/2013 2:56	2:30
EMBRAER PHENOM 100	E50P/L	N175EM	B	I	B-I	BIG BLUE EXPRESS INC	12829 W DODGE RD STE 202 OMAHA NE 681542188	AIR TAXI	Y	JET	KRTS	KSZT	9/10/2013 14:13	9/10/2013 16:00	1:47
BEECH SUPER KING AIR 350	BE30/R	N791BP	B	II	B-II	U S DEPT OF ENERGY	PO BOX 3621-TC PORTLAND OR 972083621	GOVERNMENT	N	PROP-ME	KPDX	KSZT	9/10/2013 14:36	9/10/2013 15:50	1:14
MOONEY M-20	M20P/U	N5662Q	A	I	A-I	MARSHALL ADAM S	2915 W GRANDVIEW AVE SPOKANE WA 992245525	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	CYBW	9/10/2013 16:16	9/10/2013 17:44	1:28
SOCATA TBM-850	TBM8/G	N355PM	B	I	B-I	PEM ACQUISITIONS LLC	13835 N NORTHSIGHT BLVD STE 100 SCOTTSDALE AZ 852603756	BUSINESS	N	PROP-SE	KSDL	KSZT	9/10/2013 18:36	9/10/2013 22:01	3:25
BEECH SUPER KING AIR 200	BE20/G	N329MH	B	II	B-II	DESERT AVIATION LLC	3845 STOCKTON HILL RD KINGMAN AZ 864093059	AIR TAXI	N	PROP-ME	KDVT	KSZT	9/10/2013 18:47	9/10/2013 21:59	3:12
CESSNA CITATION II	C550/L	N521TM	B	II	B-II	IDAHO POWER COMPANY	1221 WEST IDAHO BOISE ID 83702	BUSINESS	Y	JET	KCOS	KSZT	9/10/2013 20:13	9/10/2013 22:39	2:26
CESSNA CITATION II	C550/L	N521TM	B	II	B-II	IDAHO POWER COMPANY	1221 WEST IDAHO BOISE ID 83702	BUSINESS	Y	JET	KSZT	KBOI	9/10/2013 23:07	9/11/2013 0:03	0:56
BEECH SUPER KING AIR 350	BE30/R	N791BP	B	II	B-II	U S DEPT OF ENERGY	PO BOX 3621-TC PORTLAND OR 972083621	GOVERNMENT	N	PROP-ME	KSZT	KPDX	9/10/2013 23:28	9/11/2013 0:39	1:11
CESSNA CITATION X	C750/Q	EJA906	C	II	C-II	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KAPA	KSZT	9/12/2013 12:19	9/12/2013 14:04	1:45
CESSNA 210 CENTURION	C210/G	N732JY	A	I	A-I	SIMCHUK GEORGE J	3341 NW STARVIEW DR BEND OR 977011146	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KRNT	9/12/2013 15:12	9/12/2013 16:43	1:31
CESSNA CITATION X	C750/Q	EJA906	C	II	C-II	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KSZT	KOCW	9/12/2013 16:53	9/12/2013 20:42	3:49
CESSNA CITATIONJET CJ2	C25A/Q	N194SJ	B	II	B-II	CREX-MML LLC	30362 MORNING VIEW DR MALIBU CA 902653619	BUSINESS	Y	JET	KIDA	KSZT	9/12/2013 17:15	9/12/2013 18:16	1:01
BEECH SUPER KING AIR 200	BE20/L	N329MH	B	II	B-II	DESERT AVIATION LLC	3845 STOCKTON HILL RD KINGMAN AZ 864093059	AIR TAXI	N	PROP-ME	KSZT	KEKO	9/12/2013 17:49	9/12/2013 19:33	1:44
SOCATA TBM-850	TBM8/G	N355PM	B	I	B-I	PEM ACQUISITIONS LLC	13835 N NORTHSIGHT BLVD STE 100 SCOTTSDALE AZ 852603756	BUSINESS	N	PROP-SE	KSZT	KSDL	9/12/2013 17:49	9/12/2013 21:11	3:22
CESSNA 210 CENTURION	C210/G	N9512Y	A	I	A-I	PALMER GEORGE J III	2013 BRIDGE WATER DR LAKE MARY FL 32746	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KPWT	9/12/2013 19:13	9/12/2013 20:48	1:35
PIPER PA-46 MALIBU	PA46/G	N46TD	A	I	A-I	1116 LLC	2000 124TH AVE NE STE B108 BELLEVUE WA 980052117	AIR TAXI	N	PROP-SE	KBLU	KSZT	9/13/2013 19:28	9/13/2013 21:16	1:48
CESSNA CITATION X	C750/Q	XOJ765	C	II	C-II	XOJET	Brisbane CA	AIR TAXI	Y	JET	KSGU	KSZT	9/14/2013 14:09	9/14/2013 15:44	1:35
CESSNA CITATION X	C750/Q	XOJ765	C	II	C-II	XOJET	Brisbane CA	AIR TAXI	Y	JET	KSZT	KTYR	9/14/2013 17:03	9/14/2013 20:04	3:01
PIPER PA-46 MALIBU	PA46/G	N90SE	A	I	A-I	KELLY JAMES D II	43 BAYPOINT DR SAN RAFAEL CA 949018404</								

Type Name	Type	Ident	AAC	ADG	ARC	Owner	Owner Location	OWNER TYPE	JET	TYPE	Origin	Destination	Departure Time	Arrival Time	Enroute
CHALLENGER 300	CL30/Q	XOJ508	B	II	B-II	XOJET	Brisbane CA	AIR TAXI	Y	JET	KSZT	KSDL	9/18/2013 20:18	9/18/2013 22:42	2:24
BEECH SUPER KING AIR 200	BE20/R	N121TD	B	II	B-II	IDAHO DEPARTMENT OF LAW ENFORCEMENT	3483 RICKENBACKER ST BOISE ID 837055018	GOVERNMENT	N	PROP-ME	KSZT	KBOI	9/18/2013 20:48	9/18/2013 21:49	1:01
CESSNA CITATIONJET CJ1	C525/Q	N6UB	B	II	B-II	SILVERLEAF AVIATION LLC	6477 HWY 93 SOUTH UNIT 136 WHITEFISH MT 59937	AIR TAXI	Y	JET	KSZT	KMOT	9/19/2013 14:37	9/19/2013 16:30	1:53
CESSNA CITATION 1SP	C501/Q	N505JH	B	I	B-I	JACKSON HOLE AIR CHARTER INC	PO BOX 489 JACKSON WY 830010489	AIR TAXI	Y	JET	KDJJ	KSZT	9/19/2013 18:18	9/19/2013 19:31	1:13
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KUAO	KSZT	9/19/2013 23:30	9/20/2013 0:48	1:18
UNKNOWN	BLK	BLK17	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	KSZT	KSDL	9/19/2013 23:38	9/20/2013 1:46	2:08
CESSNA CITATION 1SP	C501/Q	N505JH	B	I	B-I	JACKSON HOLE AIR CHARTER INC	PO BOX 489 JACKSON WY 830010489	AIR TAXI	Y	JET	KSZT	KDJJ	9/20/2013 0:18	9/20/2013 1:15	0:57
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KSZT	KUAO	9/20/2013 1:47	9/20/2013 1:47	0:00
CESSNA 206 STATIONAIR	C206/G	N619CB	B	I	B-I	BEERS ROYCE L TRUSTEE	2122 S LAKE LEELANAU DR LAKE LEELANAU MI 496539453	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KMOT	9/20/2013 15:43	9/20/2013 19:38	3:55
SOCATA TBM-700	TBM7/Q	N58HP	A	I	A-I	STS INC	2711 CENTERVILLE RD STE 400 WILMINGTON DE 198081645	BUSINESS	N	PROP-SE	KSZT	KAWO	9/20/2013 16:07	9/20/2013 17:10	1:03
PIPER PA-46 MALIBU	P46T/G	N700CG	A	I	A-I	ROCKY MOUNTAIN AVIATION LLC	14355 KEIL RD NE STE 11 AURORA OR 970029411	AIR TAXI	N	PROP-SE	KSZT	KPAO	9/20/2013 21:46	9/21/2013 1:32	3:46
CESSNA CITATIONJET CJ1	C525/L	N86LA	B	II	B-II	BINGHAM LEASING & SALES LLC	3035 N HIGHLAND AVE JACKSON TN 383053411	AIR TAXI	Y	JET	KSZT	KSZT	9/20/2013 22:10	9/21/2013 0:16	2:06
BEECH 36 BONANZA	BE35/A	N9467S	A	I	A-I	V35 LLC	1200 SW 66TH AVE STE 300 PORTLAND OR 972256004	AIR TAXI	N	PROP-SE	KUAO	KSZT	9/21/2013 18:37	9/21/2013 20:33	1:56
PIPER PA-46 MALIBU	PA46/G	N72HC	A	I	A-I	SCHALLER PAUL DTRUSTEE	113 HIDDEN SPRING RD SANDPOINT ID 838646264	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KBIS	9/22/2013 15:30	9/22/2013 18:59	3:29
PIPER AEROSTAR	AEST/G	N35FD	B	I	B-I	YOUNG LIVING ESSENTIAL OILS LC	3125 W EXECUTIVE PKWY LEHI UT 84043	BUSINESS	N	PROP-ME	KPVU	KSZT	9/23/2013 12:23	9/23/2013 15:21	2:58
QUEST KODIAK	KODI/G	N572SG	A	I	A-I	ADVENTAIRE LLC	4103 55TH ST SE MINOT ND 587018001	BUSINESS	N	PROP-SE	KMOT	KSZT	9/24/2013 0:56	9/24/2013 4:58	4:02
UNKNOWN	BLK	BLK16	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	KKLS	KSZT	9/24/2013 14:58	9/24/2013 16:12	1:14
UNKNOWN	BLK	BLK16	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	KSZT	KPIH	9/24/2013 16:17	9/24/2013 17:17	1:00
BEECH 58 BARON	BE58/G	N53MT	A	I	A-I	KSZT LLC	1185 JEFFRES LN SANDPOINT ID 838648469	INDIVIDUAL/CLUB	N	PROP-ME	KSZT	KLLJ	9/24/2013 18:05	9/24/2013 19:28	1:23
BEECH 58 BARON	BE58/G	N53MT	A	I	A-I	KSZT LLC	1185 JEFFRES LN SANDPOINT ID 838648469	INDIVIDUAL/CLUB	N	PROP-ME	KSZT	KGCD	9/24/2013 19:58	9/24/2013 21:25	1:27
PIPER PA-28 CHEROKEE	PA30/G	N9031J	A	I	A-I	COOPERRIDER ROBERT V	1911 NE 21ST CANBY OR 97013	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	4S9	9/24/2013 21:43	9/25/2013 0:30	2:47
UNKNOWN	BLK	BLK16	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	KPIH	KSZT	9/24/2013 22:06	9/24/2013 23:14	1:08
UNKNOWN	BLK	BLK16	X	X	X-X	Blocked by owner		UNKNOWN	?	UNKNOWN	KSZT	KKLS	9/24/2013 23:29	9/25/2013 0:25	0:56
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	S05	KSZT	9/25/2013 19:01	9/25/2013 20:54	1:53
SOCATA TBM-700	TBM8/L	N788RR	A	I	A-I	KEK COMPANIES INC	818 SW 3RD AVE # 1203 PORTLAND OR 972042405	BUSINESS	N	PROP-SE	KEKO	KSZT	9/25/2013 19:08	9/25/2013 20:49	1:41
BEECH SUPER KING AIR 200	BE20/G	N654FM	B	II	B-II	BV TRANSPORTATION LLC	920 SW 6TH AVE STE 1400 PORTLAND OR 972041241	AIR TAXI	N	PROP-ME	KSZT	KUAO	9/25/2013 21:19	9/25/2013 22:35	1:16
CESSNA CITATIONJET CJ1	C525/Q	N86LA	B	II	B-II	BINGHAM LEASING & SALES LLC	3035 N HIGHLAND AVE JACKSON TN 383053411	AIR TAXI	Y	JET	KSZT	KSZT	9/25/2013 21:47	9/25/2013 23:20	1:33
QUEST KODIAK	KODI/G	N9010U	A	I	A-I	SMITH STEPHEN R	470 CORNERSTONE AVE SEYMOUR IN 47274-2885	INDIVIDUAL/CLUB	N	PROP-SE	KSZT	KPAE	9/26/2013 13:44	9/26/2013 15:05	1:21
QUEST KODIAK	KODI/G	N90001	A	I	A-I	CARPET TOWN INC	PO BOX 230 WESTONS MILLS NY 14788	BUSINESS	N	PROP-SE	KPAE	KSZT	9/26/2013 16:05	9/26/2013 17:37	1:32
CESSNA 441 CONQUEST	C441/L	N441SB	B	II	B-II	WINGDING AVIATION LLC	3511 SILVERSIDE RD STE 105 WILMINGTON DE 198104902	AIR TAXI	N	PROP-ME	KBZN	KSZT	9/27/2013 20:40	9/27/2013 21:55	1:15
SOCATA TBM-850	TBM8/L	N850DL	B	I	B-I	DELTA LIMA LLC	PO BOX 256 BAYFIELD CO 811220256	AIR TAXI	N	PROP-SE	KGEG	KSZT	9/28/2013 22:53	9/29/2013 0:10	1:17
EMBRAER PHENOM 100	E55P/Q	N175EM	B	I	B-I	BIG BLUE EXPRESS INC	12829 W DODGE RD STE 202 OMAHA NE 681542188	AIR TAXI	Y	JET	KAHQ	KSZT	9/30/2013 19:33	9/30/2013 22:57	3:24
BEECH 58 BARON	BE58/G	N53MT	A	I	A-I	KSZT LLC	1185 JEFFRES LN SANDPOINT ID 838648469	INDIVIDUAL/CLUB	N	PROP-ME	KGCD	KSZT	9/30/2013 21:44	9/30/2013 22:50	1:06
CESSNA CITATION X	C750/Q	EJA960	C	II	C-II	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KSEA	KSZT	10/1/2013 14:46	10/1/2013 15:22	0:36
PIPER PA-46 MALIBU	P46T/G	N700CG	A	I	A-I	ROCKY MOUNTAIN AVIATION LLC	14355 KEIL RD NE STE 11 AURORA OR 970029411	AIR TAXI	N	PROP-SE	KBJC	KSZT	10/1/2013 15:32	10/1/2013 19:15	3:43
CESSNA CITATION X	C750/Q	EJA960	C	II	C-II	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KCOE	KSZT	10/1/2013 16:44	10/1/2013 17:02	0:18
CESSNA CITATION X	C750/Q	EJA960	C	II	C-II	Netjets Aviation	Columbus OH	AIR TAXI	Y	JET	KSZT	KSHV	10/1/2013 17:49	10/1/2013 20:37	2:48
QUEST KODIAK	KODI/G	N572SG	A	I	A-I	ADVENTAIRE LLC	4103 55TH ST SE MINOT ND 587018001	BUSINESS	N	PROP-SE	KSZT	KMOT	10/3/2013 14:33	10/3/2013 17:48	3:15
BEECH 58 BARON	BE58/G	N204G	A	I	A-I	WAIT REXFORD J DBA	2416 CADES WAY VISTA CA 920817830	BUSINESS	N	PROP-ME	KOAK	KSZT	10/3/2013 16:19	10/3/2013 20:37	4:18

#### F.4 Key Tenant Interviews

From: **Jason Eddy** <[jeddy@questaircraft.com](mailto:jeddy@questaircraft.com)>  
Date: Mon, Mar 10, 2014 at 5:06 PM  
Subject: Airport Operations related to Quest  
To: "[sandpointairport@gmail.com](mailto:sandpointairport@gmail.com)" <[sandpointairport@gmail.com](mailto:sandpointairport@gmail.com)>

Hello Mr. Schuck,

In response to your question regarding jet traffic related to Quest Aircraft at the Sandpoint Airport. In 2013, we had 3 customer visits utilizing light jets, of the ~6 passenger type. These jets are typically owner flown personal jets. In the coming years we anticipate that this practice will scale with our expanded operations at Sandpoint. We currently product 24 aircraft and we anticipate doubling that over the next 10 years.

Thank you,

Jason

**Jason Eddy**

Vice President

Engineering & Production

**Quest Aircraft Company, LLC**

1200 Turbine Drive, Sandpoint, ID 83864  
p: [208-263-1111](tel:208-263-1111)

f: [208-263-1511](tel:208-263-1511)

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**From:** Dave Schuck [mailto:sandpointairport@gmail.com]  
**Sent:** Thursday, March 13, 2014 9:03 AM  
**To:** Mark Napier; Mitchell Hooper  
**Subject:** Tamarack and Granite Forecasting

Guys,  
Here is what Steve Babin at Tamarack thinks:

*We expect about 1000 operations/year over the next five years. models will be various size of buisness jets with largest expected to be around 20,000 lbs MTOW. I can't tell you make and model of our follow on aircraft as that is confidential. We have released we are doing the CJ line all makes and models with cessna so we can say those. When a plane would come for modification I would expect and average of 4 operations. I hope this will suffice for the FAA.*

**Author's Note:**

The estimated operations provided comes to one aircraft being modified with their winglets every day, five days a week, every year for the next five years. It will take at least a week to modify each aircraft and they currently have hangar space for just two aircraft with no stated plans for expansion. This operations estimate is optimistic. A more realistic estimate would be two aircraft per week which is 8 operations per week. Their current STC is for the three smallest CitationJets which are all B-II aircraft.

## APPENDIX F

# Sample Calculations

Airport planning calculations involve formulas provided by the FAA and those accepted by the airport planning industry. This sample calculations report summarizes the data, assumptions, and methodology and results of the analysis conducted as a part of this Master Plan. This report is composed of the following sections.

- Sample Calculations for Table 3-3
- Sample Calculations for Table 3-4

### Sample Calculations for Table 3-3

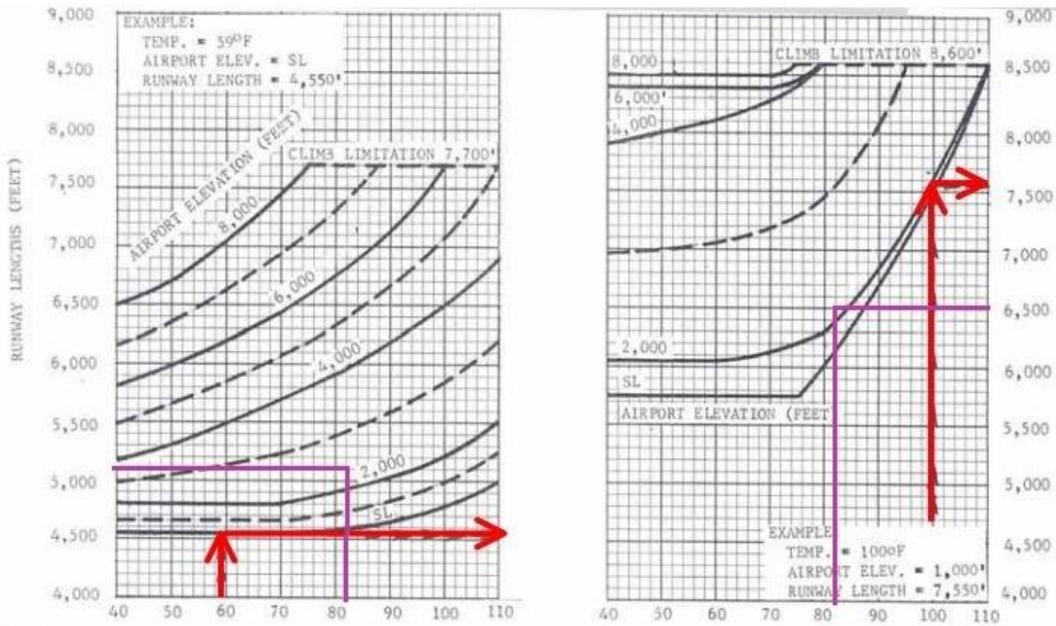
Table 3-3: SZT Runway Length Requirements for Large Aircraft up to 60,000 Pounds		
Family Grouping	Runway Length (Dry)	Runway Length (Wet)
75% of Fleet at 60% Useful Load	5,100 feet	5,500 feet
75% of Fleet at 90% Useful Load	6,500 feet	7,000 feet
Remaining 25% of Fleet at 60% Useful Load	5,900 feet	5,900 feet*
Remaining 25% of Fleet at 90% Useful Load	8,550 feet	8,550 feet*

Source: AC 150/5325-4B, *Runway Length Requirements for Airport Design*, \*No wet adjustment necessary

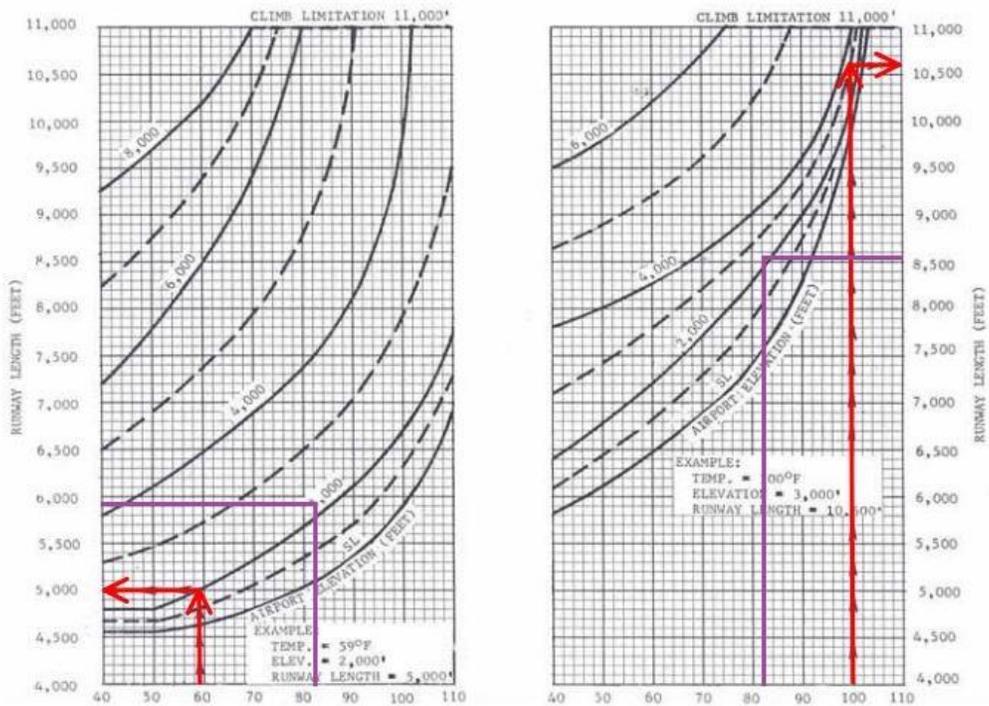
To determine the required runway lengths for the four family groupings, *75% of Fleet at 60% useful load*, *75% of Fleet at 90% Useful Load*, *Remaining 25% of Fleet at 60% of Useful Load*, and *remaining 25% of Fleet at 90% Useful Load*, airport elevation (2,131 feet MSL) and mean maximum daily temperature of the hottest month (82 degrees Fahrenheit) are applied to the AC 150-/5325-4B performance charts in **Exhibit 1**.

**Exhibit 1: Performance Charts for Large Aircraft with a MTOW up to and including 60,000 Pounds**

**Figure 3-1. 75 Percent of Fleet at 60 or 90 Percent Useful Load**



**Figure 3-2. 100 Percent of Fleet at 60 or 90 Percent Useful Load**



Mean Daily Maximum Temperature of Hottest Month of the Year in Degrees Fahrenheit

100 percent of feet at 60 percent useful load

100 percent of feet at 90 percent useful load

## Sample Calculations for Table 3-4

Table 3-4: Individual SZT Design Aircraft Runway Length Requirements						
Aircraft Make/Model	Estimated 2012 Operations	Runway Reference Code	MTOW (lbs)	Takeoff Length Requirements		
				Dry, Sea Level, SDT (ft)	Dry, 2131' MSL, 82F (ft)	Wet, 2131' MSL, 82F (ft)
Cessna Citation 1SP	38	B-I	10,600	2,830	3,753	<b>4,316</b>
Cessna Citation CJ1	56	B-II	10,600	3,280	4,349	<b>5,001</b>
Cessna Citation V	16	B-II	16,300	3,385	4,488	<b>5,161</b>
Embraer Phenom 100	30	B-I	10,500	3,400	4,508	<b>5,184</b>
Cessna Citation CJ2	20	B-II	12,375	3,420	4,534	<b>5,214</b>
Cessna Citation Excel	34	B-II	20,200	3,590	4,760	<b>5,474</b>
<b>EXISTING RUNWAY LENGTH AT SZT</b>					<b>5,500</b>	<b>5,500</b>
Beechjet 400	20	C-I	16,100	4,290	6,522	<b>7,500</b>
Cessna Citation X	34	C-II	36,100	5,140	6,813	<b>7,835</b>
Cessna Citation III	38	B-II	21,000	5,150	6,827	<b>7,851</b>
Hawker 800	18	C-II	28,000	5,380	7,131	<b>8,201</b>

Sources: Flightaware; Aircraft Manufacturer Performance Data, Aviation Week & Aerospace Technology, and runway centerline gradient with FAA runway length calculator.

Notes: Required lengths are for aircraft at MTOW. Published takeoff field lengths for dry, sea level, international standard atmosphere (ISA) conditions are adjusted for Airport elevation and mean maximum daily temperature of the hottest month at SZT. This adjusted length is then increased by 15% to determine requirements for wet runway surface conditions.

For business jets for which Airport Planning manuals and Runway Length Requirement Charts were not readily available, runway length requirements were obtained from the manufacturers MTOW, sea level (S.L.), and standard day temperature (I.S.A.). These runway length requirements were adjusted for SZT's elevation (2,131 feet MSL) and mean maximum daily temperature of the hottest month (82 degrees Fahrenheit), and runway centerline gradient (0.3 feet) using an FAA runway length calculator for conversion of runway length requirements when only the runway length at sea level is known. The runway length calculator uses the following adjustment factors.

1. Elevation adjustment of 7% for each 1,000' of elevation  

$$Fe = (0.07 * \text{elevation} / 1000) + 1 = 1.1492$$
2. Temperature adjustment for 0.5% degree above standard temperature day  

$$Ft = (0.005 * (T - (82 - 3.566(\text{elevation}/1000)))) + 1 = 1.1529$$
3. Gradient Adjustment for aircraft over 12,500 lbs  

$$Fg = (10 * (\text{High Elevation} - \text{Low Elevation})) = 3 \text{ feet}$$
4. Adjusted Runway Length =  $(Fe * Ft * \text{Runway Length at Sea Level}) + Fg$   

$$= (1.1492 * 1.1529 * \text{Runway Length at Sea Level}) + 3$$

The adjustments are not to be used for flight planning but for this runway length analysis they are considered adequate for general airport planning and design purposes.

An aerial photograph of an airport runway and surrounding area. The runway is a long, straight strip of asphalt running diagonally from the top center towards the bottom left. To the right of the runway, there are several hangars and other airport buildings. The surrounding area is a mix of green fields, trees, and residential or commercial buildings. The text "APPENDIX G" is centered at the top, "DISMISSED" is in the middle, and "ALTERNATIVES" is at the bottom, all in large, white, bold, sans-serif font.

# APPENDIX G DISMISSED ALTERNATIVES

Five of the initial set of nine airside alternatives were removed from consideration after preliminary screening due to concerns regarding environmental impact and negative impact to surrounding properties. The following sections present the five dismissed airside alternatives and the reasoning for their removal from further consideration. The Airport, airport and public stakeholders, the FAA, and the Idaho Transportation Department Division of Aeronautics (ITD-Aero) participated in discussions leading to the dismissal of these five alternatives.

**Dismissed Alternative 1 (D1)**

Alternative D1 does not alter the existing runway alignment, and maintains the existing runway length of 5,500 feet. The eastside taxiway extends 3,500 feet starting at Runway End 1 at a separation of 240 feet from runway centerline to taxiway centerline to meet the B-II design standards for this segment. For the remaining 2,000 feet of the runway, the taxiway centerline is located 150 feet from the runway centerline. This purpose of this separation reduction would be to avoid realignment of North Boyer Avenue. This requires that a holdline at the end of 240-foot taxiway offset to prevent aircraft taxiing onto the 150-foot taxiway offset while the runway is occupied. A privately-owned taxiway that meets the B-II design standards is proposed on the westside of the Airport.

It is expected that the Airport will need to acquire 28 acres of property and easements to implement Alternative D1. The FAA advised that a 150-foot non-standard runway to taxiway separation would not be supported.

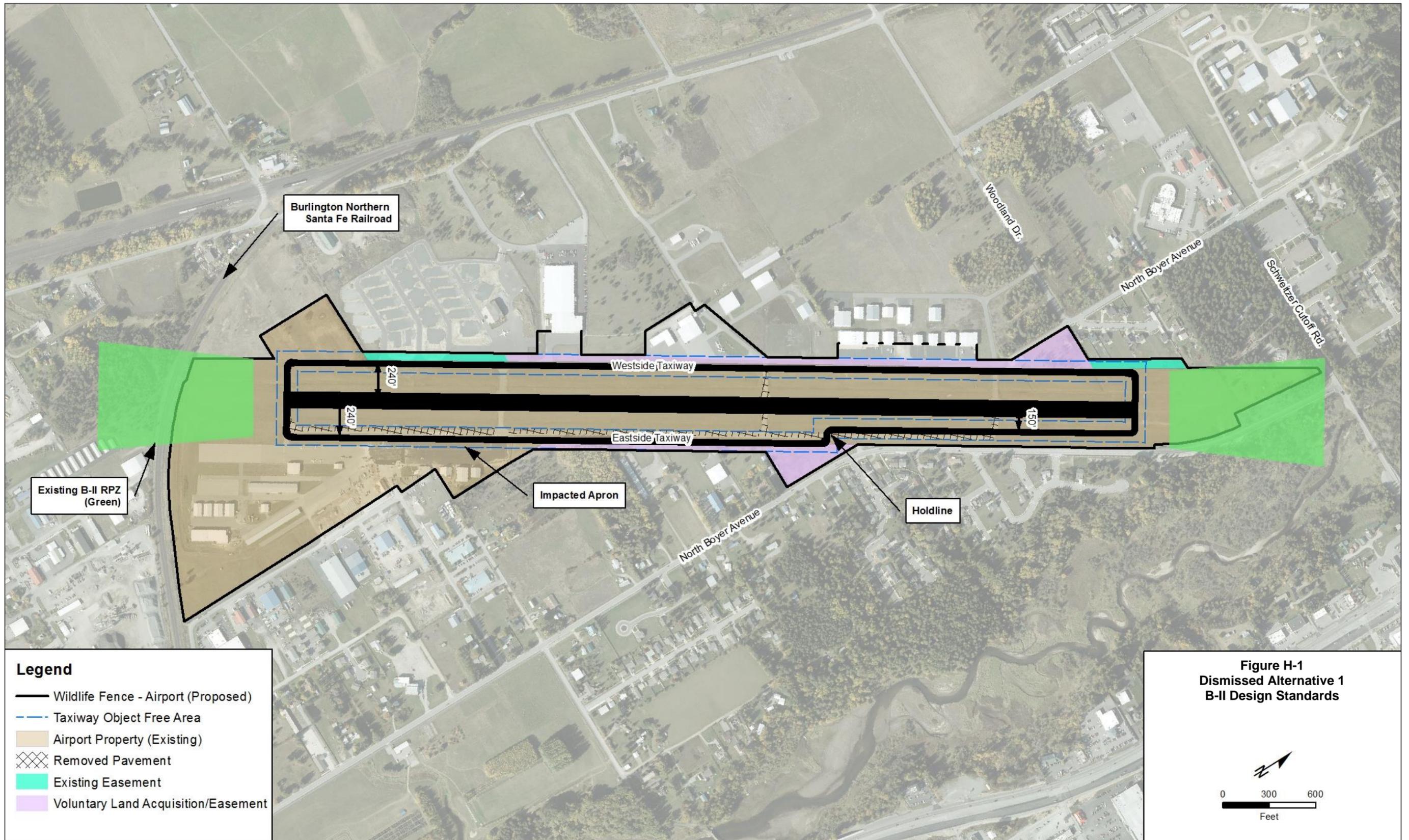
Dismissed Alternative 1 is shown in **Figure H-1**.

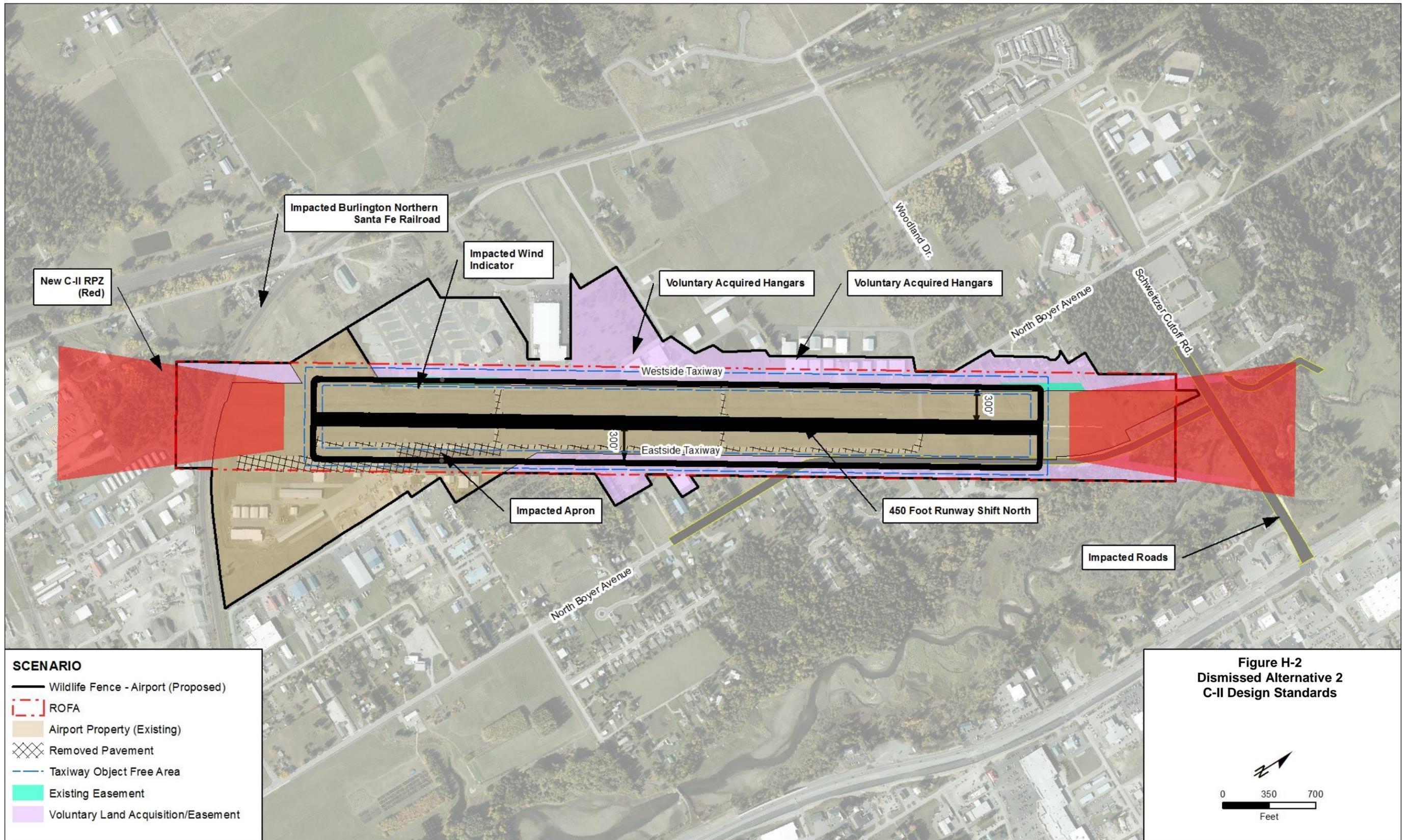
**Dismissed Alternative 2 (D2)**

Alternative D2 does not alter the existing runway alignment, and maintains the existing runway length of 5,500 feet. The proposed taxiway system for this alternative includes full length parallel taxiways on both sides of the runway at 300 feet from runway centerline to taxiway centerline to meet the C-II design standard. Alternative D2 requires a realignment of North Boyer Avenue on the northeast side of the Airport to accommodate the ROFA and TOFA.

It is expected that the Airport will need to acquire 121 acres of property and easements to implement Alternative D2. The C-II ROFA will encompass the Burlington Northern Santa Fe Railroad south of the Airport. Railroads are not permitted inside of the ROFA and the tracks will have to be relocated. This will impact additional properties that will need to be acquired to make room for the tracks. This alternative was eliminated on account of the anticipated expense of relocating the railroad and associated impacts to private property.

Dismissed Alternative 2 is shown in **Figure H-2**.





**Dismissed Alternative 3 (D3)**

Alternative D3 relocates the Runway 1/19 60 feet to the east, maintaining the existing runway length of 5,500 feet. The taxiway system for Alternative D3 includes a full length parallel taxiway on the westside of the runway that meets the B-II separation standard of 240 feet, and no eastside taxiway. This separation for the westside taxiway meets design standards for B-II aircraft. Alternative D3 requires a realignment of North Boyer Avenue on the north side of the Airport to move it out of the ROFA and TOFA.

The realignment of North Boyer Avenue will require the purchase of 11 residential lots that would be encroached upon by the realigned roadway. The Airport will need to acquire 44 acres of property and easements to implement Alternative D3. After discussion with the FAA and the Airport, it was determined that Alternative D3 would be too costly to implement due to the impact on neighboring residential property and the realignment required for North Boyer Avenue.

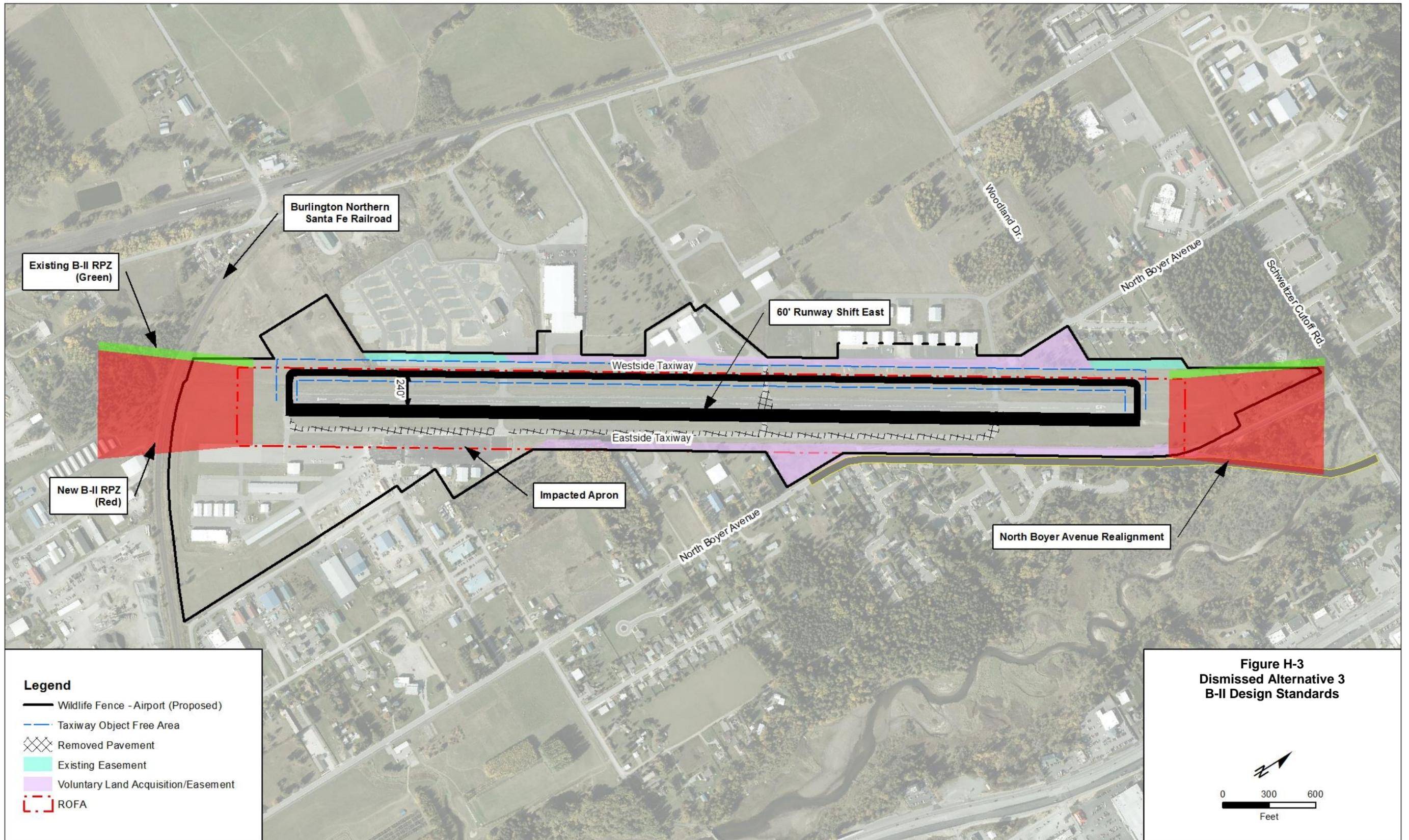
Dismissed Alternative 3 is shown in **Figure H-3**.

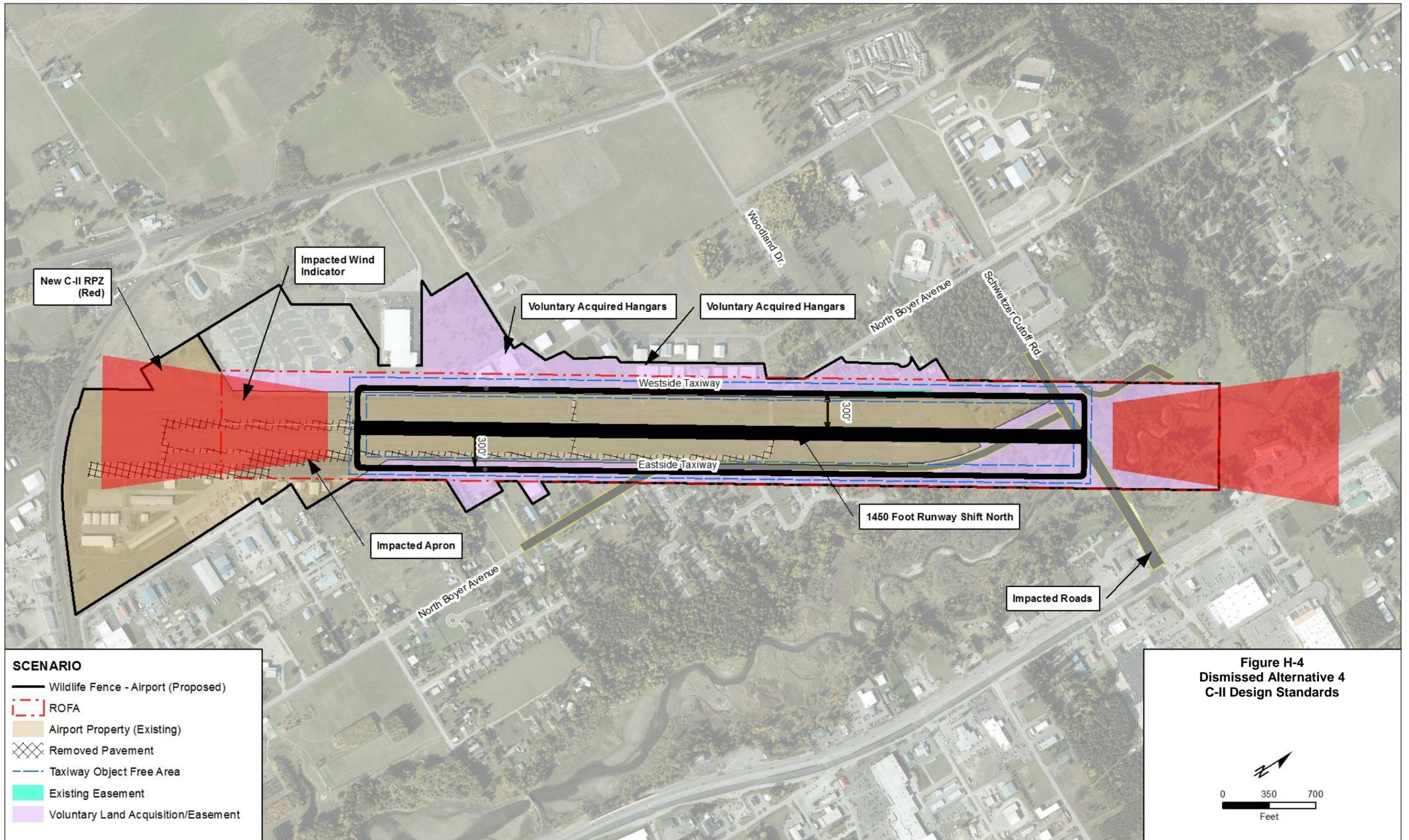
**Dismissed Alternative 4 (D4)**

Alternative D4 relocated Runway 1/19 to the north by 1,450 feet, and maintains the existing runway length of 5,500 feet. The taxiway system for Alternative D4 includes full length parallel taxiways on both sides of the runway that meet C-II separation standard of 300 feet. Alternative D4 requires a realignment of North Boyer Avenue on the northeast side of the Airport, as well as the three other neighboring roads. These realignments are required to accommodate the ROFA, TOFA, and RPZ.

The Airport will need to acquire 106 acres of property or easements to implement Alternative D4. After discussions with the FAA and the Airport, it was determined that Alternative D4 would not be feasible due to the large amount of property acquisition required and the number of surrounding roads impacted.

Dismissed Alternative 4 is shown in **Figure H-4**.



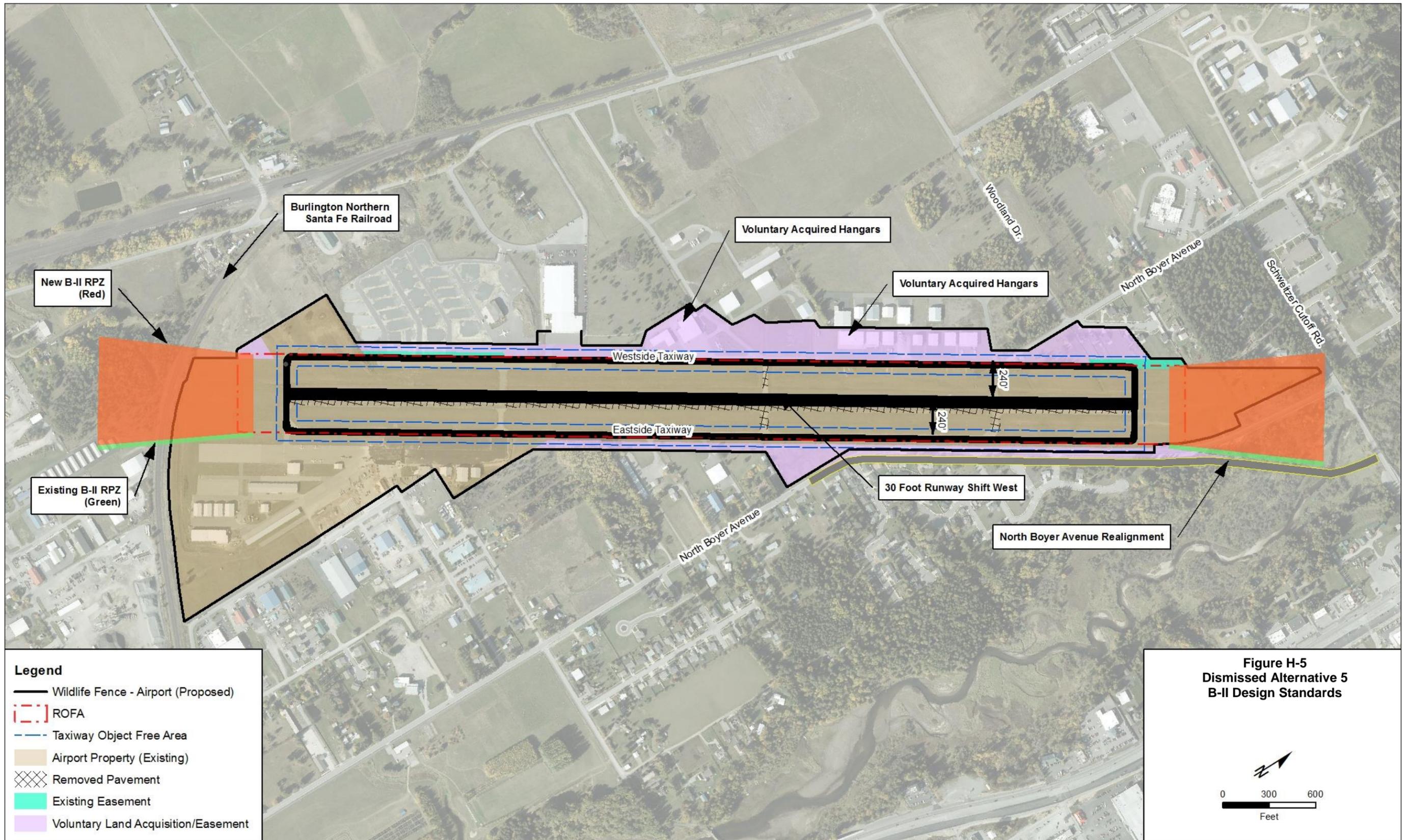


**Dismissed Alternative 5 (D5)**

Alternative D5 shifts Runway 1/19 to the west by 30 feet. The proposed taxiway system for this alternative includes full length parallel taxiways on both sides of the runway, and 30 feet west is the maximum distance that Runway 1/19 can be shifted without the TOFA of a westside parallel taxiway impacting the Omni Park hangars. The taxiway centerlines meet the B-II separation standard of 240 feet. Although the TOFA is clear of hangars on the westside, Alternative D5 will require a realignment of North Boyer Avenue to accommodate the TOFA for the eastside parallel taxiway.

The realignment of North Boyer Avenue is expected to require the purchase of 10 residential lots. It is estimated that the Airport will need to acquire 38 acres of property and easements to implement Alternative D5. After discussions with the FAA and the Airport, it was determined that Alternative D5 will be too costly to implement due to the impact on neighboring residential property, Omni Park hangars, and the realignment required for North Boyer Avenue.

Dismissed Alternative 5 is shown in **Figure H-5**.



**Alternative Cost Estimates**

**SZT Airside Alternatives**

	<b>Alternative #1</b>	<b>Alternative #2</b>	<b>Alternative #3</b>	<b>Alternative #4</b>
Runway	\$4,893,566.67	\$4,893,566.67	\$4,893,566.67	\$5,994,133.33
Taxiway	\$3,382,333.33	\$2,579,333.33	\$3,382,333.33	\$5,272,222.22
Residential Property	\$4,164,647.00	\$929,882.33	\$3,954,882.33	\$15,164,647.00
Hangar Property	\$5,646,460.70	\$0.00	\$0.00	\$5,646,460.70
Non RPZ Land	\$1,224,409.83	\$2,428,094.12	\$3,047,505.88	\$8,567,337.84
RPZ Land	\$975,803.47	\$975,803.47	\$975,803.47	\$2,862,356.84
Fencing	\$940,000.00	\$935,000.00	\$935,000.00	\$985,000.00
AGIS Survey	\$300,000.00	\$0.00	\$0.00	\$300,000.00
Roadways	\$3,399,000.00	\$0.00	\$4,054,500.00	\$7,395,075.00
<b>Total</b>	<b>\$24,926,000.00</b>	<b>\$12,742,000.00</b>	<b>\$21,244,000.00</b>	<b>\$52,187,000.00</b>

**Dismissed Alternatives**

	<b>Dismissed Alternative #1</b>	<b>Dismissed Alternative #2</b>	<b>Dismissed Alternative #3</b>	<b>Dismissed Alternative #4</b>	<b>Dismissed Alternative #5</b>
Runway	\$4,893,566.67	\$5,994,133.33	\$4,893,566.67	\$5,994,133.33	\$4,893,566.67
Taxiway	\$3,382,333.33	\$5,272,222.22	\$1,670,888.89	\$5,272,222.22	\$3,382,333.33
Residential Property	\$929,882.33	\$7,464,647.00	\$3,954,882.33	\$8,014,647.00	\$5,539,647.00
Hangar Property	\$0.00	\$5,646,460.70	\$0.00	\$5,646,460.70	\$5,646,460.70
Non RPZ Land	\$2,428,094.12	\$12,077,337.84	\$5,731,623.53	\$11,870,867.25	\$2,256,762.78
RPZ Land	\$975,803.47	\$2,992,463.97	\$975,803.47	\$2,081,714.07	\$975,803.47
Fencing	\$935,000.00	\$1,050,000.00	\$935,000.00	\$1,150,000.00	\$940,000.00
AGIS Survey	\$0.00	\$0.00	\$300,000.00	\$300,000.00	\$300,000.00
Roadways	\$0.00	\$7,395,075.00	\$4,054,500.00	\$7,395,075.00	\$4,054,500.00
<b>Total</b>	<b>\$13,545,000.00</b>	<b>\$47,892,000.00</b>	<b>\$22,516,000.00</b>	<b>\$47,725,000.00</b>	<b>\$27,989,000.00</b>

**APPENDIX H**

**RUNWAY PROTECTION**

**ZONE MEMO**

**Prepared by Mead & Hunt**

**September 2015**

## Technical Memorandum



To: Gary Gates, Scott Eaton  
Helena Airports District Office  
Federal Aviation Administration

From: Mitchell Hooper, AICP  
Mead & Hunt  
mitchell.hooper@meadhunt.com  
(360) 771-1764

Date: October 14, 2015

Subject: *Sandpoint Airport (SZT)*  
*Bonner County, Idaho*  
*Future Runway Protection Zone (RPZ) Road Exposure Analysis*

### Introduction

---

This memorandum is written to analyze and document alternatives for land uses within the Runway Protection Zone (RPZ) at the Sandpoint Airport (hereafter SZT or “the Airport”) and the proposed modifications to the Schweitzer Cutoff Road. It is being prepared in accordance with Federal Aviation Administration (FAA) Memorandum *interim Guidance on Land Uses Within a Runway Protection Zone*, dated September 27, 2012. The City of Sandpoint is modifying the intersection of Boyer Avenue and Schweitzer Cutoff Road – replacing the stop sign with a roundabout to improve traffic flow. This modification is considered a change in land uses within the RPZ by FAA and requires analysis which is documented in this memorandum. This memorandum is organized into four sections.

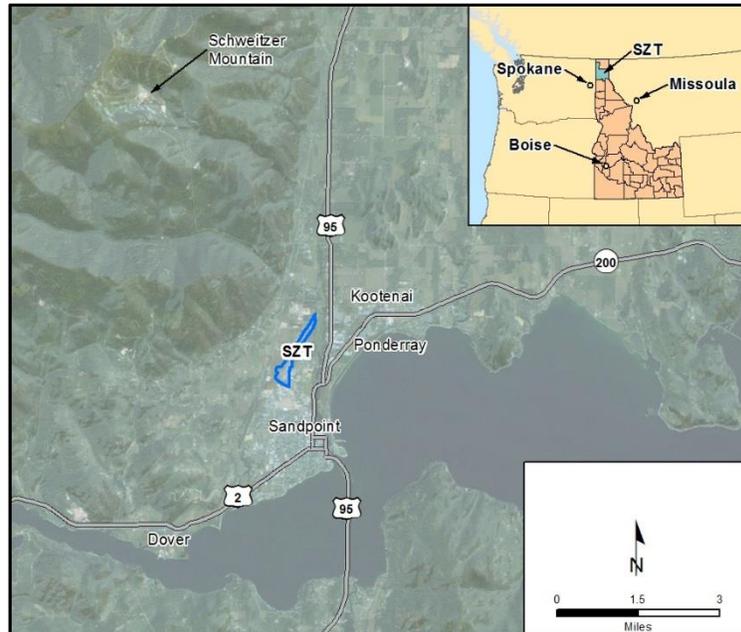
- + *Section 1 – Existing Conditions:* describes the existing conditions at the Airport.
- + *Section 2 – Preferred Runway Alternative RPZ Analyses:* presents the land uses within the RPZ for the selected runway alignment from the 2014 Master Plan (preferred alternative) and outlines the steps to be taken to address incompatibility.
- + *Section 3 – Preferred Alternative Runway Modification:* presents the required adjustments to the preferred alternative to remove the proposed Schweitzer Cutoff Road adjustments from the RPZ north of the approach end of Runway 19.
- + *Section 4 – Technical Memorandum Recommendations Summary*

## Section 1 – Existing Conditions

---

SZT is located in Bonner County, Idaho 46 miles north of Coeur d’Alene, Idaho and 77 miles northeast of Spokane, Washington – two miles north of downtown Sandpoint, Idaho. Situated on 115 acres, the Airport is owned and managed by Bonner County. There is one asphalt runway (Runway 1/19) which is 5,500 feet long by 75 feet wide. Runway 1/19 has one partial parallel taxiway connecting it to the hangars and parking areas. An airport location map is depicted in **Exhibit 1**.

**Exhibit 1 – Location Map**



SZT is classified as an FAA general aviation (GA) airport in the National Plan of Integrated Airport Systems (NPIAS), making it eligible to receive FAA Airport Improvement Program (AIP) grants. Acceptance of FAA grants requires that the Airport comply with FAA design standards, which are defined in Advisory Circular (AC) 150/5300-13A, *Airport Design*. These design standards are set by the most demanding aircraft to use an airport on a routine basis, defined as at least 500 takeoffs and landings per year. The design aircraft at SZT is classified as B-II by the FAA. The airfield at SZT has conditions that do not meet B-II design standards; including the distances from the runway centerline to the taxiway centerline, aircraft parking and holding positions. The 2014 *Sandpoint Airport Master Plan* addresses compliance with FAA standards.

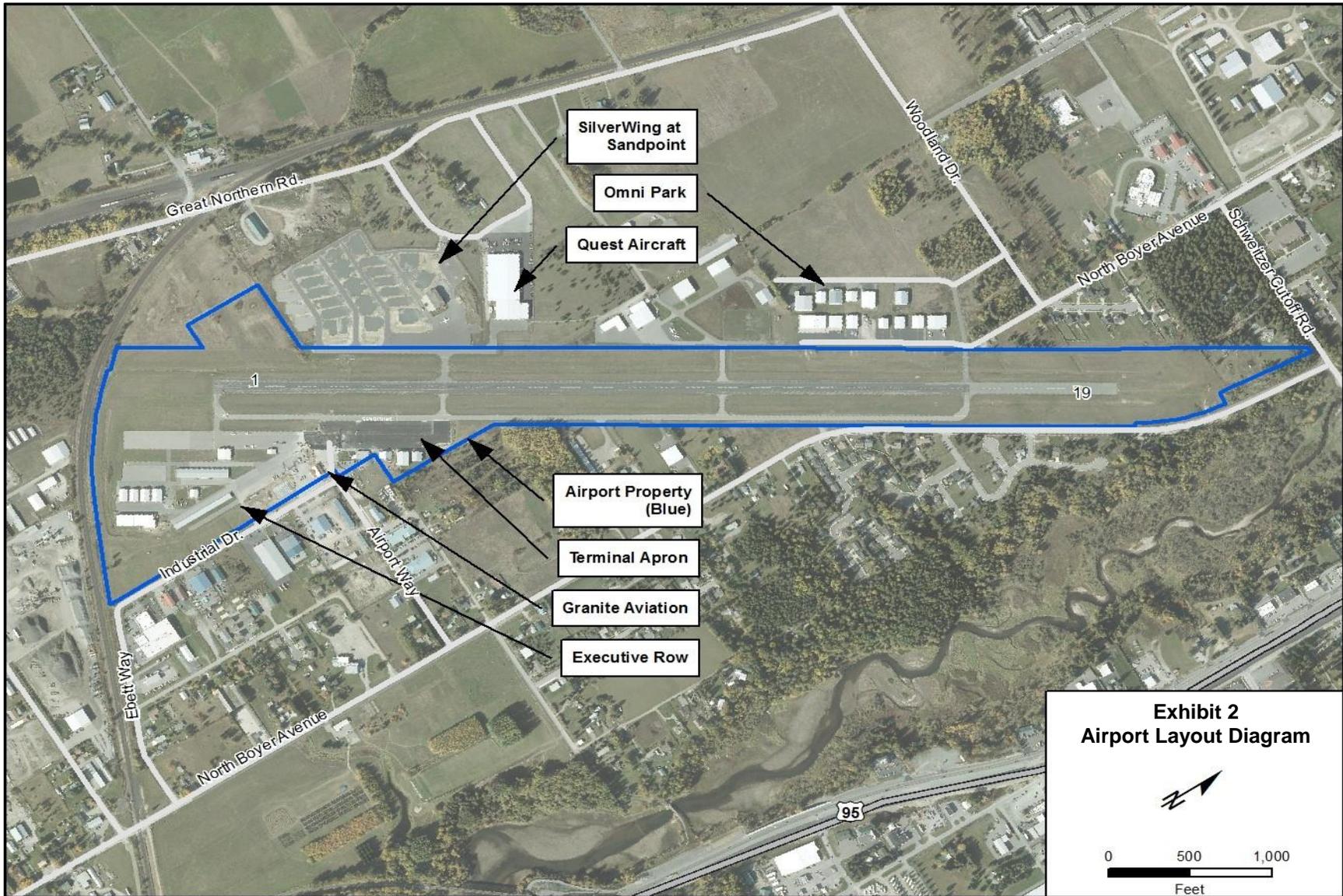
Zoning for properties surrounding the Airport is administered by Bonner County for unincorporated areas west of the Airport and the City of Sandpoint for incorporated areas to the north, east and south. Property in Bonner County is zoned as “Suburban.” Suburban zoning promotes the development of residential uses located on the edges of incorporated cities or other developed communities where sewer and water services are either available or have the potential to become available.

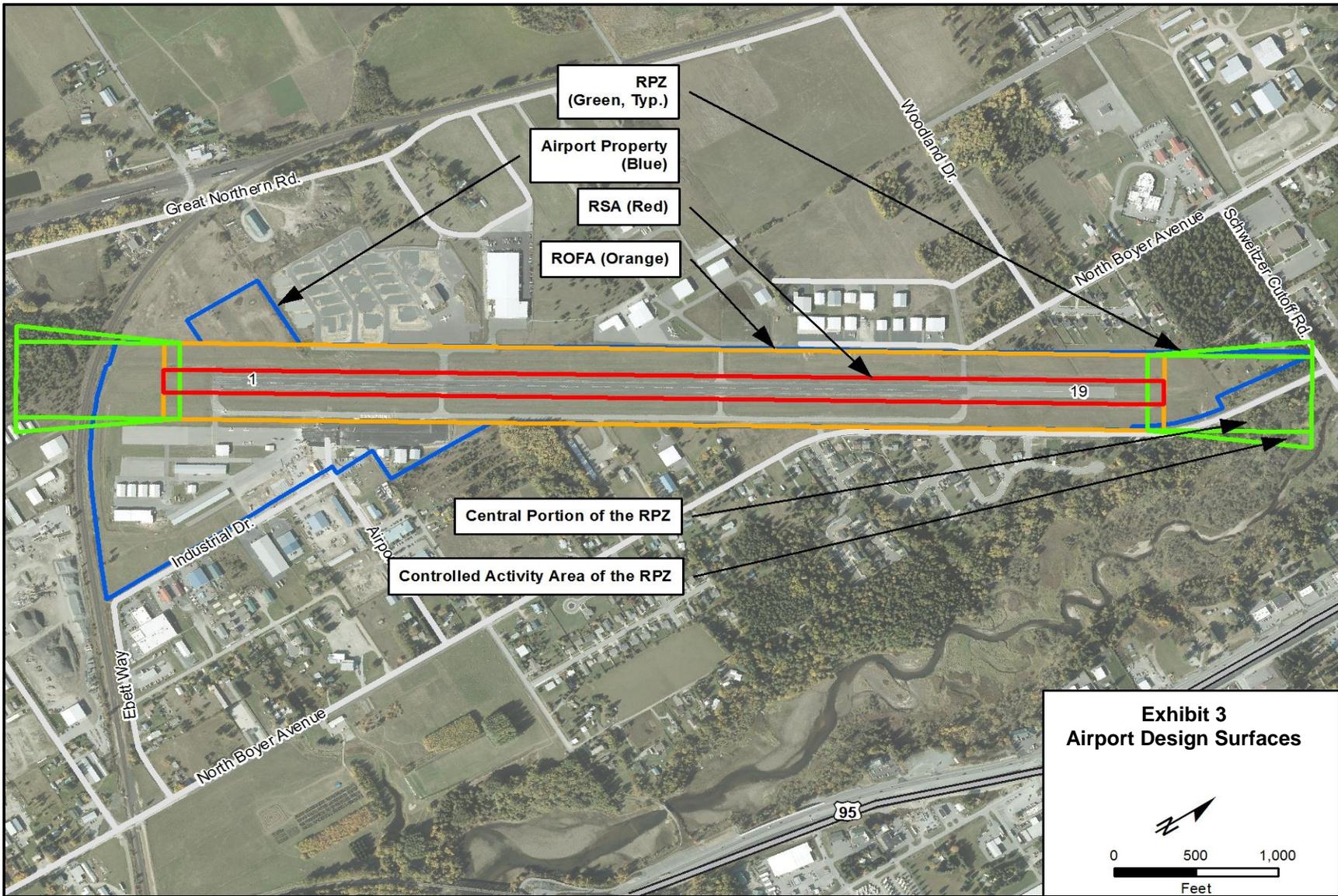
The City of Sandpoint zones airport property as “General Industrial.” Properties to the east of SZT and west of Boyer Avenue are zoned as “Industrial Technology Park.” Properties along Boyer Avenue are zoned as “Single Family Residential.” Properties south of the Airport, south of Baldy Mountain Road, are zoned as “Industrial Business Park” and “Multi-Family Residential.” Properties north of the Airport, are zoned as a mixture of “Single Family Residential,” “Rural Residential,” “Multi-Family Residential,” and “Professional Office.” The “Airport Overlay Zone District” includes the Airport and the surrounding area within the City of Sandpoint and the unincorporated areas of Bonner County.

The City of Ponderay is located north of the Airport. While the City of Ponderay does not have jurisdiction over properties immediately adjacent to the Airport, it does sit beneath the flight path for departures from Runway End 1 and 1 approaches on Runway End 19. The City of Ponderay has not adopted an airport overlay zoning district.

State and Federal guidance recommend that airport sponsors work with local jurisdictions to promote compatible land use development near airports. One of the conditions of accepting FAA funding is that airport sponsors must work to discourage siting of incompatible land uses near their airports. Land use regulation delegated to local jurisdictions (city and county), the FAA and the State cannot prohibit local governments from developing as they wish; however, they can issue notices of opposition and notices of presumed hazard to air operations and restrict future airport funding.

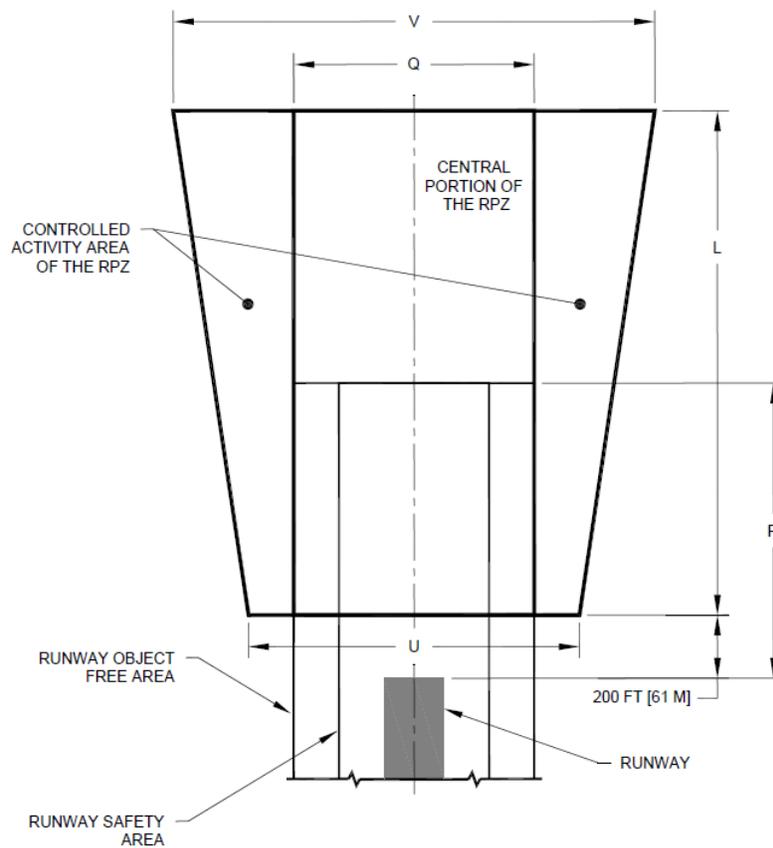
Existing airport layout is illustrated in **Exhibit 2** with existing airport design surfaces pictured in **Exhibit 3**.





### Description of the Runway Protection Zone

The RPZ is trapezoidal in shape and is centered along the runway centerline. The RPZ begins 200 feet from the end of the runway and its length is dependent on size of the runway design aircraft and the runway visibility minimums. RPZs at SZT are 1,000 feet in length (dimension L) with a 500 foot wide inner edge (dimension U), and a 700 foot wide outer edge (dimension V). The RPZ is divided into two sub-areas for analysis: the central portion of the RPZ and the controlled activity area of the RPZ. The central portion of the RPZ is centered along the runway centerline and its width is 800 feet, equal to the width of the Runway Object Free Area (dimension Q). The controlled activity area is the remaining portion of the RPZ on either side of the central portion. A schematic of RPZ dimensions is shown in **Exhibit 4**.



**Exhibit 4 – Runway Protection Zone Schematic**

### **Existing Runway End 1 Approach RPZ Condition**

Land uses within the Runway End 1 Approach RPZ include a right-of-way for the Burlington Northern Santa Fe Railroad, a right-of-way owned by the City of Sandpoint for an extension of Ebbett Way and an undeveloped area of land covered in trees. A storage unit facility intersects the RPZs southeast corner.

The Burlington Northern Santa Fe Railroad right-of-way is a limiting factor in this RPZ, as relocation of this feature would be prohibitively expensive and impact a far larger area than the RPZ itself. The right-of-way for Ebbett Way extends through the RPZ, theoretically to connect the east and west sides of the Airport at some point in the future. The tree covered area south of Runway End 1 is not controlled by the Airport.

### **Existing Runway End 19 Approach RPZ Condition**

Land uses within the existing Runway End 19 Approach RPZ include existing right of ways for Schweitzer Cutoff Road and North Boyer Avenue. Seven acres in the Runway End 19 Approach RPZ are not controlled by the Airport. The eastern edge of the RPZ encompasses flood plains associated with Sand Creek. There is a bike lane along the eastside of North Boyer Avenue. The westside bike lane runs from the Schweitzer Cutoff Road into downtown Sandpoint. The eastside bike lane stops 1,300 feet short of the intersection of North Boyer Avenue and the Schweitzer Cutoff Road.

### **Schweitzer Cutoff Road**

Schweitzer Cutoff Road is a two-lane road that connects the Airport to US Highway 2/95 to the east. It intersects North Boyer Road at the Bonner County Fairgrounds and US Highway 2/95 which provide access to airport facilities and businesses. The Schweitzer Cutoff Road cuts across the northernmost corner of the RPZ in its existing alignment.

### **North Boyer Avenue**

North Boyer Avenue is a minor arterial that runs parallel to the northern third of Runway 1/19, then turns south through residential and business development. North Boyer Avenue provides primary access to the Airport via Airport Way and runs through the RPZ beyond the approach end of Runway 19.

### **Schweitzer Cutoff Road and North Boyer Avenue Intersection**

The existing Schweitzer Cutoff Road and North Boyer Avenue intersection is a stop controlled intersection located just north of the RPZ. There are existing pedestrian and bicycle facilities on Schweitzer Cutoff and North Boyer Avenue that are not connected at and near the intersection. Traffic volumes at the intersection were evaluated in 2006 and analysis resulted in the recommendation to install a traffic signal at this intersection. The average daily traffic (ADT) on Schweitzer Cutoff Road (between U.S. Highway 2/95 and North Boyer Avenue) was 9,068 vehicles in 2013 and is projected to be 17,375 vehicles in 2035. Traffic counts suggest that six percent of these vehicles are trucks.

The existing configuration of this intersection delays users while they wait for gaps in traffic to make a turn or cross the street. Instead of building the traffic signal at the intersection, the City of Sandpoint has elected to provide a single lane roundabout to address traffic flow. The proposed roundabout will have better traffic flow and less delay allowing vehicles, pedestrians and bicyclists to leave the RPZ area sooner than it would in the existing configuration, and with a traffic signal. The addition of a roundabout is anticipated to eliminate or at least delay the need for a traffic signal for at least 20 years. In addition to the roundabout, a pedestrian

and bicycle lane is proposed from Schweitzer Cutoff Road extending 1,300 feet south along the westside of North Boyer Avenue where it will connect with the existing pedestrian and bicycle lane.

The peak hour traffic for these two sections of Schweitzer Cutoff Road were 702 vehicles between 3 p.m. and 4 p.m. to the east of North Boyer Avenue and 247 vehicles between 12 noon and 1 p.m. to the west of North Boyer Avenue. North Boyer Avenue had an ADT of 6,017 vehicles and a Peak Hour Traffic of 555 between 5 p.m. and 6 p.m. Approximately 81 percent of the Schweitzer traffic uses Boyer Avenue parallel to the Airport.

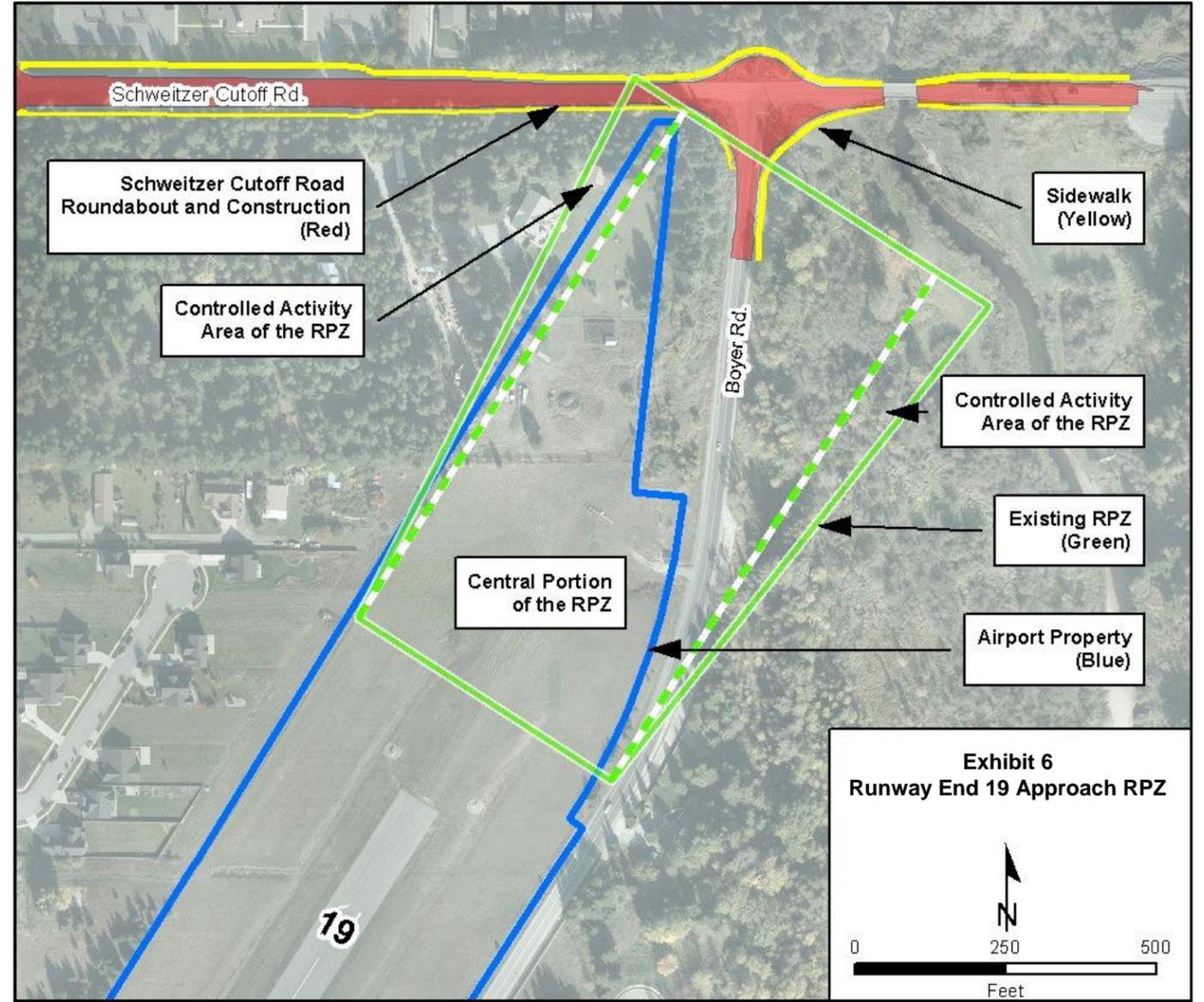
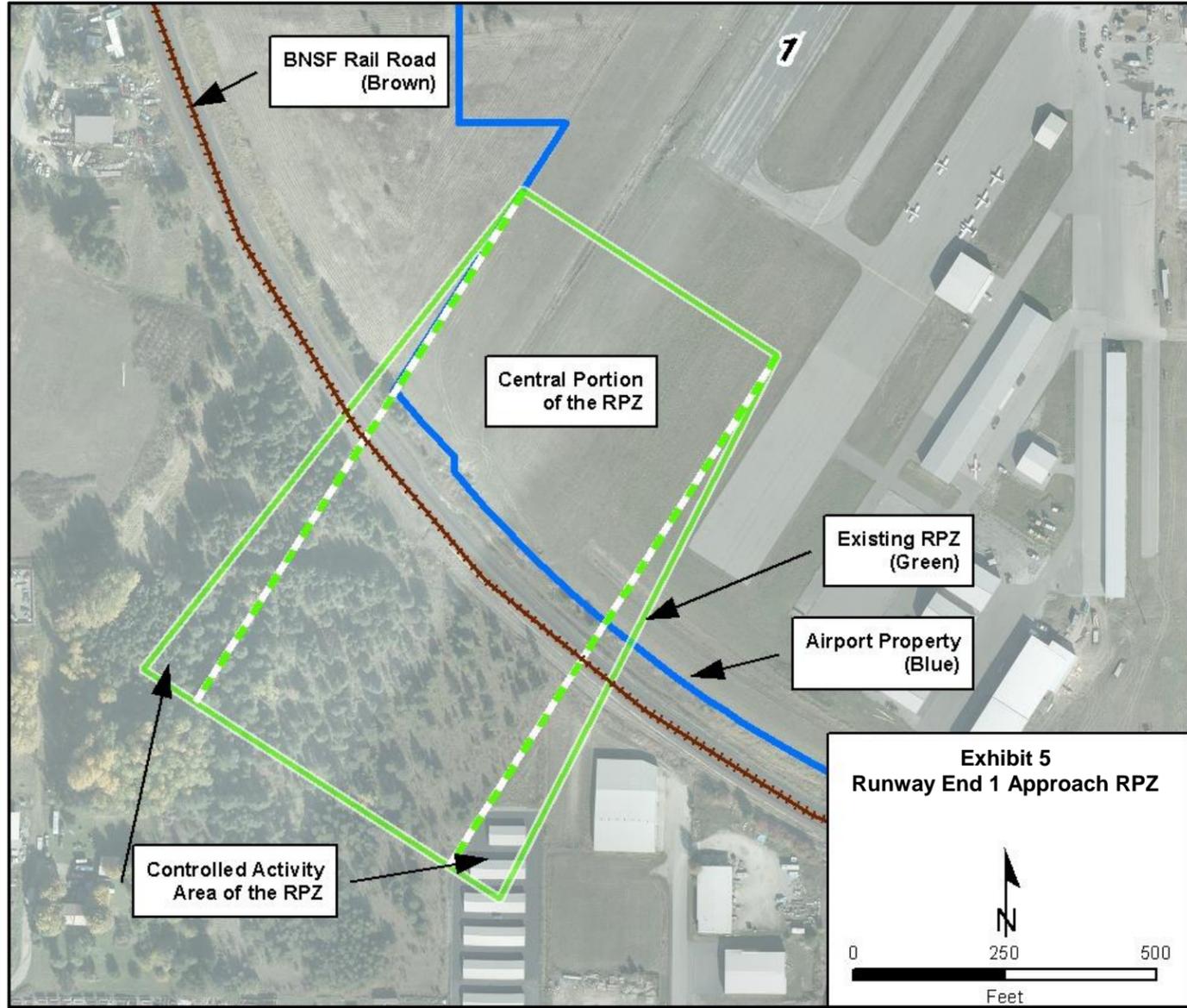
### **Sand Creek**

Sand Creek, a perennial water course, is located ½ mile to the east of the Airport and flows parallel to the airport property approximately. The 100-year and 500-year floodplains associated with Sand Creek enter the RPZ, however the stream itself does not. A field survey to study environmental conditions in and around the Airport identified 3.4 acres of PEM1C (palustrine, emergent, persistent, seasonally flooded) and PSS1C (palustrine, scrub-shrub, broad-leaved deciduous, seasonally flooded) wetlands on or near airport property. These wetlands are primarily associated with Sand Creek. Changes to the airport layout may impact the wetlands and require mitigation.

### **Surrounding Development**

There is residential development adjacent to the Runway End 19 Approach RPZ; however no residential structures are located inside the RPZ. The RPZ overlays the backyard of one residential property and satellite imagery shows storage sheds and vehicles within the RPZ. There are no inhabited residential structures within the Runway End 19 Approach RPZ.

The existing conditions for the Runway End 1 RPZ and the Runway End 19 Approach RPZ with the proposed construction are shown in **Exhibit 5** and **Exhibit 6**.



## **Section 2 – Preferred Runway Alternative RPZ Analyses**

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The 2014 *Sandpoint Airport Master Plan* evaluated four airfield reconfiguration alternatives to bring the Airport into compliance with FAA design standards. These airfield reconfiguration alternatives are summarized below and described in more detail in the 2014 *Sandpoint Airport Master Plan*. In addition to the airfield reconfiguration alternatives from the 2014 *Sandpoint Master Plan*, This analysis also considers two additional alternatives to meet recommendations in the interim RPZ guidance.

### **Airfield Alternative 1**

Airfield Alternative 1 relocates Runway 1/19 by shifting it 60 feet towards the west, the minimum distance necessary so that the proposed eastside Taxiway Object Free Area (TOFA) is clear of North Boyer Avenue and neighboring eastside properties. The proposed taxiway system includes full-length parallel taxiways on both sides of the runway. The taxiway centerlines are 240 feet from the runway centerline to meet design standards for B-II aircraft.

Although the TOFA is clear of North Boyer Avenue, Airfield Alternative 1 may require a realignment of North Boyer Avenue on the north side of the Airport, moving it outside of the relocated RPZ. A relocation of North Boyer Avenue to the east will require a new crossing of Sand Creek, which is a sensitive wetland area. It is anticipated that this will have environmental impacts requiring mitigation.

Airfield Alternative 1 may require the purchase and removal of nine privately owned hangars which would be encroached upon by the westside TOFA and nine residential lots outside of airport property. These hangars could be relocated to another location. To implement Airfield Alternative 1, it is expected that the Airport would need to acquire property or easements of eight acres for the Runway End 1 Approach RPZ, seven acres for the Runway End 19 Approach RPZ and 18 acres for the shifted Runway Object Free Area (ROFA), taxiways and TOFA.

Alternative 1 is shown in **Exhibit 7**.

### **Airfield Alternative 2**

Airfield Alternative 2 leaves Runway 1/19 in its existing location. The proposed taxiway system includes a full-length westside parallel taxiway and a partial-length eastside parallel taxiway. Both taxiways would be separated 240 feet from the runway centerline to the corresponding taxiway centerline to meet design standards for B-II aircraft.

The eastside taxiway is currently a 4,500-foot partial-length parallel taxiway starting at Runway End 1. By reducing the taxiway length to 3,500 feet, the conflict of the eastside TOFA with North Boyer Avenue and the residential properties is removed. The eastside taxiway does not provide aircraft access Runway End 19. Aircraft seeking to reach Runway End 19 from the eastside of the airfield must cross at Runway End 1 and taxi on the westside taxiway. It is recommended for the eastside taxiway to be used only as an exit taxiway from Runway 1/19.

To implement Airfield Alternative 2, it is expected that the Airport would need to acquire property or easements of eight acres for the Runway End 1 Approach RPZ, seven acres for the Runway End 19 Approach RPZ, and 13 acres for the new taxiways and TOFA. Airfield Alternative 2 is shown in **Exhibit 8**.

### **Airfield Alternative 3**

Airfield Alternative 3 leaves Runway 1/19 in its existing location. The proposed taxiway system includes full-length parallel taxiways on both sides of the runway, separated by 240 feet from the runway centerline to the taxiway centerline. This separation meets design standards for B-II aircraft.

Airfield Alternative 3 requires realignment of North Boyer Avenue on the northeast side of the Airport to move it out of the ROFA and TOFA. This shift will push North Boyer Avenue into the adjacent residential development, thus impacting properties. Airfield Alternative 3 will require the acquisition of 11 residential lots. A relocation of North Boyer Avenue to the east will require a new crossing of Sand Creek which is a sensitive wetland area. It is anticipated that this will have environmental impacts, requiring mitigation.

To implement Airfield Alternative 3, it is expected that the Airport would need to acquire property or easements of eight acres for the Runway End 1 Approach RPZ, seven acres for the Runway End 19 Approach RPZ, and 16 additional acres for the new taxiways and TOFA.

Airfield Alternative 3 is shown in **Exhibit 9**.

### **Airfield Alternative 4**

Airfield Alternative 4 meets design standards for C-II critical aircraft. Although it is not expected that C-II aircraft will exceed the substantial use threshold of 500 annual operations during the 20-year planning period, Airfield Alternative 4 is included to assess the feasibility of a C-II airport at the current SZT location. Airfield Alternative 4 shifts Runway 1/19 to the north by 450 feet to keep the Burlington Northern Santa Fe Railroad out of the ROFA. The existing runway length of 5,550 feet is maintained. The taxiway system includes full-length parallel taxiways on both sides of the runway with 300 feet between the runway centerline and taxiway centerline. Airfield Alternative 4 requires a realignment of North Boyer Avenue on the northeast side of the Airport, as well as realignments of Schweitzer Cutoff Road and Burns Court to accommodate the ROFA.

Airfield Alternative 4 requires the purchase and removal of 10 privately owned hangars that are inside the ROFA. Airfield Alternative 4 may require the purchase of 45 residential lots associated with the relocation of North Boyer Avenue. The ultimate road alignment will determine the specific number of residential lots impacted for Airfield Alternative 4. A relocation of North Boyer Avenue to the east will require a new crossing of Sand Creek, which is a sensitive wetland area. It is anticipated that this will have adverse environmental impacts that will require mitigation.

To implement Airfield Alternative 4, it is expected that the Airport would need to acquire 17 acres of property and easements for the Runway End 1 Approach RPZ, 27 acres for the Runway End Approach 19 RPZ and 58 acres for the larger ROFA, taxiways and TOFA.

Airfield Alternative 4 is shown in **Exhibit 10**.

### **Airfield Alternative 5**

Alternative 5 has the same airfield characteristics as Alternative 2. The difference between the two is the removal of surface streets that are within the existing RPZ. Airfield Alternative 5 realigns North Boyer Avenue and Schweitzer Cutoff Road to remove the two from the Runway End 19 RPZ. A relocation of North Boyer Avenue to the east requires a new crossing of Sand Creek, which is a sensitive wetland area. It is anticipated that this will have environmental impacts, requiring mitigation. In addition, Airfield Alternative 5 may require the purchase of seven residential lots associated with the relocation of Schweitzer Cutoff Road.

To implement Airfield Alternative 5, it is expected that the Airport would need to acquire property or easements of eight acres for the Runway End 01 Approach RPZ, seven acres for the Runway End 19 Approach RPZ, 13 acres for the new taxiways and TOFA, and 19 acres for the realignment of North Boyer Avenue and Schweitzer Cutoff Road.

Airfield Alternative 5 is shown in **Exhibit 11**.

### **Airfield Alternative 6**

Airfield Alternative 6 relocates Runway 1/19 by shifting it 100 feet towards the south, the minimum distance necessary to remove the new Schweitzer Cutoff Road design from the RPZ. The proposed taxiway system includes full-length parallel taxiways on both sides of the runway, separated by 240 feet from the runway centerline to the taxiway centerline. This separation meets design standards for B-II aircraft.

Airfield Alternative 6 requires realignment of North Boyer Avenue on the northeast side of the Airport to move it out of the ROFA and TOFA. This shift will push North Boyer Avenue into the adjacent residential development, thus impacting properties. Airfield Alternative 6 will require the acquisition of 11 residential lots. A relocation of North Boyer Avenue to the east will require a new crossing of Sand Creek which is a sensitive wetland area. It is anticipated that this will have environmental impacts, requiring mitigation.

To remove the Burlington Northern Santa Fe Railroad from the Runway 1 RPZ it would require a realignment of the tracks near the Airport. The proposed realignment shifts the existing railroad that crosses over Sand Creek and the Sandpoint Bypass south by 800 feet. This shift south allows for the portion of the railroad that crosses over Sand Creek and Sandpoint Bypass to connect to existing tracks while reducing the impact to developed properties.

To implement Airfield Alternative 6, it is expected that the Airport would need to acquire property or easements of nine acres for the Runway End 1 Approach RPZ, seven acres for the Runway End 19 Approach RPZ, 16 acres for the new taxiways and TOFA, and 34 additional acres for the realignment of the Burlington Northern Santa Fe Railroad and North Boyer Avenue.

Unlike the other alternatives shown in this memo, a cost estimate was not performed for Alternative 6. It is expected that Alternative 6 will be cost prohibitive. In order to determine an accurate estimate for Alternative 6, both the owner of the railroad and the railroad companies that operate on the section of railroad tracks inside the Runway 1 RPZ will need to be consulted to determine the cost of relocating the railroad.

Airfield Alternative 6 is shown in **Exhibit 12**.

### Alternative Comparison

The six airfield configuration alternatives presented will each bring the Airport into compliance with FAA design standards and include property acquisition to bring the RPZ, ROFA and TOFA under control of the Airport. The primary impacts and required facilities for each airside alternative are compared in **Table 1-1**. Primary impacts include residential properties, hangars, apron space, tie-downs and public roads. Required facilities include new runway and taxiway pavement, as well as new wildlife fencing around the Airport perimeter.

<b>Table 1-1: Airfield Alternative Comparison</b>						
<b>Attribute</b>	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>	<b>Alternative 4</b>	<b>Alternative 5</b>	<b>Alternative 6</b>
<b>Design Standards</b>	B-II	B-II	B-II	C-II	B-II	B-II
<b>RPZ Property Acquisition and Easements (acres)</b>	15	15	15	44	15	16
<b>Non-RPZ Property Acquisition and Easements (acres)</b>	18	13	16	58	32	50
<b>Runway Shift</b>	60 feet towards the west	None	None	450 feet towards the north	None	100 feet towards the south
<b>Residential Lots Impacted</b>	5	0	11	45	7	11
<b>Hangars Impacted</b>	9	0	0	10	0	0
<b>Tie-downs Impacted</b>	0	12	12	22	12	12
<b>Roads Impacted</b>	1	0	1	3	2	2
<b>Cost Estimate (millions)</b>	\$24.9	\$12.7	\$21.2	\$52.2	\$23.6	N/A*
<b>Sponsor / FAA Funds (millions)</b>	\$2.5/\$22.4	\$1.3/\$11.4	\$2.1/\$19.1	\$5.2/\$47	\$2.4/\$21.2	N/A*

\*Refer to Section 2 Airfield Alternative 6 for a summary regarding the cost estimate exclusion

### Non-preferred Alternatives

The runway and taxiway shift associated with Airfield Alternative 1 impacts five residential lots and nine hangars. The RPZ shift will trigger a review of incompatible land uses within the RPZ, including the railroad and North Boyer Avenue. Should it be determined that the railroad must be relocated, additional property impacts will occur. The relocation of North Boyer Avenue will impact residential properties to the east of the Airport and require a new crossing of Sand Creek, which is expected to impact wetlands. **Airfield Alternative 1 is not preferred.**

Airfield Alternatives 2 and 3 do not impact hangars and leave Runway 1/19 in its existing location. The primary difference between the two is the full-length parallel taxiway on the eastside in Airfield Alternative 3 that is not present in Airfield Alternative 2. The full-length parallel taxiway on the eastside in Airfield

Alternative 3 requires a relocation of North Boyer Avenue, which will impact 11 residential properties and require a new crossing over Sand Creek. It is expected that Airfield Alternative 3 will impact roadways, residences and Sand Creek wetlands. **Airfield Alternative 3 is not preferred.** Airfield Alternative 4 is presented to illustrate the demands associated with an airport built to C-II design standards would look like on the Airport. A C-II design standard airport would place considerable strain on existing airport facilities and the surrounding community. RPZs, the ROFA and the RSA would increase in size and the taxiways would be farther from the runway. Most airside development on the westside would be removed to meet clearance and setback requirements, and North Boyer Avenue and the Schweitzer Cutoff Road would require substantial relocation. Based on activity forecasts, C-II traffic is not expected to exceed the substantial use threshold of 500 annual operations during the next 20 years and the Airport does not wish to become a C-II facility. **Airfield Alternative 4 is not preferred.**

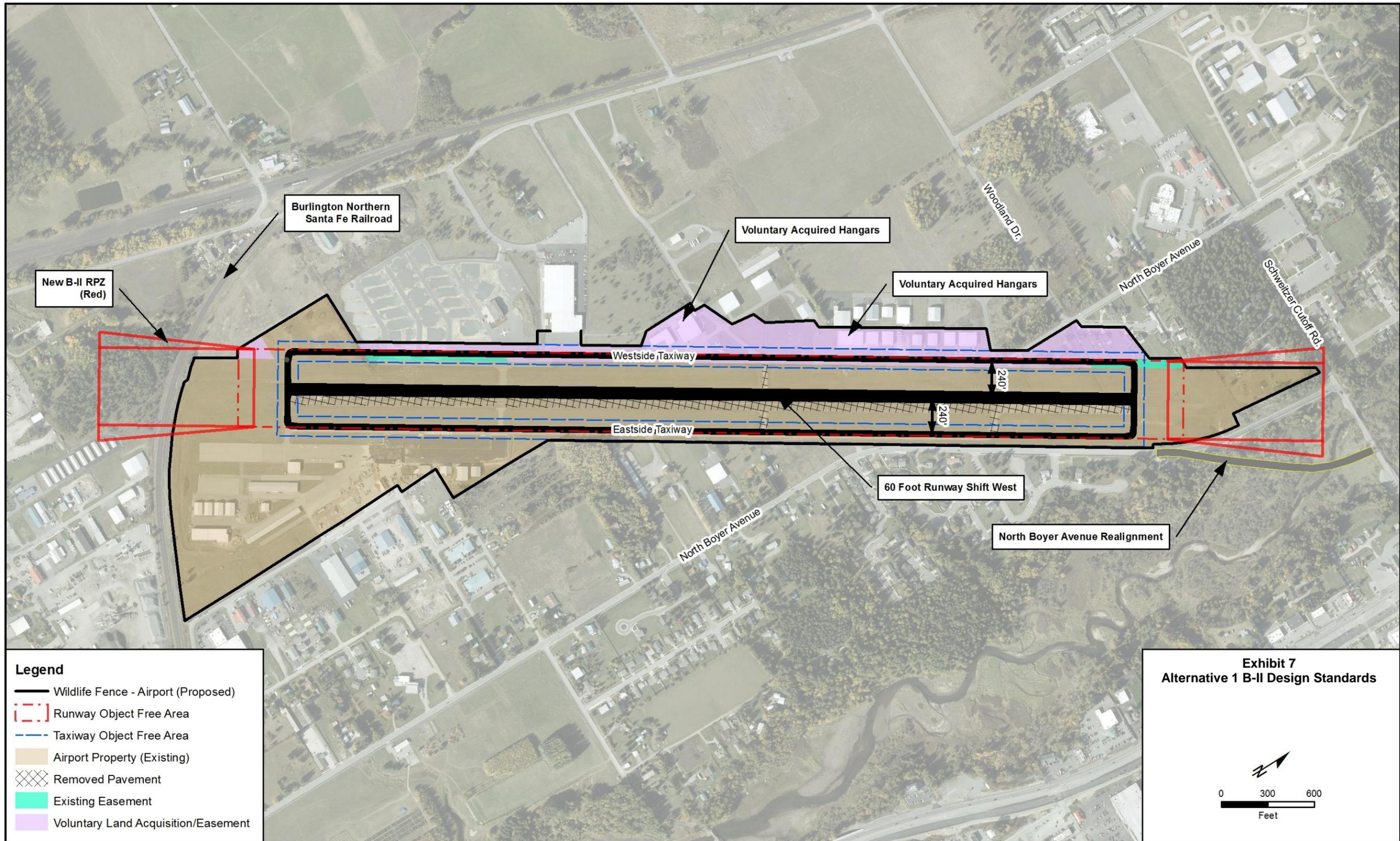
The relocation of North Boyer Avenue and Schweitzer Cutoff Road associated with Alternative 5 will impact residential properties north of the Airport and require a new crossing of Sand Creek, which is expected to impact wetlands. Mitigation costs and the impact of the disturbance on the manmade and natural environment associated with Alternative 5 exceed that of other alternatives. **Airfield Alternative 5 is not preferred.**

Although the 100 feet shift south of Runway 1/19 associated with Airfield Alternative 6 removes Schweitzer Cutoff Road from the Runway 19 RPZ, it requires a relocation of the Burlington Northern Santa Fe Railroad and North Boyer Avenue to meet RPZ interim guidance compatibility standards. The relocation of the Burlington Northern Santa Fe Railroad and North Boyer Avenue will each require new crossings of Sand Creek, which is expected to impact wetlands. Additionally, the realignment of the railroad will require a new track over the Sandpoint Bypass. Furthermore, the southward shift of Runway 1/19 will create airspace issues by moving the FAR Part 77 approach closer to the train tracks, which will lower the FAR part 77 approach surface over the train tracks by five feet. The dual parallel taxiways associated with Alternative 6 will impact 11 residential properties east of the Airport. **Airfield Alternative 6 is not preferred.**

### **Preferred Alternative**

Airfield Alternative 2 maintains the existing runway thresholds and shortens the eastside taxiway to bring the TOFA into compliance with FAA standards. Airfield Alternative 2 does not impact existing hangars or off-airport residential properties. Dual parallel taxiways are desirable when an airport has balanced development on both sides of the runway, and at both runway ends. Due to external property constraints, North Boyer Avenue and the topography, it is unlikely that the northeast corner of the airfield will ever be developed for aviation purposes. Runway End 19 can be served by a westside parallel taxiway that provides similar benefit to airfield circulation as dual parallel taxiways. For these reasons, it is determined that dual full-length parallel taxiways are not necessary at SZT. Aircraft can cross Runway 1/19 at Runway End 1. Runway crossings are not preferred, but given the space constraints at SZT, this option was selected as the most feasible to implement.

Airfield Alternative 2 causes the least amount of impact to on-airport and off-airport property while maintaining the existing runway thresholds and meeting design standards for B-II aircraft. **Airfield Alternative 2 is the preferred airfield alternative.**

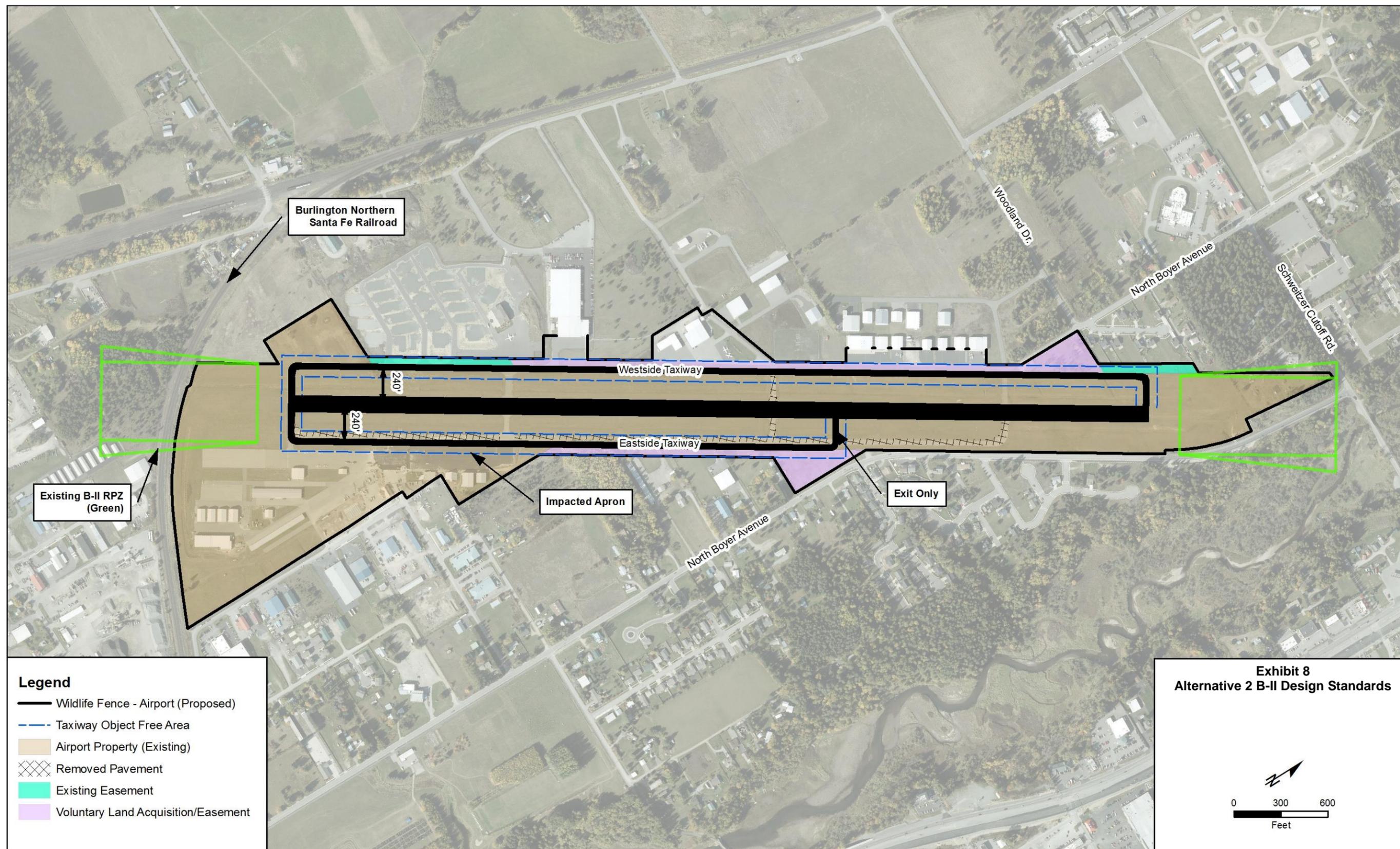


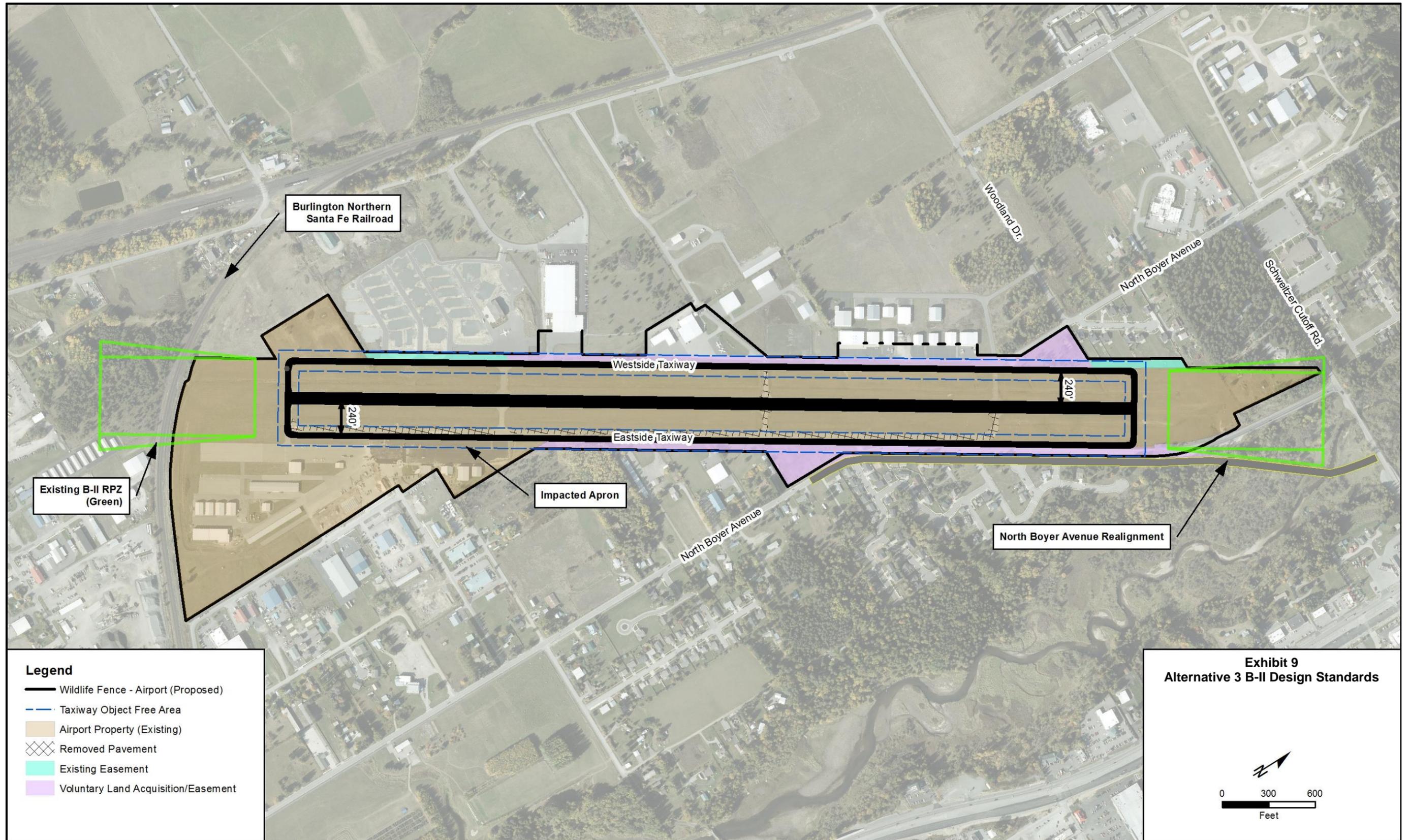
**Legend**

- Wildlife Fence - Airport (Proposed)
- Runway Object Free Area
- Taxiway Object Free Area
- Airport Property (Existing)
- Removed Pavement
- Existing Easement
- Voluntary Land Acquisition/Easement

**Exhibit 7**  
**Alternative 1 B-II Design Standards**

0      300      600  
Feet

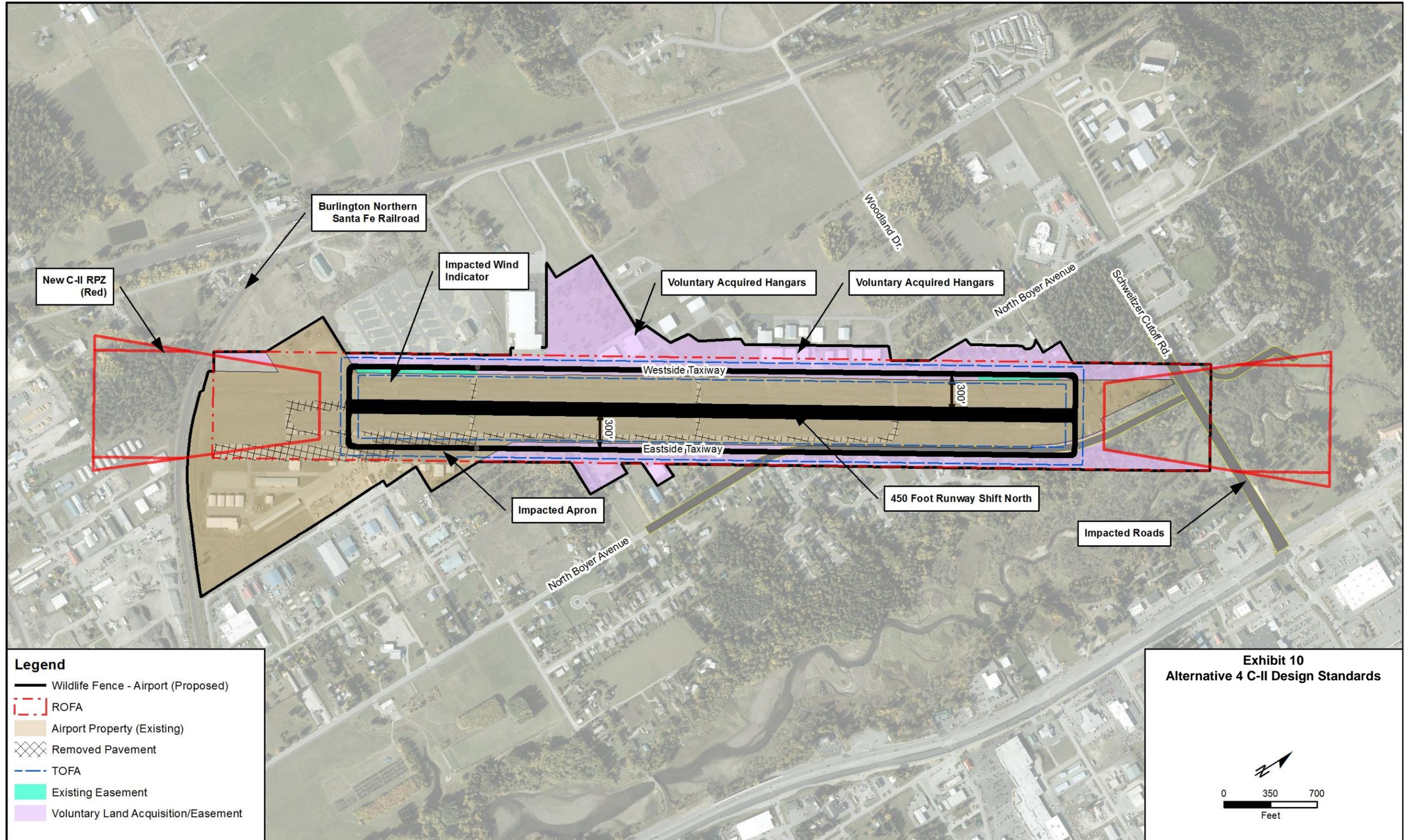




- Legend**
- Wildlife Fence - Airport (Proposed)
  - - - Taxiway Object Free Area
  - Airport Property (Existing)
  - ▨ Removed Pavement
  - Existing Easement
  - Voluntary Land Acquisition/Easement

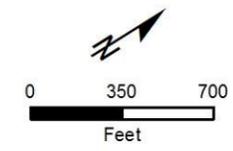
**Exhibit 9**  
**Alternative 3 B-II Design Standards**

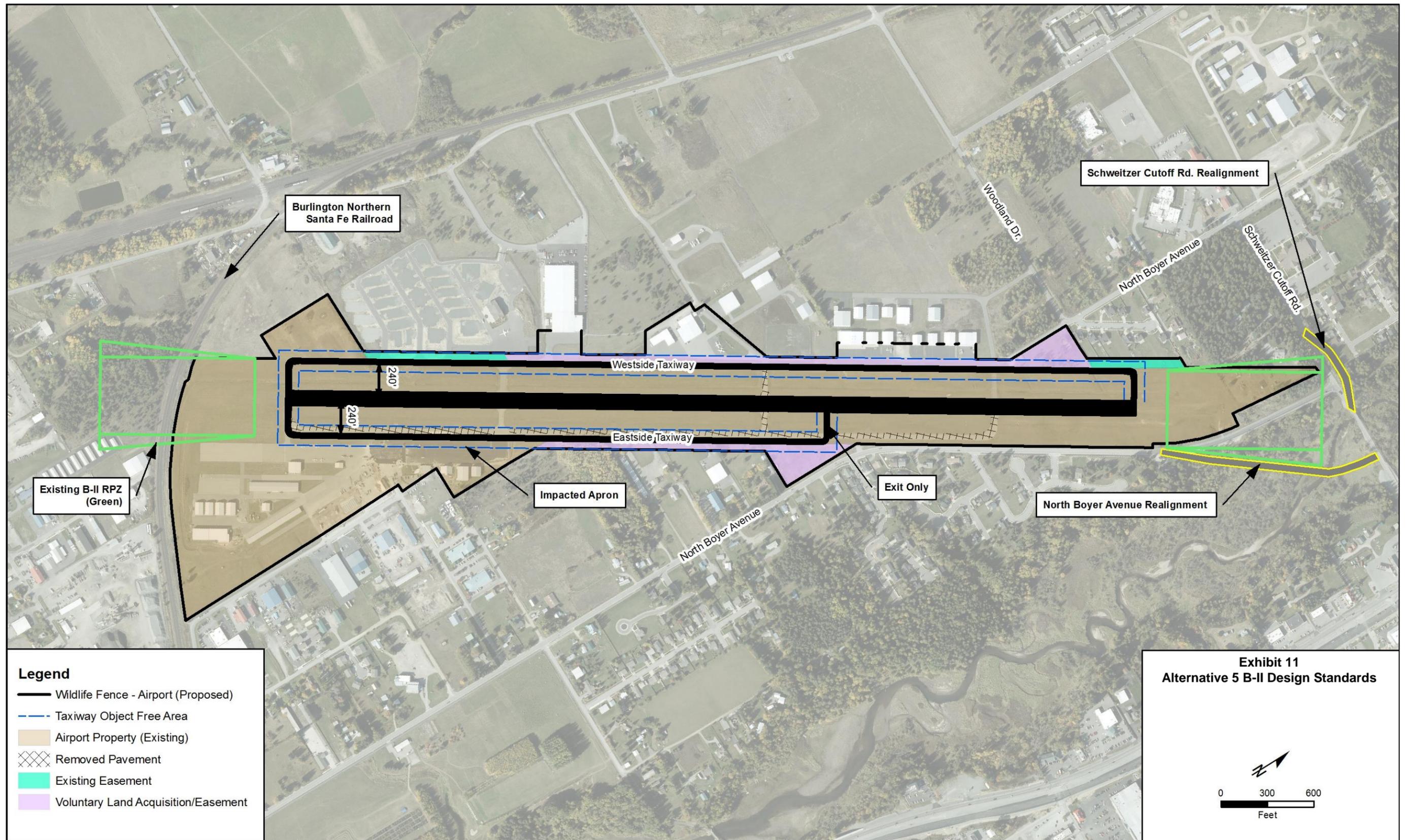
0 300 600  
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- Legend**
- Wildlife Fence - Airport (Proposed)
  - ROFA
  - Airport Property (Existing)
  - Removed Pavement
  - TOFA
  - Existing Easement
  - Voluntary Land Acquisition/Easement

**Exhibit 10**  
Alternative 4 C-II Design Standards

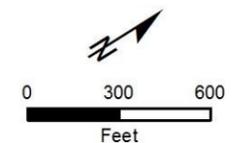


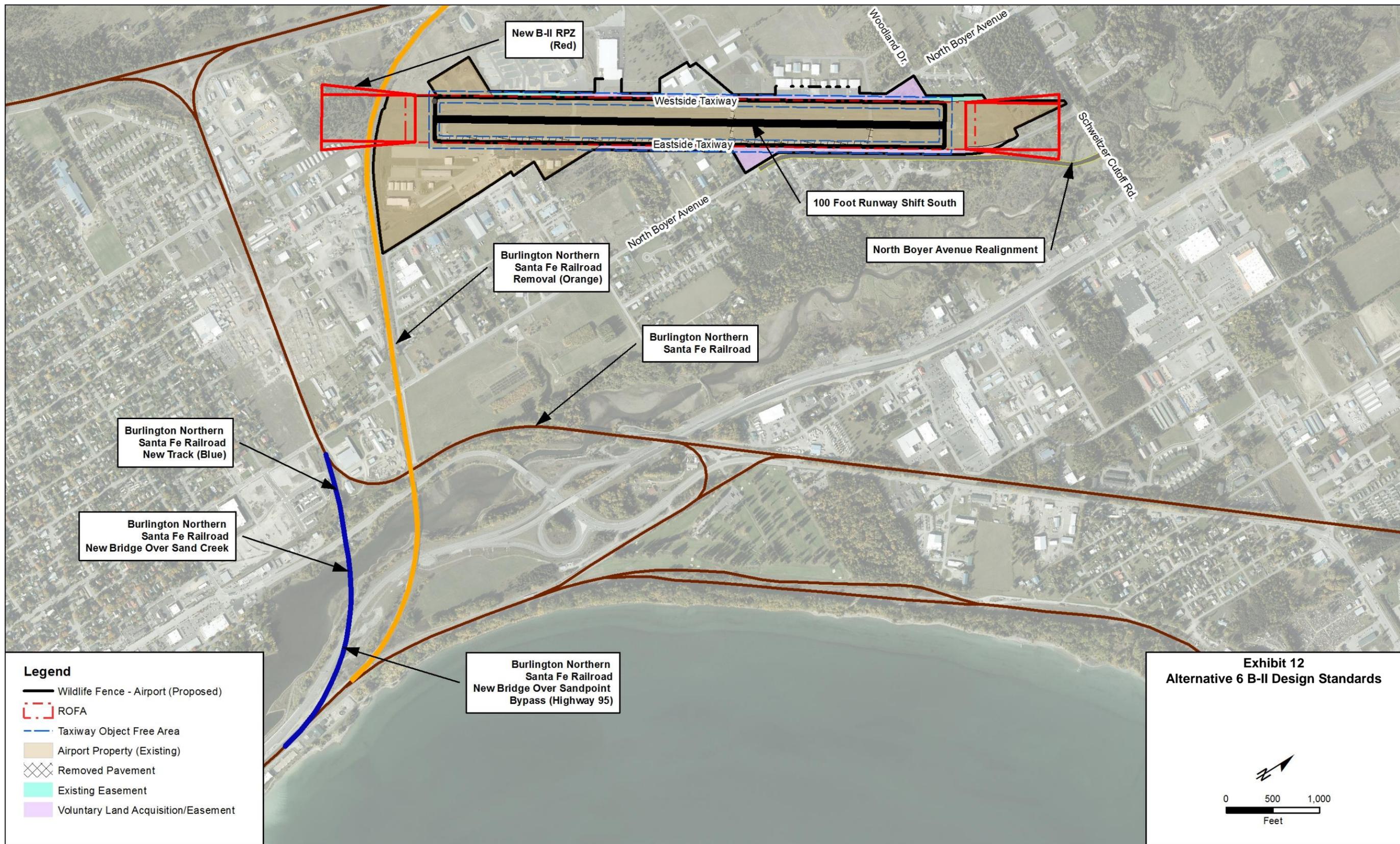


**Legend**

- Wildlife Fence - Airport (Proposed)
- - - Taxiway Object Free Area
- Airport Property (Existing)
- ▨ Removed Pavement
- Existing Easement
- Voluntary Land Acquisition/Easement

**Exhibit 11**  
Alternative 5 B-II Design Standards





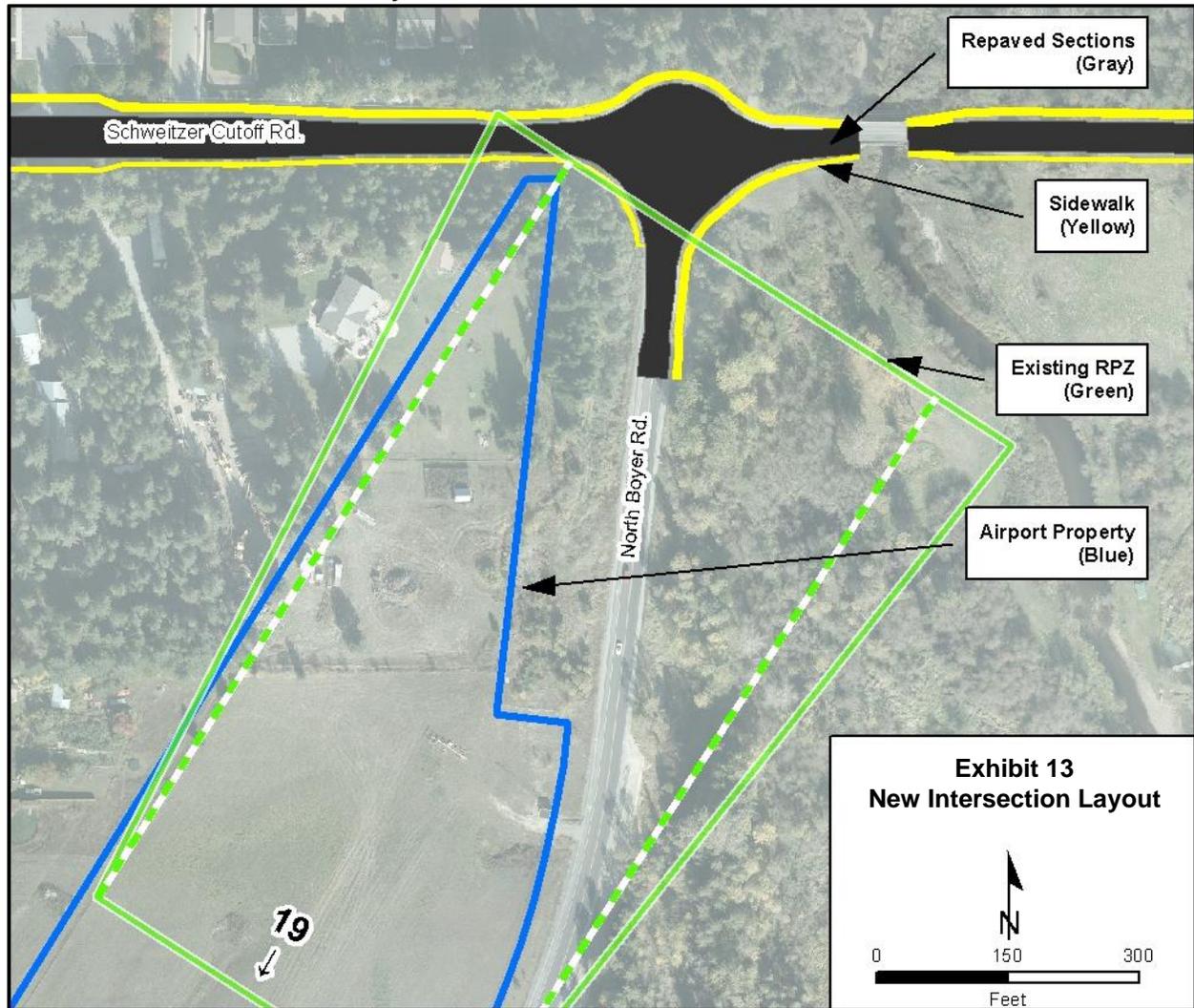
### **Impact of Realignment on the Preferred Alternative**

The Airport does not have full control of the Runway End 19 RPZ. The right-of-way (ROW) associated with Schweitzer Cutoff Road intersects the north end of the Runway End 19 Approach RPZ and North Boyer Avenue crosses the RPZ as it approaches Schweitzer Cutoff Road. The preferred airfield alternative does not alter the existing layout of Runway 1/19 or the B-II design standard. Analysis expects that the RPZ will retain its existing dimensions at its current location. Existing roads will remain in the RPZ, and removal of these roads from the RPZ would impact sensitive wetland areas, disrupt established residential development and require significant grading during construction.

The proposed roundabout will replace the stop sign at the intersection of North Boyer Avenue and Schweitzer Cutoff Road. The City is redesigning the intersection to improve traffic flow and reduce vehicular traffic conflicts. While this proposal changes the layout of an intersection in close proximity to the RPZ, the design does not change the land use, traffic volume or existing conditions within the RPZ. By installing the roundabout, traffic exiting North Boyer Avenue may not have to wait as long through the intersection as it does with the stop sign configuration.

FAA guidance recommends that airports control the land within the RPZ where feasible; however, full control of the RPZ at SZT would require road relocation which would impact existing development to the north of the Airport and environmentally-sensitive areas associated with Sand Creek. It is not expected that full acquisition of the RPZ will be financially, socially and environmentally feasible. **Exhibit 13** shows the new intersection layout.

**Exhibit 13: New Intersection Layout**



### **Section 3 – Preferred Alternative Runway Modification**

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The Preferred Airfield Alternative does not change, add, or remove incompatible land uses within the Runway End 19 RPZ. The new design for the Schweitzer Cutoff Road and North Boyer Avenue intersection includes new roadway construction within the RPZ: a new roundabout, additional pavement to accommodate new traffic patterns, minimal widening of North Boyer Avenue as it approaches the intersection, and pedestrian circulation development.

The other alternatives considered that would remove the roadways from the RPZ are considered politically, financially, and environmentally unfeasible. Any relocation of North Boyer Avenue would impact sensitive wetland and floodplain areas and private residences. Environmental mitigation costs, relocation and property acquisition costs, and construction costs are expected to exceed any perceived benefit from the project. The roadways exist in the RPZ today, and the proposed improvement is expected to reduce traffic dwell time within the RPZ, which actually improves on existing conditions. Lower dwell time should be considered a safety improvement as vehicles will be in the RPZ for less time than they are today.

## Section 4 – Technical Memorandum Recommendations Summary

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The proposed changes to the Schweitzer Cutoff Road and North Boyer Avenue intersection will not impact airport operations or safety zones more than they do under the existing configuration; the Runway End 19 Approach RPZ crosses a small section of Schweitzer Cutoff Road and the proposed roundabout will not increase the number of roads, or the length of roads, within the RPZ. The proposed roundabout is not located inside of the RPZ, and it is expected that the design will not alter traffic volume. Improved traffic flows, and a decreased in automobile dwell time within the RPZ are expected as a result of this project. The result is that automobiles will spend less time in the RPZ with the proposed roundabout than they do under existing conditions with the stop sign.

It is recommended that the Airport consider acquiring property in the RPZs when possible to reduce potential development of incompatible land uses in the RPZs. Land use controls, including easements and zoning overlays can also be effective methods of land use control when acquisition is not feasible. The FAA prefers fee-simple acquisition when possible.

The recommendations of this technical memorandum are as follows:

- Meet FAA design standards through the development of Airside Alternative 2, including,
  - Maintaining Runway 1/19 in its existing location, length, and width;
  - Construct a full length parallel taxiway on the westside;
- Discourage development of incompatible land uses through acquisition of property or easements on eight acres within the Runway End 1 Approach RPZ, seven acres within the Runway End 19 Approach RPZ, and 13 acres within the TOFA of the new taxiways.
- Work with the City of Sandpoint, Bonner County, and the City of Ponderay to promote compatible land use development within the RPZs, FAR Part 77 surfaces, and approach and departure corridors.



# APPENDIX I

## COMBINED CAPITAL AND OPERATING BUDGET FORECAST

A detailed annual Capital and Operating Budget Forecast for the 2015-2034 period has been prepared for the Sandpoint Airport. It is an integral part of the 2015 Airport Master Plan update. This forecast was developed as a computer-based sensitivity model which allows for inflation expectations by line item.<sup>1</sup> It provides management the flexibility to make rapid operating budget forecast changes as airport operating, capital and grant cash flow conditions evolve. The model directly links the operating budget to the phased Capital Improvement Plan (CIP) and airport grand funding estimates.

A primary goal of Sandpoint public officials is to achieve financial *self-sustainability* of its Airport operations. This was accomplished in Fiscal Year 2014—the most current year that data is available.<sup>2</sup> Sandpoint Airport achieved a Net Operating Income (NOI) of nearly \$56,000 thereby achieving its self-sustainability operating goal. The FY14 Sandpoint Airport operating statement, capital cost expenditures and grant revenues are shown in column one of Table H-1.

Airport operating revenues sources basically come from leases and aircraft fuel flowage sources. A summary of on-site revenues and corresponding rates and charges at Sandpoint Airport is presented below for FY14:<sup>3</sup>

- Ground rent from the new FBO facility generated about \$14,700
- Airport tie-down fees of \$30/month or \$6/overnight produced about \$1,100
- Metered fuel flowage netted the Airport \$.06/gallon--or over \$12,400
- Lease revenue from the two Airport-owned hangars was nearly \$32,200
- Ground leases rates for privately owned buildings and facilities ranged from \$.11 to \$.20 per square foot/year and generated nearly \$21,000.

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<sup>1</sup> Although the annual inflators for each operating statement line items are estimated at two (2) percent in the Airport Operating and Capital Budget Forecast table, they can easily be changed as operating experience dictates.

<sup>2</sup> Bonner County's Fiscal Year ends on September 30<sup>th</sup>.

<sup>3</sup> The rates shown are within current market ranges for similar airports

- Other rent and miscellaneous revenues produced nearly \$7,000
- Combined, these seven on-site Airport revenue sources generated a total of over \$88,000

In addition, the Airport received non-operating revenues in the form of property taxes totaling over \$198,000—well over double that produced by all the above operating revenue sources combined. Total non-grant revenues at Sandpoint Airport totaled over \$286,300 in FY14. Subtracting operating expenses of over \$230,400 (as detailed in column one of Table H-1) resulted in the positive NOI of nearly \$56,000 for FY 14.

### **Capital Budget Forecast**

A detailed public and private capital improvement budget forecast for Sandpoint Airport is presented in Table H-2. It shows publicly funded capital improvement cost requirement projections for the 2015 through 2034 Airport master planning period. Because of the higher level of forecast certainty in near-term, yearly requirements are shown during the 2015-2019 time span. Thereafter, capital expenditure requirements are lumped into multi-year time segments. As illustrated, the total public capital cost requirement for Airport capital improvements is projected to be nearly \$16 million.

This total and corresponding grant matching requirements resulting from this Capital Improvement Program (CIP) forecast are directly linked to Table H-1. The FAA is scheduled to provide 90 percent of estimated capital costs through grants. It is assumed that the State of Idaho will only provide 2.5 percent of such costs in the form of matching grants. Based on conversations with the Bonner County Auditor, this assumed low State match share is purposefully intended to reflect the most conservative financial position. The Bonner County match share is therefore assumed to be 7.5 percent of the \$16 million total forecast capital requirement—or nearly \$1.2 million during the entire 2015-2034 Airport planning period.

Table H-2 also shows projected capital facility funding requirements from unidentified private sources during the Airport master plan forecast period. Such requirements entail private land acquisitions and new hangar development needs. The total cost for these private facilities is estimated to be nearly \$14 million.

### **Airport Revenue Enhancement Goals**

The remainder of this section focuses on possible future sources of operating revenue enhancement at Sandpoint Airport. Sandpoint Airport officials seek to increase Airport operating revenues through economic diversification, new job creation, and enhancement of the Airport real estate tax base. Thus, new sources of airport operating revenue are very important given the Airport's requirement to provide its financial match contribution as set forth in the Capital Improvement Plan forecast.

New revenues in the form of new user ground rents appear to be the best consistent future operating revenue source at Sandpoint Airport. In particular, attracting new aviation-dependent and aviation-related business is of paramount importance. Accordingly, the remainder of section explores potential aviation-dependent and aviation-related development opportunities at Sandpoint Airport in order to generate additional revenues. It is assumed that all uses accommodated within the airport boundary will interact with Sandpoint Airport operations and services in some manner.

## **Airport Policies**

Future development at Sandpoint Airport is subject to certain public regulation and policies. Federal Aviation Administration (FAA) policy restrictions are first and foremost. In addition, Airport board-directed policies limit the types of development activities permitted on airport property. Local policy examples follow:

- The airport is viewed as an enterprise of Bonner County. As such, the County requires that the airport operate as an economically self sustaining entity.
- The Airport Board is pursuing a “ground lease only” policy at Sandpoint Airport. Development of new hangars and other commercial buildings at the Airport will be financed and constructed by private enterprise.
- At the end of ground lease terms, these privately constructed and owned buildings will revert back to Sandpoint Airport unless new ground lease terms are negotiated with the private building owners.
- The Airport Board seeks to accrue recurring additional revenues through additional ground lease agreements as well as aviation fuel flowage and tie-down fees.
- Airport officials are also seeking new aviation-dependent and aviation-related business ventures willing to develop facilities at the Airport on leased land. The key benefits to the Bonner County and the Airport are new jobs, ground lease revenues and an enhanced property tax base.

The “overall” targeted economic sectors for development/recruitment at Sandpoint Airport are now set forth. They fall mainly within the Aerospace Cluster of industries.

## **Aerospace Cluster**

The Aerospace Cluster is comprised of industries that include establishments which contribute to production, research and development, operations, support services, and government administration of the nation's public and private aerospace system. These industries are classified by the North American Industry Classification System (NAICS) under the following economic sectors:

- Manufacturing
- Transportation
- Professional
- Scientific and technical services
- Maintenance
- Repair and operational services, and

Selected industries within these divisions have been designated as component industries of the Aerospace Cluster as follows:

### **Manufacturing**

Manufacturing businesses engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products and falling into the Aerospace Cluster include the following NAICS industries:

- **334511** Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing
- **3364** Aerospace product and parts manufacturing

These are the primary NAICS categories for the manufacture of aviation-related products from airframes to individual components of airframes, engines, and control systems.

### **Transportation**

Businesses which provide transportation of passengers and cargo as well as support activities related to modes of transportation. The Aerospace Cluster includes NAICS:

- **4881** Support activities for air transportation (includes hangar rentals)

### **Professional, Technical and Support Services**

These are establishments that perform specialized professional, scientific, and technical services requiring a high degree of expertise, or, provide operational or support activities. The Aerospace Cluster includes NAICS:

- **541512** Computer systems design services
- **54171** R & D in physical, engineering and life sciences

### **Maintenance, Repair and Operational Services**

Airport-related businesses are reflected in the following NAICS category:

- **811213** Communications Equipment Repair & Maintenance

Several other standard activities at airports such as flight training and aircraft rental are listed as subcategories under education and training, equipment rentals and leasing, or other major sections of the classification system.

### **Local Business Targets**

Specifically, it is recommended that the Sandpoint Airport officials target the following types of *aviation-dependent* and aviation-related businesses at the airport because of their relatively good development/recruitment market potentials.

Selected aviation-dependent business types include:

- Expansion of aircraft storage and parking
- Avionics
- Small aircraft reproduction
- Aircraft upholstery
- Propeller balancing
- Aircraft repair and maintenance
- Pilot training
- Aircraft rental and sales
- Aerial surveying
- Aerial photography

Also, certain *aviation-related* business/organization types may be particularly attracted to Sandpoint Airport. One key reason is relatively inexpensive ground leases which minimize entity cash flow requirements. Another is light manufacturers (such as Encoder) that have goods transport requirements due to their high value/low bulk characteristics suitable for air transport.

<b>TABLE H-1: SANDPOINT AIRPORT OPERATING AND CAPITAL BUDGET FORECAST</b>									
<b>OPERATING INCOME &amp; CAPITAL EXP.</b>	<b>FY 2014 Actual</b>	<b>% Increase Sensitivity</b>	<b>Phase I</b>					<b>Phase II &amp; III</b>	
			<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020-2024</b>	<b>2025-2034</b>
<b>Operating Revenues</b>	<b>Revenues</b>								
FBO Ground Lease Rent	\$14,667	2.0%	\$14,960	\$15,259	\$15,564	\$15,876	\$16,193	\$16,517	\$16,847
Tie-Down Fees	\$1,121	2.0%	\$1,144	\$1,166	\$1,190	\$1,214	\$1,238	\$1,263	\$1,288
Fuel Flowage Fees	\$12,417	2.0%	\$12,665	\$12,918	\$13,177	\$13,440	\$13,709	\$13,983	\$14,263
Hanger (2) Rents--Airport Owned	\$32,176	2.0%	\$32,820	\$33,476	\$34,145	\$34,828	\$35,525	\$36,235	\$36,960
Ground Rent from Airport Lots	\$20,775	2.0%	\$21,190	\$21,614	\$22,046	\$22,487	\$22,937	\$23,396	\$23,864
Other Rent	\$4,192	2.0%	\$4,275	\$4,361	\$4,448	\$4,537	\$4,628	\$4,720	\$4,815
Other Misc. Sandpoint Airport Revenues	<u>\$2,796</u>	2.0%	<u>\$2,852</u>	<u>\$2,909</u>	<u>\$2,967</u>	<u>\$3,027</u>	<u>\$3,087</u>	<u>\$3,149</u>	<u>\$3,212</u>
<b>Total Operating Revenues</b>	<b>\$88,143</b>		<b>\$89,906</b>	<b>\$91,704</b>	<b>\$93,538</b>	<b>\$95,409</b>	<b>\$97,317</b>	<b>\$99,263</b>	<b>\$101,249</b>
<b>Non-Operating Revenues</b>									
Airport Property Tax Revenues**	\$198,189	3.0%	\$204,134	\$210,258	\$216,566	\$223,063	\$229,755	\$236,648	\$243,747
<b>TOTAL NON-GRANT AIRPORT REVENUES</b>	<b><u>\$286,332</u></b>		<b><u>\$294,040</u></b>	<b><u>\$301,962</u></b>	<b><u>\$310,104</u></b>	<b><u>\$318,472</u></b>	<b><u>\$372,072</u></b>	<b><u>\$335,911</u></b>	<b><u>\$344,996</u></b>
<b>Operating Expenses</b>	<b>Expenditures</b>								
Salaries--Restricted Accrual	\$(650)	2.0%	\$(663)	\$(676)	\$(690)	\$(704)	\$(718)	\$(732)	\$(747)
Statutory Reserve Appropriation.	-	2.0%	-	-	-	-	-	-	-
Salaries--Other Personnel	<u>\$(41,280)</u>	2.0%	<u>\$(42,106)</u>	<u>\$(42,948)</u>	<u>\$(43,807)</u>	<u>\$(44,683)</u>	<u>\$(45,576)</u>	<u>\$(46,488)</u>	<u>\$(47,418)</u>
<b>Subtotal 'A' Expenses--Salaries</b>	<b><u>\$(41,930)</u></b>		<b><u>\$(42,769)</u></b>	<b><u>\$(43,624)</u></b>	<b><u>\$(44,496)</u></b>	<b><u>\$(45,386)</u></b>	<b><u>\$(46,294)</u></b>	<b><u>\$(47,220)</u></b>	<b><u>\$(48,164)</u></b>
Retirement	\$(2,447)	2.0%	\$(2,496)	\$(2,546)	\$(2,597)	\$(2,649)	\$(2,702)	\$(2,756)	\$(2,811)
Social Security	\$(3,282)	2.0%	\$(3,347)	\$(3,414)	\$(3,483)	\$(3,552)	\$(3,623)	\$(3,696)	\$(3,770)
Life Insurance	\$(79)	2.0%	\$(81)	\$(82)	\$(84)	\$(86)	\$(87)	\$(89)	\$(91)
State Unemployment	<u>\$(185)</u>	2.0%	<u>\$(189)</u>	<u>\$(193)</u>	<u>\$(197)</u>	<u>\$(201)</u>	<u>\$(205)</u>	<u>\$(209)</u>	<u>\$(213)</u>
<b>Subtotal 'B' Expenses--Benefits</b>	<b><u>\$(5,993)</u></b>		<b><u>\$(6,113)</u></b>	<b><u>\$(6,235)</u></b>	<b><u>\$(6,360)</u></b>	<b><u>\$(6,487)</u></b>	<b><u>\$(6,617)</u></b>	<b><u>\$(6,749)</u></b>	<b><u>\$(6,884)</u></b>

OPERATING INCOME & CAPITAL EXP.	FY 2014 Actual	% Increase Sensitivity	Phase I					Phase II & III	
			2015	2016	2017	2018	2019	2020-2024	2025-2034
<b>Operating Expenses</b>	<b>Expenditures</b>								
Travel	\$(2,311)	2.0%	\$(2,357)	\$(2,404)	\$(2,452)	\$(2,501)	\$(2,551)	\$(2,602)	\$(2,654)
Utilities--Telephone, Other	\$(1,152)	2.0%	\$(1,175)	\$(1,198)	\$(1,222)	\$(1,247)	\$(1,271)	\$(1,297)	\$(1,323)
Utilities--Electricity	\$(5,244)	2.0%	\$(5,349)	\$(5,456)	\$(5,565)	\$(5,676)	\$(5,790)	\$(5,905)	\$(6,024)
Utilities--Street Lights	\$(788)	2.0%	\$(804)	\$(820)	\$(836)	\$(853)	\$(870)	\$(887)	\$(905)
Utilities--Water	-	2.0%	-	-	-	-	-	-	-
Utilities--Other	\$26	2.0%	\$26	\$27	\$27	\$28	\$28	\$29	\$30
Vehicles--Fuel, Gasoline	\$(157)	2.0%	\$(160)	\$(163)	\$(167)	\$(170)	\$(173)	\$(177)	\$(180)
Vehicles--Fuel, Diesel	\$(4,006)	2.0%	\$(4,086)	\$(4,167)	\$(4,251)	\$(4,336)	\$(4,422)	\$(4,511)	\$(4,601)
Professional SVC--Legal	\$(123,890)	2.0%	\$(126,368)	\$(128,895)	\$(131,473)	\$(134,103)	\$(136,785)	\$(139,520)	\$(142,311)
Professional SVC--Engineering	\$(364)	2.0%	\$(371)	\$(378)	\$(386)	\$(393)	\$(401)	\$(409)	\$(418)
Professional SVC--Other	\$(14,677)	2.0%	\$(14,971)	\$(15,270)	\$(15,576)	\$(15,887)	\$(16,205)	\$(16,529)	\$(16,860)
Repairs/Maint--Bldg. & Fixtures	\$(3,830)	2.0%	\$(3,907)	\$(3,985)	\$(4,065)	\$(4,146)	\$(4,229)	\$(4,314)	\$(4,400)
Repairs/Maint--Airfield	\$(5,308)	2.0%	\$(5,414)	\$(5,523)	\$(5,633)	\$(5,746)	\$(5,861)	\$(5,978)	\$(6,097)
Repairs/Maint--Equipment	\$13,471	2.0%	\$(13,740)	\$(14,015)	\$(14,296)	\$(14,581)	\$(14,873)	\$(15,171)	\$(15,474)
Electric Equipment Calibration	-	2.0%	-	-	-	-	-	-	-
Rent/Lease--Equipment	\$(4,119)	2.0%	\$(4,201)	\$(4,285)	\$(4,371)	\$(4,459)	\$(4,548)	\$(4,639)	\$(4,731)
Rent/Lease--Other	-	2.0%	-	-	-	-	-	-	-
Supplemental Facilities	-	2.0%	-	-	-	-	-	-	-
Administration	-	2.0%	-	-	-	-	-	-	-
Other Misc. Expenditures	\$(1,846)	2.0%	\$(1,883)	\$(1,921)	\$(1,959)	\$(1,999)	\$(2,038)	\$(2,079)	\$(2,121)
Education	-	2.0%	-	-	-	-	-	-	-
Small Asset Purchases	\$(1,379)	2.0%	\$(1,407)	\$(1,435)	\$(1,463)	\$(1,493)	\$(1,523)	\$(1,553)	\$(1,584)
Contracts--Labor	-	2.0%	-	-	-	-	-	-	-
Contracts--Airport Radio Service	-	2.0%	-	-	-	-	-	-	-
Contracts--Airport Grass Cutting	-	2.0%	-	-	-	-	-	-	-
Contracts--Airport Manager	-	2.0%	-	-	-	-	-	-	-
Contracts--Snow Removal	-	2.0%	-	-	-	-	-	-	-
<b>Subtotal 'B' Expenses--Other Expenses</b>	<b>\$(182,516)</b>		<b>\$(186,166)</b>	<b>\$(189,889)</b>	<b>\$(193,687)</b>	<b>\$(197,561)</b>	<b>\$(201,512)</b>	<b>\$(205,542)</b>	<b>\$(209,653)</b>
<b>TOTAL AIRPORT OPERATING EXPENSES</b>	<b><u>\$(230,439)</u></b>		<b><u>\$(235,047)</u></b>	<b><u>\$(239,748)</u></b>	<b><u>\$(244,543)</u></b>	<b><u>\$(249,434)</u></b>	<b><u>\$(254,423)</u></b>	<b><u>\$(259,511)</u></b>	<b><u>\$(264,702)</u></b>

OPERATING INCOME & CAPITAL EXP.	FY 2014 Actual	% Increase Sensitivity	Phase I					Phase II & III	
			2015	2016	2017	2018	2019	2020-2024	2025-2034
<b>AIRPORT NET OPERATING INCOME</b>	<b><u>\$55,893</u></b>		<b><u>\$58,993</u></b>	<b><u>\$62,214</u></b>	<b><u>\$65,561</u></b>	<b><u>\$69,038</u></b>	<b><u>\$72,649</u></b>	<b><u>\$76,400</u></b>	<b><u>\$80,294</u></b>
<b>Capital Costs</b>	<b>FY14 Actual Capital Outlays</b>								
Capital--Equipment	\$(48,075)		-	-	-	-	-	-	-
Capital--Construction	-		-	-	-	-	-	-	-
Capital--Land Improvements	\$(7,540)		-	-	-	-	-	-	-
Capital--Buildings	\$(71,819)		-	-	-	-	-	-	-
Capital--Equipment--Other	\$(13,800)		-	-	-	-	-	-	-
<b>Subtotal Capital Outlays</b>	<b><u>\$(141,234)</u></b>		-	-	-	-	-	-	-
			-	-	-	-	-	-	-
<b>Airport MP Capital Improvement Costs</b>			<b>\$200,000</b>	<b>\$76,000</b>	<b>\$582,332</b>	<b>\$2,371,084</b>	<b>\$3,409,646</b>	<b>\$3,572,892</b>	<b>\$5,566,531</b>
<b>Grant Revenues</b>	<b>FY14 Actual Grants</b>								
SURA--Special One-Time Grant	\$17,576		-	-	-	-	-	-	-
Federal Grant--Sandpoint Airport	\$891,454		\$180,000	\$68,400	\$524,099	\$2,133,976	\$3,068,681	\$3,215,603	\$5,009,878
State Match--Sandpoint Airport	\$50,070		\$5,000	\$1,900	\$14,558	\$59,277	\$85,241	\$89,322	\$139,163
<b>County Match--Sandpoint Airport</b>	<b>\$48,980</b>		<b>\$15,000</b>	<b>\$5,700</b>	<b>\$43,675</b>	<b>\$177,831</b>	<b>\$255,723</b>	<b>\$267,967</b>	<b>\$417,490</b>
<b>Subtotal Grant Revenues</b>	<b><u>\$1,008,080</u></b>								

\*Bonner County Fiscal Year begins Oct. 1st and Ends Sept. 30th (e.g. FY 14 ends Sept. 30, 2014).

\*\*Sandpoint Airport property tax revenues comprise an estimated 94% of combined total collected which also includes Priest River Airport

Source: Bonner County Auditor, J-U-B Engineers, Real Estate Economic



Mead  
& Hunt

In association with  
J.A. Sewell and Associates and  
Real Estate Economics