OKEECHOBEE COUNTY AIRPORT
AIRPORT MASTER PLAN UPDATE

DRAFT FINAL NARRATIVE REPORT

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Prepared By:

5555 E. Michigan Street, Suite 200
Orlando, FL 32822

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1 INTRODUCTION

This Airport Master Plan Update has been prepared for Okeechobee County Board of County Commissioners (BOCC), on behalf of Okeechobee County, Florida (County) to provide long-range airport improvement strategies that respond to the projected future demand for aviation and aviation related services at the Okeechobee County Airport (Airport or OBE). Funding for this project has been received from the Federal Aviation Administration's (FAA) Airport Improvement Program (AIP), and the Florida Department of Transportation (FDOT) Aviation and Spaceports Office.

The FAA requires airports receiving AIP funding to conduct periodic updates of their planning documents. The last Master Plan for the Airport was completed in September of 2007. The Airport Layout Plan (ALP) associated with the 2007 Master Plan was never approved by the FAA, as there are conservation easements on Airport property, some of which are located within runway safety areas on the Airport. The current conditionally approved ALP of record for the Airport is dated 1988. Since 2007, the County has worked to resolve the issues associated with the conservation easements and it is believed that these are close to resolution, pending the completion of this Master Plan Update and ALP Update.

This study considers future Airport improvements for the 20-year period of 2019 to 2038. This period will be broken into three phases over which Airport improvement projects will be undertaken: Short-term (2019-2023), mid-term (2024-2028) and long-term (2029-2038). The previous Master Plan study provided a basis for some information in this study. Use of the current versions of FAA Advisory Circular (AC) 150/5070-6B, *Airport Master Plans*, AC 150/5300-13A, *Airport Design*, FDOT regulations, and local laws will provide guidance in decision making during this study. Local, state, and federal agencies will be coordinated with throughout this Master Plan process.

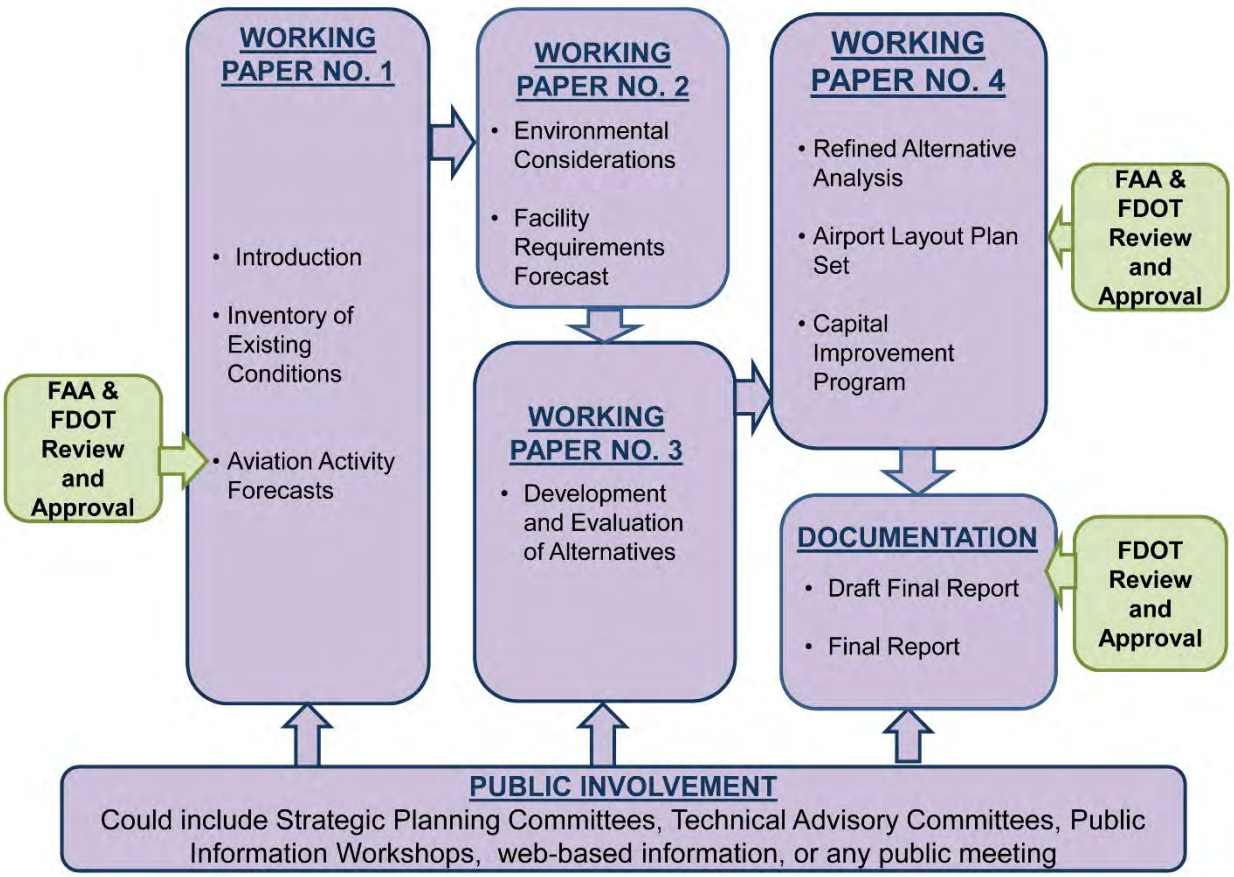
The Master Plan process identifies the existing facilities and their condition. Current and future aviation activity demands are also identified. Facility requirements are developed to meet the aviation activity demands. This Master Plan Update provides guidance for future development over the planning period that will satisfy the demand in an efficient, safe, and financially feasible manner, as well as serving as a guide for the County Commission, County and Airport staff, and the funding agencies. This Master Plan addresses the following:

- Updates the 2007 Master Plan
- Identifies the location and types of facility improvements needed
- Provides a capital improvement plan that addresses project phasing and financial needs
- Develops an Airport Layout Plan (ALP) that graphically depicts existing and future developments

The steps in the typical Master Planning process are shown in Figure 1-1 and are briefly described below:

- **Inventory of Existing Conditions:** The existing Airport facilities are catalogued, and an evaluation is made as to their condition. State of Florida Statutes and the Okeechobee County Comprehensive Plan are searched for Airport-related information. Additionally, information related to the area demographics is collected.

Figure 1-1
OKEECHOBEE COUNTY AIRPORT MASTER PLANNING PROCESS



- **Aviation Activity Forecasts:** Current and future levels of based aircraft and aircraft annual operations are determined in this study phase. These forecasts are further broken out into various categories, such as aircraft type and local versus itinerant operations. Forecasts are generally developed for the short-term, mid-term, and long-term periods as described above for the 20-year planning period. The aviation activity forecasts are the basis and the justification for the Master Plan Update. As such, both the FAA and FDOT require that the aviation activity forecasts be reviewed and approved by them before developing the remainder of the Master Plan Update. If either the FAA or FDOT do not approve the forecasts, projects identified by the Master Plan will not be eligible for funding by these agencies.

- **Environmental Considerations:** Environmental factors are assessed to provide enough information to evaluate Airport development alternatives and to provide information that will assist in the expediting of any subsequent environmental process. Typically, this results in an overview of the Airport's environmental setting and the identification of environmentally related permits that may be required for the recommended development projects.
- **Facility Requirements Forecast:** An assessment of the airfield operational capacity is conducted to determine if unacceptable operational delays would be expected over the planning period. Various analyses are conducted to project future demand for facilities based on the aviation activity forecasts, including airfield infrastructure, hangars, aprons, terminal space, and vehicle parking spaces. These future facility demands are then compared to the existing facilities to identify any shortfalls. Additionally, a brief review is conducted to identify any existing facilities that do not meet federal, state, or local regulations, codes, or standards.
- **Development and Evaluation of Alternatives:** Alternatives are developed to meet the shortfalls in facilities identified in the previous task. These alternatives are then evaluated using several criteria including the ability to meet the demand, cost, environmental impacts, safety requirements, and other relevant criteria. These alternatives could consider airside and landside facilities and any needed access improvements. From the evaluation, a preferred development plan will result.
- **Refined Alternative Analysis:** As the alternatives are being evaluated during the previous phase, the pros and cons of the various alternatives are evaluated. It is rare that the preferred alternative would be considered perfect. This phase attempts to correct or mitigate some of the perceived flaws in the preferred alternative. In addition, more detail or refinement is put into the plan. This refinement will allow a better preliminary cost estimate to be accomplished in a later phase of the Master Plan Update.
- **Airport Layout Plan Set Production:** A set of engineering-type drawings, referred to as the Airport Layout Plan (ALP) set, is created showing existing facilities and the selected preferred alternative. The ALP set also includes airspace and runway approach drawings, a terminal area map, a land use map, and a property map showing the existing and proposed boundaries. This ALP set will also include an updated Exhibit "A", Property Inventory Map. These maps and drawings will assist the County in the planning and maintenance of Airport boundaries and airspace.
- **Capital Improvement Program:** A list of individual projects, cost estimates, and a development timeline are determined for the preferred alternative. This information makes up the Capital Improvement Program (CIP), which is utilized by the FAA, FDOT, and the County in determining funding and development priorities.
- **Documentation:** All the analyses will be documented and consolidated into working papers as shown in Figure 1-1. Each working paper will be submitted to the County as it is completed. At the completion of the four working papers, they will be consolidated into one draft document and submitted to the County, FAA, and FDOT for review. The aviation activity forecasts and the Airport Layout Plan set are the only portions of the Master Plan Update that the FAA approves, although they review the entire document.

The FDOT approves the entire Master Plan and ALP set. Comments from the County, FDOT, and the FAA will be addressed, and the final document will be submitted to the County.

These steps build one upon another to identify a clear action plan that can be used by the County to guide financial and development decisions. This process leads to the production of two key documents – the ALP set and the Master Plan Update report. The development of an approved ALP is a requirement for public use airports that receive federal AIP funding and FDOT aviation development funds. The Master Plan Update report describes and justifies the proposed improvement concepts included in the ALP set.

2 INVENTORY OF EXISTING CONDITIONS

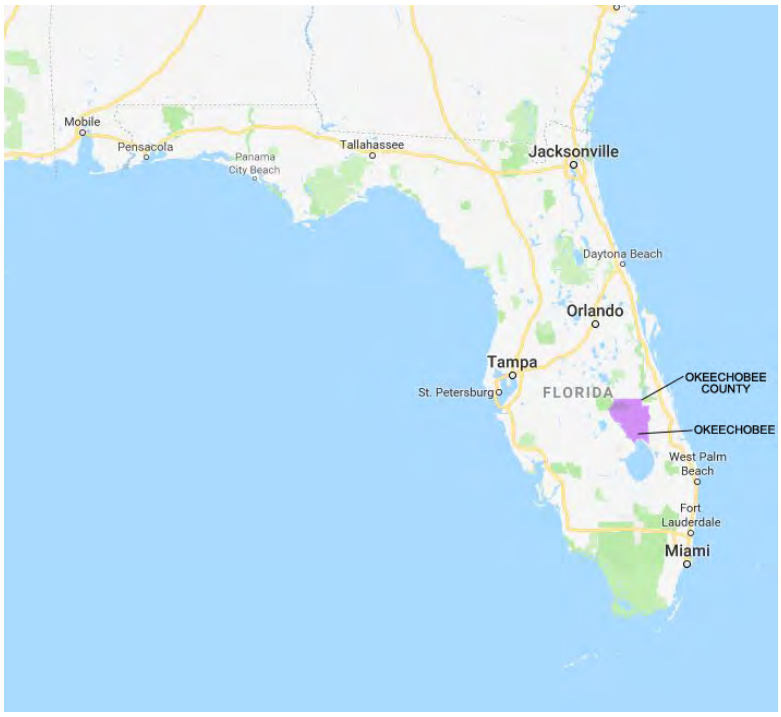
2.1 Introduction

This chapter presents a description of the existing conditions and facilities at the Okeechobee County Airport (Airport). The description of these facilities will help assess the overall condition of the Airport, including the non-conformance of any infrastructure to FAA and/or FDOT standards. This information will be the basis of comparison for the facility requirements forecast to be developed later in this Master Plan Update. The assessment of the existing facilities includes the description of the existing airside facilities including the runways, taxiways, apron, and navigational aids. Landside facilities, including t-hangars, fueling facilities, the Airport terminal, and the vehicular facilities are also discussed. A field visit was conducted on 2 November 2017, which included a visual assessment of each facility's condition.

2.2 Airport Setting

Okeechobee County Airport is in Okeechobee County, Florida. Each is in southern Florida, just north of Lake Okeechobee. Osceola and Indian River counties border Okeechobee County to the north. St. Lucie and Martin counties are to the east, and Highlands and Glades counties are to the west. Lake Okeechobee is to the south, as shown in Figure 2-1.

Figure 2-1
VICINITY MAP

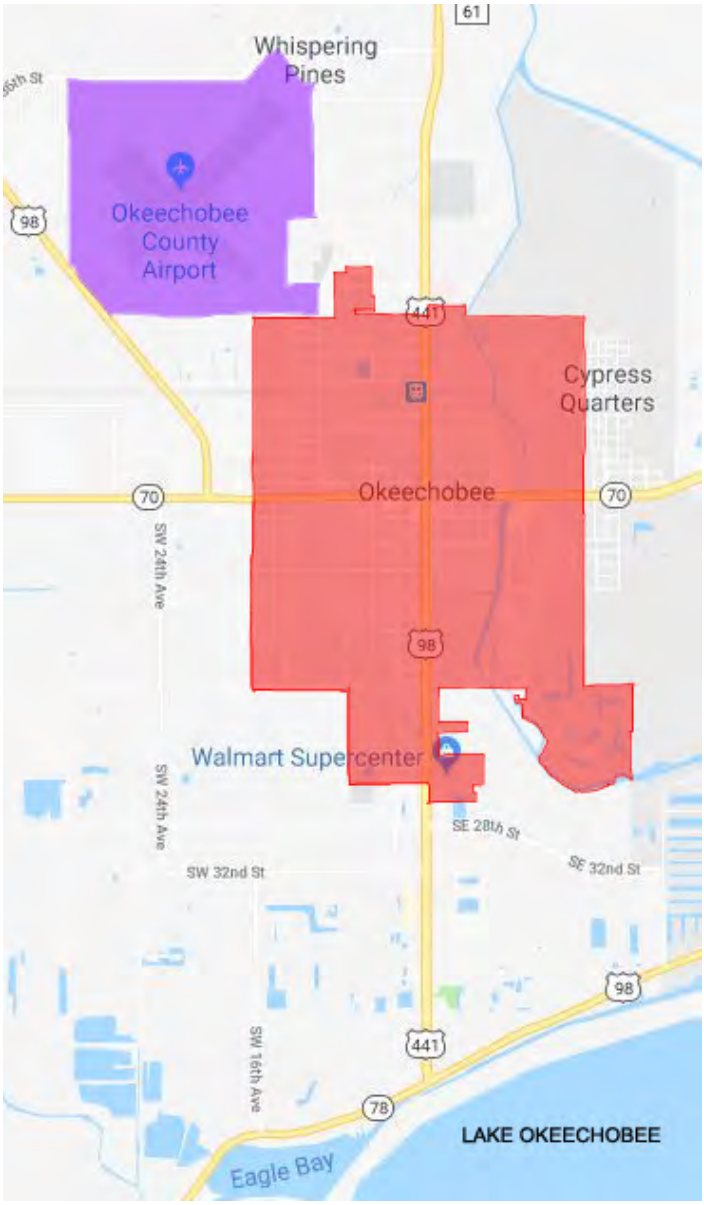


Source: Google Maps

2.2.1 Location

Okeechobee County Airport is located three miles northwest of the City of Okeechobee, which is located north of Lake Okeechobee, as shown in Figure 2-2. The Airport is located west of U.S. Highway 441 and east of U.S. Highway 98. Public access to the Airport is achieved via NW 20th Trail from U.S. Highway 98. The Airport covers approximately 864 acres and the airfield has an elevation of approximately 33.4 feet above mean sea level. The major cities near the Airport include West Palm Beach (53 miles), Melbourne (51 miles), and Fort Myers (65 miles).

Figure 2-2
AIRPORT LOCATION MAP



Source: Google Maps

2.2.2 Administration

The Airport is owned and operated by Okeechobee County. A five-member Board of County Commissioners oversees the operation of the Airport. The Airport Manager takes care of the day-to-day management of the Airport and reports to the County Administrator.

2.2.3 Airport History

Okeechobee County Airport was first built in the 1940's by the U.S. military and was named Conner Field. It served as an auxiliary field to Hendricks Army Airfield in Sebring, FL during World War II and was released to the County in 1948 through the auspices of the War Assets Administration. The Airport has continued as a public-use general aviation airport since that time.

2.2.4 National Air Transportation Role

Every two years, the U.S. Secretary of Transportation is required to publish a national plan for Congress that presents data, forecasts, and development plans of all public-use airports in the United States. This plan is referred to as the National Plan of Integrated Airport Systems (NPIAS). One of the main products of the NPIAS is a listing of infrastructure that will be eligible for federal grants. A general aviation (GA) airport is characterized in the NPIAS as an airport not receiving scheduled commercial passenger or cargo service. To be included in the NPIAS, airports should have at least 10 based aircraft and be located a minimum of 20 miles from other NPIAS airports. Airports located closer than 20 miles from another NPIAS airport can also be included based on several exception criteria. Meeting these requirements, the Okeechobee County Airport is included in the NPIAS and is classified as a Regional airport. As such, it serves an important role in the national and state aviation systems.

The FAA 2019-2023 NPIAS indicates that future development of general aviation facilities must be based on eligible and justified needs and priorities. These are in part based on the new categories of general aviation airports. Okeechobee County Airport is classified as a Regional airport. Regional airports "supplement regional economies by connecting communities to regional and national markets…Regional airports have high levels of activity with some jets and multi-engine propeller aircraft."

Within the FAA Document *General Aviation Airports: A National Asset,* Okeechobee County Airport is listed as a General Aviation "Local" airport. "Local" airports are defined as those airports with ten plus instrument operations and 15 plus based aircraft; or 2,500 plus passenger enplanements. "Local" airports make up 42 percent of the general aviation airports eligible for Federal funding.

Within the United States, the FAA assigns location identifiers to airports. These are then adopted by the International Air Transport Association (IATA), which has airport or location identifiers for each airport around the World. The airport code is a three – character alphanumeric code. The International Civil Aviation Organization (ICAO) also uses and published a similar system. The assigned codes for each organization often bear little resemblance to one another. The ICAO designations are published in the ICAO Document 7910: *Location Indicators*. In general, IATA codes are derived from the name of the airport or

the city it serves, while ICAO codes are distributed by region and country. Okeechobee County Airport has the IATA designation of OBE and the ICAO designation of KOBE.

2.2.5 Florida Aviation System Plan

The Florida Aviation System Plan (FASP) is administered by the FDOT Aviation and Spaceports Office through its Continuing Florida Aviation System Planning Process (CFASPP). The CFASPP was established by the FAA and FDOT to maintain and enhance the Florida aviation system and to help keep the FASP in step with the constant changes by updating the FASP periodically.

Within the CFASPP, there are nine regions within the State of Florida. Okeechobee County Airport is in the Treasure Coast Region of the CFASPP. This region encompasses Indian River, Okeechobee, St. Lucie, and Martin counties. There are seven public-use airports in the Treasure Coast region. Of these, all are designated as general aviation airports, as shown in Figure 2-3.

Figure 2-3
TREASURE COAST REGION CFASPP MAP

Source: Continuing Florida Aviation System Planning Process (CFASPP)

2.3 Meteorological Conditions

Weather plays an important role in the operation of aircraft. It must be considered in several different airfield design parameters. Information regarding the Okeechobee area's climate and wind characteristics is presented in this section.

2.3.1 Climate

Okeechobee County and the surrounding region are typically warm throughout the year. The average temperature varies between 63° Fahrenheit (F) in January to 82° F in July and August. The highest temperatures in August are generally around 92° F. The coldest temperature is generally about 52° in January. In summer, the temperature drops approximately 18° F at night. The wettest month is typically August with an average of 4.02" of rain. The windiest month is March with winds reaching an average of 8 miles per hour. The average annual rainfall is 23.46 inches.

2.3.2 Wind Coverage

Runway wind coverage at an airport refers to the percentage of time that crosswinds are below an acceptable velocity. Per the FAA Advisory Circular (AC) 150/5300-13A, *Airport Design*, the minimum wind coverage permitted for a runway, considering all observations, is 95 percent. This means that for 95 percent of the time, the crosswind component must be less than the maximum crosswind component of the aircraft landing at that specific airport. The crosswind component is calculated based on a crosswind not exceeding the following:

- 10.5 knots (12 miles per hour (mph)) for aircraft with an Airport Reference Code (ARC) of A-1 and B-1 (example aircraft include the Beech Bonanza, the Cessna Citation I, and the Beech King Air)
- 13 knots (15 mph) for ARC A-II and B-II (example aircraft include the Beech King Air 200, the DHC 6 Twin Otter, and the Cessna 441)
- 16 knots (18 mph) for ARC A-III, B-III, and C-I through D-III (example aircraft include the Dash 8, the DHC 5D Buffalo, and the Gates Learjet 24/25/28/29/54/55/56)
- 20 knots (23 mph) for ARC A-IV through D-IV (example aircraft include the Boeing YC-14, the Boeing 757, and the MD-11.)

If this coverage cannot be accomplished for the maximum crosswind component of the critical aircraft for a specific runway, then constructing a crosswind runway should be considered.

The Okeechobee County Airport has an Automated Weather Observing System (AWOS IIIP/T), which is operated and controlled by the FAA. The FAA AC 150/5300-13A states that a period of at least 10 consecutive years of wind data should be examined when analyzing airfield wind coverage. This data is available through the FAA Airports GIS website and was downloaded for the years 2007 through 2016; a period of ten years. The Airport's wind data combined with the 5/23 Runway configuration yielded the results contained in Table 2-1.

Table 2-1
WIND DATA FOR RUNWAY 5/23

	Okeechobee County Airport
All Weather	
10.5 knots (12 mph)	97.23%
13 knots (15 mph)	98.75%
16 knots (18 mph)	99.84%
Visual Flight Rules (VFR)	
10.5 knots (12 mph)	97.19%
13 knots (15 mph)	98.74%
16 knots (18 mph)	99.84%
Instrument Flight Rules (IFR)	
10.5 knots (12 mph)	98.15%
13 knots (15 mph)	99.11%
16 knots (18 mph	99.79%

Source: FAA AGIS Years 2007 through 2016

The information is given for three different conditions. The first is called All Weather and covers all weather conditions. The second is called Visual Flight Rules (VFR) and covers those rules in effect when visual flight meteorological conditions occur, which is when the cloud ceiling is greater than 1,000 feet and the visibility is greater than three miles. The third condition is called Instrument Flight Rules or IFR. This occurs when the meteorological conditions are less than 1,000 feet and the visibility is at or lower than three miles. Only the crosswind components 10.5, 13, and 16 knots were calculated, as aircraft in the higher wind groups are not expected to operate in significant numbers at the Airport.

As seen in Table 2-1, the wind coverage for Runway 5/23, the primary runway, exceeds 95 percent under all conditions. The same analysis was completed for Runway 14/32, the Airport's crosswind runway, as shown in Table 2-2. The results indicate that a crosswind runway would not be required under any of the studied conditions if this runway were utilized as the primary runway. This runway was only analyzed for winds of 10.5 knots and 13 knots as larger aircraft are not expected to use this runway in significant numbers.

Table 2-2
WIND DATA FOR RUNWAY 14/32

	Okeechobee County Airport
All Weather	
10.5 knots (12 mph)	96.69%
13 knots (15 mph)	98.44%
Visual Flight Rules (VFR)	
10.5 knots (12 mph)	96.65%
13 knots (15 mph)	98.43%
Instrument Flight Rules (IFR)	
10.5 knots (12 mph)	98.02%
13 knots (15 mph)	99.02%

Source: FAA AGIS Years 2007 through 2016

Finally, the wind data was analyzed against the configuration using the two Airport runways together. The results for the combined configuration of Runways 5/23 and 14/32 are shown in Table 2-3.

Table 2-3
WIND DATA FOR COMBINED RUNWAYS 5/23 AND 14/32

	Okeechobee County Airport
All Weather	
10.5 knots (12 mph)	99.74%
13 knots (15 mph)	99.97%
16 knots (18 mph)	100.00%
Visual Flight Rules (VFR)	
10.5 knots (12 mph)	99.75%
13 knots (15 mph)	99.98%
16 knots (18 mph)	100.00%
Instrument Flight Rules (IFR)	
10.5 knots (12 mph)	99.68%
13 knots (15 mph)	99.89%
16 knots (18 mph)	99.94%

Source: FAA AGIS Years 2007 through 2016

This achieves the desired result where all the wind coverage measures exceed 95 percent under all conditions recommended by the FAA. Only the crosswind components 10.5, 13, and 16 knots were calculated, as aircraft in the higher wind groups are not expected to operate in significant numbers at the Airport. The information from the wind data indicates that the primary runway, Runway 5/23, is capable of being the only runway on the Airport under all analyzed conditions. The crosswind runway, Runway 14/32, if it were the primary runway, also would not require a secondary runway. The configuration that uses both Runways 5/23 and 14/32 also

results in satisfactory wind coverage under All-weather, VFR and IFR weather conditions. Specific wind rose information for each of the runways can be found in Appendix A.

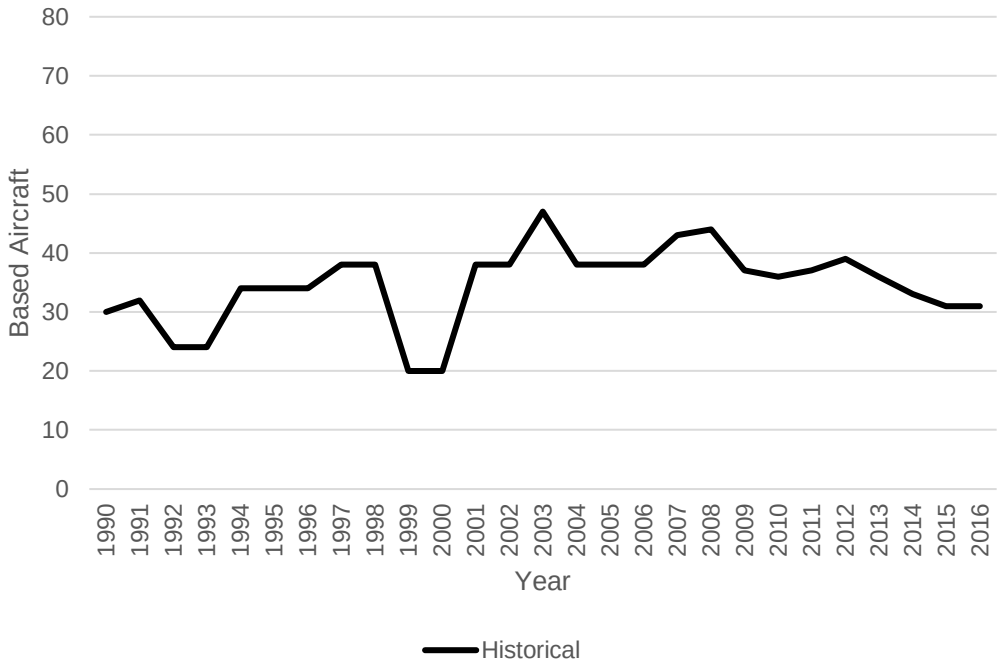
2.4 Historical Data

The historical aviation activity data for the Okeechobee County Airport was taken from the 2018 FAA Terminal Area Forecast (TAF) for the Airport. This historical data is typically reported to the FAA by each respective airport annually via the FAA Airport Master Record (Form 5010).

2.4.1 Based Aircraft

The historical data for based aircraft for the Airport, as shown in the January 2018 FAA TAF for the Airport begins in 1990 and goes through 2016. The data is shown in Figure 2-4 and Table 2-4.

Figure 2-4
HISTORICAL BASED AIRCRAFT



Source: FAA Terminal Area Forecast and FAA Form 5010

Table 2-4
HISTORICAL BASED AIRCRAFT

Year	Based Aircraft
1990	30
1991	32
1992	24
1993	24
1994	34
1995	34
1996	34
1997	38
1998	38
1999	20
2000	20
2001	38
2002	38
2003	47
2004	38
2005	38
2006	38
2007	43
2008	44
2009	37
2010	36
2011	37
2012	39
2013	36
2014	33
2015	31
2016	31

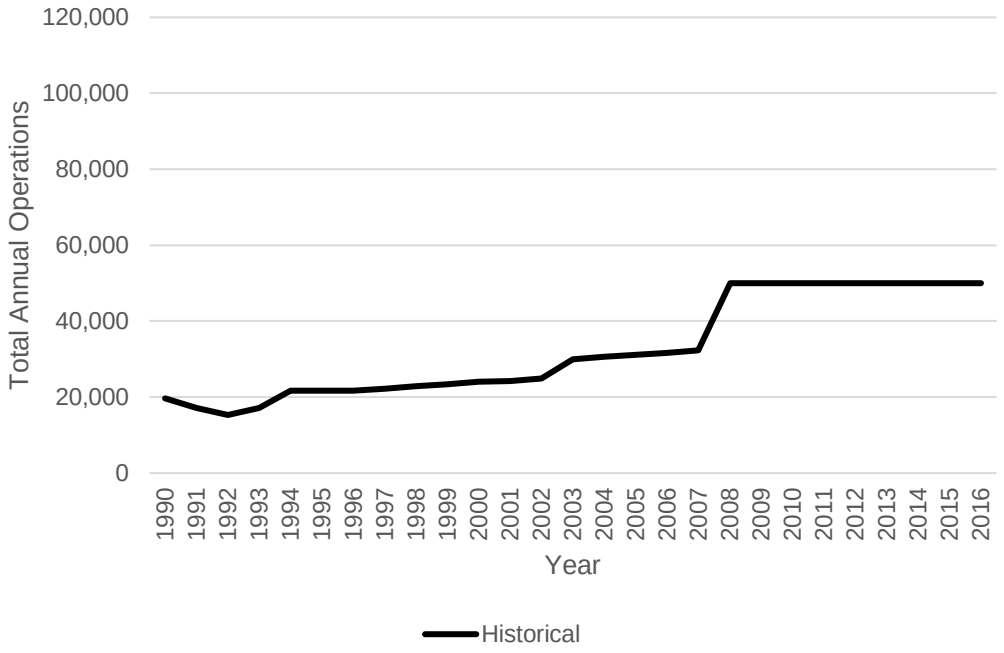
Source: 2018 FAA Terminal Area Forecast and FAA Form 5010

The period from 1990 through 1994 was a period of recession around the world, and this is reflected in the number of based aircraft at the Airport that began the period at 30, dipped to 24 during the recession, and rose again to 34 as the recession ended. The World again entered a recession in 1998, and the number of based aircraft again fell from 38 to 20. The recession was lessening when the terrorist attacks of September 11, 2001 occurred, but little impact occurred in the number of based aircraft at the Airport. Indeed, by the year 2003, the Airport reached its highest number of based aircraft at 47. However, by the year 2008, the effects of another recession were again being felt at the Airport to the effect that by the year 2010, the number of based aircraft had again fallen to 36. In 2016, the Airport reported 31 based aircraft.

2.4.2 Aircraft Operations

Like the based aircraft forecast, the number of annual operations was taken from the January 2018 FAA Terminal Area Forecast (TAF). The data is shown in Figure 2-5 and Table 2-5.

Figure 2-5
HISTORICAL ANNUAL AIRCRAFT OPERATIONS



Source: 2018 FAA Terminal Area Forecast and FAA Form 5010

Table 2-5
HISTORICAL ANNUAL AIRCRAFT OPERATIONS

Year	Annual Operations
1990	19,700
1991	17,200
1992	15,300
1993	17,200
1994	21,700
1995	21,700
1996	21,700
1997	22,242
1998	22,823
1999	23,448
2000	24,074
2001	24,227
2002	24,897
2003	29,938
2004	30,553
2005	31,169
2006	31,708
2007	32,256
2008	50,000
2009	50,000
2010	50,000
2011	50,000
2012	50,000
2013	50,000
2014	50,000
2015	50,000
2016	50,000

Source: 2018 FAA Terminal Area Forecast and Form 5010

The 1990-1994 recession only slightly effected the number of annual operations, starting off at 19,700 in the year 1990 and dipping to 15,300 in the year 1992. By the year 1994, the Airport had achieved 21,700 annual operations and this number continued to grow modestly through the year 2007, when it reached 32,256 annual operations. By the year 2008, the number of reported annual operations had grown dramatically to 50,000, where it remained through 2016.

2.5. Airside Facilities

Airside facilities are those facilities required to support the movement and operation of aircraft. This involves not only the Airport's runway and taxiway system; it also includes the airfield lighting, pavement markings, takeoff and landing aids, and airfield signage.

2.5.1 Aircraft Movement Areas

Aircraft movement areas include paved and unpaved surfaces that enable aircraft to move to and from a runway. This includes not only the runway and taxiways, but the Airport's aprons.

Figure 2-6
OKEECHOBEE COUNTY AIRPORT AERIAL

Source: Google Earth; Imagery taken 11 February 2017

Figure 2-6 provides an aerial view of the facilities at the Airport, which currently has two runways; Runway 5/23 is the primary runway and Runway 14/32 is the crosswind runway.

2.5.1.1 Runway 5/23

Runway 5/23 is oriented in a southwest/northeast direction. Runway 5/23 is a 5,000-foot long by 100-foot wide asphalt runway, with 25-foot shoulders on each side. The Runway currently has no displaced thresholds. Displaced thresholds are thresholds located at a point on a runway beyond the physical beginning of the runway. Displaced thresholds shorten the useable length of the runway and are typically put into effect to allow aircraft to avoid obstructions to the airspace near the ends of a runway.

The Pavement Classification Number is a standardized methodology for reporting the strength of airport pavement and expresses the load carrying capacity of the pavement for unrestricted operations. The PCN for Runway 5/23 is 28/F/B/X/T. The full PCN report for the Airport can be found in the Airport's Joint Automated Capital Improvement Program (JACIP) page under the pavement tab.

Per the *FDOT Statewide Pavement Management Program Report* of September 2017, the pavement of Runway 5/23 was last constructed with asphalt concrete overlain on asphalt concrete in July of 2008. The 50-foot wide pavement located in the center of the runway is in good condition with a Pavement Condition Index (PCI) of 71 (out of 100). The 25-foot wide pavement located to either side of the center pavement is in "satisfactory" condition with a PCI of 85. The shoulders were not tested for the FDOT report.

2.5.1.2 Runway 14/32

Runway 14/32 is oriented in a northwest/southeast direction. Runway 14/32 is a 4,000-foot long by 75-foot wide asphalt concrete overlain on asphalt concrete runway. The Runway currently does not have displaced threshold. Per the *FDOT Statewide Pavement Management Program Report* of September 2017, the pavement of Runway 14/32 is in "fair" condition with a PCI of 56. It was last rehabilitated in January of 2003.

The pavement located at the intersection of Runway 14/32 and Taxiway A was last constructed in March 2011. It has a "good" PCI of 92.

The PCN for Runway 14/32 is 14/F/A/X/T. Table 2-6 provides basic information on the existing conditions of both runways.

Table 2-6
OKEECHOBEE COUNTY AIRPORT RUNWAY DATA

Characteristic	Runway 5/23	Runway 14/32
Length and Width (feet)	5,000 x 100	4,001 x 75
Displaced Threshold	None	None
Marking (condition)	Non-Precision Instrument (Good)	Non-Precision Instrument (Good)
Approach Aids	4-Light PAPI, REIL	4-Light PAPI
Surface Type	Asphalt Concrete	Asphalt Concrete
Strength (pounds)	SW 40,000	SW 30,000
Effective Gradient (%)	.07%	.10%
Pavement Classification Number (PCN)	28/F/B/X/T	14/F/A/X/T
Pavement Condition Index (PCI) (2017)	85/71	92/56

Note: PAPI = Precision Approach Path Indicator, SW = Single Wheel, REIL = Runway End Identifier Lights
Source: Airport layout Plan, FAA Form 5010, and FDOT Statewide Airfield Pavement Management Program Report (2017)

2.5.1.3 Taxiways

The purpose of any taxiway system is to support the operational activity and enhance the safety of aircraft ground movements. Taxiways also act to enhance the capacity of the runway system by allowing aircraft to move on and off the active runway system in an efficient manner. A good taxiway system is designed to provide freedom of movement to and from the runways and between aviation facilities at an airport. At a minimum, the FAA recommends that each end of the primary runway should be easily accessible from the terminal and hangar areas. Ideally, all runway ends would be easily accessible from the terminal and hangar areas. Taxiway systems include entrance and exit taxiways, by-pass taxiways, taxiway run-up areas, apron taxiways, and taxilanes. The Airport currently has two full-length parallel taxiways.

Taxiway A is a full-length parallel taxiway to the primary runway, Runway 5/23, it is 35-feet wide, and travels in a southwest/northeast direction. It connects Runway 5/23 with the terminal area, tenant hangars, the tie-down apron, Taxiways B and C, and Runway 14/32. Per the *FDOT Statewide Pavement Management Program Report* of September 2017, the pavement of northeast section of Taxiway A is in "Good" condition with a PCI of 87. The southwest portion of the taxiway has a PCI of 85, or "Fair."

Taxiway B is also a full-length parallel taxiway. It is 35-feet wide, serves Runway 14/32, and travels in a northwest/southeast direction. It connects Runway 14/32 with the T-hangars, the box hangars, Taxiway A, the tie-down apron, and Runway 5/23. *FDOT Statewide Pavement Management Program Report* of September 2017, says the majority of Taxiway B has a PCI of 52, or "Poor."

There is a third taxiway on the Airport, Taxiway C. It runs in an east/west direction between the intersection of Taxiways A and B and the intersection of Runways 5/23 and 14/32. This taxiway is 30-feet wide and has a "Good" PCI of 88. However, per FAA Advisory Circular (AC) 150/5300-13A, *Airport Design*, this taxiway no longer meets safety criteria as it is an example of a three-node concept where more than two taxiways meet at a point, making it a complex intersection, which increases the potential for pilot error. Additionally, it is not recommended that a taxiway be allowed to access multiple runways at a single point as currently occurs at the taxiway's intersection with Runways 5/23 and 14/32.

2.5.2 Airfield Lighting

Proper airfield lighting is required at all airports that have nighttime operations. Okeechobee County Airport has lighting systems that enable it to accommodate nighttime aircraft operations.

2.5.2.1 Identification Lighting

The rotating beacon indicates the location and presence of an airport at night or in adverse weather conditions. The beacon's tower is equipped with an optical rotating system that projects two beams of light, one green and one white, 180 degrees apart, in accordance with FAA criteria. These colors indicate that the Airport is a civil airport. An airport rotating beacon is a visual navigational aid (navaid) located at many airports.

The Airport's rotating beacon is located about 275 feet west-southwest of the Airport terminal and is shown in Figure 2-7. It has been relocated since the 2007 Master Plan Update.

Figure 2-7
ROTATING BEACON

2.5.2.2 Runway Lighting

Runway lights allow pilots to identify the edges of a runway and assist them in determining the remaining length at night and during periods of restricted visibility. These lighting systems are classified by their intensity or brightness. Runway 5/23 is equipped with Medium Intensity Runway Lights (MIRL). Pilots can activate the runway lighting system through the Common Traffic Advisory Frequency (CTAF), frequency 123.00 MHz. Runway 14/32 does not have runway lights.

2.5.2.3 Taxiway Lighting

Taxiway A and Taxiway C have Medium Intensity Taxiway Edge Lights (MITL). The lights are in good condition. Taxiway B does not have taxiway edge lights.

2.5.3 Pavement Markings

Pavement markings delineate the various movement areas on the airfield. Runway 5/23 and Runway 14/32 have designation numbers and centerline striping. Each runway also has threshold bars and aiming point markers. Threshold bars and aiming points markers indicate a non-precision instrument approach. The markings are in good condition.

The designation markings identify the Runways by their magnetic azimuth, while the threshold markings identify the beginning of the available landing area. All the runway markings are painted white.

Each of the taxiways has visible centerline stripes with runway holding position markings located at the required locations. The taxiway centerline markings are yellow.

2.5.4 Take-off and Landing Aids

There are several different takeoff and landing aids at the Okeechobee County Airport. As with the runway and taxiway lighting, any takeoff or landing lights that emit light, except for the lighted windsock, are pilot controlled through the CTAF.

2.5.4.1 Wind Indicators and Segmented Circle

Perhaps the most basic takeoff and landing aid is the windsock, which indicates wind direction and speed. Currently, there is one lighted windsock on the Airport located southwest of the intersection of Taxiways A and B.

The windsock has a segmented circle. Segmented circles are often co-located with a windsock. A segmented circle performs two functions; it aids the pilot in locating airports and it provides a centralized location for indicators and signal devices that may be required. Segmented circles are required at airports receiving FAA funds and are particularly helpful to pilots at non-towered airports.

2.5.4.2 Runway End Identification Lights

The identification of the runway ends and thresholds are critical to a pilot during landing and takeoff. Therefore, runway ends are often equipped with special lighting configurations to aid in their identification. Runway End Identifier Lights (REIL) provide pilots with rapid and positive visual identification of the approach end of a runway during night, instrument, and marginal weather conditions. REILs also aid in the identification of a runway end in areas that have a featureless terrain. The systems consist of a pair of synchronized white flashing lights, which are located on each side and abeam of a runway end threshold lights. Both ends of Runway 5/23 have REILs. Neither end of Runway 14/32 has REILs.

2.5.4.3 Precision Approach Path Indicators

There are several systems installed at airports that provide guidance information of the aircraft's position relative to the correct approach, in the vertical plane, to a runway. At the Okeechobee County Airport, Precision Approach Path Indicators (PAPI) systems have been installed on both ends of Runway 5/23. These lights operate continuously.

PAPIs provide the pilot with visual descent information during an approach to a runway. These lights are typically visible from five miles during the day and up to 20 miles or more at night. PAPIs use a light bar unit that is installed in a single row perpendicular to the runway edge. The lights project a beam of white light in the upper segment and red light in the lower segment. Depending on the aircraft's angle in relation to these lights, the pilot will receive a visual indication of the aircraft's position relative to the desired 3.00-degree approach slope. Both ends of Runway 5/23 have a 4-light PAPI systems located on the left side of the runway when viewed from an approaching aircraft.

2.6 Airspace and Air Traffic Control

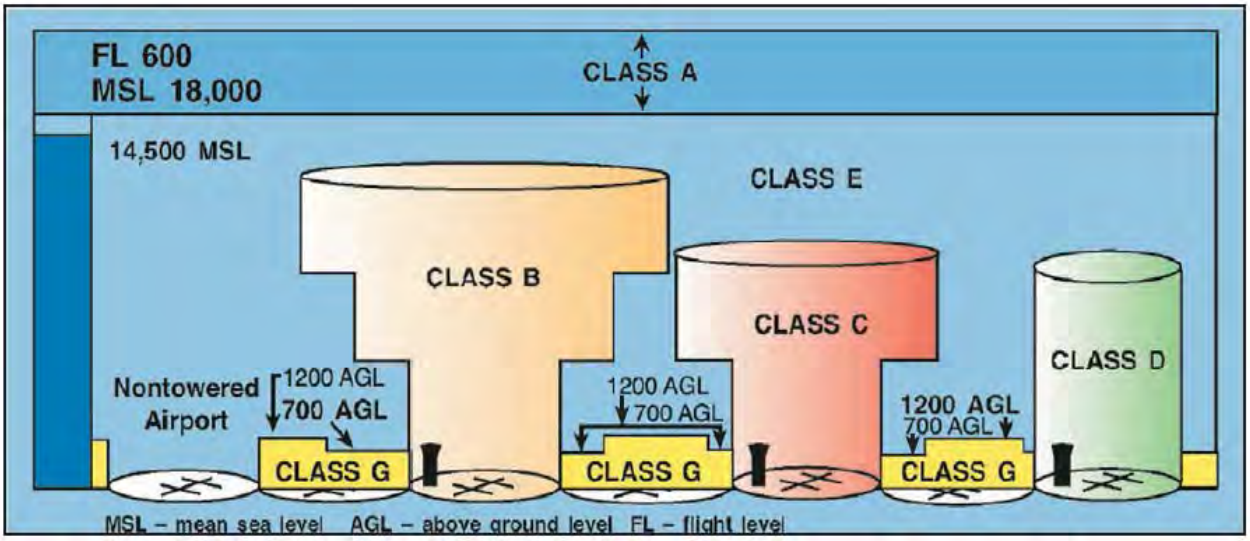
The FAA has regulatory control over flight routes whether in route, on approach, or departure from an airport. The FAA has divided the airspace over and between airports into various classifications. These classifications are separated into controlled airspace and uncontrolled airspace. The controlled airspaces are defined as shown in Table 2-7 and shown in Figure 2-8.

Table 2-7
AIRSPACE CLASSIFICATIONS

Controlled Airspace Classification	Description
A	Begins at 18,000 feet above mean sea level (AMSL) and continues upward. Used to manage in route air traffic
B	Surrounds the busiest airports such as Orlando and Tampa
C	Surrounds the next level of busy airports. These include such airports as Orlando Sanford and Daytona Beach
D	Surrounds airports that have an air traffic control tower that are not located in Class B or C airspace
E	Any other controlled airspace
G	Any uncontrolled airspace

The Okeechobee County Airport does not have an air traffic control tower and it is not located within the close environs of another busy airport. It has published instrument approach procedures for Runways 5, 14, 23, and 32. Therefore, its airspace is classified as Class E. This Class E airspace has a floor at 700 feet above the surface that laterally abuts 1,200 feet or higher-Class E airspace. Class E airspace does not require specific pilot certification or specific aircraft equipment as some of the higher classifications do.

Figure 2-8
AIRSPACE CLASSIFICATIONS



Source: Avstop.com

There is other controlled airspace near the Airport, as shown in Figure 2-9. These include those for the Treasure Coast International (FPR), Palm Beach County Glades (PHK), and Airglades (2IS) airports. Of these, only FPR has a control tower. There are five Military Operational Areas (MOA) located to the northwest of the Airport, as well as Restricted Area R-2901 A&B.

2.6.1 Approach Procedures

Okeechobee County Airport features non-precision approaches for each runway end. Table 2-8 shows the required approach minima for Runways 5, 14, 23, and 32. The approach plates current to the Airport as of December 5, 2017, are included in Appendix B.

Figure 2-9
OKEECHOBEE COUNTY AIRPORT AIRSPACE

Source: FAA Miami Sectional Aeronautical Chart Expires February 1, 2018

Table 2-8
OKEECHOBEE COUNTY AIRPORT INSTRUMENT APPROACH PROCEDURES

Procedure Name	Minimum Visibility	Minimum Descent Altitude Mean Sea Level
RNAV (GPS) Runway 5	Aircraft Categories A and B: 1 mile, Categories C: 1 ¼ mile, and Category D: 1 1/2 miles	480 feet
RNAV (GPS) Runway 14	Aircraft Categories A, B, C, and D: 1 mile	400 feet
RNAV (GPS) Runway 23	Aircraft Categories A, B, C, and D: 1 mile	400 feet
RNAV (GPS) Runway 32	Aircraft Categories A and B: 1 mile, Aircraft Categories C and D: 1 1/4 mile	440

Source: FAA Southeast Terminal Procedures, Date 9 November 2017 to 7 December 2017

2.6.2 Vicinity Airports

Pilots who use Okeechobee County Airport can travel to a large variety of airports within a short distance. Commercial service, general aviation, and private airports abound in the region and provide many different services to the flying public. Table 2-9 presents a list of commercial service airports within the vicinity of the Airport. This list also details the number of runways, instrument approaches, services available, based aircraft, and annual operations for each of the listed airports. Table 2-10 is a list of general aviation public-use airports located within 50 nautical miles of the Okeechobee County Airport.

Table 2-9
VICINITY COMMERCIAL AIRPORTS

Airport	ID	City	Runways	Pavement	Instrument Approaches	Services			Based Aircraft	Annual Operations	Nautical Miles from Okeechobee County
						Fuel	Airframe and Powerplant	Electronics			
Melbourne International	MLB	Melbourne	5/23: 3,001x75, 9L/27R: 6,000x150, 9R/27L: 10,181x150	asphalt, asphalt, asphalt	ILS, GPS, VOR	100LL, Jet A	Yes	Yes	256	60,416	51.3
Palm Beach International	PBI	West Palm Beach	10L/28R: 10,000x150, 10R/28L: 3,214x75, 14/32: 6,931x150	asphalt, asphalt, asphalt	ILS, GPS, RNP	100LL, Jet A	Yes	Yes	171	104,675	53.4
Southwest Florida International	RSW	Fort Myers	6/24: 12,000x150	asphalt	ILS, GPS, VOR	100LL, Jet A	Yes	No	4	78,840	65.3
Orlando International	MCO	Orlando	17L/35R: 9,001x150, 17R/35L: 10,000x150, 18L/36R: 12,005x200, 18R/36L: 12,004x200	concrete, concrete, asphalt/concrete, asphalt/concrete	ILS, GPS, VOR	100LL, Jet A	Yes	Yes	39	319,000	73.9
Ft. Lauderdale-Hollywood International	FLL	Fort Lauderdale	10L/28R: 9,000x150, 10R/28L: 8,000x150	asphalt, concrete	ILS, GPS, RNP	100LL, Jet A	Yes	Yes	102	320,835	80.9
Sarasota Bradenton	SRQ	Sarasota	4/22: 5,009x150 14/32: 9,500x150	asphalt, asphalt	ILS, GPS, VOT	100LL, Jet A	Yes	Yes	261	103,295	91.2

Sources: 2017 Florida Airport Directory

Table 2-10
PUBLIC-USE GENERAL AVIATION AIRPORTS WITHIN 50 NAUTICAL MILES

Airport	ID	City	Runways	Pavement	Instrument Approaches	Services			Based Aircraft	Annual Operations	Nautical Miles from Okeechobee County
						Fuel	Airframe and Powerplant	Electronics			
Okeechobee County	OBE	Okeechobee	05/23: 5,000x100, 14/32: 4,0000x75	asphalt, asphalt	GPS	100LL, Jet A	Yes	No	31	50,000	0
New Hibiscus Airpark	X52	Vero Beach	18/36: 3,120x140	turf	None	None	No	No	13	21,900	27.9
Sebring Regional	SEF	Sebring	1/19: 5,234x100, 14/32: 4,990x100	asphalt, asphalt	GPS, RNP	100LL, Jet A, Mogas	Yes	No	95	102,930	28.6
Treasure Coast International	FPR	Fort Pierce	10L/28R: 4,000x75, 10R/28L: 6,492x150, 14/32: 4,755x100	asphalt, asphalt, asphalt	ILS, GPS, VOR, NDB	100LL, Jet A	Yes	Yes	206	196,000	29.0
Palm Beach County Glades	PHK	Pahokee	17/35: 4,116x75	asphalt	GPS, VOR	100LL, Jet A	No	No	30	36,865	30.1
Vero Beach Municipal	VRB	Vero Beach	4/22: 4,974x100, 12L/30R: 3,504x75, 12R/30L: 7,314x106	asphalt, asphalt, asphalt	GPS, VOR	100, 100LL, Jet A	Yes	Yes	243	204,035	32.8
Airglades	2IS	Clewiston	13/31: 5,901x75	asphalt	GPS	100LL, Jet A	Yes	No	23	11,680	33.6
Witham Field	SUA	Stuart	7/25: 4,625x100, 12/30: 5,828x100, 16/34: 4,998x100	asphalt, asphalt, asphalt	GPS	100LL, Jet A	Yes	Yes	296	120,450	33.9
Belle Glades State Municipal	X10	Belle Glade	9/27: 3,750x50	asphalt	None	None	No	No	11	12,410	35.6
River Ranch Resort	2RR	River Ranch	16/34: 4,950x75	asphalt	None	100LL	No	No	0	0	36.1

Table 2-10 (continued)
PUBLIC-USE GENERAL AVIATION AIRPORTS WITHIN 50 NAUTICAL MILES

Airport	ID	City	Runways	Pavement	Instrument Approaches	Services			Based Aircraft	Annual Operations	Nautical Miles from Okeechobee
						Fuel	Airframe and Powerplant	Electronics			
Sebastian Municipal	X26	Sebastian	5/23: 4,023x75, 10/28: 3,199x75	asphalt, asphalt	GPS	100LL	Yes	No	46	37,230	37.8
Avon Park Executive	AVO	Avon Park	5/23: 5,374x100, 10/28: 3,844x75	asphalt, asphalt	GPS	100LL, Jet A	Yes	No	37	32,485	41.1
North Palm Beach County General Aviation	F45	West Palm Beach	8L/26R: 3,679x75, 8R/26L: 4,300x100, 13/31: 4,300x75	turf, asphalt, asphalt,	ILS, GPS, VOR	100LL, Jet A	Yes	Yes	313	97,455	42.0
La Belle Municipal	X14	LaBelle	14/32: 5,254x75	asphalt	GPS	100LL, Jet A	Yes	Yes	49	21,900	44.2
Valkaria	X59	Valkaria	10/28: 4,000x60, 14/32: 4,000x75	asphalt, asphalt	None	100LL, Jet A	Yes	Yes	112	53,290	44.5

Sources: 2017 Florida Airport Directory

2.7 Airport Facilities

Most of the Airport's facilities are in the west quadrant of the Airport. This area is accessed from U.S. 98 via NW 20th Trail.

2.7.1 Terminal Building

The Airport terminal building was first constructed in 1999. The restaurant area of the building was expanded in 2017 and currently has about 4,930 square feet, of which about 2,450 square feet house the Airport's restaurant and kitchen. The remainder of the building is used of Public Lobby, Pilot Briefing area, Restrooms, FBO and Airport Administrative Offices. The front of the terminal is shown in Figure 2-10.

Figure 2-10
TERMINAL ENTRANCE

2.7.2 Hangars

Hangars serve several purposes on an airport, the most common being the storage of aircraft. Other purposes include the housing of aviation related businesses such as paint shops, avionics; maintenance, repair, and operations (MRO); parts supply; and flight schools to name just a few. There are at least three types of hangar buildings located on the Okeechobee County Airport: t-hangars, box hangars, and conventional hangars

2.7.2.1 T-Hangars

T-hangars typically house a single small aircraft. Usually several units are nested together in such a way that the footprint of an individual hangar looks like a "T", while the combined

footprint is long and linear. Okeechobee County Airport has one building housing ten T-hangars. They are equipped with manual sliding doors. These units are typically completely full and there is usually a waiting list of from 10 to 20 pilots desiring to house their aircraft within this facility. The T-hangar building is shown in Figure 2-11.

Figure 2-11
T-HANGARS

2.7.2.2 Box Hangars

Like T-hangars, box hangars are housed together in a single building which is usually very linear. Each individual unit, however, is usually a square or rectangular shape. The Airport has one building housing six box hangars, as shown in Figure 2-12. Each individual box hangar measures approximately 46 feet wide by 40 feet deep and are equipped with an electric bi-fold door. Restrooms are provided for use by the tenants of the T-hangars and box hangars.

Figure 2-12
BOX HANGARS

2.7.2.3 Conventional Hangars

There are currently seven conventional hangars on the Airport of varying sizes. The largest of these was built in 2002 and is located northwest of the aircraft tie-down apron. It has approximately 19,500 square feet and is currently being used as an aircraft painting facility. The doors are 24 feet in height, as shown in Figure 2-13.

Figure 2-13
PAINT HANGAR

The remaining six hangars are located along the southwestern portion of Taxiway A. There is room along this portion of Taxiway A for additional conventional hangars. Information with

respect to these hangars is contained in Table 2-11 and these hangars are shown in Figure 2-14.

Table 2-11
Conventional Hangars Information

Parcel ID	Year Built	Square Feet	Current Tenant
6	1979	8,500	Curren Electric
7	2001	3,600	Gill's Auto Center
8	1995	2,784	Gill's Auto Center
9	1994	2,500	Redd Inc.
1	2004	5,400	Florida Division of Forestry
11	2002	5,400	Darryl R. DeYoung

Figure 2-14
CONVENTIONAL HANGARS

2.7.3 Aircraft Parking Aprons

There are 27 aircraft tie-down spaces on the aircraft parking apron. All are currently managed by the Fixed Base Operator (FBO). None of the based aircraft are stored at tie-down spaces and there are no turf tie-down spaces. The aircraft parking apron is shown in Figure 2-15.

Figure 2-15
AIRCRAFT PARKING APRON

2.7.4 Aviation Fuel Storage

The Airport has two fuel tanks, each with a capacity of 10,000 gallons. One dispenses 100LL fuel and the other dispenses Jet A fuel. The Airport offers both 24-hour 7-days a week self-serve fueling for both Jet A and 100LL, as well as full-service of Jet A fueling by the FBO. The fuel tanks are shown in Figure 2-16.

Figure 2-16
FUEL TANKS

2.7.5 Industrial Park

In 1985, Okeechobee County developed an industrial park in the southern quadrant of the Airport. There are currently 21 parcels available for lease within the industrial park with a total of a little over 83 acres. Of these, about half are currently leased, as shown in Table 2-12 and Figure 2-17.

Table 2-12
INDUSTRIAL PARK PARCELS AND TENANTS

Parcel ID	Acres	Current Tenant
18	1.18	Big Lake Roofing
18A	0.32	Vacant (Drainage Ditch)
19	5.07	Nexair LLC
20	3.009	Vacant
21	1.03	Vacant
22	2.066	Allied Pivot Sales
23	3.439	Wet Pond Retention
24	6.52	Vacant
25	1.84	Frank and Georgann Hewitt
26	0.94	A&D Water Systems
27	1.58	Okeechobee County Animal Shelter
28	41.48	Vacant (Partially Drainage)
29	7.95	Concrete Products of Palm Beach
30	0.96	Linda M Wellmaker and Palm City Interiors
31	0.98	Vacant
32	0.92	Linda M Wellmaker and Palm City Interiors
33	0.46	Vacant
34	0.89	Incubator Building for Three Companies
35	0.92	Magna-Bon II LLC
36	0.92	Vacant
37	0.92	Vacant
	83.394	Total Acreage

Source: Okeechobee County Appraiser and 2007 Property Map

Figure 2-17
INDUSTRIAL PARK PARCELS

Source: Okeechobee Property Appraiser and 2007 Property Map

2.7.6 Automated Weather Observing System

An Automated Weather Observing System (AWOS) is a suite of sensors, which measure, collect and disseminate weather data to help meteorologists, pilots and flight dispatchers prepare and monitor weather forecasts, plan flight routes, and provide necessary information for correct takeoffs and landings. Specifically, the Airport has an AWOS III P/T, which provides sky condition, cloud height and type, present weather including wind speed and direction, and lightning detection. The AWOS is located southeast of the intersection of Runway 5/23 and Runway 14/32.

2.7.7 Airfield Electrical Vault

The electrical vault is located adjacent to the fuel storage tanks adjacent to the aircraft tie-down apron. It is shown in Figure 2-18.

Figure 2-18
AIRFIELD ELECTRICAL VAULT

2.7.8 Airfield Security Fencing

The entire airfield is surrounded by a six-foot high security fence with three strands of barbed wire along the top. There are several gates within the fence for access to the airfield.

2.7.9 Airport Infrastructure

The information in this section was determined from past planning studies and Okeechobee County. It should be noted that prior to any development at the Airport, detailed utility surveys or drawings should be obtained. Water and wastewater services are provided by the Okeechobee Utility Authority. Electricity is provided by Florida Public Utilities. No natural gas is available on Airport property currently.

2.8 Area Demographics

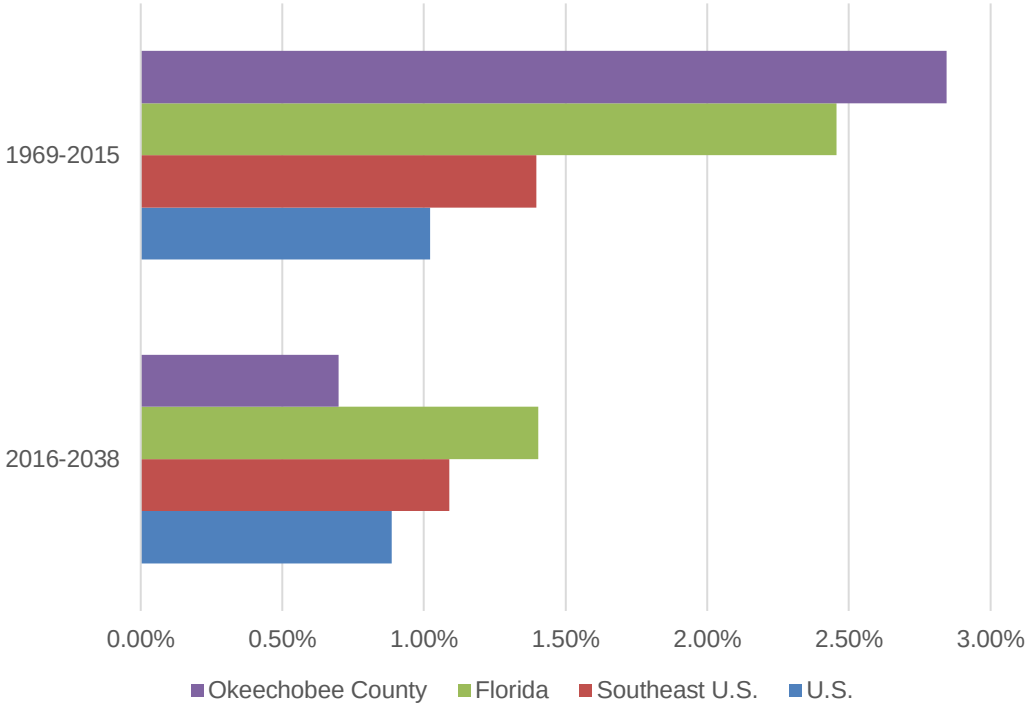
Aviation activity levels have traditionally been linked to several socioeconomic indicators. The connection is related to the relatively high cost of operating an aircraft and, in some cases, the percent of population using the services of general aviation airports remains constant. This section presents data on population, employment, and personal income per capita for the United States, the Southeastern United States, Florida, and Okeechobee County, Florida areas. The Southeastern United States for this data is defined as Kentucky, West Virginia, Virginia,

Tennessee, North Carolina, South Carolina, Arkansas, Louisiana, Mississippi, Alabama, Georgia, and Florida.

2.8.1 Population

The population of Okeechobee County experienced an average annual growth rate of 2.84 percent between 1969 and 2015. This rate of growth was larger than that experienced by the State of Florida, and the U.S. It grew at a faster rate than even the Southeastern U.S. which was the fastest growing region in the U.S. Florida was the fastest growing state in the Southeastern U.S. Florida, the Southeastern U.S., and the U.S. had 2.46, 1.40, and 1.02 percent average annual growth rates respectively as shown in Figure 2-19 and Table 2-13.

Figure 2-19
HISTORICAL AND PROJECTED
COMPOUNDED ANNUAL GROWTH RATE FOR POPULATION



Source: Woods and Poole Economics

For the period between 2016 and 2038, it is projected that the average annual rate of growth for each of the areas is anticipated to slow. Okeechobee County's average annual rate of growth is anticipated to fall back to 0.70 percent, which will be lower than the other sectors analyzed. The U.S. is anticipated to slow to 0.89 percent, the Southeast U.S. is anticipated to slow to 1.09 percent and Florida is anticipated to slow to 1.40 percent average annual rate of growth for population.

Table 2-13
HISTORICAL AND PROJECTED
COMPOUNDED ANNUAL GROWTH RATE FOR POPULATION

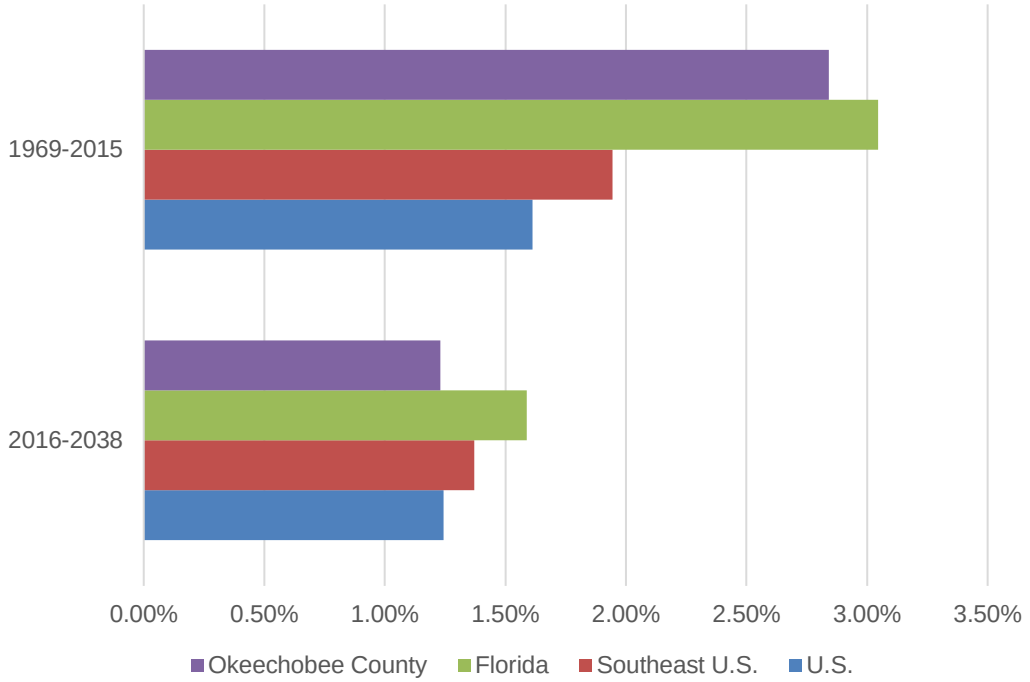
Years	U.S.	Southeast U.S.	Florida	Okeechobee County
1969-2015	1.02%	1.40%	2.46%	2.84%
2016-3038	0.89%	1.09%	1.40%	0.70%

Source: Woods and Poole Economics

2.8.2 Total Employment

The average annual growth rate for total employment in Okeechobee County during the years from 1969 to 2015 was second only to that of Florida at 2.84 percent, while Florida was at 3.05 percent. Both the Southeastern U.S. and the U.S. trailed behind with 1.37 and 1.24 percent average annual growth rates for the period, as shown in Figure 2-20 and Table 2-14.

Figure 2-20
HISTORICAL AND PROJECTED
COMPOUNDED ANNUAL GROWTH RATE FOR TOTAL EMPLOYMENT



Source: Woods and Poole Economics

Okeechobee County Total Employment rate of growth is anticipated to drop to an average annual percentage of 1.23 between the years of 2016 and 2038, which will be below the other regions analyzed. It is anticipated that the U.S. will continue to grow at a 1.24 percent average annual growth while the Southeastern U.S. and Florida are expected to experience 1.37 and 1.59 average annual rates of growth respectively during the period.

Table 2-14
HISTORICAL AND PROJECTED
COMPOUNDED ANNUAL GROWTH RATE FOR TOTAL EMPLOYMENT

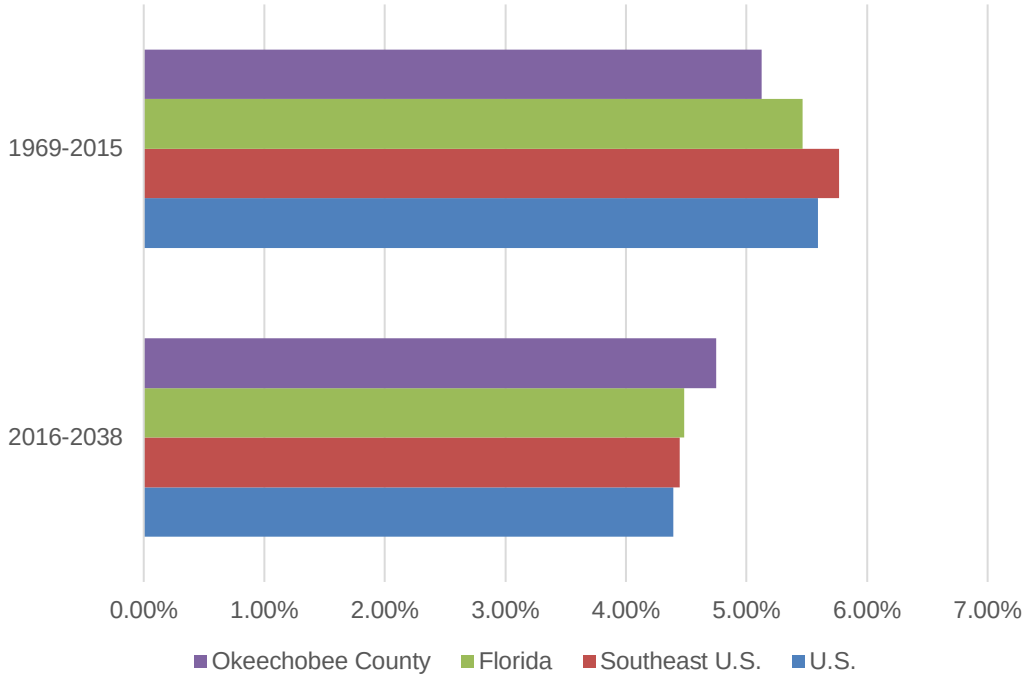
Years	U.S.	Southeast U.S.	Florida	Okeechobee County
1969-2015	1.61%	1.94%	3.05%	2.84%
2016-2038	1.24%	1.37%	1.59%	1.23%

Source: Woods and Poole Economics

2.8.3 Personal Income Per Capita

At 5.13 percent, the average annual growth rate in Personal Income Per Capita for Okeechobee County was behind that of the other regions analyzed for the period of 1969 through 2015. However, each of the comparative areas was between 5.46 and 5.77 percent average annual Compounded growth.

Figure 2-21
HISTORICAL AND PROJECTED
COMPOUNDED ANNUAL GROWTH RATE OF PERSONAL INCOME PER CAPITA



Source: Woods and Poole Economics

During the period between 2016 and 2038, it is anticipated that the average annual compounded growth will slow to between 4.39 and 4.75 percent average annual compounded growth, with Okeechobee County leading the way with 4.75 percent average annual rate of growth.

Table 2-15
HISTORICAL AND PROJECTED
COMPOUNDED ANNUAL GROWTH RATE FOR PERSONAL INCOME PER CAPITA

Years	U.S.	Southeast U.S.	Florida	Okeechobee County
1969-2015	5.59%	5.77%	5.46%	5.13%
2016-2038	4.39%	4.44%	4.48%	4.75%

Source: Woods and Poole Economics

2.9 Land Uses/Community Characteristics

The information regarding the land use surrounding the Airport is important as it is necessary to ensure that the Airport is compatible with the surrounding community. It is equally essential that the surrounding community does not encroach upon the operations of the Airport. This section will explore the land use planning surrounding the Airport.

2.9.1 Florida Statutes Chapter 333

Local government regulations of land use in areas surrounding airports is generally the primary method of protecting airports from incompatible development. Florida Statutes Chapter 333 (Chapter 333) requires local governments to exercise their land use planning and regulations authority to protect airports from incompatible development and loss of navigable airspace. Protecting the surrounding land and airspace of an airport is important so that future developments will not hinder future airport activities. All local governments with an airport hazard area within its territorial limits are required to adopt, administer, and enforce airport zoning. An airport hazard as defined by Chapter 333 is any obstruction to air navigation that affects the safe and efficient use of navigable airspace or the operation of planned or existing air navigation and communication facilities.

Development within 10-nautical miles from the Airport Reference Point (ARP) may also require an FDOT Airspace Obstruction Permit. A permit is required if the development is taking place in an area that does not have airport zoning and if the height of the development exceeds federal obstruction standards contained in Federal Aviation Regulation (FAR) Part 77, *Obstructions to Navigation* (Part 77).

2.9.2 Landfill Restrictions

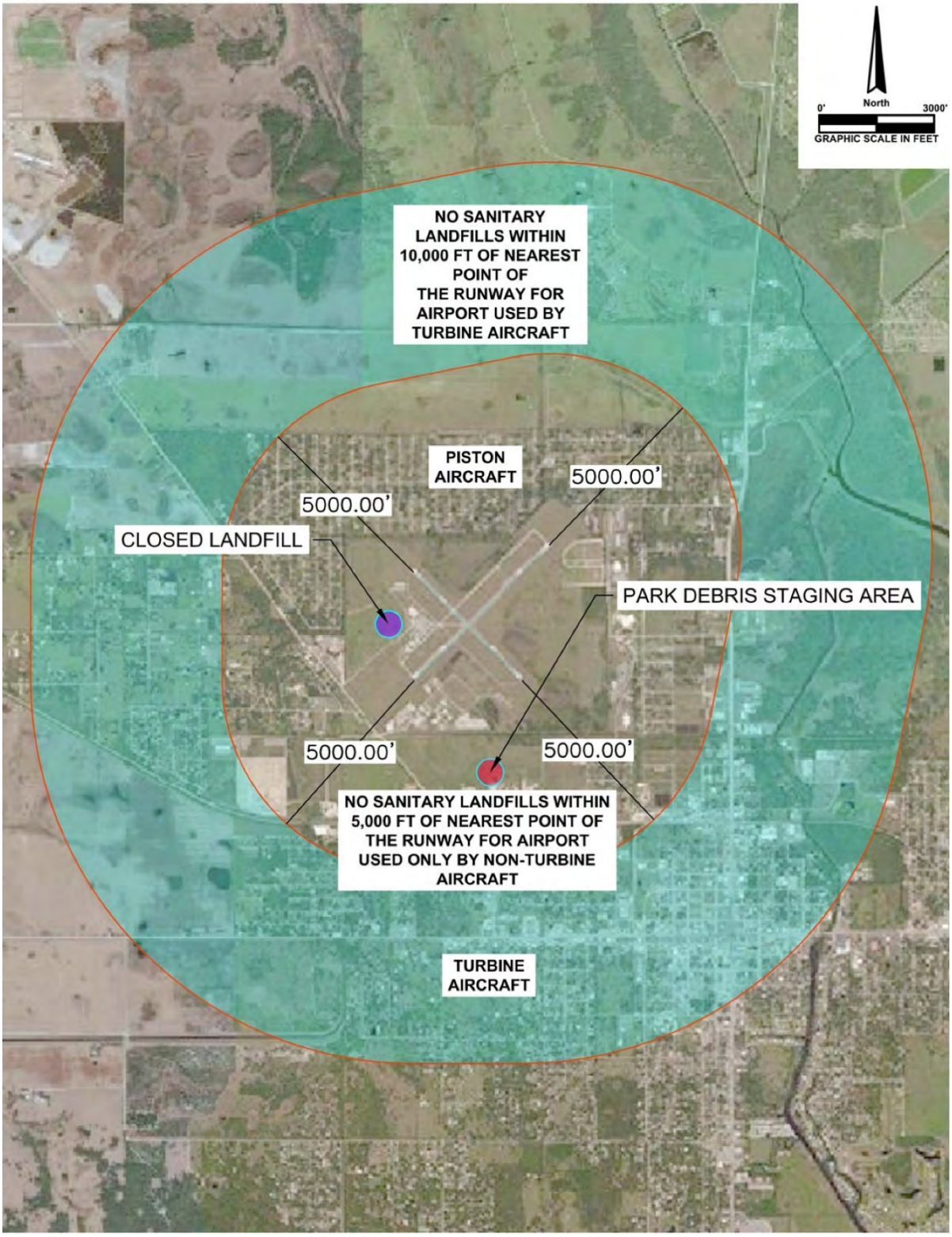
Chapter 333 also requires communities to consider airport zoning regulations that regulate the location of sanitary landfills with respect to airports. Landfills tend to attract birds, and bird strikes pose a serious risk to aircraft and to individuals on the aircraft. Sanitary landfills should be:

- 10,000 feet from the nearest point on the runways used by turbine aircraft
- 5,000 feet from the nearest point on runways used only by non-turbine aircraft
- Located outside the lateral limits of an airport's Part 77 surfaces.

Where such landfills exist and there are hazardous bird movements associated with the landfill, the landfill operator must begin bird management techniques or other practices to minimize bird hazards to airborne aircraft.

Figure 2-22 shows the areas around the Okeechobee County Airport that would be restricted from having a landfill. Currently, there are no active landfills located within these limits. There is a Park Debris Staging Area located just south of the Airport that is used to temporarily store tree limbs and other such debris after storms. There is also a closed landfill located in the western quadrant of the Airport.

Figure 2-22
LANDFILL RESTRICTED AREAS



Source: Google Maps

2.9.3 Residential and Educational Restrictions

If an airport authority has conducted a noise study in compliance with 14 C.F.R. Part 150, or if noise contours have been established for an airport through another study approved by the FAA, then the specific recommendations that are a result of either or both studies will be used as restrictions.

If such studies have not been conducted, as is the case at the Okeechobee County Airport, then residential and educational development except for aviation school facilities are prohibited within an oval area centered on each runway end. The width of the oval should be equal to one-half of the longest runway at an airport and is centered on the centerline of each runway. The oval extends out from each runway end one half the length of the longest runway. Figure 2-23 shows the extent of the residential and educational restrictions with respect to the Airport.

There are several areas of residential development in the highlighted areas. There is also one school, North Elementary School, located within these areas. However, Chapter 333 specifically does not require the "removal, alteration, sound conditioning, or other change, or to interfere with the continued use or adjacent expansion of any educational facility or site in existence on July 1, 1993." North Elementary School has been in existence since 1980.

2.9.4 Changes to Florida Statutes Chapter 333

Changes to Chapter 333, which went into effect on July 1, 2016, specify that those jurisdictions with airport protection zoning regulations and airport land use compatibility zoning regulations, as well as amendments must provide a copy of these regulations to the FDOT Office of Aviation by July 31, 2016. If any of the regulations do not conform with the 2016 changes to Chapter 333, amendments must be made to the regulations by July 1, 2017. If the jurisdiction has an airport within its limits, and does not have such regulations, they must adopt such regulations by July 1, 2017. Until such regulations are adopted, the FDOT will administer the permitting process as outlined in Chapter 333.025, *Permit Required for Obstructions.*

The Okeechobee County Code of Ordinances Section 3.01.00 establishes an Airport Overlay Zone, which addresses the issues of obstructions on or adjacent to the Airport as well as the required distances between landfills and airport. This ordinance does not appear to fully encompass the changes that were made in 2016 to Florida Statute 333. Okeechobee County has been notified that their zoning ordinance will likely require changes and that these changes were to have been completed prior to July 2017.

Figure 2-23
RESIDENTIAL AND EDUCATIONAL RESTRICTED AREAS

Source: Google Maps

2.10 Local Government Comprehensive Plans

Florida Statute Chapter 163, *Intergovernmental Programs*, generally known as the Growth Management Act, requires all counties and cities to adopt a Local Government Comprehensive Plan. These are intended to guide the future growth and development of the respective governments.

Development projects within an FAA-approved master plan for licensed, publicly operated airports are exempt from oversight by the local community with respect to the Local Government Comprehensive Plan. Projects developed because of this Master Plan Update can be inconsistent with the Local Government Comprehensive Plan; however, such projects must be thoroughly documented in the Master Plan Update. Regardless, unless they are consistent with the Local Government Comprehensive Plan, they will not be eligible for FDOT funding.

The current Okeechobee County Comprehensive Plan was adopted in June 2016. The Comprehensive Plan classifies the Airport as a Public/Semi-Public Facility along with educational, health and recreational facilities, cemeteries, communications, cultural, transportation and other utility facilities, landfills, police and fire stations, correctional facilities, institutional facilities, and other such facilities which provide for the public. The Comprehensive Plan further states that "Public/Semi-Public Facility development shall not exceed a floor area ratio of 2.0 and shall not exceed impervious lot coverage of 80 percent. Public/Semi-Public Facility development shall meet all applicable local and state regulations regarding the quality and quantity of stormwater run-off. Subject to all applicable local regulations, agricultural activities are permissible in areas designated as Public/Semi-Public."

There should also be coordination between an airport, the local government, and, where applicable, the Metropolitan Planning Organization (MPO). Okeechobee County does not yet meet the requirements of an MPO. However, Okeechobee County is part of the Heartland Regional Transportation Planning Organization.

2.11. Summary of Inventory of Existing Conditions

This inventory discussion has focused on the existing conditions and facilities located at and around the Okeechobee County Airport. As noted, many of the Airport's facilities are in good condition. The information in this chapter will serve as the basis of comparison for the Facility Requirements Analysis.

3 AVIATION ACTIVITY FORECASTS

3.1 Overview

The forecasts of aviation activity form the basis and justification for all planning and development on an airport. These forecasts are the basis for determining how many and what type of facilities will be needed within designated periods. The forecasts are typically divided into three periods. The first is the short-term period and usually occurs within the first five years of the forecasts (2016-2020). The second is the mid-term period and usually takes place within the second five years of the forecasts (2021-2025). The third, or long-term, period usually takes place within the last ten years of the forecasts (2026-2036).

To adequately forecast the future needs of the Airport, specific forecasts or projections are necessary for an airport with the characteristics of the Okeechobee County Airport. These forecasts include:

- Based Aircraft
  - Single Engine
  - Multi-engine
  - Jets
  - Rotorcraft
  - Other (Gliders, Light Sport, Experimental, Balloons, etc.)
- Aircraft Operations
  - Annual Operations
  - Local Versus Itinerant Activity
  - Operational Fleet Mix
- Peak Period Activity
  - Peak Month
  - Average Day of the Peak Month
  - Peak Hour

The forecasts in this chapter include a review of forecasts previously developed for the Airport. New forecasts have also been developed. From these forecasts, preferred based aircraft and annual operations forecasts are recommended.

3.2 Historical Activity

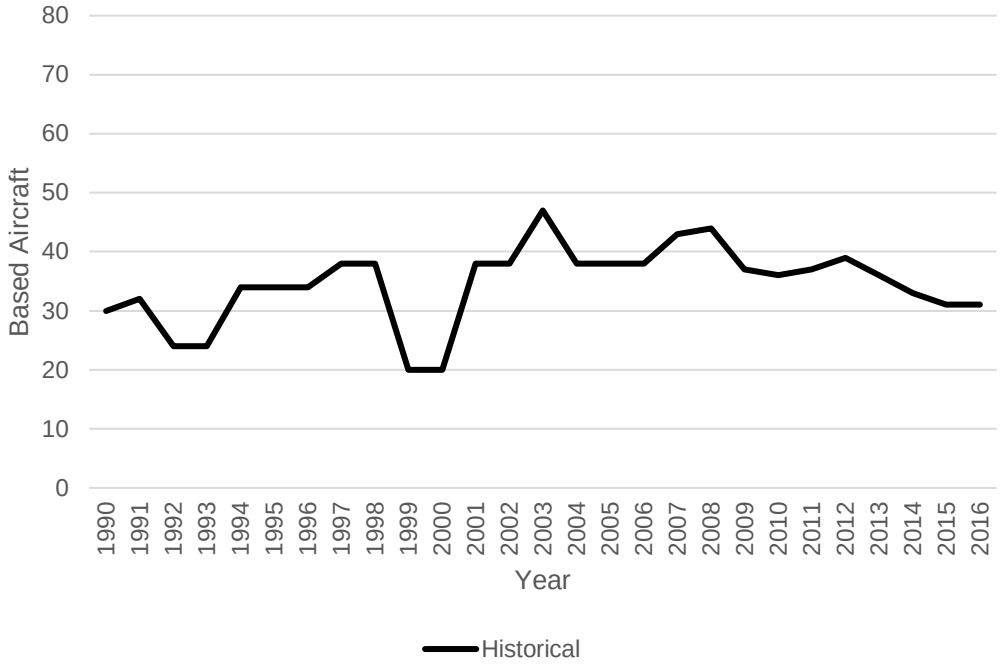
The historical aviation activity data for the Airport was taken from the 2017 FAA Terminal Area Forecast (2017 FAA TAF). This historical data is typically reported to the FAA by each respective airport annually via the FAA Airport Master Record (Form 5010). The FAA TAF is a forecast developed annually by the FAA for each of the airports in the National Plan of Integrated Airport Systems (NPIAS). The 2017 FAA TAF was released in January 2018 and is based on data received by the FAA through the end of their FY 2016 fiscal year on September 30, 2016. The historical numbers of based aircraft for the Okeechobee County Airport are shown in Table 3-1 and Figure 3-1.

Table 3-1
HISTORICAL BASED AIRCRAFT

Year	Based Aircraft
1990	30
1991	32
1992	24
1993	24
1994	34
1995	34
1996	34
1997	38
1998	38
1999	20
2000	20
2001	38
2002	38
2003	47
2004	38
2005	38
2006	38
2007	43
2008	44
2009	37
2010	36
2011	37
2012	39
2013	36
2014	33
2015	31
2016	31

Source: 2017 FAA TAF

Figure 3-1
HISTORICAL BASED AIRCRAFT



The number of aircraft based at the Okeechobee County Airport has varied over the last 26 years. The high number of 47 aircraft occurred in the year 2003. The low period occurred in 1999 and 2000. The number of based aircraft at the Airport has vacillated over the years with an average of 35 based aircraft over the last 26 years.

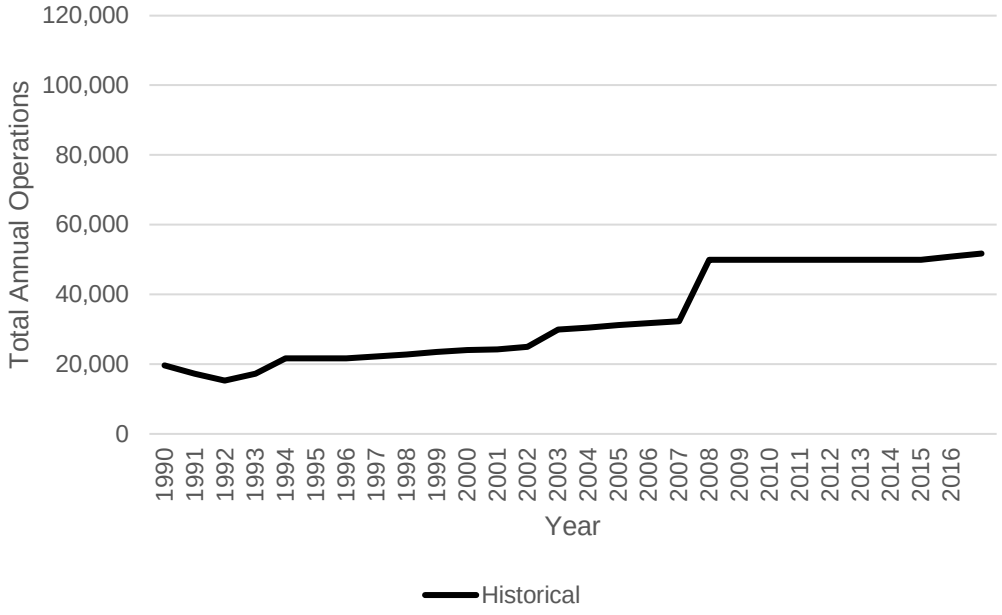
The number of annual operations for the Airport was gathered from the 2017 FAA TAF. These numbers are shown in Table 3-2 and Figure 3-2. The number of annual operations has grown steadily since the low point of 15,300, which occurred in 1993. The high was first reported in 2008 when total annual operations reached 50,000. The number of annual operations has remained steady at 50,000 since that time.

Table 3-2
HISTORICAL ANNUAL OPERATIONS

Year	Annual Operations
1990	19,700
1991	17,200
1992	15,300
1993	17,200
1994	21,700
1995	21,700
1996	21,700
1997	22,242
1998	22,823
1999	23,448
2000	24,074
2001	24,227
2002	24,897
2003	29,938
2004	30,553
2005	31,169
2006	31,708
2007	32,256
2008	50,000
2009	50,000
2010	50,000
2011	50,000
2012	50,000
2013	50,000
2014	50,000
2015	50,000
2016	50,000

Source: 2017 FAA TAF

Figure 3-2
HISTORICAL ANNUAL OPERATIONS



3.3 Forecast of Based Aircraft

The forecast of based aircraft at an airport is based on the historical number of aircraft that are "operational and air worthy." This generally means that the aircraft has a current registration and has been flown at least one hour during the calendar year. It also means that the aircraft is typically stored at the airport for most of the year. These historical counts are used to develop a forecast of the number of aircraft that can be anticipated to be based at an airport in the future. These numbers are also used to anticipate the number of tie-down positions and hangars that will need to be available to accommodate these aircraft.

3.3.1 Previous Based Aircraft Forecasts

At least three previous forecasts have recently been developed for the Okeechobee County Airport. These forecasts result in projections of various numbers of based aircraft and are reviewed in this section.

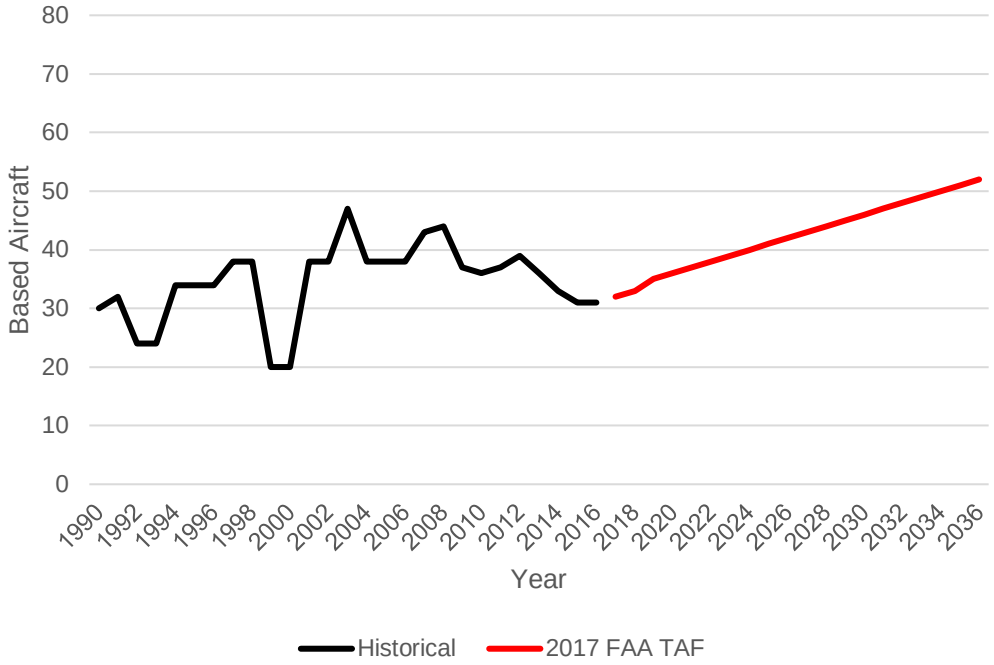
The FAA developed the first forecast of based aircraft previously developed for the Airport in their annual Terminal Area Forecast (TAF). The FAA develops this forecast annually for each public use airport in the United States as a means of forecasting their own workload. The 2017 FAA TAF shown in Table 3-3 and Figure 3-3 was released in January of 2018.

Table 3-3
2017 FAA TAF BASED AIRCRAFT FORECAST

Year	Historical	2017 FAA TAF
1991	32	
1996	34	
2001	38	
2006	38	
2011	37	
2016	31	
2021		37
2026		42
2031		47
2036		52
AACG		
1991-2016	-0.1%	
2016-2021		3.6%
2021-2026		2.6%
2026-2031		2.3%
2031-2036		2.0%
2016-2036		2.6%

Note: TAF = Terminal Area Forecast,
AACG = Average Annual Compounded Growth
Source: 2017 FAA Terminal Area Forecast

Figure 3-3
2017 FAA TAF FORECAST



The 2017 FAA TAF indicates that the Airport had 31 based aircraft in 2016. The FAA anticipates that the 31 aircraft will increase to 42 based aircraft by the year 2026. The FAA further anticipates that the number of based aircraft will increase to 52 by the year 2036.

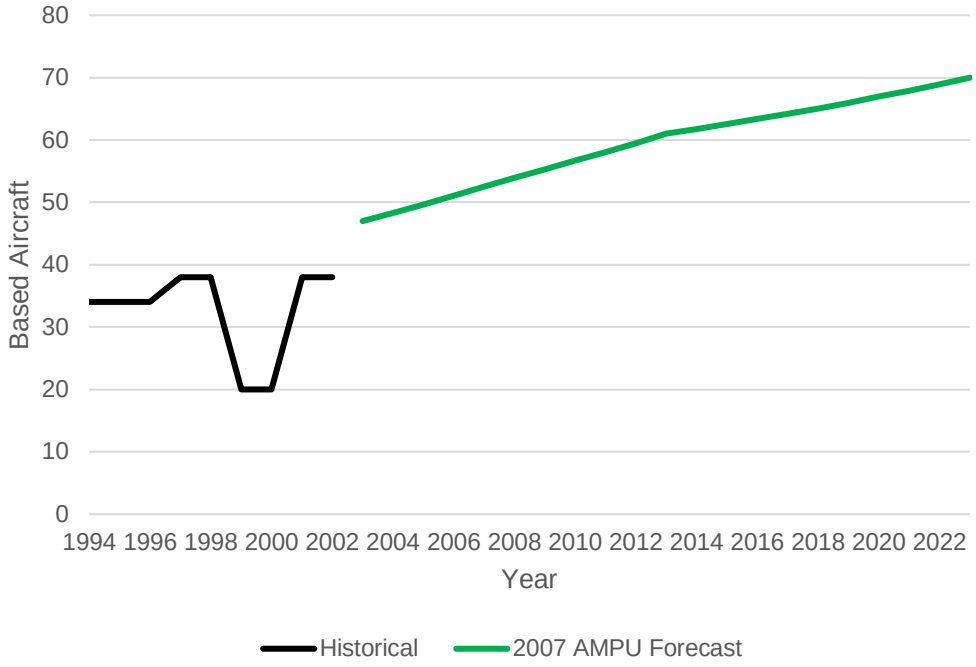
The 2007 Master Plan Update, counted 38 aircraft at the Airport in 2001. It was anticipated, at that time, that the number would increase to 61 based aircraft in 2013 as shown in Table 3-4 and Figure 3-4, and that the number would grow to 70 based aircraft by the year 2023.

Table 3-4
2007 MASTER PLAN BASED AIRCRAFT FORECAST

Year	Historical	2007 AMPU Forecast
1994	34	
1995	34	
1996	34	
1997	38	
1998	38	
1999	20	
2000	20	
2001	38	
2008		54
2013		61
2018		65
2023		70
AACG		
1994-2001	1.6%	
2001-2008		5.1%
2008-2013		2.5%
2013-2018		1.3%
2018-2023		1.5%
2001-2023		2.8%

Note: AMPU = Airport Master Plan Update,
AACG= Average Annual Compounded Growth
Source: 2007 Master Plan Update

Figure 3-4
2007 MASTER PLAN BASED AIRCRAFT FORECAST



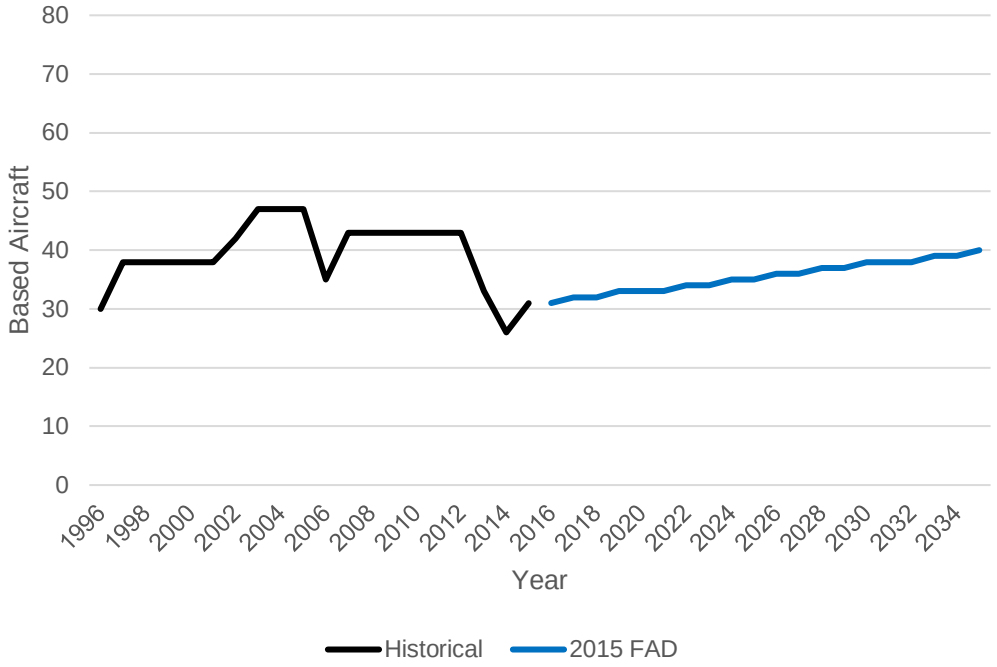
In 2015, a forecast for the Okeechobee County Airport was developed for the Florida Aviation Database (FAD). The FAD is developed and maintained by the Florida Department of Transportation, in cooperation with the Federal Aviation Administration, Florida Airports Council, and Florida's Public Airport Sponsors, and is the central repository for Florida aviation system data. The results for the Okeechobee County Airport from the 2015 FAD are shown in Table 3-5 and Figure 3-5.

Table 3-5
2015 FAD BASED AIRCRAFT FORECAST

Year	Historical	2015 FAD Forecast
2000	38	
2005	47	
2010	43	
2015	31	
2020		33
2025		35
2030		38
2035		40
AACG		
2000-2015	-1.3%	
2015-2020		1.3%
2020-2025		1.2%
2025-2030		1.7%
2030-2035		1.0%
2015-2035		1.3%

Note: FAD = Florida Aviation Database,
AACG = Average Annual Compounded Growth
Source: 2015 Florida Aviation Database

Figure 3-5
2015 FAD BASED AIRCRAFT FORECAST



The FAD forecast indicates that the Airport had 31 based aircraft in 2015, that this number would grow to 35 by the year 2025. It further predicts that the number of based aircraft will eventually reach 40 aircraft in the year 2035.

In addition to the previously developed forecasts of based aircraft, this Master Plan Update has also developed additional forecasts of based aircraft. The first and second forecasts of based aircraft developed for this Master Plan Update are:

- The Market Share of all aircraft based at general aviation, public-use airports in Florida
- The Market Share of all aircraft based at all public-use airports in Florida.

The first forecast of these two takes the number of aircraft based at Okeechobee County Airport and compares it to the total number of aircraft based at all public-use general aviation airports in the State of Florida. This is the Airport's market share of based aircraft. This forecast presumes that the market share of the Airport will remain the same over the planning period.

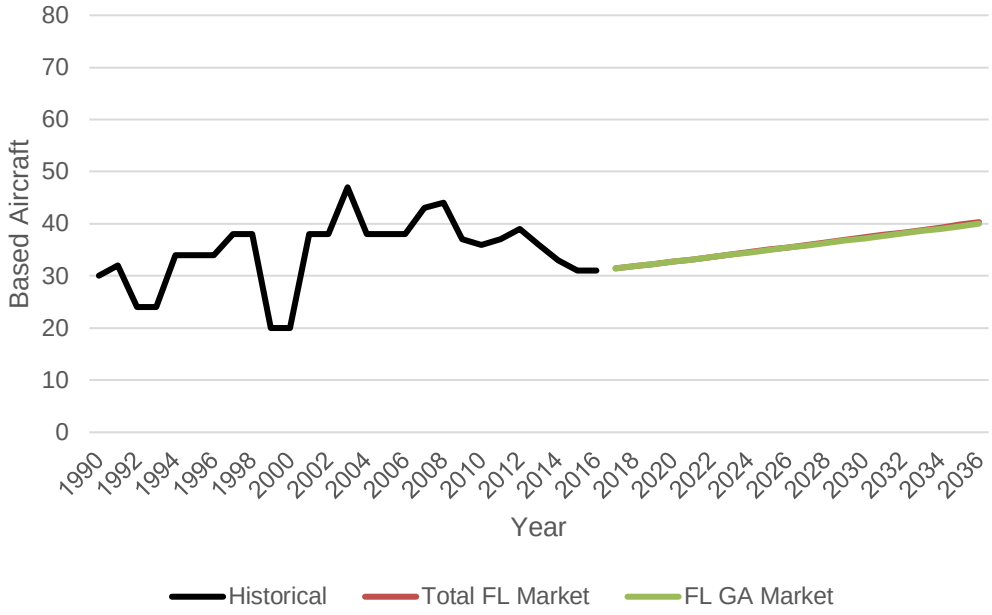
The second, of the two forecasts, compares the based aircraft at the Airport with all the public-use airports in Florida, general aviation and commercial. It also presumes that the market share of the Airport will remain the same over the planning period. The results for both forecasts are shown in Table 3-6 and Figure 3-6.

Table 3-6
MARKET SHARE OF FLORIDA BASED AIRCRAFT

Year	Historical	Total Florida Market Forecast	Florida GA Market Forecast
1991	32		
1996	34		
2001	38		
2006	38		
2011	37		
2016	31		
2021		33	33
2026		35	35
2031		38	38
2036		40	40
AACG			
1991-2016	-0.1%		
2016-2021		1.4%	1.3%
2021-2026		1.4%	1.3%
2026-2031		1.3%	1.3%
2031-2036		1.3%	1.2%
2016-2036		1.3%	1.3%

Note: FL = Florida, GA = General Aviation,
AACG = Average Annual Compounded Growth
Source: 2017 FAA TAF

Figure 3-6
MARKET SHARE OF FLORIDA BASED AIRCRAFT



Both Market Share forecasts produce similar results and indicate that the Airport would have 33 based aircraft in 2021, 35 in 2026, 38 in 2031, and 40 in 2036. This is an overall average annual compounded rate of growth of 1.3 percent for both forecasts.

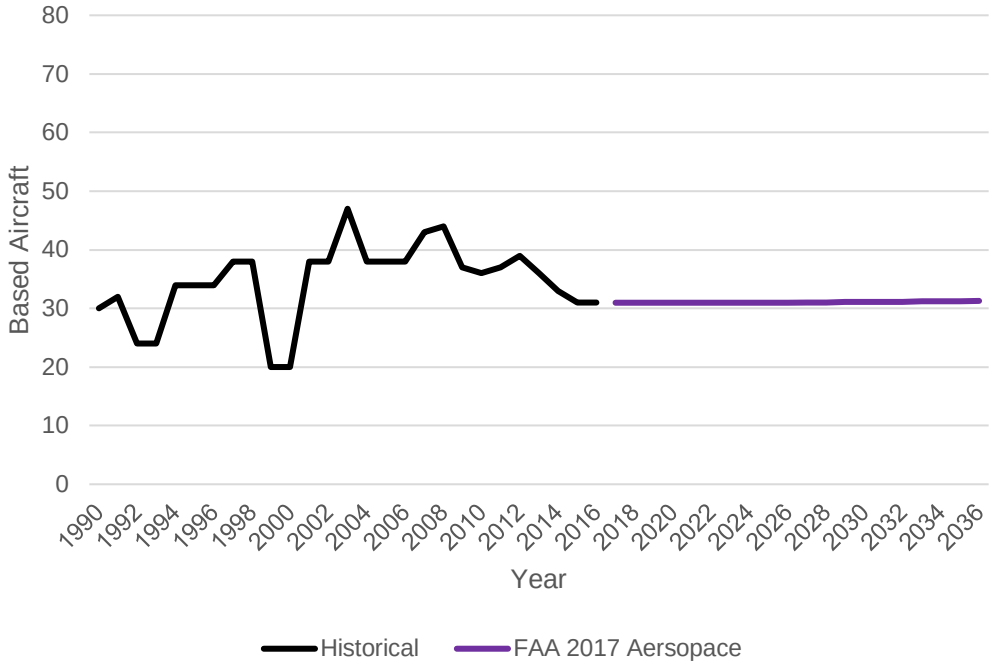
The third forecast is one that was developed using the *FAA Aerospace Forecasts 2017-2037.* The FAA develops these annually and they are much more global in nature than the Terminal Area Forecasts. It has forecasts for commercial operations, aircraft, and enplanements, as well as, information on general aviation aircraft, pilots, and operations. The *FAA Aerospace Forecasts 2017-2037*, Table 28, *Active General Aviation and Air Taxi Aircraft* projects that the total number of general aviation aircraft will increase by an average of 0.04 percent per year from 2016-2037. By applying this percentage, the 31-based aircraft for all the forecast years is the result, as shown in Table 3-7 and Figure 3-7.

Table 3-7
PROJECTIONS USING FAA AEROSPACE FORECASTS

Year	Historical	FAA 2017 Aerospace
1991	32	
1996	34	
2001	38	
2006	38	
2011	37	
2016	31	
2021		31
2026		31
2031		31
2036		31
AACG		
1991-2016	-0.1%	
2016-2021		-0.02%
2021-2026		0.00%
2026-2031		0.10%
2031-2036		0.10%
2016-2036		0.04%

Note: AACG = Average Annual Compounded Growth
Source: FAA Aerospace Forecasts 2016-2036

Figure 3-7
PROJECTIONS USING FAA AEROSPACE FORECASTS



The based aircraft projections for the Airport based on the 2017 FAA Aerospace Forecasts show that the number of based aircraft would remain constant at 31 aircraft throughout the planning period.

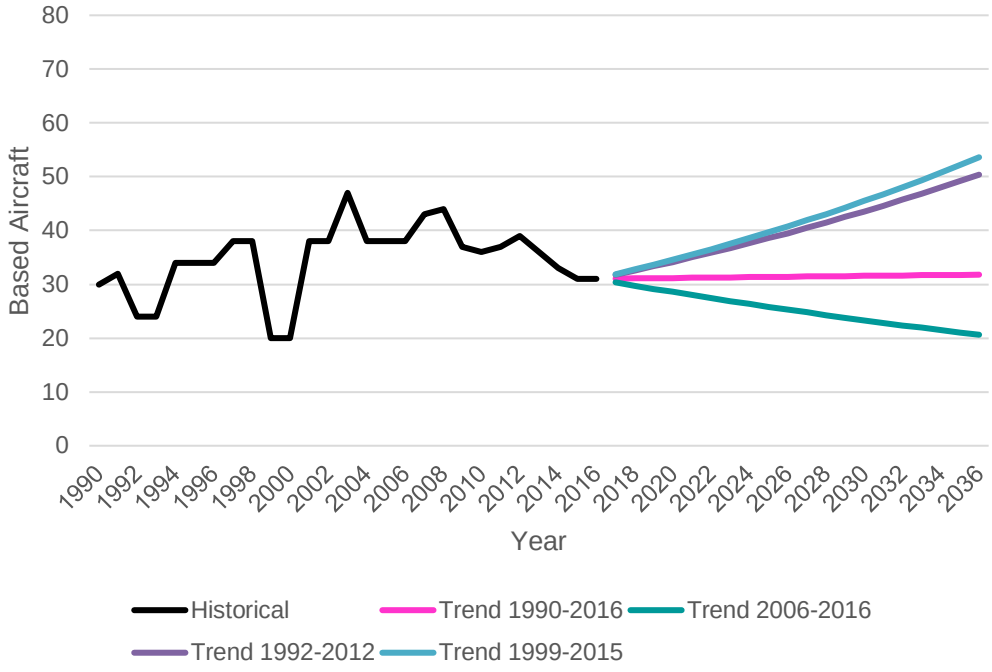
The fourth through seventh forecasts are based on the historic trend in the number of based aircraft and a trend line analysis. The linear trend methodology examines historical growth trends in the number of based aircraft and applies this trend to the current demand levels to produce projections of future activity. Linear trend analysis presumes that the numbers and the factors that have historically affected those numbers will continue to influence demand levels at similar rates over an extended period. Linear trend projections are typically used to provide baseline forecasts that reflect stable market conditions. Over the period of the last 26 years, the Airport has averaged a negative 0.1 percent average annual growth in the number of based aircraft. By projecting this percentage and other shorter historical periods, the results shown in Table 3-8 and Figure 3-8 are obtained.

Table 3-8
HISTORICAL TREND FORECASTS

Year	Historical	Trend 1990 to 2016	Trend 2006 to 2016	Trend 1992 to 2012	Trend 1999 to 2015
1991	32				
1996	34				
2001	38				
2006	38				
2011	37				
2016	31				
2021		31	28	35	36
2026		31	25	40	41
2031		32	23	45	47
2036		32	21	50	54
AACG					
1991-2016	-0.1%				
2016-2021		0.1%	-2.0%	2.5%	2.8%
2021-2026		0.1%	-2.0%	2.5%	2.8%
2026-2031		0.1%	-2.0%	2.5%	2.8%
2031-2036		0.1%	-2.0%	2.5%	2.8%
2016-2036		0.1%	-2.0%	2.5%	2.8%

Note: AACG = Average Annual Compounded Growth

Figure 3-8
HISTORICAL TREND FORECASTS



Using the historical trend methodology for the period from 1990 through 2016, there would be 31 based aircraft at the Airport in 2021. By the year 2036, it is projected that there would be 32 based aircraft. This rate of growth occurred between the years 1990 and 2016 and covers a period of 26 years.

The historical trend methodology used for the period between 2006 and 2016 would yield 28 based aircraft at the Airport in 2021 and 21 based aircraft in the year 2036. This period represents the last ten years of based aircraft at the airport, which represented a decline. Thus, the projection would also forecast a decline.

By using the period between 1992 through 2012, the result would be 35 based aircraft in 2021 and 50 based aircraft in the year 2036. This trend would repeat the trend that occurred during that 20-year period, when there was an average annual compounded growth rate of 2.5 percent. This has been repeated for the forecast.

The 16-year period between 1999 and 2015 was also a period of growth for the based aircraft at the Airport. The average annual compounded growth rate was 2.8 percent. By replicating that growth rate, the result would be 36 based aircraft in 2021 and 54 based aircraft in the year 2036.

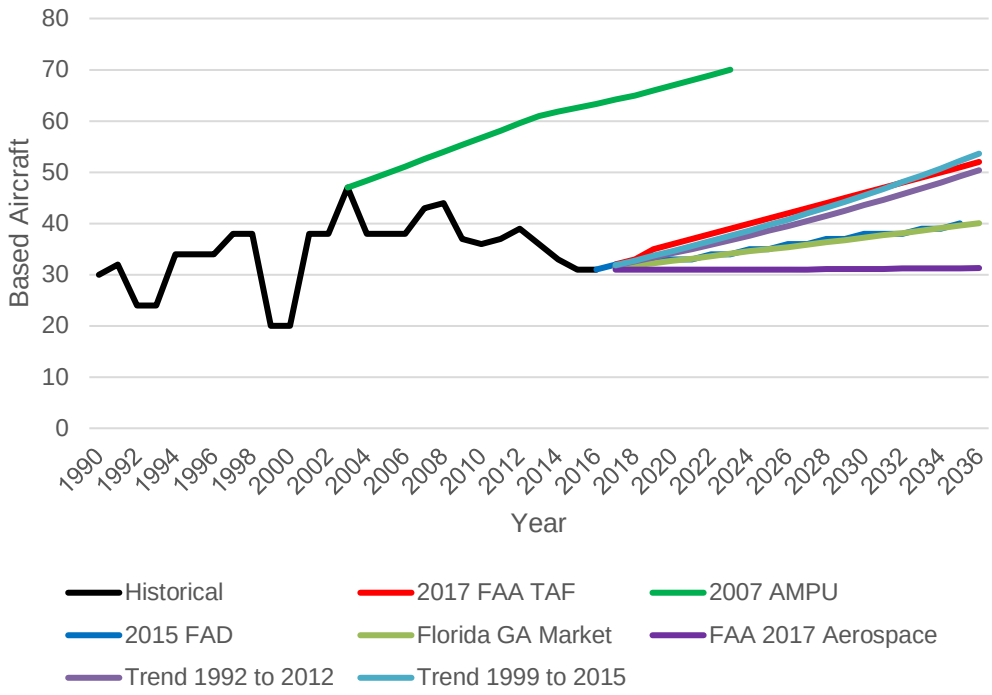
The 2017 FAA TAF was compared to the previously developed forecasts, as well as representatives of the newly developed forecasts for based aircraft. These are shown in Table 3-9 and Figure 3-9.

Table 3-9
COMPARISON OF BASED AIRCRAFT FORECASTS

Year	Historical	2017 FAA TAF	2007 AMPU	2015 FAD	Florida GA Market	FAA 2017 Aerospace	Trend 1992 to 2012	Trend 1999 to 2015
1991	32							
1996	34							
2001	38							
2006	38							
2011	37							
2016	31							
2021		37	68	33	33	31	35	36
2026		42	n/a	36	35	31	40	41
2031		47	n/a	38	38	31	45	47
2036		52	n/a	n/a	40	31	50	54
AACG								
1991-2016	-0.1%							
2016-2021		3.6%	17.0%	1.3%	1.3%	0.0%	2.5%	2.8%
2021-2026		2.6%	n/a	1.8%	1.3%	0.0%	2.5%	2.8%
2026-2031		2.3%	n/a	1.1%	1.3%	0.1%	2.5%	2.8%
2031-2036		2.0%	n/a	n/a	1.2%	0.1%	2.5%	2.8%
2016-2036		2.6%	n/a	n/a	1.3%	0.0%	2.5%	2.8%

Note: FAD = Florida Aviation Database, GA = General Aviation, n/a = not available, AACG = Average Annual Compounded Growth
Note 2: For the forecasts developed prior to this Master Plan Update, the based aircraft numbers have been interpolated to reflect the years shown in this table.

Figure 3-9
COMPARISON OF BASED AIRCRAFT FORECASTS



3.3.2 Preferred Based Aircraft Forecast

After comparing the seven forecasts, it was determined that the results achieved by 2017 FAA TAF yielded the best results for the Airport. While the 1999 to 2015 Trend anticipates more based aircraft in the long term, more based aircraft are forecast in the short-term with the 2017 FAA TAF.

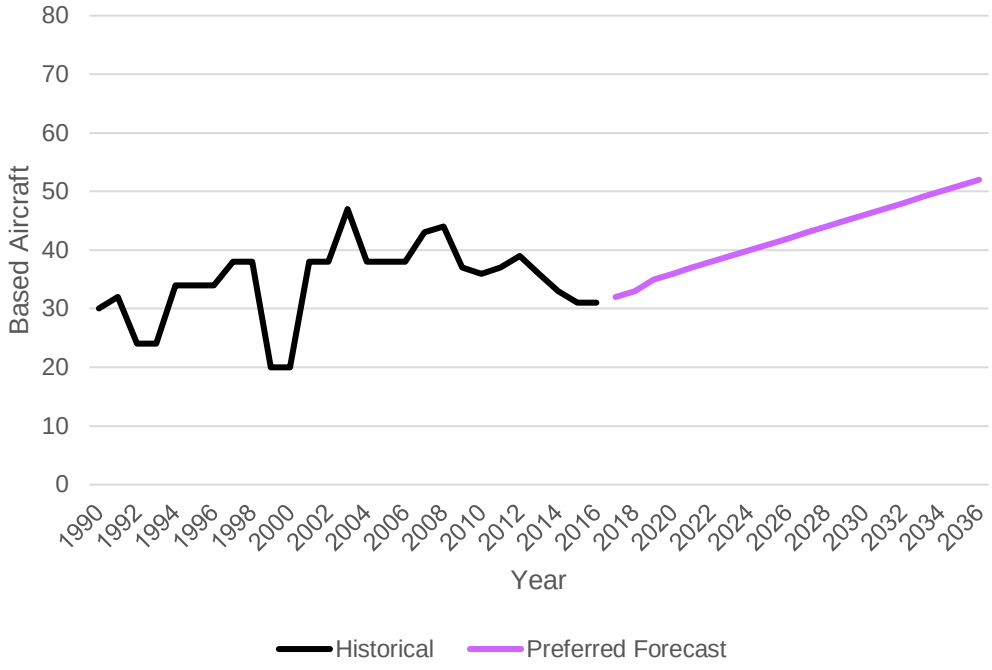
Further as it is the FAA TAF, it is consistent with the FAA TAF. The FAA parameters of the forecast being consistent with the FAA TAF is if "forecasts differ by less than 10 percent in the 5-year forecast period, and 15 percent in the 10-year period." In a June 2008 Memorandum, the FAA states that if a forecast is not consistent with the TAF, the results of the forecast "cannot be used in FAA decision making." The 2017 FAA TAF predicts that there will be 37 based aircraft at the Airport in 2021 and 42 based aircraft in 2026. The selected preferred forecast projects an average annual compounded growth of 2.6 percent per year, as shown in Table 3-10 and Figure 3-10.

Table 3-10
PREFERRED BASED AIRCRAFT FORECAST

Year	Historical	Preferred Forecast
1991	32	
1996	34	
2001	38	
2006	38	
2011	37	
2016	31	
2021		37
2026		42
2031		47
2036		52
AACG		
1991-2016	-0.1%	
2016-2021		3.6%
2021-2026		2.6%
2026-2031		2.3%
2031-2036		2.0%
2016-2036		2.6%

Note: AACG = Average Annual Compounded Growth

Figure 3-10
PREFERRED BASED AIRCRAFT FORECAST



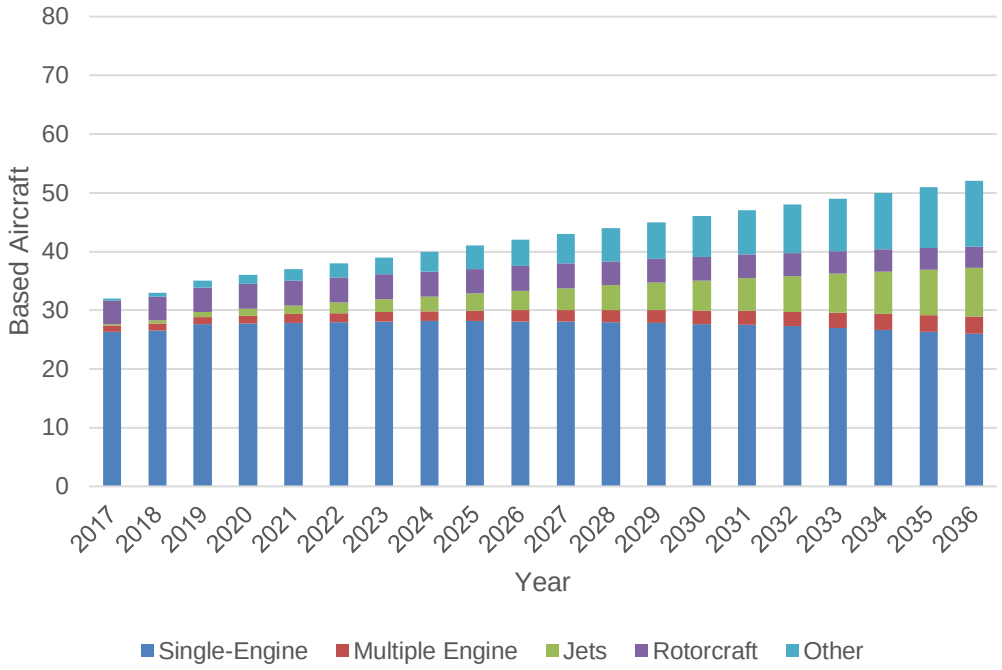
3.3.3 Based Aircraft Fleet Mix Forecast

The forecast of based aircraft fleet mix is based on the preferred based aircraft forecast. It is then divided by the number of single-engine aircraft, multiple engine aircraft, jets, rotorcraft and "other" types of aircraft that are likely to be based at the Airport in any given year. The "other" classification of aircraft could include ultra-light aircraft, powered parachutes, gliders, balloons, and other light sport or experimental aircraft. The various percentages of these types of aircraft are based on the average annual rate of growth projected in each category by the *FAA Aerospace Forecasts 2017-2037.* The resulting fleet mix is shown in Table 3-11 and Figure 3-11.

Table 3-11
FUTURE BASED AIRCRAFT FLEET MIX

Year	Single-Engine	Multiple Engine	Jets	Rotorcraft	Other	Total
2016	26	1	0	4	0	31
2021	28	1	1	4	2	37
2026	28	2	3	4	4	42
2031	27	2	6	4	8	47
2036	26	3	8	4	11	52
Percentage of Aircraft						
2016	83.9%	3.2%	0.0%	12.9%	0.0%	100.0%
2021	75.4%	3.8%	4.0%	11.4%	5.4%	100.0%
2026	66.9%	4.5%	8.0%	10.0%	10.7%	100.0%
2031	58.5%	5.1%	11.9%	8.5%	16.1%	100.0%
2036	50.0%	5.7%	15.9%	7.0%	21.4%	100.0%

Figure 3-11
FUTURE BASED AIRCRAFT FLEET MIX



The percentage of single-engine aircraft operating in the United States and at the Airport is projected to decline over the next 20 years. In 2016, there were reportedly 31 based aircraft on the Airport. Of these, 26 were single-engine aircraft, or 83.9 percent of the total based aircraft. The Airport is anticipated to have 26 single-engine based aircraft in the year 2036, which will represent only 50.0 percent of the total based aircraft.

Multiple-engine aircraft based at the Airport are projected to increase over the same period from the 1 in 2016 to 3 in the year 2036. The percentage of multiple-engine aircraft in the fleet mix will increase from 3.2 percent in 2016 to 5.7 percent in 2036.

There are currently no jets based at the Airport. This number is projected to increase to 8 in the year 2036. The percentage of jets in the fleet mix is anticipated to reach 15.9 percent of the based aircraft fleet mix by the year 2036.

There were four rotorcraft based at the Airport in 2016. This number is projected to remain at four throughout the planning period. The rotorcraft of 2016 represented 12.9 percent of the fleet mix. This is anticipated to decrease to 7.0 percent of the fleet mix in 2036.

There are currently no ultralight aircraft based at the Airport. The number of aircraft within the "other" category is anticipated to increase to 11 in 2036. The percentage of "other" aircraft is expected to rise from the current 0.0 percent to 21.4 percent in 2036. This number will probably

not be exclusively ultralights but could also include other aircraft in this category such as gliders, balloons, light sport, or experimental aircraft.

3.4 Annual Operations Forecast

Okeechobee County Airport is classified as a general aviation airport. General aviation activities include all segments of the aviation industry except those conducted by commercial airline passenger and cargo carriers. Typical activities include the training of new pilots, medical flights, aerial surveys, recreational flying, law enforcement, spraying services, sightseeing, aerial photography, and business and personal travel.

The FAA defines an operation to be either the takeoff or the landing of a single aircraft. A touch and go training procedure would be considered two operations. Operations are further divided into the categories of local or itinerant. Local operations are those performed by aircraft that remain in the airport traffic pattern or are within sight of the local airport. This area is considered to cover a 20-nautical mile radius of the airfield. Local operations are often associated with training activities and flight instruction. At the Okeechobee County Airport, recreational flying makes up most of the local operations.

Itinerant operations are arrivals or departures other than local operations performed by either based or itinerant aircraft. Itinerant general aviation operations include business or personal operations to or from another airport. However, itinerant operations may also include law enforcement or medical flights that operate outside of the local limits of an airport.

Forecasts of annual operations allow the Airport to predict the number of operations that are likely to occur at the Airport over the next 20 years. This provides the Airport with the basis for deciding both the level of capital improvements and the timing for the necessary investments.

3.4.1 Previous Annual Operations Forecasts

Three forecasts of annual operations at Okeechobee County Airport were completed prior to the initiation of this Master Plan Update. These include a forecast developed by the FAA, the 2007 Master Plan Update, and the 2014 Florida Aviation Database.

Not only does the 2017 FAA TAF give historical data and forecast projections for based aircraft, it also provides the same information for annual operations. Further, the 2017 FAA TAF breaks the annual operations into local and itinerant traffic. The latest FAA TAF was published in January 2018 and is shown in Table 3-12 and Figure 3-12.

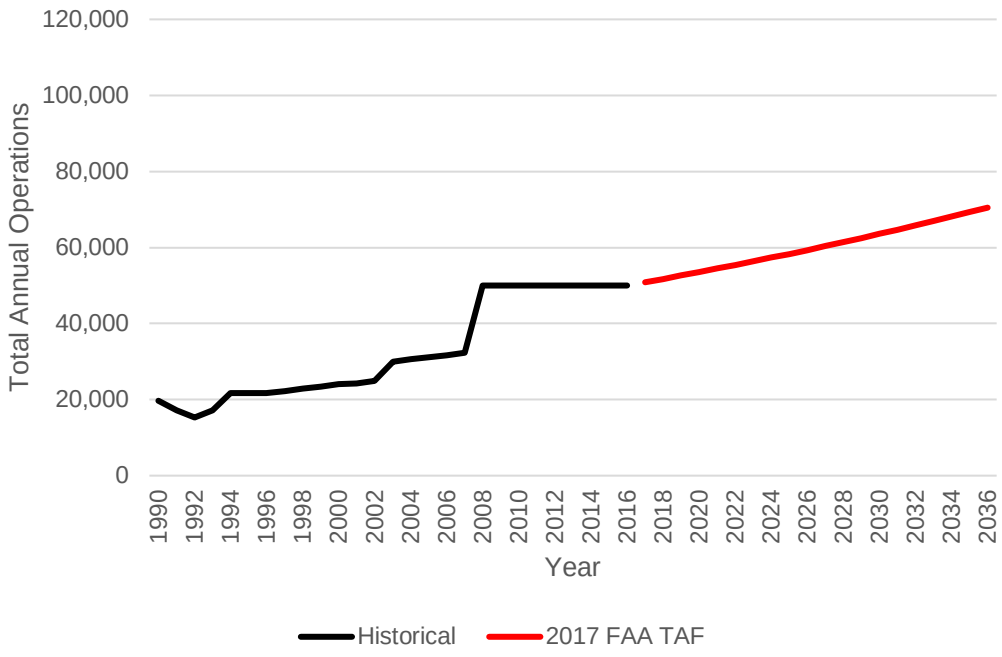
The 2017 FAA TAF predicts that the annual operations at the Airport will rise from 50,000 in 2016 to 54,456 in 2021; to 70,479 annual operations in the year 2036. This is an overall average annual compounded growth rate of 1.7 percent per year.

Table 3-12
2017 FAA TAF ANNUAL OPERATIONS FORECAST

Year	Historical	2017 FAA TAF
1991	17,200	
1996	21,700	
2001	24,227	
2006	31,708	
2011	50,000	
2016	50,000	
2021		54,456
2026		59,331
2031		64,661
2036		70,479
AACG		
1991-2016	4.4%	
2016-2021		1.7%
2021-2026		1.7%
2026-2031		1.7%
2031-2036		1.7%
2016-2036		1.7%

Note: TAF = Terminal Area Forecast,
AACG = Average Annual Compounded Growth
Source: 2017 FAA Terminal Area Forecast

Figure 3-12
2017 FAA TAF ANNUAL OPERATIONS FORECAST



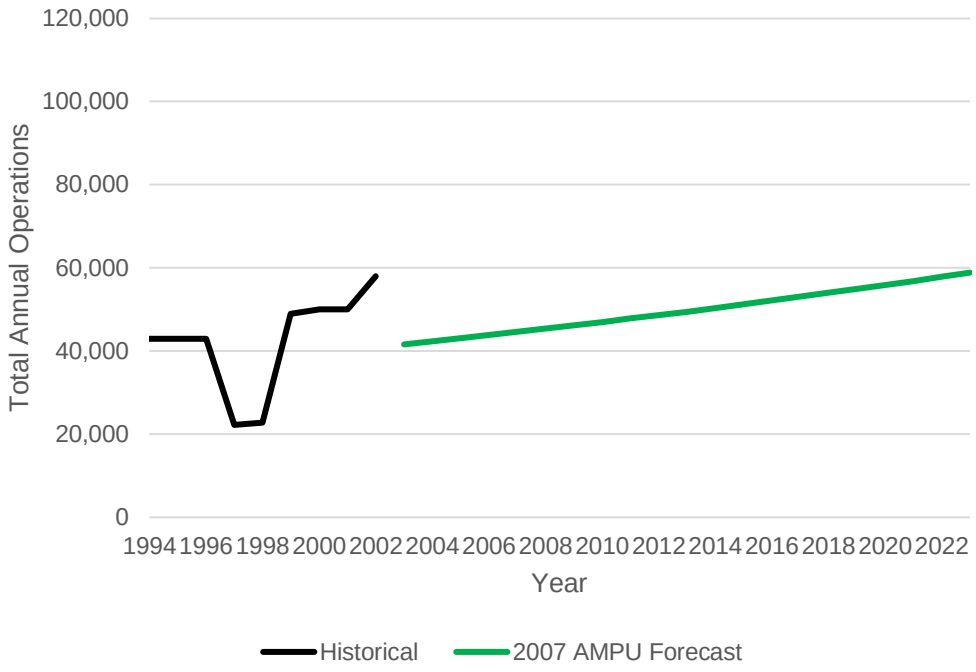
The last Master Plan Update completed for the Airport, the 2007 Master Plan Update, developed a forecast that can be seen in Table 3-13 and Figure 3-13.

Table 3-13
2007 MASTER PLAN ANNUAL OPERATIONS FORECAST

Year	Historical	2007 AMPU Forecast
1994	43,000	
1995	43,000	
1996	43,000	
1997	22,242	
1998	22,823	
1999	49,000	
2000	50,000	
2001	50,000	
2008		45,381
2013		49,493
2018		53,978
2023		58,869
AACG		
1994-2001	2.2%	
2001-2008		-1.4%
2008-2013		1.7%
2013-2018		1.8%
2018-2023		1.7%
2001-2023		0.7%

Note: AMPU = Airport Master Plan Update, AACG = Average Annual Compounded Growth
Source: 2007 Okeechobee County Airport Master Plan Update

Figure 3-13
2007 MASTER PLAN ANNUAL OPERATIONS FORECAST



The 2007 Master Plan Update reported that there were 43,000 operations at the Airport in 1994. The Master Plan Update projected that there would be 45,381 annual operations in 2008, and 53,978 in the year 2018. This projection represents an average annual compounded growth rate of 0.7 percent.

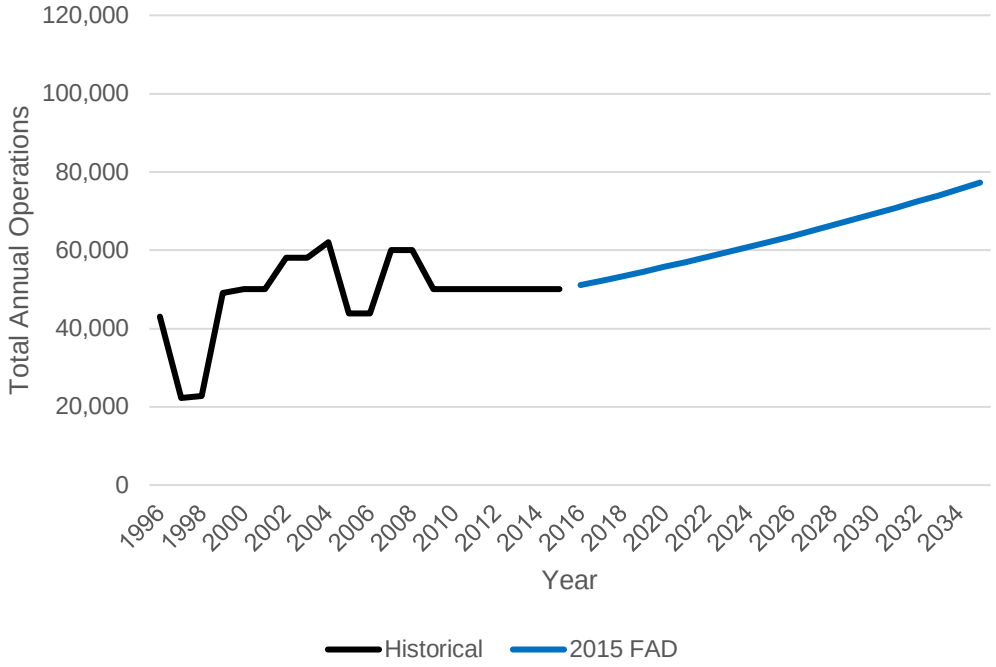
The Florida Aviation Database (FAD) developed a forecast of annual operations for the Okeechobee County Airport in 2015. This is shown in Table 3-14 and Figure 3-14.

Table 3-14
2015 FAD ANNUAL OPERATIONS FORECAST

Year	Historical	2015 FAD Forecast
2000	50,000	
2005	43,833	
2010	50,000	
2015	50,000	
2020		55,747
2025		62,155
2030		69,300
2035		77,266
AACG		
2000-2015	0.0%	
2015-2020		2.2%
2020-2025		2.2%
2025-2030		2.2%
2030-2035		2.2%
2015-2035		2.2%

Note: FAD = Florida Aviation Database,
AACG = Average Annual Compounded Growth
Source: Florida Aviation Database

Figure 3-14
2015 FAD ANNUAL OPERATIONS FORECAST



The 2015 FAD forecasts indicated that the 50,000 annual operations in 2015 would grow to 55,747 in the year 2020 and to 62,155 annual operations in the year 2025. Finally, the annual operations would climb to 77,266 in the year 2035. This represents an average annual compounded growth rate of 2.2 percent per year for the planning period.

3.4.2 New Annual Operations Forecasts

This Master Plan Update developed additional forecasts of annual operations. The first and second forecasts use the Florida General Aviation Market Share of annual operations forecast and the Total Florida Market Share of annual operations forecast. These forecasts take the annual operations at Okeechobee County Airport and compares them to:

- The total annual operations at all general aviation airports in the State of Florida
- The total annual operations at all the public-use airports in the State of Florida

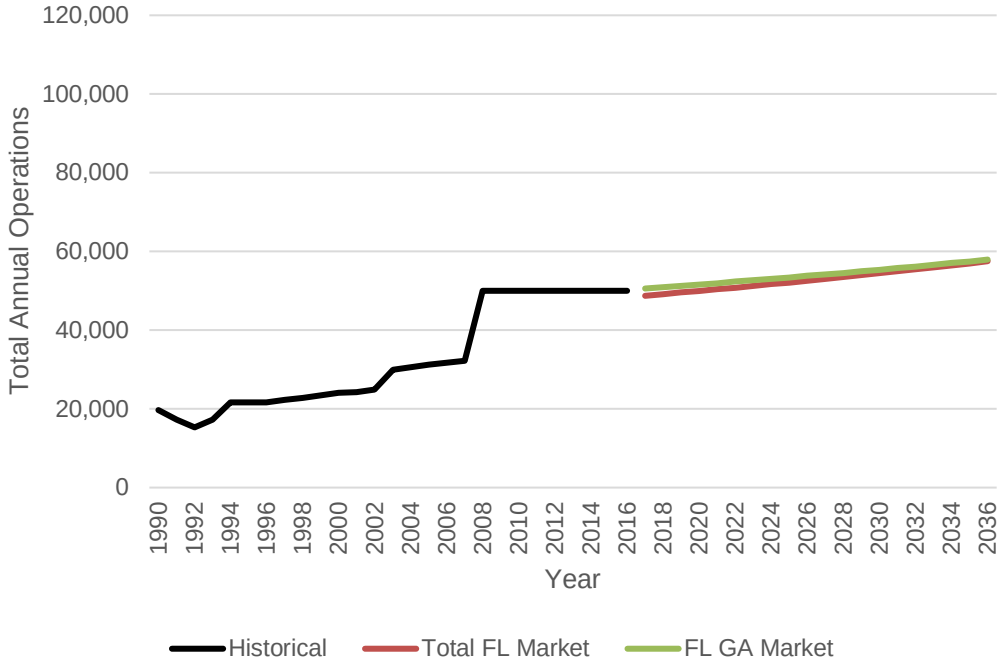
These forecasts presume that the market share of the Airport will remain the same over the planning period with the results shown in Table 3-15 and Figure 3-15.

Table 3-15
MARKET SHARE OF FLORIDA OPERATIONS

Year	Historical	Total Florida Market Forecast	Florida GA Market Forecast
1991	17,200		
1996	21,700		
2001	24,227		
2006	31,708		
2011	50,000		
2016	50,000		
2021		50,377	51,948
2026		52,579	53,784
2031		54,961	55,774
2036		57,523	57,935
AACG			
1991-2016	4.4%		
2016-2021		0.2%	0.8%
2021-2026		0.9%	0.7%
2026-2031		0.9%	0.7%
2031-2036		0.9%	0.8%
2016-2036		0.7%	0.7%

Note: GA = General Aviation,
AACG = Average Annual Compounded Growth
Source: 2017 FAA Terminal Area Forecast

Figure 3-15
MARKET SHARE OF FLORIDA ANNUAL OPERATIONS



Using the Florida General Aviation Market Share, the results would be 51,948 annual operations in the year 2021, 53,784 in the year 2026, and 57,935 the year 2036. This would be an average annual compounded growth rate of 0.7 percent.

Using the Total Florida Aviation Market Share, the results would be 50,377 annual operations in the year 2021; 52,579 in the year 2026; and 57,523 in the year 2036. This would also be an average annual compounded growth rate of 0.7 percent.

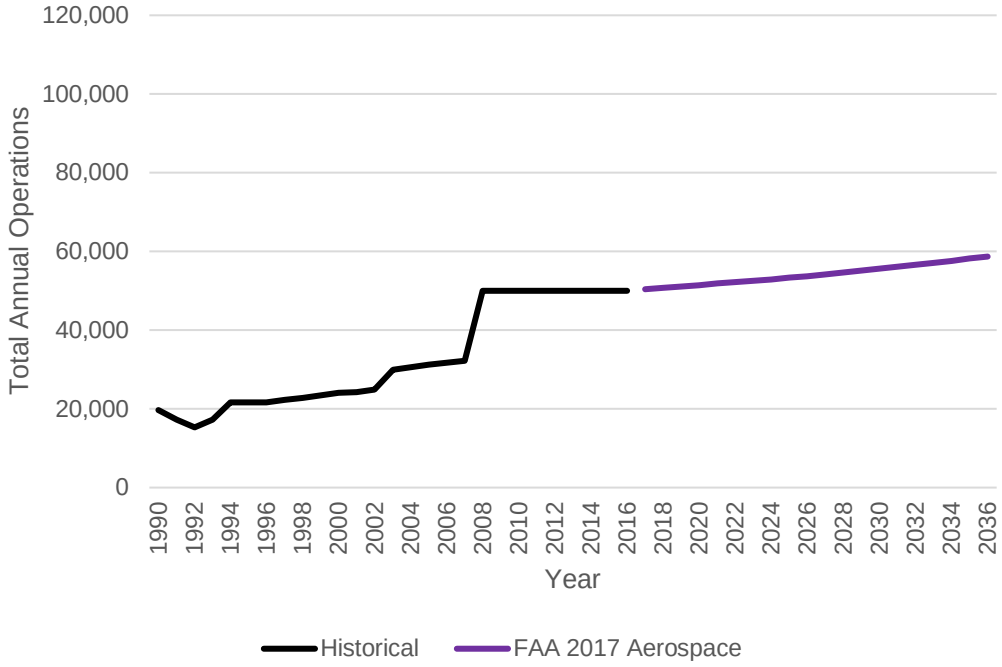
The third forecast is one that was developed using the *FAA Aerospace Forecasts 2017-2037* like that done for the based aircraft. The *FAA Aerospace Forecasts 2017-2037*, Table 29, *Active General Aviation and Air Taxi Hours Flown* projects that the total number of general aviation hours flown will increase by an average of 0.8 percent per year from 2017 through 2037, as shown in Table 3-16 and Figure 3-16.

Table 3-16
FAA AEROSPACE BASED FORECAST OF ANNUAL OPERATIONS

Year	Historical	FAA 2017 Aerospace
1991	17,200	
1996	21,700	
2001	24,227	
2006	31,708	
2011	50,000	
2016	50,000	
2021		51,826
2026		53,666
2031		56,124
2036		58,696
AACG		
1991-2016	4.4%	
2016-2021		0.72%
2021-2026		0.70%
2026-2031		0.90%
2031-2036		0.90%
2016-2036		0.80%

Note: AACG = Average Annual Compounded Growth
Source: FAA Aerospace Forecasts 2016-2036

Figure 3-16
FAA AEROSPACE BASED FORECAST OF ANNUAL OPERATIONS



Projections of total annual operations based on the FAA 2017 Aerospace forecasts would result in 51,826 annual operations in 2021 and 53,666 annual operations in 2026. By 2036, the total annual operations of based aircraft are forecast to rise to 58,696.

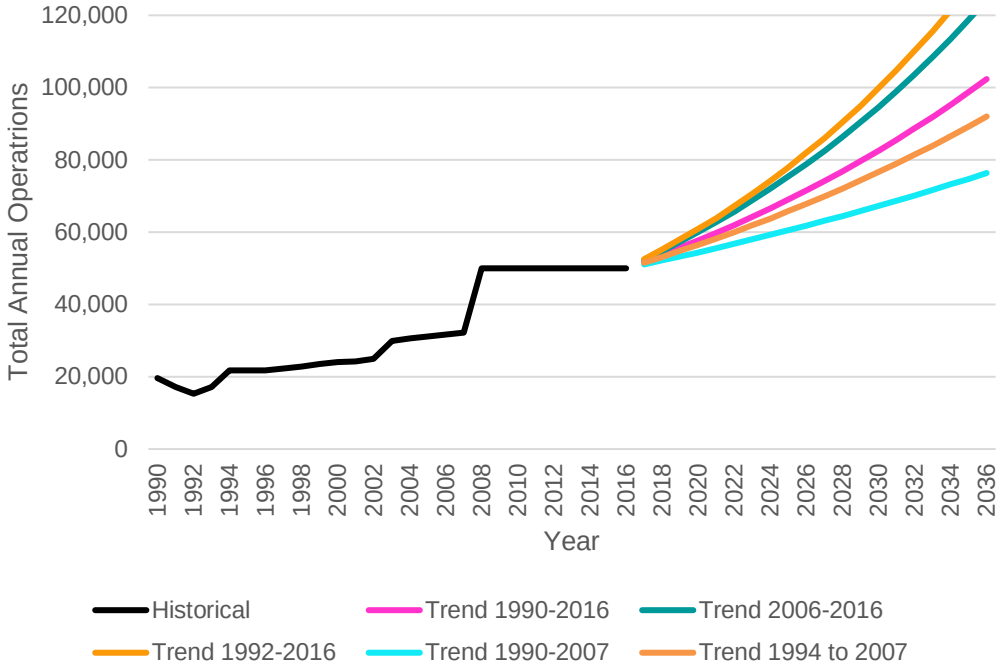
The fourth forecasting methodology used to develop a forecast of annual operations is one that is based on the historic trend in the number of annual operations and a trend line analysis like the ones that were done for based aircraft. The linear trend methodology examines historical growth trends in the number of annual operation and applies this trend to the current demand levels to produce projections of future activity. Over the period of the last 25 years, the Airport has averaged a 4.4 percent average annual compounded growth in the number of annual operations. By projecting this percentage, as well as those of other interim periods, the results shown in Table 3-17 and Figure 3-22 are obtained.

Table 3-17
HISTORICAL TREND FORECAST OF ANNUAL OPERATIONS

Year	Historical	Trend 1990 to 2016	Trend 2006 to 2016	Trend 1992 to 2016	Trend 1990 to 2007	Trend 1994 to 2007
1991	17,200					
1996	21,700					
2001	24,227					
2006	31,708					
2011	50,000					
2016	50,000					
2021		59,808	62,787	63,990	55,585	58,235
2026		71,540	78,844	81,894	61,793	67,826
2031		85,573	99,008	104,808	68,695	78,996
2036		102,359	124,329	134,133	76,367	92,006
AACG						
1991-2016	4.4%					
2016-2021		3.6%	4.7%	5.1%	2.1%	3.1%
2021-2026		3.6%	4.7%	5.1%	2.1%	3.1%
2026-2031		3.6%	4.7%	5.1%	2.1%	3.1%
2031-2036		3.6%	4.7%	5.1%	2.1%	3.1%
2016-2036		3.6%	4.7%	5.1%	2.1%	3.1%

Note: AACG = Average Annual Compounded Growth

Figure 3-17
HISTORICAL TREND FORECAST OF ANNUAL OPERATIONS



The period between 1990 and 2016 represents the 26-year historical period of the Airport. During this period, the Airport reported an increase in the total number of operations that averaged 3.6 percent per year. If this were projected forward, it is predicted that there would be 59,808 annual operations in 2021, 71,540 annual operations in 2026, and 102,359 annual operations in 2036.

The period that represents the last ten years of operations at the Airport would be the period between 2006 through 2016. This period enjoyed an average annual compounded growth rate of 4.7 percent. If this were forecast forward the result would be 62,787 operations in 2021, 78,844 annual operations in 2026, and 124,329 annual operations in 2036. It is unlikely that this rate of growth could be sustainable over the next twenty-year period.

The period between 1992 and 2016 was a 24-year period in which the Airport had an average annual compounded growth rate in operations of 5.1 percent. If this rate were projected forward, there would be 63,990 operations in 2021, 81,894 in 2026 and a total of 134,133 annual operations on 2036. Again, it is unlikely that this rate of growth could be sustainable over the next twenty-year period.

There was a 17-year period between 1990 and 2007, when the Airport had a 2.1 percent average annual rate. If this were projected forward, the result would be 55,585 operations in 2021; 61,793 operations in 2026; and 76,367 operations in 2036.

There was also a 13-year period between 1994 and 2007 when the average annual compounded rate of growth was 3.1 percent. If this rate of growth were projected forward, the result would be 58,235 operations in 2021; 67,826 operations in 2026; and 92,006 operations in 2036.

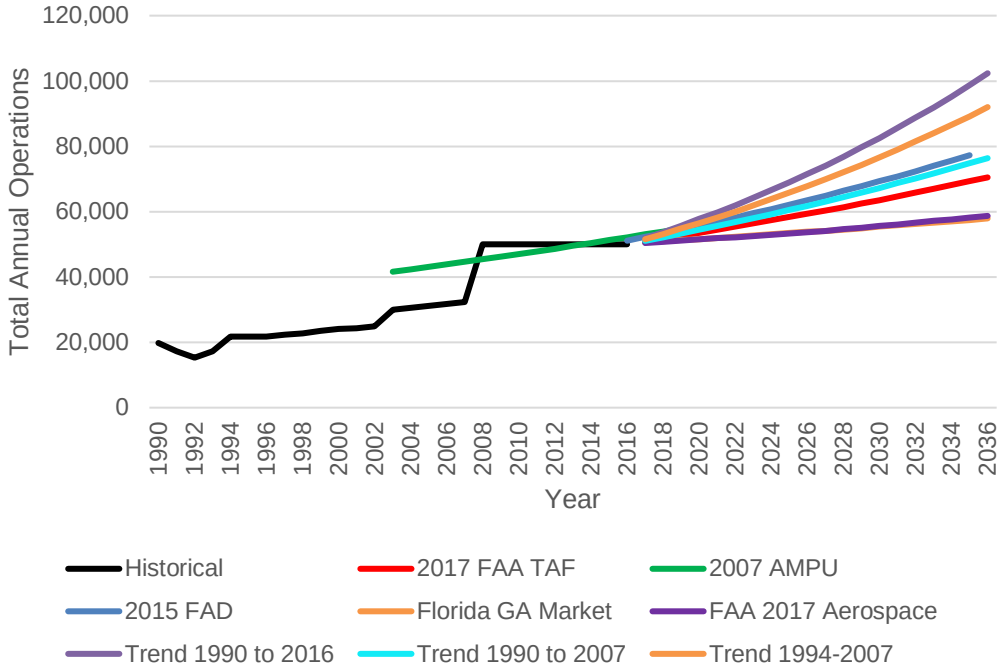
The 2017 FAA TAF was compared to the 2007 Master Plan Update and the 2014 FAD Forecast. It was also compared to the newly developed forecasts: the Florida GA Market Share, the FAA Aerospace, and selected Historical Trends forecasts. These are shown in Table 3-18 and Figure 3-18.

Table 3-18
COMPARISON OF ANNUAL OPERATIONS FORECASTS

Year	Historical	2017 FAA TAF	2007 AMPU	2015 FAD	Florida GA Market	FAA 2017 Aerospace	Trend 1990 to 2016	Trend 1990 to 2007	Trend 1994 to 2007
1991	17,200								
1996	21,700								
2001	24,227								
2006	31,708								
2011	50,000								
2016	50,000								
2021		54,456	56,862	56,974	51,948	51,826	59,808	55,585	58,235
2026		59,331	n/a	63,523	53,784	53,666	71,540	61,793	67,826
2031		64,661	n/a	70,825	55,774	56,124	85,573	68,695	78,996
2036		70,479	n/a	n/a	57,935	58,696	102,359	76,367	92,006
AACG									
1991-2016	4.4%								
2016-2021		1.7%	2.6%	2.6%	0.8%	0.7%	3.6%	2.1%	3.1%
2021-2026		1.7%	n/a	2.2%	0.7%	0.7%	3.6%	2.1%	3.1%
2026-2031		1.7%	n/a	2.2%	0.7%	0.9%	3.6%	2.1%	3.1%
2031-2036		1.7%	n/a	n/a	0.8%	0.9%	3.6%	2.1%	3.1%
2016-2036		1.7%	n/a	n/a	0.7%	0.8%	3.6%	2.1%	3.1%

Note: FAD = Florida Aviation Database, GA = General Aviation, TAF = Terminal Area Forecast, AACG = Average Annual Compounded Growth
Note 2: For the forecasts developed prior to this Master Plan Update, the annual operations numbers have been interpolated to reflect the years shown in this table.

Figure 3-18
COMPARISON OF CURRENT FORECASTS OF ANNUAL OPERATIONS



3.4.3 Preferred Annual Operations Forecast

After comparing the eight forecasts, it was determined that the 1994-2007 Historical Trend Forecast resulted in the highest number of annual operations, while still being consistent with the 2017 FAA TAF. A forecast is consistent with the FAA TAF if "forecasts differ by less than 10 percent in the 5-year forecast period, and 15 percent in the 10-year period." In a June 2008 Memorandum, the FAA states that if a forecast is not consistent with the TAF, the results of the forecast "cannot be used in FAA decision making."

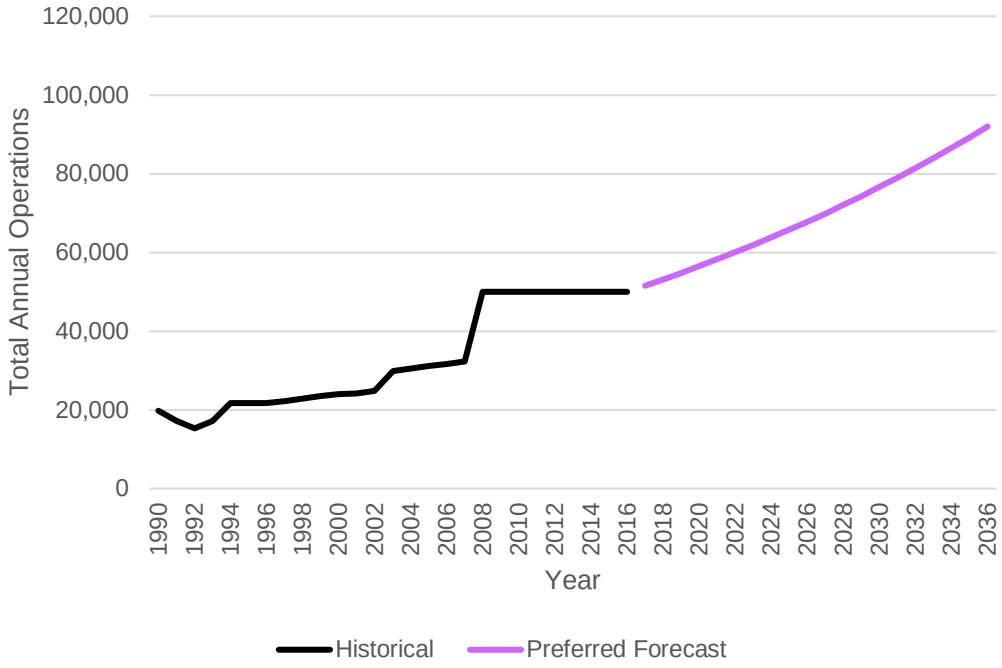
The 2017 FAA TAF forecasts that the Airport will have 54,456 based aircraft in 2021 and 59,331 based aircraft in 2026. Thus, the allowable ranges would be between 49,010 and 59,902 in the year 2021, and between 50,431 and 68,231 in the year 2026. This would eliminate the Trend Line Forecast for the Year 1990-2016. Of the remaining forecasts, the Trend Line Forecast for the years 1994-2007 has the highest number of forecast annual operations. It projects a steady 3.1 percent average annual compounded growth throughout the 20 years of the planning period as shown in Table 3-19 and Figure 3-19.

Table 3-19
PREFERRED ANNUAL OPERATIONS FORECAST

Year	Historical	Preferred Forecast
1991	17,200	
1996	21,700	
2001	24,227	
2006	31,708	
2011	50,000	
2016	50,000	
2021		58,235
2026		67,826
2031		78,996
2036		92,006
AACG		
1991-2016	4.4%	
2016-2021		3.1%
2021-2026		3.1%
2026-2031		3.1%
2031-2036		3.1%
2016-2036		3.1%

Note: AACG = Average Annual Compounded Growth

Figure 3-19
PREFERRED ANNUAL OPERATIONS FORECAST



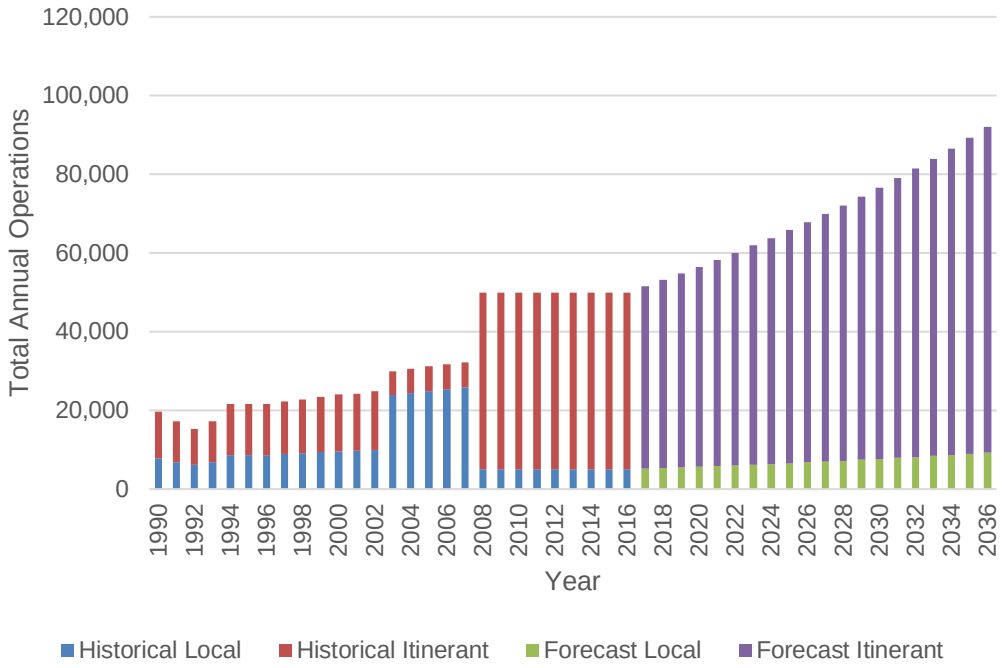
3.4.4 Local Versus Itinerant Operations Distribution Forecast

The historical split between local and itinerant aircraft operations as shown by the 2017 FAA TAF has varied somewhat over the years. The average split of local to itinerant between the years 1990 and 2015 has been 48.7 percent local and 51.3 percent itinerant. This split has been distributed across the preferred forecast for annual operations with the results as shown in Table 3-20 and Figure 3-20.

Table 3-20
LOCAL VERSUS ITINERANT OPERATIONS DISTRIBUTION

Year	Historical		Forecast	
	Local	Itinerant	Local	Itinerant
1991	6,880	11,820		
1996	8,680	13,020		
2001	9,690	14,537		
2006	25,367	6,233		
2011	5,000	45,000		
2016	5,000	45,000		
2021			5,823	52,411
2026			6,783	61,043
2031			7,900	71,096
2036			9,201	82,806

Figure 3-20
LOCAL VERSUS ITINERANT OPERATIONS DISTRIBUTION



3.4.5 Commercial Operations

In addition to local and itinerant, operations are also divided between commercial operations, military operations, and general aviation operations. Commercial operations include regularly scheduled passenger services, air taxi, charter, and air cargo services. Okeechobee County Airport has no commercial service.

3.4.6 Military Operations

Military operations are those officially carried out by a branch of the U.S. military services. The 2017 FAA TAF indicates that the Airport has seen no military aircraft operations since the year since 1990.

3.4.7 Airport Operational Fleet Mix

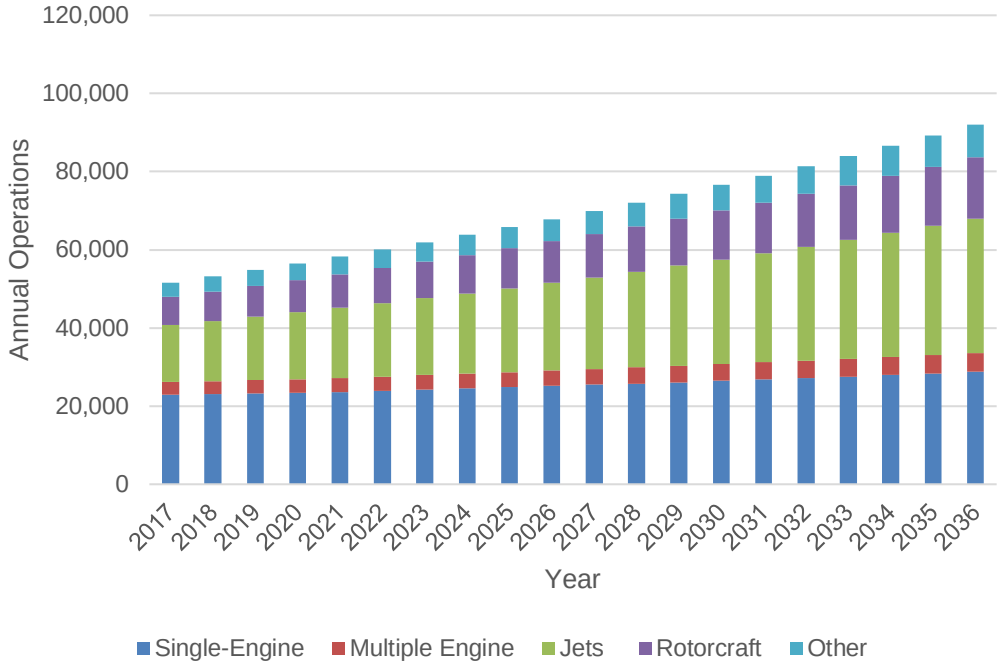
The forecast of the split of operations based on the forecast fleet mix is commonly called the operational fleet mix. This forecast is based on the based aircraft fleet mix and the preferred forecast of annual operations, while also considering itinerant operations. The various growth percentages of these types of aircraft operations are based on the average annual rate of growth projected in each aircraft operations category by the *FAA Aerospace Forecasts 2017-2037.* The resulting operational fleet mix is shown in Table 3-21 and Figure 3-21.

Table 3-21
OPERATIONAL FLEET MIX

Year	Single-Engine	Multiple Engine	Jets	Rotorcraft	Other	Total
2016	22,234	3,224	14,106	6,894	3,541	50,000
2021	23,626	3,603	17,909	8,615	4,482	58,235
2026	25,147	3,966	22,423	10,690	5,600	67,826
2031	26,803	4,389	27,945	12,984	6,876	78,996
2036	28,735	4,879	34,409	15,684	8,300	92,006
Percentage of Fleet Mix						
2016	44.5%	6.4%	28.2%	13.8%	7.1%	100.0%
2021	40.6%	6.2%	30.8%	14.8%	7.7%	100.0%
2026	37.1%	5.8%	33.1%	15.8%	8.3%	100.0%
2031	33.9%	5.6%	35.4%	16.4%	8.7%	100.0%
2036	31.2%	5.3%	37.4%	17.0%	9.0%	100.0%

Note: Rows may not equal totals shown due to rounding

Figure 3-21
OPERATIONAL FLEET MIX



Each category of aircraft is anticipated to increase the annual number of operations at the Airport over the next twenty years. The percentage of single-engine and multiple-engine aircraft operations are forecast to decline as the other sectors increase. By the year 2031, single engine aircraft will no longer continue to perform most of the operations at the Airport. In 2031, jets are anticipated to perform the largest number of operations at the Airport.

3.5 Peaking Activity

Peak activity forecasts are used to size facilities such as aprons and terminals. Typically, aircraft do not land and take off consistently from one hour to the next or even from one month to the next. The peak activity forecasts typically projected are the peak month, the average day of the peak month, and the peak hour of the average day. This is not intended to forecast the busiest hour of the busiest day of the year. If a facility were designed to accommodate the busiest day of the busiest month of the year, the facility would be underutilized most the year. By designing to the peak hour of the average day of the peak month, the result is a facility that is comfortably utilized about 85 percent of the year. There will be times when the facility is underutilized, and there will also be times when it is crowded for short periods.

The Airport typically has the highest levels of activity during the months beginning in November and ending in April. This is largely due to the mild weather in Florida during these months. It was estimated that approximately 10 percent of the Airport's annual activity would occur during

the peak month due to this activity. The 10 percent of annual operations was used to determine the peak month activities through the year 2036 as shown in Table 3-22.

Table 3-22
PROJECTED PEAK OPERATIONS

Year	Annual Operations	Peak Month Operations	Average Day Operations	Peak Hour
2016	50,000	5,000	161	16
2021	58,235	5,823	188	19
2026	67,826	6,783	219	22
2031	78,996	7,900	255	25
2036	92,006	9,201	297	30

To achieve the average day peak month activity, the peak month activities would be divided by the number of days in the month. Each of the peak month activity numbers have been divided by 31. An estimate of a tenth of the average day operations was used to calculate the peak hour operations.

3.6 Comparison of Preferred Forecasts to FAA Terminal Area Forecasts

If an airport is included in the FAA Terminal Area Forecasts, any new aviation activity forecasts need to be reviewed and approved by the FAA before they can be applied to further analyses. During this review, the FAA looks to see if the based aircraft and annual operations forecasts differ from the TAF by less than 10 percent in the first five years and 15 percent in the first 10 years. An FAA Memorandum dated 23 December 2004 states “Where the 5- or 10-year forecast does not exceed 100,000 total annual operations or 100 based aircraft, then it does not need headquarters review, and should be provided for use in the annual update of the TAF.” This is the case with Okeechobee County Airport with respect to both reported annual operations and for the number of based aircraft. In accordance with FAA preference and for informational purposes, a comparison of the preferred forecast to the 2017 FAA TAF is shown in Table 3-23.

Table 3-23
COMPARISON OF 2017 FAA TAF AND PREFERRED FORECASTS

Forecast	Preferred Forecast	2017 FAA TAF	Difference
Based Aircraft			
Base Year (2016)	31	31	0.0%
5 Year (2021)	37	37	0.0%
10 Year (2026)	42	42	0.0%
Annual Operations			
Base Year (2016)	50,000	50,000	0.0%
5 Year (2021)	58,235	54,456	6.9%
10 Year (2026)	67,826	59,331	14.3%

The preferred based aircraft and annual operations forecasts are well within the limits set by the FAA. For the reasons stated in this chapter, the forecasts of based aircraft and annual operations selected in this study are considered reasonable and valid for planning purposes.

3.6.1 Critical Aircraft

The design aircraft identified for Runway 5/23 in the approved 1996 Airport Layout Plan was the Gulfstream II. The unapproved 2007 ALP also identified the design aircraft as the Gulfstream II. This aircraft has an approach speed of 141 knots, a wingspan of 68.10 feet, a tail height of 24.06 feet, and a Maximum Take Off Weight (MTOW) of 65,300 pounds. This brought the design aircraft for Runway 5/23 solidly into the D-II category.

Runway 14/32 was assigned a Runway Design Code of B-II on the unapproved 2007 ALP. The design aircraft identified for this runway was the Beechcraft King Air 200. This aircraft has an approach speed of 98 knots, a wingspan of 54.5 feet, a tail height of 14.8 feet, and an MTOW of 12,500 pounds. The Beechcraft King Air 200 qualifies as a B-II aircraft.

The FAA AC 150/5000-17, *Critical Aircraft and Regular Use Determination*, defines the critical aircraft at an airport as “the most demanding aircraft type or grouping of aircraft with similar characteristics, that make regular use of an Airport. Regular use is defined by the FAA as 500 annual operations, including both itinerant and local operations but excluding touch-and-go operations. The AC further states that Critical Aircraft, Design Aircraft and Critical Design Aircraft are synonymous.

To determine the current critical aircraft at this non-towered airport. The FAA’s data for Traffic Flow Management System Counts (TFMSC) was downloaded for the Airport for the fiscal year (FY) 2018. These counts are for those IFR operations where a flight plan was filed for the operation and the Airport was a part of that operation either as an origin or as a destination, or where the operation was caught on radar. The TFMSC does not capture VFR flights. Not all operations have flight plans filed. However, a significant number do, especially for operations of larger aircraft, and these operations can be verified. Further, the TFMSC tracks the aircraft model, so it can be determined what aircraft are flying into and out of the Airport. The

operations logged into the TFMSC database for the Okeechobee County Airport in FY 2018 are summarized in Table 3-24. The full output from the TFMSC can be found as Appendix E.

Table 3-24
FISCAL YEAR 2018 TFMSC OPERATIONS

Aircraft	Total FY 2018 TFMSC Operations	Total FY 2018 TFMSC Naturalized Operations
A-I Aircraft		
AA5 - American AA-5 Traveler	3	3
BE24 - Beech 24 Sierra	2	2
BE33 - Beech Bonanza 33	25	25
BE35 - Beech Bonanza 35	3	3
BE36 - Beech Bonanza 36	33	33
BE55 - Beech Baron 55	8	8
BE76 - Beech 76 Duchess	1	1
C150 - Cessna 150	2	2
C152 - Cessna 152	11	11
C172 - Cessna Skyhawk 172/Cutlass	154	154
C177 - Cessna 177 Cardinal	2	2
C182 - Cessna Skylane 182	45	45
C210 - Cessna 210 Centurion	5	5
C240 - Cessna TTx Model T240	2	2
C310 - Cessna 310	17	17
COL3 - Lancair LC-40 Columbia 400	4	4
COL4 - Lancair LC-41 Columbia 400	1	1
DA40 - Diamond Star DA40	4	4
DA42 - Diamond Twin Star	3	3
EVOT - Lancair Evolution Turbine	1	2
M20P - Mooney M-20C Ranger	12	12
M20T - Turbo Mooney M20K	2	2
MU2 - Mitsubishi Marquise/Solitaire	4	4
P210 - Riley Super P210	1	1
P28A - Piper Cherokee	402	402
P28B - Piper Turbo Dakota	2	2
P28R - Cherokee Arrow/Turbo	14	14
P32R - Piper 32	7	7
P46T - Piper Malibu Meridian	14	22
PA23 - Piper PA-23	4	4
PA24 - Piper PA-24	4	4
PA27 - Piper Aztec	1	1
PA28 - Piper Cherokee	4	4
PA30 - Piper PA-30	4	4
PA31 - Piper Navajo PA-31	10	10
PA32 - Piper Cherokee Six	13	13
PA34 - Piper PA-34 Seneca	2	2
PA44 - Piper Seminole	113	113
PA46 - Piper Malibu	15	15

Aircraft (Table 3-4 continued)	Total FY 2018 TFMSC Operations	Total FY 2018 TFMSC Naturalized Operations
S22T - Cirrus SR-22 Turbo	10	10
SR20 - Cirrus SR-20	13	13
SR22 - Cirrus SR 22	73	73
T210 - Cessna T210M	1	1
TBM7 - Socata TBM-7	3	6
TBM8 - Socata TBM-850	2	2
TBM9 - Socata TBM	4	6
Subtotal A-I	1,060	1,074
A-II Aircraft		
PC12 - Pilatus PC-12	70	104
Subtotal A-II	70	104
B-I Aircraft		
AEST - Piper Aero Star	2	2
BE10 - Beech King Air 100 A/B	7	10
BE40 - Raytheon/Beech Beechjet 400/T-1	16	28
BE58 - Beech 58	23	23
BE9L - Beech King Air 90	9	14
C206 - Cessna 206 Stationair	10	10
C25A - Cessna Citation CJ2	4	6
C414 - Cessna Chancellor 414	1	1
C421 - Cessna Golden Eagle 421	2	2
C500 - Cessna 500/Citation I	4	6
C501 - Cessna I/SP	6	10
C510 - Cessna Citation Mustang	6	12
C525 - Cessna CitationJet/CJ1	11	14
C340 - Cessna 340	5	5
E50P - Embraer Phenom 100	1	2
FA10 - Dassault Falcon/Mystère 10	2	4
H25C - BAe/Raytheon HS 125-1000/Hawker 1000	2	4
Subtotal B-I	111	153
B-II Aircraft		
B350 - Beech Super King Air 350	1	2
BE20 - Beech 200 Super King	23	28
C208 - Cessna 208 Caravan	4	6
C25B - Cessna Citation CJ3	4	8
C25C - Cessna Citation CJ4	30	42
C441 - Cessna Conquest	2	2
C550 - Cessna Citation II/Bravo	8	10
C560 - Cessna Citation V/Ultra/Encore	28	38
C56X - Cessna Excel/XLS	20	30
C650 - Cessna III/VI/VII	20	24
C680 - Cessna Citation Sovereign	8	8
C68A - Cessna Citation Latitude	2	4
C750 - Cessna Citation X	4	4
E55P - Embraer Phenom 300	23	28
F2TH - Dassault Falcon 2000	19	24

Aircraft (Table 3-4 continued)	Total FY 2018 TFMSC Operations	Total FY 2018 TFMSC Naturalized Operations
F900 - Dassault Falcon 900	2	4
FA20 - Dassault Falcon/Mystère 20	6	10
FA50 - Dassault Falcon/Mystère 50	4	6
J328 - Fairchild Dornier 328 Jet	2	2
Subtotal B-II	210	280
B-III Aircraft		
CN35 - CASA CN-235	1	2
C207 - Cessna Turbo Stationair 7	3	3
Subtotal B-III	4	5
C-I Aircraft		
H25A - BAe HS 125-1/2/3/400/600	13	22
LJ31 - Bombardier Learjet 31/A/B	1	2
LJ40 - Learjet 40; Gates Learjet	2	2
LJ45 - Bombardier Learjet 45	6	10
LJ55 - Bombardier Learjet 55	2	2
LJ60 - Bombardier Learjet 60	12	16
WW24 - IAI 1124 Westwind	1	2
Subtotal C-I	37	56
C-II Aircraft		
CL30 - Bombardier (Canadair) Challenger 300	2	4
CL35 - Bombardier Challenger 300	6	8
CL60 - Bombardier Challenger 600/601/604	22	42
GALX - IAI 1126 Galaxy/Gulfstream G200	1	2
GLF3 - Gulfstream III/G300	13	16
Subtotal C-II	44	72
C-III Aircraft		
GLEX - Bombardier BD-700 Global Express	8	16
Subtotal C-III	8	16
C-IV Aircraft		
C130 - Lockheed 130 Hercules	1	2
Subtotal C-IV	1	2
D-I Aircraft		
LJ35 - Bombardier Learjet 35/36	6	8
Subtotal D-I	6	8
D-II Aircraft		
GLF4 - Gulfstream IV/G400	22	30
Subtotal D-II Aircraft	22	30
D-III Aircraft		
GLF5 - Gulfstream V/G500	3	6
Subtotal D-III	3	6
Rotorcraft	9	9
Unknown Aircraft	93	93
Total TFMSC Operations	1,678	1,908

Note: TFMSC = Traffic Flow Management System Counts

Table 3-24 shows the TFMSC operations attributed to the Airport in FY 2018 in the first column. The second column shows these same numbers "naturalized" whereby the number of operations for turbine and jet operations are modified to show complete flights. So, if only an arrival or landing was recorded, a second operation is added to represent a complete flight with both an arrival and a departure. The operations represented by piston aircraft were not normalized. There was no one aircraft that recorded 500 or more operations within the year. The A-I aircraft, as a group, do have well over 500 annual operations. However, the group B-II will achieve over 500 annual operations within the first five-year period. The grouping of B-II aircraft is determined to be the Existing Critical Aircraft for both runways with the Cessna Citation Jet 4 and the Beechcraft Super King Air 200 representing the Exiting Critical Aircraft for Runway 5/23. The Existing Critical Aircraft for Runway 14/32 is the Cessna Conquest.

The Future Critical Aircraft was determined by Aircraft Approach Category groups and by Airplane Design Groups as shown in Table 3-25. The numbers for 2018 correspond to the naturalized TFMSC shown in Table 3-24. The forecast years were calculated using the average annual compounded rate of growth of 3.1 percent approved for the forecast of operations.

Table 3-25
FUTURE CRITICAL AIRCRAFT GROUPS

Aircraft Groups	2018	2021	2026	2031	2036
Total Operations By AAC					
A	1,178	1291	1504	1752	2041
B	438	480	559	651	759
C	146	158	184	214	249
D	44	48	56	65	76
Total Operations By ADG					
I	1,291	1415	1648	1920	2237
II	486	533	620	723	842
III	27	30	34	40	47
IV	2	2	3	3	3

Note: ACC = Aircraft Approach Category, ADG = Airplane Design Group

Table 3-25 shows that it is likely that the Critical Aircraft Group will remain a B-II throughout the remainder of the planning period. However, to protect for the larger ADG aircraft, it was determined that the C-II would be the Future Critical Aircraft with a Bombardier Challenger 600/601/604 representing the future Critical Aircraft for Runway 5/23.

For Runway 14/32, the Existing Critical Aircraft is the B-II. The Future Critical Aircraft for Runway 14/32 is likely to remain the B-II throughout the planning period with the Cessna Conquest remaining as the Critical Aircraft for this runway.

3.7 Summary of Aviation Activity Forecasts

The data and methods used to forecast aviation demand for the Airport are consistent with those used by the FAA and other general aviation airports around the nation. The forecasts selected in this study reflect the activity anticipated at the Okeechobee County Airport over the next 20 years without being either too conservative or too optimistic. Table 3-26 shows an overview of the selected forecasts.

Table 3-26
SUMMARY OF AVIATION ACTIVITY FORECASTS

	2016	2021	2026	2031	2036
Based Aircraft					
Single-Engine	26	28	28	27	26
Multiple Engine	1	1	2	2	3
Jet	0	1	3	6	8
Rotorcraft	4	4	4	4	4
Other	0	2	4	8	11
Total	31	37	42	47	52
Annual Operations					
Local	5,000	5,823	6,783	7,900	9,201
Itinerant	45,000	52,411	61,043	71,096	82,806
Total	50,000	58,235	67,826	78,996	92,006

Note: Columns may not equal totals shown due to rounding

4 ENVIRONMENTAL CONSIDERATIONS

4.1 Introduction

The purpose of this assessment is to provide an overview of the existing natural resource conditions within the boundary of the Okeechobee County Airport (OBE) as part of the Airport Master Plan Update. This includes an approximate delineation of jurisdictional wetlands and surface waters regulated by South Florida Water Management District (SFWMD) and U.S. Army Corps of Engineers (USACE) and a preliminary survey for state and federally listed wildlife species or habitat that may support such species within the AMPU area. The Master Plan Update project area is approximately 819.82 acres in size and is located north of the intersection of State Road 70 and U.S. Highway 98, in Okeechobee, Okeechobee County, Florida. See Exhibit 1, Appendix D.1, for the specific project location.

The Master Plan Update project represents a multi-phased approach to address development within the defined area to accommodate future aviation demands and aeronautical uses. This Ecological Assessment was conducted in January 2018. Additionally, a three (3)-day Wildlife Hazard Site Visit (WHSV) was completed in November 2016. Wildlife data collected during the WHSV is also included in this Ecological Assessment. Please see the Appendix D.2 for the WHSV document.

4.1 Site Description

The habitats (land cover/land use) that occur within the project area were classified according to the *Florida Land Use, Cover and Forms Classification System* (FLUCFCS, FDOT, 1999). See Exhibit 2, Appendix D.1, for the on-site soil types and Exhibit 3, Appendix D.1, for the approximate extent of all habitat types. Both upland and wetland habitats are discussed below. Habitats were divided into those within the Airport Operations Area (AOA), and those outside of the AOA. For this report, the AOA is defined as all areas inside the perimeter fence.

4.1.1 Habitats Within the Airport Operations Area

4.1.1.1 Uplands

All upland habitat within the AOA is defined General Aviation (FLUCFCS 8112). This habitat includes runways, taxiways, ramps, hangars, aviation buildings, and mowed and maintained grass within the fence. Bahiagrass (*Paspalum notatum* var. *saurae)* and other pasture grasses dominate the non-paved habitat. A series of Ditches (511) are located along the perimeter of the AOA and assist in the drainage of stormwater off the airfield.

4.1.1.2 Wetlands

Two jurisdictional wetland habitats are located within the AOA. Several small depressions are classified as Vegetated Non-Forested Wetlands (640). These areas are slightly lower than the other mowed and maintained habitat and hold water during periods of increased precipitation. Observed species include bahiagrass, torpedograss (*Panicum repens),* Baldwin's flatsedge

(*Cyperus croceus),* manyflower marshpennywort (*Hydrocoytle umbellata),* bunched beaksedge (*Rhynchospora cephalantha),* and roadgrass (*Eleocharis baldwinii*). Additionally, a small area of Freshwater Marsh (641) is located northwest of Runway 14. Similar to the Vegetated Non-Forested Wetlands, the elevation of this habitat is slightly lower than that of the mowed and maintained surrounding uplands within the AOA. The vegetated composition within this wetland contains emergent wetland species including roadgrass, bunched beaksedge, soft rush (*Juncus effusus),* jointed spikerush (*Eleocharis equisetoides),* pickerelweed (*Pontederia cordata),* and combleaf mermaidweed (*Proserpinaca pectinata).*

4.1.2 Habitats Outside of the Airport Operations Area

4.1.2.1 Uplands

Most uplands outside of the AOA are classified as Improved Pasture (211). These uplands are regularly mowed and maintained and currently support cattle in some areas. Canopy coverage throughout this habitat is very sparse, but, where present, includes cabbage palm (*Sabal palmetto*), live oak (*Quercus virginiana*), and Brazilian pepper (*Schinus terebinthifolia*). Observed subcanopy and groundcover species include saw palmetto (*Serenoa repens),* Virginia pepperweed (*Lepidium virginicum),* bahiagrass, ragweed (*Ambrosia artemisifolia),* beggarticks (*Bidens alba),* Caesarweed (*Urena lobata),* broomsedge bluestem (*Andropogon virginicus),* and American pokeweed (*Phytolacca americana).*

Large areas of Shrub and Brushland (320) are located within the boundary of the AMPU project area. Sparse cabbage palm, live oak, and slash pine (*Pinus elliottii)* provide less than 5 percent areal coverage in the canopy layer. These areas are dominated by saw palmetto. Other shrub and ground species observed include live oak, slash pine, winged sumac (Rhus copallinum) myrtle oak (*Quercus myrtifolia*), wax myrtle (*Morella cerifera*), gallberry (Ilex glabra), broomsedge bluestem, sand blackberry (Rubus cuneifolius), pricklypear (*Opuntia humifusa*), muscadine (*Vitis rotundifolia),* and shiny blueberry (*Vaccinium myrsinites*).

Two areas of Mixed Hardwoods (438) are in the southeast corner of the AMPU boundary. These areas possess similar vegetative composition as the shrub and brushland habitat, but have a denser, more diverse canopy. Canopy species include live oak, laurel oak (*Quercus laurifolia*), water oak (*Q. nigra*), cabbage palm, and sparse slash pine. Additional species include gallberry, wax myrtle, saw palmetto, bushy broomsedge, and tailed bracken (*Pteridium aquilinum* var. *pseudocaudatum).* Canopy and subcanopy is dense, resulting in minimal areal coverage of groundcover species.

Live Oak (425) dominated habitats are in several areas in the southeastern portion of the AMPU boundary. Large live oaks dominate this community and provide a high degree of canopy closure. Additional species observed include gallberry, saw palmetto, wax myrtle, and bracken fern.

The remaining vegetated upland habitat is a small portion of Pine Flatwoods (411). This community is dominated by slash pine, with live oak and laurel oak present in small concentrations. The understory is comprised of immature canopy species, gallberry, saw palmetto, and wax myrtle.

Non-vegetated upland habitat within the AMPU boundary consists of Industrial (150), and Recreational (186) land uses. The Okeechobee Industrial Park is categorized as industrial, while the soccer fields east of Runway 23 are classified as Recreational.

4.1.2.2 Wetlands

Most jurisdictional wetlands consist of Freshwater Marsh (641). This wetland type is depressional in nature, and the size and depth of these isolated marsh features vary throughout the AMPU project area. These communities lack a mature canopy, with some larger marshes containing sparse shrub coverage. Dominant species include soft rush, pickerel weed, jointed spikerush, roadgrass, torpedograss, bunched beaksedge, maidencane (*Panicum hemitomon*), American white waterlily (*Nymphaea odorata),* royal fern *(Osmunda regalis),* spatterdock (*Nuphar advena),* narrowfruit horned beaksedge (*Rhynchospora inundata*), and Virginia chain fern (*Woodwardia virginica*). The two larger freshwater marshes are dominated by common buttonbush (*Cephalanthus occidentalis*), red maple, Carolina willow (*Salix caroliniana*), and wax myrtle. The quality of each wetland varies throughout the AMPU boundary from relatively high quality to low quality. The variation in quality of these isolated wetlands is attributed to their size, location, and level of disturbance.

A small Vegetated Non-Forested Wetland (640) is located east of the Industrial parcel. This wetland is man-made and disturbed in nature. Dominant species include torpedograss, roadgrass, manyflower marshpennywort, and assorted sedges.

The third wetland classification within the AMPU boundary is Exotic Wetland Hardwoods (619). This wetland is highly disturbed and dominated by nuisance/exotic species. Brazilian pepper dominates this community, with sparse Australian-pine (*Casuarina equisetifolia*), cabbage palm, and wax myrtle. Ground cover species include soft rush, roadgrass, warty sedge (*Carex verrucosa),* and manyflower marshpennywort. The quality of this wetland system is very low.

4.1.2.3 Other Surface Waters

A series of Ditches (511) convey stormwater within the AMPU boundary. Dominant species include southern cattail (*Typha domingesis*), pickerelweed, water-lettuce (*Pistia stratiotes*), and common water-hyacinth (*Eichhornia crassipes).*

Six (6) man-made Reservoirs less than 10 acres (534) are located within the AMPU boundary. These reservoirs vary in depth and are primarily used for water retention. The littoral shelves are vegetated with southern cattail and the open water contains American white-water lily.

4.2 Site Evaluation and Methodology

Prior to the initiation of field work, existing conditions were evaluated utilizing various resources, including, but not limited to, aerial photographs from ArcGIS Online, and soil survey mapping from the U.S. Department of Agriculture/Natural Resources Conservation Service (USDA-NRCS).

Literature reviews, agency database searches, and field surveys of potential habitat areas were conducted to identify state and federally listed species potentially present within the site. The *Soil Survey for Okeechobee County* (USDA-NRCS), recent aerial photographs, and GIS data were reviewed to determine habitat types occurring within and adjacent to the project study area.

Previously documented occurrences of listed species within five miles of the site were compiled from U.S. Fish and Wildlife Service (FWS), Florida Fish and Wildlife Conservation Commission (FWC), and FNAI databases and are shown on Exhibits 4 and 5, Appendix D.1. This data indicates that no documented occurrences of listed species are recorded within the AMPU project area.

A field review of the AMPU project area was conducted in January 2018. Additional data was also collected during a WHSV performed from 7-9 November 2016. Suitable habitat for protected terrestrial species was identified and vehicular and/or pedestrian transects were established and surveyed throughout the area. Pedestrian surveys were conducted in representative areas to determine the presence or likelihood of occurrence of listed species. These field surveys were conducted by a trained biologist using visual and aural methods. Wildlife species were identified by burrows, scat, shed skins, tracks, sightings, and distinctive calls. Dawn, mid-day, dusk, and spotlight surveys were conducted over a 3-day period during the WHSV. All the data collected during the WHSV and the recent field investigation were used to determine the likelihood of occurrence for listed species. These determinations are discussed below.

4.3 State and Federal Listed Species Summary Table

Table 4-1 was prepared using the FWS lists of federally protected species for Okeechobee County and the FNAI list of state and federally protected species for Okeechobee County, Appendix D.2. Each species is given a low, moderate, or high probability of occurrence, as applicable. To further distinguish them from species with some possibility of occurrence, species that were determined to have a zero chance of occurrence were given a rating of “None”.

Table 4-1
STATE AND FEDERALLY LISTED SPECIES KNOWN TO OCCUR IN OKEECHOBEE COUNTY

Scientific Name	Common Name	Federal Status	State Status	Probability of Occurrence
Reptiles				
Alligator mississippiensis	American Alligator	SAT	FT(SA)	Low
Drymarchon corais couperi	Eastern Indigo Snake	T	FT	Moderate
Gopherus polyphemus	Gopher Tortoise	C	ST	Observed
Birds				
Ammodramus savannarum floridanus	Florida Grasshopper Sparrow	E	FE	Low
Antigone canadensis	Florida Sandhill Crane	-	ST	Observed
Aphelocoma coerulescens	Florida Scrub-jay	-	T	Low
Athene cunicularia floridana	Florida Burrowing Owl	-	ST	Low
Caracara cheriway	Crested Caracara	T	FT	Observed
Egretta caerulea	Little Blue Heron	-	ST	Observed
Egretta tricolor	Tricolor Heron	-	ST	Moderate
Falco sparverius Paulus	Southeastern Kestrel	-	ST	Low
Grus americana	Whooping Crane	E	FE	Low
Mycteria americana	Wood Stork	T	FT	Moderate
Picoides borealis	Red-cockaded Woodpecker	E	FE	None
Rostrhamus sociabilis plumbeus	Everglade Snail Kite	E	FE	Low
Sternula antillarium	Least Tern	-	ST	None
Mammals				
Eumops floridanus	Florida Bonneted Bat	E	FE	Low
Peromyscus polionotus niveiventris	Southeastern Beach Mouse	T	FT	None
Puma concolor coryi	Florida Panther	E	FE	Low
Sciurus niger shermani	Sherman's Fox Squirrel	-	SSC	Low
Trichechus manatus	West Indian Manatee	T	FT	None

Federal Legal Status
C = Candidate species for which federal listing agencies have sufficient information on biological vulnerability and threats to support proposing to list the species as Endangered or Threatened.
E = Endangered: Species in danger of extinction within the foreseeable future throughout all or a significant portion of its range.
LT = Threatened: species likely to become Endangered within the foreseeable future throughout all or a significant portion of its range.
SAT = Treated as threatened due to similarity of appearance to a species which is federally listed such that enforcement personnel have difficulty in attempting to differentiate between the listed and unlisted species.

State Legal Status
FE = Federally Endangered.
FT = Federally Threatened.
FT(SA) = Federally Threatened due to similar appearance to another federally listed species.
ST = State Threatened.
SSC = State Species of Special Concern.

4.4 Listed Species Descriptions

4.4.1 Species Evaluated but not Likely to Occur

Several listed species known to occur in Okeechobee County have no probability of occurrence in the study area because required habitat is not present. These are detailed briefly in the paragraph below and are not discussed further in this report.

The West Indian manatee (*Trichechus manatus*) requires aquatic habitat, which is not present, and therefore have no likelihood of occurrence. The least tern is found throughout coastal Florida, prefers estuaries and bays for foraging and roosting, and nests primarily on open sandy areas. The least tern has no likelihood of occurrence within the project boundary. Similarly, the Southeastern Beach Mouse (*Peromyscus polionotus niveiventris)* requires coastal habitats and has no likelihood of occurrence. The red-cockaded woodpecker (*Picoides borealis*) requires high quality old-growth upland pine forests with trees with heart rot. The project site lacks requisite habitat, and therefore the red-cockaded woodpecker has no likelihood of occurrence.

4.4.2 Amphibians and Reptiles

4.4.2.1 American Alligator

American alligators are common throughout the state of Florida. However due to the similarity of their appearance to the American crocodile, they are listed as federally threatened. Alligators inhabit freshwater as well as brackish water bodies. Common habitats include rivers, lakes, ponds, sloughs, and flooded marshes. While in an urban area, marginal habitat (ditches and stormwater ponds) for the American alligator is present within the project area. While it is possible that alligators may utilize these habitats, the small size of on-site wetlands and the lack of a sustainable prey base makes extended use improbable. Therefore, the likelihood of occurrence is low.

4.4.2.2 Eastern Indigo Snake

The Eastern indigo snake (*Drymarchon corais couperi*) occurs throughout Florida. This snake can be found in mangrove swamps, wet prairies, xeric pinelands, and scrub. In the winter, the indigo snake will use gopher tortoise burrows for shelter. No indigo snakes or their sign were observed during inspection of the site, and the nearest documented occurrence was approximately 4.4 miles south of the Airport boundary. On-site habitats may be marginally suitable as foraging habitat and gopher tortoise burrows were observed; therefore, likelihood of occurrence is moderate.

4.4.2.3 Gopher Tortoise

The gopher tortoise (*Gopherus polyphemus*) is a large tortoise that excavates deep burrows. It requires well- drained, loose soil to burrow, adequate low-growing herbs to eat, and open sunlit sites for nesting. The tortoise often lives in areas of longleaf pine-xeric oak woodlands, but it has also been known to inhabit sand pine scrub, coastal strands, live oak hammocks, dry prairies, pine flatwoods, and mixed hardwood-pine communities. Tortoise burrows are home to a number of commensal species that depend on the burrow's microhabitat to survive Florida's weather extremes. The gopher tortoise is dependent on xeric or dry habitat, and its presence is

indicated by the occurrence of its characteristic burrows. During the January 2018 site inspection, five potentially occupied gopher tortoise burrows were observed on the site. Their approximate location is depicted on Exhibit 6, Appendix D.1. Prior to development, a 100 percent gopher tortoise survey is required for all suitable habitat.

4.4.3 Birds

4.4.3.1 Florida Grasshopper Sparrow

The Florida grasshopper sparrow (*Ammodramus savannarum)* is a small sparrow endemic to only four counties in the state of Florida, including northern Okeechobee County in Kissimmee Prairie Preserve State Park. This species requires large swathes of dry prairie habitat that is frequently burned. While the Shrub and Brushland habitat provides the vegetative structure preferred by the Florida grasshopper sparrow, on- site habitat is fire-suppressed. The Florida grasshopper sparrow was not observed during the WHSV or site visit in January 2018. Additionally, no grasshopper sparrows have been documented within five miles of the Airport boundary. Therefore, the likelihood of occurrence of the Florida grasshopper sparrow is low.

4.4.3.2 Florida Scrub-Jay

The Florida scrub-jay (*Amphelocoma coeruluscens*) is listed as threatened by FWS and is therefore afforded protection under the ESA. It requires high quality, fire-maintained scrub with scrub oaks for food and open areas to cache the food. Xeric habitats do occur in the project area, but they are fragmented, overgrown, and surrounded by development. No scrub-jays were observed during the field surveys completed for WHSV or the site visit. The nearest documented scrub-jay habitat is located approximately 5.4 miles northeast of the project site. The likelihood of occurrence within the Airport boundary is low.

4.4.3.3 Florida Burrowing Owl

The Florida burrowing owl (*Athene cunicularia floridana)* is a state listed species of owl that dwells below ground. Owls prefer high, well-drained, open grassland for their burrows. Pastures and airfields are common habitat for the burrowing owl. While the Airport boundary contains lots of pasture and open grassland inside and outside the AOA, the elevation of these habitats is lower than typically preferred by the owl. No burrowing owls or their sign (burrows) were observed during the WHSV or the ecological assessment performed in January 2018, and none have been documented within five miles of the project boundary. The likelihood of burrowing owl occurrence within the Airport boundary is low.

4.4.3.4 Audubon's Crested Caracara

The Audubon's crested caracara (*Caracara cheriway)* is a federally listed raptor found in south central Florida. Crested caracara prefer open land, including pasture, dry prairie, and shallow ponds and sloughs. Caracara nest almost exclusively in cabbage palm trees. Suitable habitat for the caracara is present within the Airport boundary, and a crested caracara was observed during the WHSV. Prior to construction activity, a qualified caracara monitor should inspect the site during nesting season to determine the presence or absence of nesting caracara.

4.4.3.5 Wading Birds

State and federally listed wading birds (sandhill crane, little blue heron, tricolored heron, and wood stork) may utilize wetlands on site as foraging habitat when surface water is present. During the WHSV and the January 2018 site visit, sandhill cranes (*Antigone canadensis)* were observed within the project boundary. Additionally, during the WHSV little blue heron (*Egretta caerulea)* were also observed. The tricolored heron (*Egretta thula)* and wood stork (*Myceteria americana)* were not observed during the WHSV or the January 2018 site visit; however, they have a moderate likelihood of occurrence due to the presence of suitable habitat and other wading birds. The nearest wading bird rookery is located approximately six miles south, and the closest documented wood stork nesting colony is located approximately 13.8 miles east of the Airport boundary. Due to the availability of nearby suitable habitat and the highly mobile nature of these species, the future development activities contemplated within the Airport are not anticipated to adversely affect these species.

4.4.3.6 Southeastern American Kestrel

The southeastern American kestrel (*Falco sparverius paulus*) prefers open areas for foraging and mature pines for nesting. Kestrels utilize previously hollowed out cavities in large dead trees as nesting sites. No kestrels were observed during the site visit or WHSV, and none have been documented within five miles. Therefore, the likelihood of occurrence within the Airport boundary is low.

4.4.3.7 Whooping Crane

The whooping crane (*Grus americana)* is North America's tallest bird, reaching heights of five feet. Whooping cranes feed on insects, crustaceans, minnows, small birds, berries, and rodents. Nesting occurs in marshes dominated by bulrush and cattail. Of the known flocks of whooping cranes, an introduced, non-migratory population resides year-round near the Kissimmee Prairie. An additional introduced migratory population winters on the gulf coast at the St Marks and Chassaowitzka National Wildlife refuges. No whooping cranes have been documented within five miles of the project site, and as the project site is not within the range of either flock of whooping cranes, the likelihood of occurrence is low.

4.4.3.8 Bald Eagle

The bald eagle (*Haliaeetus leucocephalus*) is no longer listed as threatened or endangered by FWC or FWS, but restrictions remain in place for work near nests. The closest documented eagle nest occurred approximately 1.3 miles east of the project site, and no documented active eagle nests occur within 660 feet of the outer limits of the assessment Airport boundary. A 100 percent eagle nest survey should be completed prior to construction activity.

4.4.3.9 Snail Kite

The snail kite (*Rostrhamus sociabilis)* is a raptor that feeds primarily on apple snails. A stable population of snail kites are located on Lake Okeechobee and its associated marshes (approximately five miles south of the Airport boundary). Snail kites require shallow freshwater sources with populations of apple snails. They nest in wetland shrubs, trees, and emergent vegetation. During the WHSV, transects were walked through the larger marsh systems and no

apple snails or their sign were observed. Without a prey base, the likelihood of snail kite occurrence within the Airport boundary is low.

4.4.4 Mammals

4.4.4.1 Florida Bonneted Bat

The Florida bonneted bat (*Eumops floridanus),* also known as the Florida mastiff bat, is a federally endangered species endemic to south Florida. This species can be found in a variety of habitats, ranging from urban environments to forested communities. No bonneted bats or their sign were observed during the WHSV or the site visit performed in January 2018, and none have been documented to occur within five miles of the Airport boundary. Therefore, the likelihood of occurrence is low.

4.4.4.2 Florida Panther

The Florida panther (*Puma concolor coryi)* was listed as an endangered species in 1967. The only known breeding puma species in the eastern United States, the Florida panther can weigh up to 160 pounds. Florida panthers require large, contiguous parcels of forested uplands and wetlands, marsh shrub swamps, dry and wet prairies, and agricultural lands. The only known breeding population of Florida panthers is located south of the project site, but male panthers have been documented as far north as Georgia. The likelihood of occurrence of the Florida panther is low.

4.4.4.3 Sherman's Fox Squirrel

Sherman's fox squirrel (*Sciurus niger shermani*) is found in north and central Florida. Its preferred habitats are mature longleaf pine-turkey oak and flatwood communities that are fire-maintained. Preferred food consists of acorns (especially turkey oak) and pine seeds (especially longleaf). However, they have also been found in mesic flatwoods habitat or planted pine stands that are dominated by other pines and oaks. Since the site does not contain its preferred habitats, this species is given a low likelihood of occurrence on the site.

4.5 Environmental Considerations Summary

An ecological assessment was conducted for the Airport site by AVCON Team biologists. Within the AOA, the primary land use is general aviation and associated infrastructure. Minimal wetland habitat exists within the AOA and is classified as either Vegetated Non-Forested depressional areas or Freshwater Marsh. Upland habitats outside the AOA are primarily pasture and shrub land with sparse forested areas of pine or oaks. Wetlands outside the AOA are limited to freshwater marshes, vegetated non-forested wetlands, and exotic wetland hardwoods. Five potentially occupied gopher tortoise burrows were observed outside the AOA, and a complete gopher tortoise survey should be completed prior to construction. Gopher tortoise relocations will be carried out in accordance with FWC regulations, as necessary. The only federally listed species observed within the project boundary was Audubon's crested caracara. Prior to the initiation of construction activities, a caracara nest survey will be completed. Additional listed species that were either observed or have a moderate likelihood of occurrence within the project boundary include the eastern indigo snake, wood stork, little blue heron, and tri-colored heron.

Future development activities contemplated within the proposed AMPU are not anticipated to adversely affect any listed species.

5 FACILITY REQUIREMENTS

5.1 Introduction

This chapter builds upon the Inventory of Existing Conditions and the Forecast of Aviation Activities chapters to develop an understanding of how many and what types of facilities will be required to meet the forecast demand. It compares what is already available with what will be required over the next 20-year planning period and determines in five-year increments what facilities are likely to be needed and when.

5.2 Airspace

There is one commercial service airport located within 50 nautical miles of the Okeechobee County Airport, Vero Beach International, which is 32.8 nautical miles from the Airport. The second closest commercial service airport, Melbourne International Airport, is located 51.3 nautical miles away, followed closely by Palm Beach International at 53.4 miles distant. There are 14 public-use general aviation airports located within 50 nautical miles. The Okeechobee County Airport does not have an air traffic control tower. It does have published instrument approach procedures for all four runways. Its airspace is classified as Class E, which has a floor of 700 feet above the surface and laterally abuts 1,200 feet, or higher, Class E airspace. Based on available data, no known airspace conflicts currently exist. However, Restricted Areas R-2901 A and B and the Avon Park Military Operating Area (MOA) are located from 060° to 010° (southwest to north northeast) of the Airport. The airspace directly around the Airport is relatively uncongested.

5.2.1 Approaches

There are many types of approaches that can be executed into airports. There are those that occur during Visual Flight Rule (VFR) operations and those that occur during Instrument Flight Rules (IFR) operations. VFR operations are those that occur under Visual Meteorological Conditions (VMC) that are clear enough that the pilot can see where the aircraft is going with a ceiling greater than 1,000 feet and visibility greater than three miles, including clear sky. IFR operations are those that occur during Instrument Meteorological Conditions (IMC), i.e. when the ceiling is less than 1,000 feet or three statute miles, or where the pilot's visibility is obscured, i.e. anything less than VMC.

IFR approaches are designed so that the pilot of an aircraft in IMC can land by using the aircraft instruments, Global Positioning System (GPS), ground based NAVAIDS, or Inertial Navigation System (INS) navigation without assistance from air traffic control. IFR approaches are generally classified as either precision or non-precision approaches. Precision approaches are those that provide both lateral (through use of a localizer or a very high frequency omnidirectional range (VOR)) and vertical (through use of a glideslope) electronic information. Non-precision approaches provide lateral information only.

Okeechobee County Airport does not have any precision approaches. All existing IFR approaches to the Airport are non-precision. GPS based non-precision approaches are published for all four runways. GPS is a satellite-based navigation system that provides location

and time information in all weather, anywhere there is an unobstructed line of sight to four or more GPS satellites. The U.S. government maintains the GPS system and it is freely accessible to anyone with a GPS receiver.

The approach plates for the Airport indicate that for Aircraft Category A and B, the visibility minimum is one mile for all four runways. For Aircraft Categories C and D, the visibility minimum is one mile for runways 14 and 23. Runway 5 has a 1 ¼ visibility minimum for Aircraft Category C and a 1 ½ mile visibility minimum for Aircraft Category D. Runway 32 has a visibility minimum of 1 ¼ miles for both Aircraft Categories C and D. Approaches with lower visibility minimums would require:

- The widening of the Part 77 Primary Surface from the existing 500 feet to 1,000 feet
- Significant lengthening and widening of the Runway Protection Zone (RPZ).
- Runway approach lights

The widening of the primary surface, to achieve the lower visibility minimums would encroach on and diminish the utility of the developable land within the current Airport boundaries. Records show that weather conditions with lower than one-mile visibility minimums only occur between one and three percent of the time annually at the Airport.

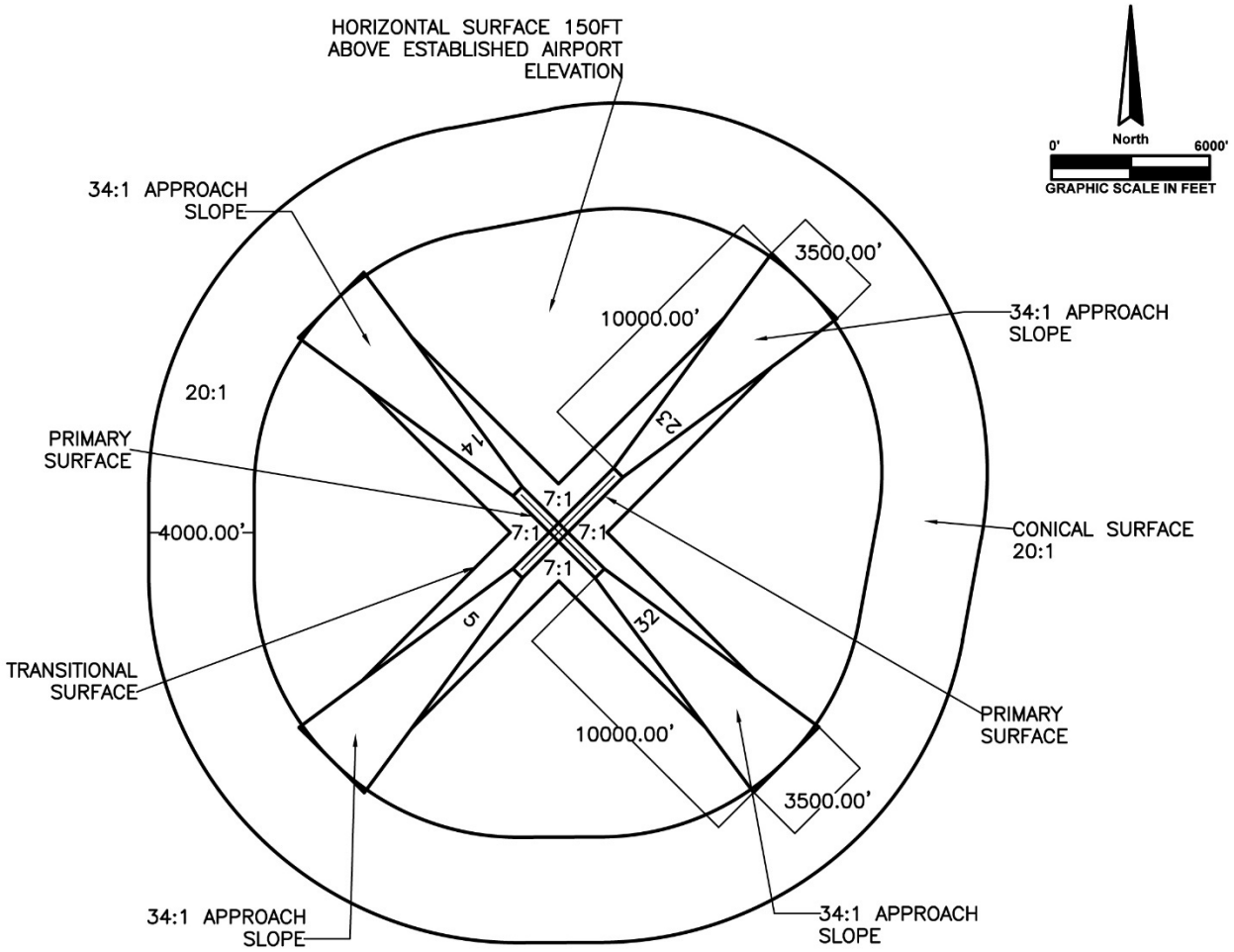
5.2.2 Part 77 Surfaces

Code of Federal Regulations (CFR) Title 14, Chapter 1, Part 77, *Objects Affecting Navigable Airspace* (Part 77), sets criteria for protecting airspace near airports. These regulations define numerous airspace surfaces that exist on and around airports. The size and dimensions of these surfaces are dependent upon the runway type, i.e. utility, or non-utility, and the approved or planned approach procedures. Objects, whether natural or manufactured, should not penetrate these defined Part 77 surfaces. The dimensions of the existing Part 77 surfaces for Okeechobee County Airport are given in Table 5-1 and the surfaces themselves are depicted in Figure 5-1.

Table 5-1
EXISTING PART 77 SURFACES

Surface	All Runways Non-Precision Instrument Runway (feet)
Width of Primary Approach Surface and Approach Surface Width at Inner End	500
Radius of Horizontal Surface	10,000
Approach Surface Width at End	3,500
Approach Surface Length	10,000
Approach Slope	34:1

Figure 5-1
EXISTING PART 77 SURFACES



5.3 Airfield

The airfield is a system of components upon which aircraft operate. These include runways, taxiways, and aircraft parking aprons. Airfield requirements are affected by demand capacity, aircraft mix, runway, and taxiway design standards, airspace, and navigational and visual aids. This section looks at each of these components as they relate to the Okeechobee County Airport.

5.3.1 Airfield Configuration

The number, orientation, and spatial layout of the runways at an airport make up the airfield configuration. The configuration is adequate if it provides sufficient operational capacity and appropriate wind coverage for the aircraft operating or expected to operate at the Airport through the end of the planning period.

The existing airfield configuration at the Airport consists of two runways, one of 5,000 feet in length, Runway 5/23, and one of 4,001 feet in length, Runway 14/32. Runway 5/23 is situated in a northeast/southwest direction on the airfield and it has a full-length, parallel taxiway, Taxiway A, with five connector taxiways, including Taxiways B, C, and D. Runway 5/23 has been designated the primary runway for the Airport.

Runway 14/32 is situated in a northwest/southeast direction. It has a full-length parallel taxiway, Taxiway B. Taxiway B has four taxiway connectors, including Taxiways A and C. Runway 14/32 is designated as the crosswind or secondary runway.

5.3.2 Airfield Demand Capacity

It is recommended by the FAA that the operational capacity of an airport be determined on a periodic basis. This allows for any adjustments that might be required based on such an analysis. An airfield capacity analysis determines what percentage of the airfield's theoretical capacity is being used and what potential delays might develop given the calculated capacity. FAA Advisory Circular (AC) 150/5060-5, *Airport Capacity and Delay*, provides a methodology for performing the analysis.

The Annual Service Volume (ASV) is the theoretical capacity of the Airport on an annual basis given the runway configuration, the number and location of taxiways, the aircraft fleet mix, the percentage of aircraft arrivals, the percentage of touch-and-go activity at the Airport, and the historical meteorological conditions. The analysis performed with the methodology provided in FAA AC 150/5060-5 indicates that the current theoretical hourly capacity for the Airport during Visual Flight Rules (VFR) weather is approximately 77 operations as shown in Table 5-2.

Table 5-2
AIRFIELD CAPACITY

	Theoretical Capacity	2016 Operations	Percent of Capacity	2036 Operations	Percent of Capacity
Operations Per Hour During VFR Weather	77	16	20.8%	30	39.0%
Operations Per Hour During IFR Weather	56	10	17.9%	18	32.1%
Operations Per Year	215,000	50,000	23.3%	92,006	42.8%

Note: VFR = Visual Flight Rules, IFR = Instrument Flight Rules

While the theoretical capacity of the Airport indicates as many as 77 operations per hour could occur during VFR weather, the Airport is not anticipated to approach this number of hourly operations during the planning period. The forecasts of aviation activity indicate that the average peak hour operations in 2016 were 16 and that they are expected to rise to 30 in the year 2036. The ASV of the Airport is calculated at 215,000 annual operations. However, it is reported that only 50,000 annual operations occurred at the Airport in 2016. This is approximately 23.3 percent of the ASV. The forecasts of aviation activity indicate that the annual operations will increase to 92,006 by the year 2036. This would equate to approximately 42.8 percent of the ASV. Under the current conditions and based on the approved aviation activity forecasts, the Airport is likely to have sufficient capacity throughout the planning period.

5.3.3 Runway Design Code

Each runway on an airport has an established Runway Design Code (RDC), which is determined by the Aircraft Approach Category (AAC), the Airplane Design Group (ADG), and the approach visibility minimums for that runway. The first component, the AAC, is depicted by a letter and relates to aircraft approach speed as shown in Table 5-3.

Table 5-3
AIRCRAFT APPROACH CATEGORIES

Aircraft Approach Category	Aircraft Approach Speed
A	Less than 91 knots
B	91 knots or more but less than 121 knots
C	121 knots or more but less than 141 knots
D	141 knots or more but less than 166 knots
E	166 knots or more

The second component, the ADG, is depicted by a Roman numeral and relates to either the wingspan or the tail height of the aircraft; whichever is more restrictive. The levels of the ADG are shown in Table 5-4.

Table 5-4
AIRPLANE DESIGN GROUPS

Group Number	Tail Height in Feet	Wingspan in Feet
I	Less than 20	Less than 49
II	20 to less than 30	49 to less than 79
III	30 to less than 45	79 to less than 118
IV	45 to less than 60	118 to less than 171
V	60 to less than 66	171 to less than 214
VI	66 to less than 80	214 to less than 262

The third component, the approach visibility minimums, are expressed by Runway Visual Range (RVR) values in feet of 1200, 1600, 2400, 4000 and 5000 as shown in Table 5-5. The third component would read "VIS" for runways designated with a visual approach only.

Table 5-5
VISIBILITY MINIMUMS

RVR in Feet	Instrument Flight Visibility Category in Statute Miles
5,000	Not lower than 1 mile
4,000	Lower than 1 mile but not lower than ¾ mile (APV ≥ 3/4 mile but < 1 mile)
2,400	Lower than ¾ mile but not lower than ½ mile (CAT–I PA)
1,600	Lower than ½ mile but not lower than ¼ mile (CAT–II PA)
1,200	Lower than ¼ mile (CAT-III PA)

Note: RVR = Runway Visual Range, APV = Approach Procedure with Vertical Guidance, CAT-I PA = Instrument Landing System (ILS) Category I Precision Approach, CAT-II PA = ILS Category II Precision Approach, CAT-III PA = ILS Category III Precision Approach.

The Airport has GPS coverage. However, GPS does not provide vertical guidance. A visibility minimum of not lower than one mile has been implemented for Runway 5/23 for Aircraft Categories A and B. This would result in an existing Runway Design Code (RDC) of B-II-5000 and a future RDC of C-II-5000 for Runway 5/23. The RDC for Runway 14/32 would be B-II-5000 for both existing and future. The RDC is based on current or planned development and does not have an operational application.

5.3.4 Airport Reference Code

The FAA has established a tiered system of Airport Reference Codes (ARC), which determines the design standards for runways, separation distances, safety areas, and many other airfield facilities. The ARC is an airport designation that signifies the airport's highest Runway Design Code (RDC), minus the third component, visibility, of the RDC. The ARC is used for planning and design only and does not limit the aircraft that may be able to operate safely on the Airport. Currently, the highest existing ARC on the Airport is for Runway 5/23, which has an RDC of B-II-5000. The ARC would be B-II. In the future, the ARC for the Airport will, in the future, be a C-II.

5.3.5 Runway Protection Zones

A runway protection zone is a trapezoidal shaped area at ground level located prior to the threshold or beyond the runway end, the purpose of which is to enhance safety and protection of people and property on the ground. It is recommended by the FAA that the Airport sponsor (Okeechobee County) acquire or control the land in the RPZ. Currently, the County wholly owns the land beneath the RPZ for Runway 32. The land beneath the RPZs for the remaining three runways is largely owned by the County, but not completely. The 2007 Airport Property Map shows the land beneath the RPZs not currently owned by the County as potentially being acquired.

The FAA Memorandum *Guidance on Land Uses Within A Runway Protection Zone* found in Appendix C, indicates that no public roads are allowed in an RPZ. U.S. Highway 98 runs through the RPZ for Runway 5, and there are seven neighborhood streets located in the RPZ for Runway 23:

- NW 10th Terrace
- NW 12th Avenue
- NW 12th Terrace
- NW 13th Terrace
- NW 34th Street
- NW 35th Street
- NW 35th Lane

However, currently, the FAA is only enforcing this Memorandum for existing land uses when one or more of three conditions is planned to occur. They are:

- Extension of the associated runway for the RPZ
- Changing the size of the RPZ
- Changing the critical aircraft to a larger aircraft.

The 1996 ALP does not show runway extensions for any of the runways. However, the unapproved 2007 ALP does show runway extensions for both Runways 5 and 23. These runway extensions will be re-addressed in the Development and Evaluation of Alternatives Chapter as the Runway Length Analysis contained in this chapter so warrants it.

5.3.6 Runway Length Analysis

Runway length analyses were performed for both runways, Runway 5/23 and Runway 14/32, based on Existing and Future Critical Aircraft. The FAA Advisory Circular 150/5328-4B, *Runway Length Requirements for Airport Design*, was used in the preparation of this analysis.

The aircraft in ADG B-II, which represents the Existing Critical Aircraft, have a Maximum Take Off Weight (MTOW) that varies between less than 12,500 pounds and well over 12,500 pounds but less than 60,000 pounds. It was determined to use the aircraft with between 12,500 pounds MTOW and 60,000Pounds. This would correspond with Figure 3-1 and 3-2 of the AC. Using

the specific Airport information shown in Table 5-6 and 100 percent of the fleet at 60 percent of the useful load, the result would be 5,400 lineal feet for the Existing Critical Aircraft.

Table 5-6
OKEECHOBEE COUNTY AIRPORT SPECIFIC INFORMATION

Category	Information
Hottest Month	August
Mean Maximum Temperature for the Hottest Month	91° Fahrenheit
Airport Elevation Above Mean Sea Level	33.4 Feet

Title 14, Code of Federal Regulations (CFR), *Aeronautics and Space*, requires that runway landing distances for turbo-jet aircraft be increased by 15 percent when landing on wet or slippery runways. Further, the take-off distances are to be increased by 15 percent or up to 5,500 feet, whichever is less, for effective runway gradients greater than zero. This would result in a runway length of 5,500 feet. As the FY 2018 TFMSC normalized numbers show that Okeechobee County Airport had over 500 turbine and jet operations within that year, this calculation is valid for Runway 5/23.

For takeoff only, the effective runway gradient is also considered. The 5,400-foot runway length taken from the original calculation would be increased at a rate of 10 feet for each foot of elevation difference between the high and low points of the centerline. For Runway 5/23, the difference in elevation between the runway ends is 0.1 feet. This would equate to one foot or a total runway length of 5,401 lineal feet. As the landing requirements are longer, in this case, the 5,500-foot length is recommended.

Table 5-7
RUNWAY LENGTH ANALYSIS RESULTS

Runway	Recommended Length	Current Length
5/23 Existing and Future Critical Aircraft	5,500 feet	5,000 feet
14/32 Existing and Future Critical Aircraft	5,500 feet	4,001 feet

5.3.7 Declared Distances

Declared distances are defined as the distance that the Airport owner declares available for a turbine powered aircraft's take-off run, take-off distance, accelerate-stop distance, and landing distance requirements. The four types of declared distances are:

- Takeoff Run Available (TORA) - the runway length declared available and suitable for the ground run of an aircraft taking off
- Takeoff Distance Available (TODA) - the TORA plus the length of any remaining runway or clearway beyond the end of the TORA

- Accelerate-Stop Distance Available (ASDA) - the Runway plus stopway length declared available and suitable for the acceleration and deceleration of an aircraft aborting a takeoff

- Landing Distance Available (LDA) - the runway length declared available and suitable for landing an aircraft.

Declared distances can be applied to mitigate obstructions, non-standard runway safety/object free areas, and incompatible land uses within the arrival or departure runway protection zones. In some instances, declared distances can be applied to increase the TODA or ASDA through the designation of clearways or stopways, respectively.

The Okeechobee County Airport does not have established declared distances on either runway. Table 5-10 summarizes the TORA, TOAD, ASDA, and LDA for both runways.

Table 5-8
EXISTING DECLARED DISTANCES

Declared Distance	Runway 5 (feet)	Runway 23 (feet)	Runway 14 (feet)	Runway 32 (feet)
Take Off Run Available (TORA)	5,000	5,000	4,001	4,001
Take Off Distance Available (TODA)	5,000	5,000	4,001	4,001
Accelerated Stop Distance Available (ASDA)	5,000	5,000	4,001	4,001
Landing Distance Available (LDA)	5,000	5,000	4,001	4,001

5.3.8 Runway Width Analysis

For runways, such as Runway 5/23 and Runway 14/32, that have an existing AAC of B, an ADG of II, and a visibility minimum of not lower than one mile, the FAA approved runway width would be 75 feet with 10-foot wide shoulders. Runway 5/23 is currently 100 feet in width with 25-foot wide asphalt shoulders and meets/exceeds FAA runway width standards. Runway 14/32 is currently 75 feet wide with 37.5-foot-wide shoulders and meets/exceeds FAA runway width standards.

For runways, such as the future Runway 5/23, that will have an AAC of C, and ADG of II, and a visibility minimum of not lower than one mile, the FAA approved runway width would be 100-feet in width with 10-foot wide shoulders.

The FAA requires certain dimensional standards be met for a runway based on the identified RDC. The FAA has developed various safety standards to provide an adequate safety margin for aircraft operators and for others in the general vicinity of a runway. These standards vary based upon the design aircraft wingspan and approach speed, as well as the approved approach procedures to each runway end. The following provides a brief description of the runway safety criteria set by the FAA:

- **Runway Safety Area (RSA)**: These areas are centered upon the runway centerline and run along the sides and ends of each runway. The terrain within the RSA must be able to support maintenance and emergency response vehicles, as well as the occasional

passage of aircraft. These areas must be smoothly graded and be free of any objects (except those needed to support aircraft operations), including aircraft and vehicles while an operation is occurring on the runway. The purpose of an RSA is to minimize damage to aircraft and injuries to passengers in the event an aircraft leaves the runway. The RSA dimensions depend on the aircraft approach category and on the physical characteristics of the critical aircraft identified for the runway.

- **Runway Object Free Area (ROFA)**: This safety criterion provides a defined area, which runs along the sides of and beyond the runway end, which must be free of any permanent objects. It is permissible to taxi and hold aircraft within a ROFA, but not to park them in this area.
- **Runway Obstacle Free Zone (ROFZ)**: Very like the ROFA, the OFZ is centered on the runway centerline and extends 200 feet beyond each runway end. The OFZ must remain free of all objects during an aircraft operation.
- **Runway Protection Zones (RPZ)**: The RPZ is a trapezoid shape located at the end of each runway, with the shortest side located 200 feet beyond the runway threshold and centered on the runway centerline. The RPZ is designed to protect property and people on the ground off the end of a runway, as this area is statistically where most aircraft accidents are likely to occur. The RPZs at opposite runway ends may have different dimensions as determined by the approved approach and departure procedures to that specific runway end. Airport operators should have legal control over the property within the defined RPZ at each runway end.

Table 5-9 compares the existing runway protection zone dimensions with those recommended by the FAA. All runway protection zone dimensions meet or exceed the FAA standards. Table 5-10 compares the existing RPZ dimensions with those recommended by the FAA based on the respective ARC.

Table 5-9
RUNWAY DESIGN STANDARDS

Design Parameter	B-II Standards (feet)	Runway 14/32 (feet)	Runway 5/23 (feet)	Future C-II Standards (feet)
Width	75	75	100	100
Paved Shoulder Width	10[1]	37.5[1]	25[1]	10[1]
Crosswind Component in Knots	13	13	16	16
Runway Safety Area				
Length Beyond Departure End	300	300	1,000	1,000
Length Prior to Threshold	300	300	600	600
Width	150	150	500	500
Runway Object Free Area				
Length Beyond Runway End	300	300	1,000	1,000
Length Prior to Threshold	300	300	600	600
Width	500	500	800	800
Runway Obstacle Free Zone				
Length Beyond Each Runway End	200	200	200	200
Width	400	250	400	400

Note: 1) Paved shoulders are neither required nor recommended for ADG-II aircraft runways. Turf, aggregate-turf, soil cement, lime, or bituminous stabilized soil are recommended adjacent to runways designed for ADG-II aircraft.

Table 5-10
RUNWAY PROTECTION ZONE DIMENSIONS

Runway Protection Zone Dimension	B-II Standards Not Lower Than 1 Mile (feet)	Future C-II Standards Not Lower Than 1 Mile (feet)	Runway			
			5	23	14	32
Approach Runway Protection Zone						
Length	1,000	1,700	1,700	1,700	1,000	1,000
Inner Width	500	500	500	500	500	500
Outer Width	700	1,010	1,010	1,010	700	700
Departure Runway Protection Zone						
Length	1,000	1,700	1,700	1,700	1,000	1,000
Inner Width	500	500	500	500	500	500
Outer Width	700	1,010	1,010	1,010	700	700

Table 5-11 shows runway separation distances to a holding position, a parallel taxiway/taxilane centerline, and an aircraft parking area with the design standards for B-II runways, which are representative of the existing runways. Runway 5/23 currently meets/exceeds the standards for an ARC C-II runway. Runway 14/32 currently meets/exceeds the requirements for an ARC B-II runway.

Table 5-11
RUNWAY SEPARATION DISTANCES IN FEET

Design Parameter	B-II Standards	Current Runway 5/23	Current Runway 14/32	Future C-II Runway Standard
Holding Position	200	250	200	250
Parallel Taxiway/Taxilane Centerline	240	300	240	300
Aircraft Parking Areas	250	600	600	400

5.3.9 Runway Designations

Runway designation markings are provided on each end of a runway and are used by pilots to properly identify the runway. The designation identifies a runway according to the inbound compass heading and consists of a number. The designation number represents the whole number nearest the compass heading when viewed from the direction of approach. For example, where a compass heading is 183 degrees, the runway designation would be 18, and for a compass heading of 87 degrees, the runway designation would be 9.

The Earth's magnetic field and large objects in the vicinity affect compass readings. The effect of magnetic objects in the vicinity is called "deviation". The effect of the Earth's magnetic field is called "variation". Compass headings corrected for nearby objects (deviation) are "magnetic" directions. Correcting for the Earth's magnetic field (variation) gives us a "true" direction. When on land, "variation" is referred to as "magnetic declination" or sometimes "deviation."

The compass heading is determined by correcting a runway's true bearing for magnetic declination. To accomplish this modification, westerly magnetic declination values are added to a runway's true bearing, while easterly magnetic declination values are subtracted. The magnetic declination for Okeechobee County Airport is 06° 33' 00" West. Since the magnetic declination is westerly, the compass headings associated with the runways at the Airport are determined by adding the declination value to the true bearing values. The true bearing, the compass heading, the true designation, and the next anticipated designation change for each runway are shown in Table 5-12.

Table 5-12
RUNWAY DESIGNATIONS

Category	Measure
Airport Declination	6° 33' 00" West ±
Rate of Declination Change Per Year	0° 6' West
Runway 5	
True Bearing	045° 01' 18.44"
Compass Bearing	051° 34" 18.44"
Correct Runway Designation	5
Approximate Years to Next Designation Change	34
Runway 23	
True Bearing	225° 01' 18.44"
Compass Bearing	231° 34' 18.44"
Correct Runway Designation	23
Approximate Years to Next Designation Change	34
Runway 14	
True Bearing	135° 01' 16.82"
Compass Bearing	141° 34' 16.82"
Correct Runway Designation	14
Approximate Years to Next Designation Change	37
Runway 32	
True Bearing	315° 01' 16.82"
Compass Bearing	321° 34' 16.82"
Correct Runway Designation	32
Approximate Years to Next Designation Change	37

Source: National Oceanic and Atmospheric Administration National Geophysical Data Center accessed 19 April 2018

Table 5-12 shows that each runway end has the proper designation and that this is not likely to change within the planning periods covered by this Master Plan Update.

5.3.10 Runway Pavement Condition and Strength

Through the planning period, the condition of the pavement should be monitored to ensure that basic maintenance of the pavement is assured. It is recommended that pavement with a Pavement Condition Index (PCI) ranging from 90 to 75 be maintained with crack sealing, partial depth patching, full depth patching, or surface treatment. Once the PCI reaches 74 or below, it is recommended that rehabilitation in the form of mill and overlay, concrete pavement restoration, or full depth pavement reconstruction be considered and planned for before the pavement reaches a PCI at or below 41, which would indicate that the pavement is in poor condition. Pavement rehabilitation will lengthen the useful life of a runway and ensure that it is operable well into the future.

The pavement of Runway 5/23 is asphalt, has a PCI of 71, or satisfactory, in its center portion and a PCI of 85, or satisfactory, on the outer edges. The original runway is estimated to have been constructed in 1943. The runway was most recently rehabilitated in the year 2008. Typically, a runway would not require full rehabilitation or reconstruction for 15 to 20 years. It

may, however, require some maintenance and repair approximately every five to 10 years depending on the wear.

The pavement of Runway 14/32 is also asphalt. This runway is also estimated to have been constructed in 1943. Portions of the runway were milled and overlaid in 2003 and others were milled and overlaid in 2011. The runway has a PCI of 56, or fair, except where it meets Taxiway A, where the pavement has a PCI of 92, or good.

Airports have varying pavement strengths based on the aircraft types they expect to serve. Runway 5/23 has pavement strength of 40,000 pounds for single-wheel gear aircraft. Runway 14/32 has pavement strength of 30,000 pounds for single-wheel gear aircraft. Most of the aircraft operating at the Airport do not exceed 12,500 pounds; however, a growing number of operations by aircraft weighing over 60,000 pounds do occur. This is number is projected to continue to increase over the planning period. When the pavement for Runway 5/23 requires rehabilitation, an analysis should be undertaken at that time to determine if the number of aircraft with MTOW over 40,000 pounds using the Airport would warrant increasing the pavement strength of the runway. It is anticipated that the 30,000-pound single-wheel pavement strength for Runway 14/32 could continue to be sufficient throughout the planning period.

5.3.11 Runway Markings and Lighting

The current non-precision markings at both ends of Runway 5/23 are in good condition. The current non-precision markings for Runway 14/32 are also in good condition. The markings for both runways follow the FAA required non-precision markings for GPS non-precision approaches.

Runway 5/23 has Medium Intensity Runway Lighting (MIRL) along its edges. Runway 14/32 has no edge lighting. However, according to FAA AC 150/5340-30, non-precision approach runways such as Runway 14/32 should have MIRL.

5.3.12 Taxiway and Taxilane Standards

Taxiways and taxilanes also have design standards that are detailed in FAA AC 150/5300-13A, *Airport Design*. The design standards for taxiways and taxilanes are based in part on the Airplane Design Group (ADG) of the critical aircraft of the corresponding runway. However, taxiway design is also based on a Taxiway Design Group (TDG) designation, which is based on the dimensions of an aircraft's Main Gear Width (MGW) and the Cockpit to Main Gear (CMG) distance as shown in Figure 4-6 of the Advisory Circular. The existing critical aircraft for both Runway 5/23 and Runway 14/32, is an ADG-II aircraft, as represented by the Beechcraft Super King Air 200/Cessna Citation Jet 4 for Runway 5/23 and the Cessna Conquest for Runway 14/32. The future critical aircraft for Runway 15/23 is also an ADG-II aircraft, but it is represented by the Bombardier Challenger 600/601/604.

The Beechcraft Super King Air 200 has a TDG category of 2. The Cessna Citation Jet 4 and the Bombardier Challenger 600/601/604 both are listed as having a TDG 1B. The TDG category for the Cessna Conquest is 1A.

For purposes of the taxiway design, it is recommended that for taxiways associated with both runways that TDG 2 be used as there are several aircraft with ADG-II classification that are classified as TDG 2.

Runway 5/23 is served by a full-length, 35-foot wide, parallel taxiway, Taxiway A. The centerline of Taxiway A is 525 feet from the centerline of Runway 5/23. In addition to Taxiways B, C, and D, there are two taxiway connectors between Taxiway A and Runway 5/23. Each has a width of 35 feet. As Taxiway A and its connectors are 35-feet wide, it is a TDG 2 taxiway.

Runway 14/23 is also served by one full-length parallel taxiway, Taxiway B, which is 35 feet in width. The centerline of Taxiway B is 525 feet from the centerline of Runway 14/32. In addition to Taxiways A and C, Taxiway B is connected to Runway 14/23 with two taxiway connectors. Each has a width of 35 feet. Taxiway B is also a TDG-2 taxiway.

The taxiway design standards based on Airplane Design Group for ADG-II are shown in Table 5-13. The existing dimensions for each of the existing taxiways are also shown. The taxiway design standards based on Taxiway Design Standards for TDG-2 are shown in Table 5-14, as well as the actual distances for Taxiways A, B, C, and D.

Table 5-13
TAXIWAY DESIGN STANDARDS BASED ON AIRPLANE DESIGN GROUP

Item	ADG II (feet)	Taxiway A (feet)	Taxiway B (feet)	Taxiway C (feet)	Taxiway D (feet)
Taxiway Protection					
Taxiway Safety Area (TSA) Width	79	79	79	79	79
Taxiway Object Free Area (TOFA) Width	131	131	131	131	131
Taxiway Separation					
Taxiway Centerline to Parallel Taxiway/Taxilane Centerline	105	n/a	190	n/a	1,430
Taxiway Centerline to Fixed or Movable Object	65.5	65.5	65.5	65.5	65.5
Wingtip Clearance					
Taxiway Wingtip Clearance	26	26	26	26	26

Note: n/a = Not applicable

Table 5-14
TAXIWAY DESIGN STANDARDS BASED ON TAXIWAY DESIGN GROUPS

Item	TDG 2 (feet)	Taxiway			
		A	B	C	D
Taxiway Width	35	35	35	35	35
Taxiway Edge Safety Margin	7.5	7.5	7.5	7.5	7.5
Taxiway Shoulder Width	10	n/a	n/a	10	n/a
Taxiway/Taxilane Centerline to Parallel Taxiway/Taxilane Centerline	69	n/a	190		1,430

Note: n/a = Not applicable

5.3.13 Taxiway Design

FAA Advisory Circular 150/5300-13A, *Airport Design*, recommends that taxiways not be allowed to lead directly from an apron to a runway without requiring a turn. Taxiways that lead directly from an apron to a runway can lead to confusion when a pilot expects to encounter a parallel taxiway but instead accidentally enters a runway. Currently, the Airport has no taxiways that lead directly from an apron to a taxiway.

Additionally, FAA AC 150/5300-13A advises that taxiways should intersect at 90-degree angles wherever possible. Standard angles of 30, 45, 60, 120, 135, and 150 degrees are also allowed. However, FAA AC 150/5300-13A also advises that at any intersection that a pilot be presented with no more than three directions to choose from. This is referred to as the "three-node concept." Unfortunately, the intersection of Taxiway C with either Taxiway A or Taxiway B presents the pilot with four options.

Similarly, the current intersection of Taxiway C with Runways 5/23 and 14/32 is also advised against. It is advised that all taxiways meet runways at 90-degree angles, especially where the taxiway is used as an entrance to a runway or a crossing point. Additionally, it is advised to limit the number of taxiways entering a runway in the middle third of the runway. Taxiway C enters both runways at a 45-degree angle and in the middle third of both runways.

5.3.14 Taxiway Conditions Assessment

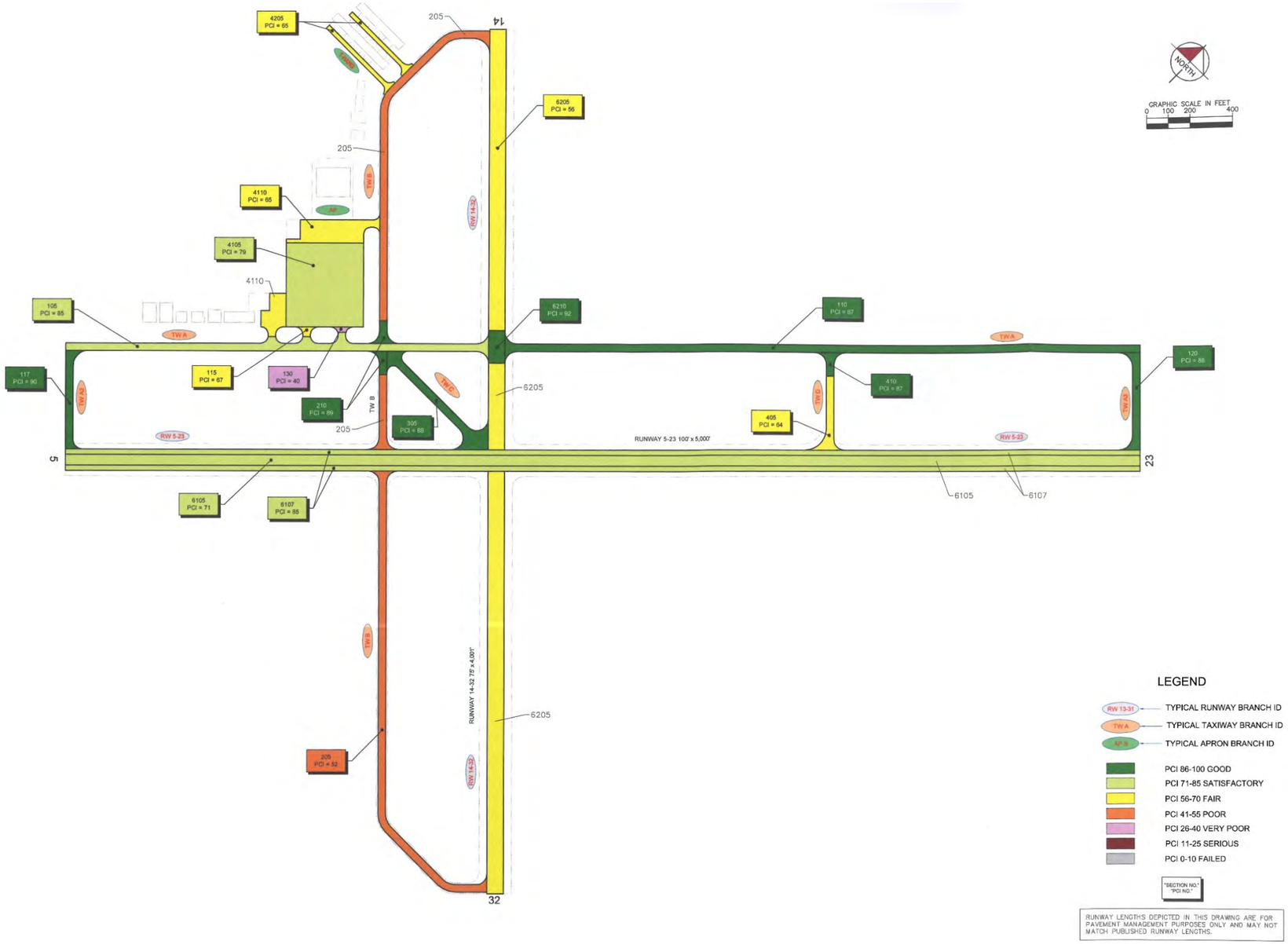
Taxiway A is constructed of asphalt and has Pavement Condition Indexes (PCI) of 67 to 87 or from fair to good condition. Taxiway B is constructed of asphalt and has a PCI of 52, which is poor, except at the intersection with Taxiways A and C, where it has a PCI of 89, or good. Taxiway C is constructed of asphalt and has a PCI of 88, or good. Taxiway D has a PCI of 67, or fair, except where it meets Taxiway A, where the PCI is 87, or good.

FDOT recommends that the pavement for runways be rehabilitated when the PCI reaches 75 or below or when the fleet mix changes on the primary runway. The pavement for taxiways and taxilanes should be rehabilitated when the PCI reaches 65 or lower, or when the aircraft fleet mix changes expected operations. The pavement for aprons, ramps, and run-ups should be rehabilitated when the PCI reaches 60 or lower.

Given these parameters, portions of both runways, as well as Taxiways A, B, D, and the T-hangar taxilanes are currently in need of rehabilitation. The 2017 FDOT *Airfield Management Report* also forecasts the rate of decline for each section of pavement and determines a year when each section is likely to require repair.

A graphic from the 2017 FDOT *Airfield Management Report* for the Airport is shown as Figure 5-2. Table 5-15 shows the synopsis of the airfield pavement conditions inventory.

Figure 5-2
AIRFIELD PAVEMENT CONDITIONS MAP



Source: Statewide Airfield Pavement Management Program, September 2017.

Table 5-15
AIRFIELD PAVEMENT CONDITION INVENTORY

Branch ID	Branch Name	2017 PCI	PCI Category	True Area in Square Feet	Material	Estimated Last Construction Date	FDOT Projected Year for Rehabilitation
105	Taxiway A	85	Good	75,503	AAC	3/15/2011	2031[1]
110	Taxiway A	87	Good	104,973	AAC	3/15/2011	2031[1]
115	Taxiway A	67	Fair	2,137	AAC	1/1/1998	2019
117	Taxiway A2	90	Good	17,464	AAC	3/15/2011	2032[1]
120	Taxiway A3	88	Good	17,791	AAC	3/15/2011	2031[1]
130	Taxiway A	40	Very Poor	1,391	AC	1/1/1998	2018
205	Taxiway B	52	Poor	151,420	AAC	1/1/1991	2018
210	Taxiway B	89	Good	9,422	AAC	3/15/2011	2032[1]
305	Taxiway C	88	Good	31,940	AAC	3/15/2011	2031[1]
405	Taxiway D	64	Fair	14,810	AC	1/1/1991	2018
410	Taxiway D	87	Good	5,148	AAC	3/15/2011	2031[1]
4105	Apron	79	Satisfactory	139,680	AAC	12/31/2007	2024
4110	Apron	65	Fair	53,454	AAC	12/31/2007	2018
4205	T-Hangar Taxilane	65	Fair	17,395	AC	12/25/1999	2018
6105	Runway 5/23	71	Satisfactory	250,000	AAC	7/31/2008	2021
6107	Runway 5/23	85	Good	250,000	AAC	7/31/2008	2027
6205	Runway 14/32	56	Fair	281,325	AAC	1/1/2003	2018
6210	Runway 14/32	92	Good	11,325	AAC	3/15/2011	2025[1]

Note: PCI = Pavement Condition Index, AC = Asphalt Concrete, AAC = Asphalt Overlay
Note 1: Pavement report only forecasts for ten years out. This date is extrapolated out from there.
Source: *Statewide Airfield Pavement Management Program, September 2017*.

5.3.15 Runup Pads

Engine runups are a series of last-minute checks performed by pilots on an aircraft prior to take-off. They involve temporarily advancing the throttles to ensure that engines can produce take-off thrust, however not all runup procedures involve such checks.

A runup pad is an apron where pilots can perform runup checks of their aircraft. During a runup procedure, the air blast from the engine verification can cause jet blast and/or noise for other aircraft, structures, and airport neighbors. A runup pad also allows an aircraft to temporarily leave a taxiway so that it does not obstruct the traffic behind it while the runup is performed. Most pilots prefer to perform these procedures immediately prior to take-off, so runup pads are typically placed near runway ends. There are currently no runup pads at the Airport.

5.3.16 Taxiway Markings and Lighting

All taxiways at the Airport are currently marked with yellow centerline markings in fair to good condition. All holdlines are marked and are in good condition. All taxiways on the Airport except Taxiway B have Medium Intensity Taxiway Lights (MITL). Runway 14/32, to which Taxiway B is a full parallel taxiway, is a non-precision runway instrument runway and according

to FAA AC 150/5340-30, Runway 14/32 should be equipped with Medium Intensity Runway Lights (MIRL). As the full-length parallel taxiway to the 14/32, FAA AC 150/5340-30 also recommends that Taxiway B should have MITL.

5.3.17 Additional Taxiways

The FAA recommends that there be taxiways that will allow aircraft to easily maneuver from the terminal/FBO area to both ends of at least the primary runway of an airport. Taxiway A provides access to the terminal/FBO area from both ends of Runway 5/23. Taxiway B provides access to from the terminal/FBO area from both ends of Runway 14/32.

Additional taxiways and taxilanes may be required, as further aviation development occurs at the Airport. New taxiways could also support development in new areas of the Airport. Taxilanes would also be required to access new hangars or aprons.

5.3.18 Helipads

While there is one based helicopter at the airport and the TFMSC indicates that there were at least 9 helicopter operations in 2016 and 11 in 2017, there are no marked helipads on the Airport.

5.3.19 Apron Pavement

The two public-use apron pavements on the Airport were rated as satisfactory and good, with PCIs ranging from 65 to 79. The FDOT recommends that apron pavements be rehabilitated when the pavement PCI reaches 60 or lower. It is anticipated that the apron in front of the terminal, which currently has a PCI of 79, or satisfactory, be rehabilitated in 2024. The apron in front of the paint shop currently has a PCI of 65, or fair, and it is recommended for rehabilitation in 2018.

5.3.20 Navigational Aids

Precision Approach Path Indicators (PAPI) provide vertical plane guidance information to help a pilot acquire and maintain the correct approach to the Airport. All runways at the Airport have 4-light PAPIs.

Runway End Identifier Lights (REILs) at the ends of runways improve a pilot's ability to find a runway end in inclement weather or rough terrain. Both ends of Runway 5/23 have REILs. Runway 14/32 does not have REILs.

The Airport has a Rotating Beacon that is in fair condition. The Airport also has one illuminated windsock co-located with the segmented circle. They are located adjacent to the intersection of Taxiways A and B.

5.3.21 Weather Equipment

The Airport has an Automated Weather Observing System (AWOS). AWOS units are operated and controlled by the FAA. An AWOS measures, collects, and transmits weather data to pilots and other interested parties such as meteorologists. Specifically, the Airport has an AWOS IIIP/T, which collects data on wind speed, wind gusts, wind direction, variable wind direction,

temperature, dew point, altimeter setting, density altitude, visibility and variable visibility, sky condition, cloud height and type, present weather, precipitation identification, thunderstorm, and lightning detection.

5.4 Landside

Landside facilities are those that interface between the airfield and the public infrastructure. Landside facilities typically include hangars, terminals, roads, vehicular parking, utilities, and other support structures. Figure 5-3 shows the Airport buildings and Figure 5-4 shows the buildings of the Airport Industrial Park.

5.4.1 Based Aircraft Storage

The FAA and FDOT approved forecasts for based aircraft indicate that there were 31 aircraft based on the Airport in 2016. In March of 2018, the database website www.basedaircraft.com, validated a total of 25 based aircraft at the Airport. This section of the Master Plan Update will show facility requirements based on the FAA and FDOT Approved Forecast as the facility requirements are developed.

Based aircraft are typically housed in conventional hangars, T-hangars, or other single-module types of hangars. In addition, based aircraft can also be stored at tie-downs in a specified area of the ramp or grassy areas on an airport. There is currently one T-hangar building with a total of 10 T-hangar units on the Airport. These are in Building 101. There is also a building of small box hangars. Six individual box hangars are in Building 100. There are currently seven conventional hangars on the Airport. All 25-based aircraft validated in 2018 are located within these structures. None of the based aircraft are stored at tie-downs. Table 5-16 shows the number of based aircraft storage areas currently located on the Airport and how many additional spaces will be required in the future.

Table 5-16
BASED AIRCRAFT STORAGE

FAA Approved Based Aircraft Forecast					
	2016	**2021**	**2026**	**2031**	**2036**
Based Aircraft	31	37	42	47	52
Based Aircraft in T-Hangars	10	10	10	10	10
Based Aircraft in Box Hangars	6	6	6	6	6
Based Aircraft in Conventional Hangars	15	15	15	15	15
Based Aircraft at Tie-downs	0	0	0	0	0
Deficit of Based Aircraft Storage	0	6	11	16	21

Figure 5-3
AIRPORT BUILDINGS

Figure 5-4
INDUSTRIAL PARK BUILDINGS

As the number of based aircraft grows over the planning period, it is anticipated that some aircraft will be stored at tie-down areas until additional hangar space can be programmed designed and constructed. In 2021, the approved Forecasts calculate that an additional 6-based aircraft will require storage. By the year 2036, the approved Forecasts indicate that an additional 15 based aircraft will require storage. In addition, the Airport typically has between 15 and 20 positions open on a wait list for T-hangars and between 5 and 10 positions for box hangars.

There are currently approximately 31 units of hangar space at the Airport. These are distributed between the T-hangars, box hangars, and the conventional hangars. Table 5-17 shows how the hangar storage of based aircraft might be distributed between these facilities throughout the planning period loosely based on the distribution of aircraft at the Airport in 2016.

Table 5-17
BASED AIRCRAFT HANGAR SPACE AVAILABLE VERSUS REQUIRED

FAA Approved Based Aircraft Forecast					
	2016	**2021**	**2026**	**2021**	**2036**
Number of Required Hangar Spaces for Based Aircraft	31	37	42	47	52
T-Hangars					
Number of T-Hangars Required for Based Aircraft	15	16	18	21	23
Number of Existing T-hangar Units	10	10	10	10	10
Surplus/(Deficit)	(5)	(6)	(8)	(11)	(13)
Conventional Hangars					
Number of Required Spaces	15	15	18	20	23
Number of Existing Conventional Hangar Spaces	15	15	15	15	15
Surplus/(Deficit)	0	0	(3)	(5)	(8)
Box Hangars					
Number of Required Spaces	6	6	6	6	6
Number of Existing Box Hangar Spaces	6	6	6	6	6
Surplus/(Deficit)	0	0	0	0	0

Table 5-17 shows the number of aircraft at the Airport that will require to be hangered at the Airport. This number is divided between those that are stored in T-hangars versus those that will be stored in conventional or box hangars based loosely on the current distribution of stored aircraft.

The facilities forecast based on the approved Based Aircraft Forecast shown in Table 5-19 indicated that there will be a deficit of six T-hangar units in 2021 and that by the year 2036, there will be a deficit of 13 T-hangar units. Based on the approved Forecasts, it is anticipated that there will also need to be additional aircraft storage in conventional hangars through the end of the planning period in 2036, when an additional 8 conventional hangar spaces for based aircraft will be required.

Not only should the proper number of aircraft storage spaces in hangars be provided, but the size of the hangars should also be taken into consideration. Table 5-18 shows the comparison of the amount of hangar space available to the amount that will be required throughout the planning period.

Table 5-18
BASED AIRCRAFT HANGAR AREA AVAILABLE VERSUS REQUIRED

	2016	2021	2026	2031	2036
T-Hangars					
Current Number	10	10	10	10	10
Number Required	15	16	18	21	23
Surplus/(Deficit)	(5)	(6)	(8)	(11)	(13)
Current Area	12,200	12,200	12,200	12,200	12,200
Area Required	18,300	19,500	22,000	25,600	28,100
Surplus/(Deficit)	(6,100)	(7,300)	(9,800)	(13,400)	(15,900)
Box Hangars					
Current Number	6	6	6	6	6
Number Required	6	6	6	6	6
Surplus/(Deficit)	0	0	0	0	0
Current Area	11,520	11,520	11,520	11,520	11,520
Area Required	11,520	11,520	11,520	11,520	11,520
Surplus/(Deficit)	0	0	0	0	0
Conventional Hangars					
Current Number of Spaces	15	15	15	15	15
Number Required	15	15	18	20	23
Surplus/(Deficit)	0	0	(3)	(5)	(8)
Current Area	25,684	25,684	25,684	25,684	25,684
Area Required	9,200	14,200	20,650	28,000	34,450
Surplus/(Deficit)	16,484	11,484	5,034	(2,316)	(8,766)

Currently, there are approximately 49,404 square feet of aircraft storage in hangars located across the Airport. Of this amount, 12,200 are in T-hangars, 11,520 square feet are in box hangars, and 25,684 are in conventional hangars. However, only 45,220 square feet of space will be required in 2021 based on the approved Forecast of Based Aircraft. It is anticipated that 74,070 square feet will be required in 2036. It is anticipated that 15,900 square feet will be made up of T-hangar storage and 8,766 square feet will be made up of conventional hangar storage.

It is understood that not all the space within the conventional hangars is used for aircraft storage. Area within these hangars is also used for offices, work areas, maintenance, and storage of aviation material. Indeed, one conventional hangar on the Airport was not included in the above calculations, the paint hangar, Building No. 103, as this facility is used for the painting of aircraft rather than the storage of based aircraft. The calculations in Table 5-18 do not consider these activities within the conventional hangars.

As an alternative to storing aircraft in hangars, owners may elect to store their aircraft at dedicated tie-down positions. While this alternative exposes the aircraft to the elements, it is typically a less expensive alternative to storage in aircraft hangars. Currently, there are no based aircraft that are stored at tie-down positions. This practice is likely to continue at Okeechobee County Airport throughout the planning period.

There are currently 27 aircraft tie-down positions at the Airport. The Fixed Base Operator manages all the tie-down positions, which are located on an approximately 18,685 square yard apron. There are currently no designed turf tie-down areas on the Airport.

5.4.2 Itinerant Aircraft Storage

Itinerant aircraft are those aircraft that are not based at the Airport, but which are visiting. Alternatively, itinerant aircraft can spend extended periods of time at the Airport as the owner/pilot may be a “snowbird” or one of the businesses on the Airport may be performing maintenance on the aircraft. The pilots could be visiting for reasons of business or pleasure; however itinerant aircraft also arrive for special events either at the Airport or within the community.

The itinerant aircraft require an area where they can be stored on a temporary basis. Most itinerant aircraft are typically stored for only for a couple of days. One popular attraction at the Okeechobee County Airport is the restaurant located in the terminal. The itinerant parking apron is often at capacity during the lunch hour.

Table 5-21 shows the methodology for calculating the apron requirements for itinerant aircraft as defined in FAA AC 150/5300-13 Change 18, *Airport Design*, Appendix 5, *Small Airport Buildings, Airplane Parking and Tiedowns*. The revised FAA AC 150/5300-13A does not include this methodology, however it is used in this report as a viable guideline.

Table 5-19
ITINERANT AIRCRAFT STORED ON APRON

	2016	2021	2026	2031	2036
Total Annual Operations	50,000	58,235	67,826	78,996	92,006
Percent of Annual Operations Occurring in Busiest Month	10%	10%	10%	10%	10%
Busiest Month Operations	5,000	5,824	6,783	7,900	9,201
Average Day Operations of Busiest Month	161	188	219	255	297
Busiest Day Operations (Average Day + 10%)	177	207	241	281	327
Percent of Itinerant Operations	51.3%	51.3%	51.3%	51.3%	51.3%
Number of Itinerant Operations on Busiest Day	91	106	124	144	168
Number of Itinerant Aircraft Landing Operations	46	53	62	72	84
Percent of Itinerant Aircraft on Ground at Same Time	50%	50%	50%	50%	50%
Number of Itinerant Aircraft on Ground at Same Time	23	27	31	36	42
Percentage of Itinerant Aircraft Stored on the Apron	100%	100%	100%	100%	100%
Number of Itinerant Aircraft Stored on the Apron	23	27	31	36	42
Percentage of Group I Aircraft	75%	73%	70%	68%	65%
Number of Group I Aircraft	17	20	22	24	27
Square Yards of Group I Aircraft on Apron	960	960	960	960	960
Percentage of Group II Aircraft	24%	25%	26%	27%	28%
Number of Group II Aircraft	6	7	8	10	12
Square Yards of Group II Aircraft on Apron	1,385	1,385	1,385	1,385	1,385
Percentage of Group III Aircraft	1%	2%	4%	5%	7%
Number of Group III Aircraft	0	0	1	2	3
Square Yards of Group III Aircraft on Apron	2,750	2,750	2,750	2,750	2,750
Square Yards of Itinerant Aircraft Apron Storage Required	24,630	28,895	34,950	42,390	50,790
Existing and Planned Square Yards of Itinerant Aircraft Apron	18,685	18,685	18,685	18,685	18,865
Surplus/(Deficit)	(5,945)	(10,210)	(16,265)	(23,705)	(31,925)

Using the methodology shown in Table 5-19, it is anticipated that 27 itinerant aircraft will be on the ground at the Airport at the same time during busy days in 2021. All will require tie-down spaces on the apron, as the current FBO does not currently offer hangar storage for itinerant aircraft. The available ramp and tie-down spaces in 2021 is expected to equal approximately 18,685 square yards, resulting in a deficit of 10,210 square yards of apron required to adequately store itinerant aircraft on the ramp. By the year 2036, it is anticipated that a total of 42 itinerant aircraft will require apron storage on the Airport's busiest day of the year. This is anticipated to amount to 50,790 square yards of apron. If additional apron is not added, there will be a deficit of 31,925 square yards of apron.

In addition to the aprons that are used to store aircraft, there is also a need for aprons to be in front of the conventional hangars. These aprons serve as a transition between a taxiway/taxilane and can be used for temporary storage or staging of the aircraft housed in the hangar. This is particularly true if the hangar is to be used for aircraft service or maintenance, such as the apron in front of Building 103, the paint hangar. Typically, these aprons are sized to be no less than the same size as the hangar that it serves, with one and one half the size of the hangar size being optimal.

Table 5-20 shows the existing conventional and box hangars and their associated apron sizes and compares that apron to the typically sized apron for a conventional hangar.

Table 5-20
CONVENTIONAL HANGAR APRON AREA

Building Number	Occupant	Existing Hangar in Square Feet	Existing Hangar Apron in Square Yards	Minimum Recommended Apron Size in Square Yards	Optimum Recommended Apron Size in Square Yards	Surplus/ Deficit in Square Yards
100	Box Hangars (each)	1,920	55	213	320	(158)
103	FBO (Paint Shop)	19,500	3,738	2,167	3,250	488
106	Curren Electric Co.	8,500	854	944	1,416	(90)
107	Gil's Auto Center, Inc.	3,600	844	400	600	244
108	Gil's Auto Center, Inc.	2,784	673	309	464	364
109	Redd, Inc.	2,500	215	278	417	(63)
110	Florida Division of Forestry	5,400	400	600	900	(200)
111	Darryl R. DeYoung	5,400	504	600	900	(96)

Note: The location of all buildings with numbers is shown in Figure 4-3.

Table 5-20 shows that most of the conventional and box hangars on the Airport do not have the recommended apron area in front of the respective hangars. This likely reflects the desire of those that originally developed the respective hangars, cost saving programs, and the desire to use as little land as possible. However, it limits the use of the hangar by future prospective tenants. Only three of the aprons meet or exceed the minimum recommended apron size and all three also exceed the optimum recommended apron size. It is recommended that as additional hangars are constructed that they be required to at least meet the minimum recommended apron size and encouraged to meet the optimum apron size.

5.4.3 Support Facilities

In addition to the primary facilities located on the airside and landside of the Okeechobee County Airport, there are other facilities located on the Airport that support the operation of the airside and landside facilities. These include the Airport Terminal, the airfield electrical vault, the fueling station, and the utility infrastructure.

5.4.3.1 Airport Terminal

The existing Airport Terminal was first built in 1999. Okeechobee County expanded the terminal in 2017. The structure now has about 4,930 square feet, of which 2,450 square feet house the Airport's popular restaurant and kitchen. The remaining 2,480 square feet of building houses the FBO offices, Airport Administration, and the County Economic Development offices. Also included is space for a pilot briefing area, restrooms, and a public lobby. Should the County decide to enlarge the terminal, Table 5-21 indicates the square foot area of a typical general aviation terminal sized to accommodate a peak hour load that would be typical for the Okeechobee County Airport. These numbers are exclusive of the restaurant.

Table 5-21
GENERAL AVIATION TERMINAL REQUIREMENTS

	2016	2021	2026	2031	2036
Total Annual Operations	50,000	58,235	67,826	78,996	92,006
Busiest Month Operations	6,500	7,571	8,817	10,269	11,961
Average Day Operations of Busiest Month	210	244	284	331	386
Number of Itinerant Aircraft Stored on the Apron	23	27	31	36	42
Projected Peak Hour Passengers	46	54	62	72	84
Passenger Lounge	863	1,013	1,163	1,350	1,575
Pilot Lounge	122	143	164	191	223
Flight Planning	92	108	124	144	168
Concessions/Vending	44	51	59	68	80
First Conference Room	345	405	465	540	630
Second Conference Room	173	203	233	270	315
Offices (2)	864	864	864	864	864
File and Workroom	345	405	465	540	630
Restrooms	226	266	305	354	413
FBO Administration	138	162	186	216	252
FBO Operations	403	473	543	630	735
Storage and Maintenance	125	147	169	196	228
Circulation	750	850	950	1,070	1,220
Mechanical	450	510	570	640	730
Building Structure	100	110	130	140	160
Total Building Area	5,038	5,708	6,388	7,213	8,223

5.4.3.2 Fueling Facilities

The Airport has two fuel tanks, each with a capacity of 10,000 gallons. One dispenses 100 Low Lead (LL) fuel and the other dispenses Jet A fuel. Based on the fuel sales in 2017, it is anticipated that additional capacity for fuel storage will not be required within the planning period, as shown in Table 5-22.

Table 5-22
FUEL FACILITY REQUIREMENTS

	2017	2021	2026	2031	2036
Annual Operations	51,647	58,235	67,826	78,996	92,006
Jet A					
Annual Fuel Sales (gallons)	57,286	64,593	75,231	87,621	102,052
Peak Month Fuel Sales (gallons)	7,557	8,521	9,924	11,559	13,462
ADPM Fuel Sales (gallons)	252	284	331	385	449
Five-Day Fuel Reserve (gallons)	1,260	1,420	1,654	1,926	2,244
Settlement (11% of storage) (gallons)	139	156	182	212	247
Five-Day Fuel Storage (gallons)	1,398	1,576	1,836	2,138	2,491
Current Fuel Capacity (gallons)	10,000	10,000	10,000	10,000	10,000
Average Days of Supply at Current Fuel Capacity	35	31	27	23	20
100LL					
Annual Fuel Sales (gallons)	29,162	32,882	38,297	44,604	51,950
Peak Month Fuel Sales (gallons)	4,897	5,522	6,431	7,490	8,724
ADPM Fuel Sales (gallons)	163	184	214	250	291
Five-Day Fuel Reserve (gallons)	816	920	1,072	1,248	1,454
Settlement (11% of Total Storage)	90	101	118	137	160
Total 5-Day Fuel Storage Required	906	1,022	1,190	1,386	1,614
Current Fuel Capacity	10,000	10,000	10,000	10,000	10,000
Days of Supply at Current Fuel Capacity	55	48	42	36	31

Note: ADPM = Average Day Peak Month

It is typically recommended that at least a five-day reserve of fuel be on hand, in case of emergencies. Table 5-22 indicates that the Airport, on the average, only needs a monthly full delivery of fuel for Jet A and a 55-day average between full fuel deliveries for 100LL, in 2017. Neither are anticipated to require weekly supply within the planning period.

5.4.3.3 Access Road and Entrance to the Airport

The Okeechobee County Airport is accessed via NW 20th Trail, which enters the property from the southwest. NW 20th Trail meets U.S. 98 at the entrance to the Airport. U. S. 98 travels southeast from the Airport to Okeechobee and on to Palm Beach before ending at the Mar-a-Lago Club. U.S. 98 travels northwest from the Airport to Sebring, Lakeland, Brooksville, Panama City, Pensacola and on to the Florida border before entering Mobile, Alabama.

NW 20th Trail is owned and maintained by Okeechobee County. It is a two-lane, asphalt road, without curbs, and in good condition. It is anticipated that the County will continue to maintain the road in good condition.

5.4.3.4 Vehicular Parking

It is common at general aviation airports for automobiles to be parked in the various hangar facilities or adjacent to the structure while an aircraft is in use. Parking of personal vehicles on the airside should be avoided as it increases the risk of an incursion between an aircraft and a personal vehicle. While it is common for those using T-hangars to park their street vehicles in or adjacent to their respective T-hangars, it should not be encouraged to allow street vehicles in areas common to aircraft movements. It is recommended that as additional T-hangars are constructed, that adequate vehicular parking be included with each new T-hangar building. It is recommended that vehicular parking be made available to pilots on the landside of the Airport.

There are 21 marked public parking spaces located in front of the Airport terminal. There are another 20 parking spaces located behind fencing for the use of pilots. Several of the conventional hangars also have paved parking specific to the hangar. This includes the paint hangar with 18 parking space, Hangar 106 with five parking spaces, and Hangar 110 with a driveway wide enough to accommodate about four vehicles. This would total 68 parking spaces on the Airport

For airports, however, it is typical to allow approximately 1.0 parking space per 1,000 square feet of gross floor area. This is not a requirement by the FAA or FDOT. With the 49,400 square feet of conventional, box, and T- hangars, this would equate to 49 parking spaces. Even if it were considered that the 21 parking spaces in front of the terminal could be associated with the restaurant and offices, the 47 remaining parking spaces are in line with the 49 recommended parking spaces. However, the Airport is continually fielding requests for additional parking in front of the terminal for use by pilots and for restaurant patrons.

As new facilities are built, and the use of existing facilities change function, the needs for the vehicle parking at each structure will also change. When developing future facilities, an adequate amount of parking spaces should be considered to meet both the local codes as well as the functional requirements of the facility. Each new conventional hangar should have a separate parking area dedicated to that hangar. Each set of T-hangars should also consider conveniently located joint-use parking to accommodate the pilots and passengers without influencing them to park on the airside of the Airport.

5.4.3.5 Fencing

The Airport airfield is enclosed with a six-foot high fence with three strands of barbed wire at the top. There are several security gates within the fence for access to the airfield.

5.4.3.6 Utilities

The utilities described in Section 2.7.9 of this Master Plan Update are adequate for the development anticipated within the next five to ten years. As specific projects are identified for design and construction, however, careful coordination with Okeechobee County should take place to ensure that this is still the case.

5.4.3.7 Stormwater Management

Currently, there is a system of ditches and ponds that control the drainage of stormwater in the different basins on Airport property. The system appears to be working well. These facilities should be monitored and maintained by the County to ensure that they continue to work properly. Routine maintenance includes trimming vegetation, cleaning pipes, and removing silt where applicable to ensure that the system continues to function properly.

As new facilities are constructed on the Airport, the stormwater management system will require modification and expansion to control the increased volume of runoff. Additional inlets, pipes and dry retention ponds will need to be constructed as more impervious surfaces are added.

During construction activities, topsoil and vegetation are typically removed. This exposes the underlying soil to erosion during rainfall events. Contractors should be required to use best management practices, such as silt barriers, hay bales, and temporary seeding to minimize erosion and silt contamination of neighboring waterways. It is recommended that the County secure for the Airport a General Permit for Construction, Operation, Maintenance, Alternation, Abandonment or Removal of Airport Airside Stormwater Management Systems as set forth in the Florida Administrative Code 62-330.449.

5.4.3.8 Demand Capacity and Facility Requirements Summary

This chapter addresses several development issues that may need to be addressed over the 20-year planning period. Many of these are tied to the FAA and FDOT approved Forecasts of Aviation Activity. Table 5-2 is a summary of the requirements and recommendations from this chapter. Each of these requirements and recommendations is tied to a “trigger” that will allow the Airport to know when an event is being approached that would trigger additional development regardless of the period.

Table 5-23
FACILITY REQUIREMENTS SUMMARY

Facility	Existing Condition	Recommendations	Triggers
Runway Protection Zones	U.S. Highway 98 runs through the RPZ for Runway 5 and 7 neighborhood streets run through the RPZ for Runway 23.	Move the RPZs to avoid U.S. 98 or re-route the Highway. Move the streets/houses in RPZ or move RPZ.	Lengthening of either runway end, changes to size of the RPZ, or Change to a higher level of Critical Aircraft
Runway 5/23	Pavement strength of 40,000 pounds single wheel gear. Many aircraft with over 40,000 pounds MTOW and over 500 annual operations use the runway	Strengthen the Runway pavement to at least 75,000 pounds	The next time the runway pavement is rehabilitated. Excessive loading will cause the pavement to deteriorate more quickly
	Center portion had a PCI of 71 in 2017	Mill, overlay, and strengthen	Need to begin design now. PCI is below 75
	Currently 5,000 feet long	5,450 feet in length with 450-foot extension	Currently recommended. Should be considered when the Runway is rehabilitated
Runway 14/32	Pavement strength of 30,000 pounds single wheel gear. Several aircraft of over 30,000 pounds MTOW and over 500 annual operations use the runway	Monitor the runway to see if heavier B-II aircraft are continuing to use the runway.	
	PCI of majority of pavement of 56 in 2017	Mill, overlay, and potentially strengthen	Needs to be constructed now. PCI is below 75
	Currently 4,001 feet long	4,883 feet in length with an 882-foot extension	Currently recommended. Should be considered when Runway is rehabilitated.
	Runway 14/32 does not currently have REILs	Install REILs	During rehabilitation of Runway
	Currently does not have runway edge lighting	Install MIRLs	During rehabilitation of Runway
Taxiway A	PCI of 85 and 87 for majority of Taxiway (Branches 105 and 110)	Mill and overlay	When PCI reaches 65. Projected to occur in 2031
	Branches 130 and 115 have PCIs of 40 and 67 respectively	Mill and overlay	When PCI reaches 65. Short-term planning period.
	Section 205 of Taxiway A had a PCI of 71 in 2015	Mill and overlay	Short-term planning period or 2020
Taxiway A2	PCI of 90	Mill and overlay	When PCI reaches 65 in 2032

Facility	Existing Condition	Recommendations	Triggers
	Currently named Taxiway A2	Rename to Taxiway A1 to conform with Engineering Brief 89	When reconstructing pavement or redoing signage in connection with another project
Taxiway A3	PCI of 88	Mill and overlay	When PCI reaches 65. Year 2031
Taxiway B	PCI of 52	Mill and overlay	When PCI reaches 65. Year 2018
	525 feet centerline to centerline with Runway 14/32	Relocate the taxiway to 240 feet centerline to centerline	When the pavement for Taxiway B is rehabilitated.
	45-degree angle turns on both ends of Taxiway as it turns to meet the Runway 14/32 ends	Replace the 45-degree angles with 90-degree angles to be in compliance with FAA AC 150/5300-13A	When the pavement for Taxiway B is rehabilitated.
	Does not have MITL	Install MITL	When the pavement for Taxiway B is rehabilitated.
Taxiway C	Connects the intersections of Taxiways A and B with Runways 5/23 and 14/32	Remove Taxiway C in its entirety to conform with FAA AC 150/5300-13A	When the pavement for Taxiway B is rehabilitated.
Taxiway D	Had a PCI of 64 and 84 in 2017 in branches 205 and 410 respectively	Mill and overlay	When PCI reaches 65. Year 2018 for branch 205 and year 2031 for branch 210
	Currently named Taxiway D	Rename to Taxiway A2 to conform with Engineering Brief 89	When reconstructing pavement or redoing signage in connection with another project
Aircraft Apron Branch 4105	Has a PCI of 79	Mill and overlay	When PCI reaches 60 – year 2024
	Has 27 aircraft tie-down positions	Need 27 in 2021, 31 in 2026, 36 in 2031 and 42 in 2036	Add additional tie-down spaces when performing the mill and overlay in 2024.
Aircraft Apron Branch 4110	Has a PCI of 65	Mill and overlay	When PCI reaches 60 – year 2018
T-Hangars	Currently have 10 T-hangars and a waiting list of 10-20 aircraft	Recommend six additional by the year 2021 and a total of 13 additional by the year 2036	As required to meet new tenants and/or additional demand
Box Hangars	Currently have 6 box hangars and a waiting list of about 10.	As required to meet new tenants and/or additional demand	As required to meet new tenants and/or additional demand

Facility	Existing Condition	Recommendations	Triggers
Conventional Hangars	Currently have approximately 25,684 square feet of storage in 6 hangars (excluding the paint shop)	Sufficient number and space to meet existing and forecast demand	As required to meet new tenants and/or additional demand
Vehicular Parking	Currently have about 68 vehicular parking spaces	Adequate to meet current demand with the exception that extra parking is needed in front of the terminal and restaurant	About 20 additional parking spaces are need now in front of the terminal and as additional facilities are added
Fuel Facilities	Airport has two 10,000-gallon tanks; one each for Jet A fuel and one for 100 LL fuel.		As fuel deliveries increase to more than one per week, additional capacity should be added.

6 DEVELOPMENT AND EVALUATION OF ALTERNATIVES

6.1 Introduction

This chapter takes into consideration the facility requirements identified in the previous chapter that were developed to address the current and future needs of the Airport based on the Forecasts of Aviation Activity. The potential location of rehabilitated, or replacement facilities is considered in this chapter. Additional development is also considered including access to new development areas and the development of non-aeronautical land on the Airport; each designed to provide additional and alternative sources of revenue for the Airport. This chapter looks not only at the improvements that could ideally be made to the Airport, but also considers how these improvements will affect the Airport operationally, while avoiding as much as possible any regulatory conflicts.

6.2 Development of Alternatives

The purpose for developing and evaluating alternatives is to provide adaptable and efficient solutions that supports the growth of the Airport. The development alternatives are based on projected aviation demand during the 20-year planning period and beyond. Alternatives also allow the Airport to explore opportunities to enhance economic activity at the Airport. The facility requirements generated from the Forecasts of Aviation Activity were created to develop the required facilities immediately prior to when they would most likely be needed. However, future events do not always follow a predictable timeline and can change the development that is required. The Airport should be developed so that the facilities meet the identified demand and minimize the operational constraints. Facilities should not be implemented if the demand has not materialized as forecasted.

6.2.1 Airfield Improvements

Since the last FAA approved Airport Master Plan Update, in 1996, Runway 5/23 (2008), Taxiway C (2011), and a portion of Taxiway A (2011) have been resurfaced and the existing terminal has been expanded. There were other recommendations provided under the previous Master Plan update, that are still valid based on the current Forecast of Aviation Activity and they have been included in this evaluation. The recommended Airport improvements and associated legend are shown in Figures 6-1 and Table 6-1 respectively and include the following:

- Rehabilitation of Runway 14/32
- Relocation of Taxiway B 285 feet closer to Runway 14-32
- Development of runup areas
- Maximization of T-hangars along the northeast and northwest side of Runway 14-32
- Apron expansion by 16,280 square yards along the existing apron's east edge
- Maximization of corporate hangars along the north side of Taxiway A
- Development of commercial areas along the southeast side of Runway 5-23

- Development of an industrial area along the southwest side of Runway 14-32
- Development of corporate hangars, aviation-related businesses, or additional fuel, or FBO operations in an area towards the approach end of Runway 5
- Development of additional vehicle parking

As discussed in the Facility Requirements chapter, these recommended improvements are not expected to occur all at once. Rather, they will be implemented as aviation activity demand requires them and as funding sources are identified and secured. Figure 6-1 shows the proposed improvements and Table 6-1 provides a legend to Figure 6-1 and other Figures in this chapter.

Figure 6-1
RECOMMENDED AIRPORT IMPROVEMENTS

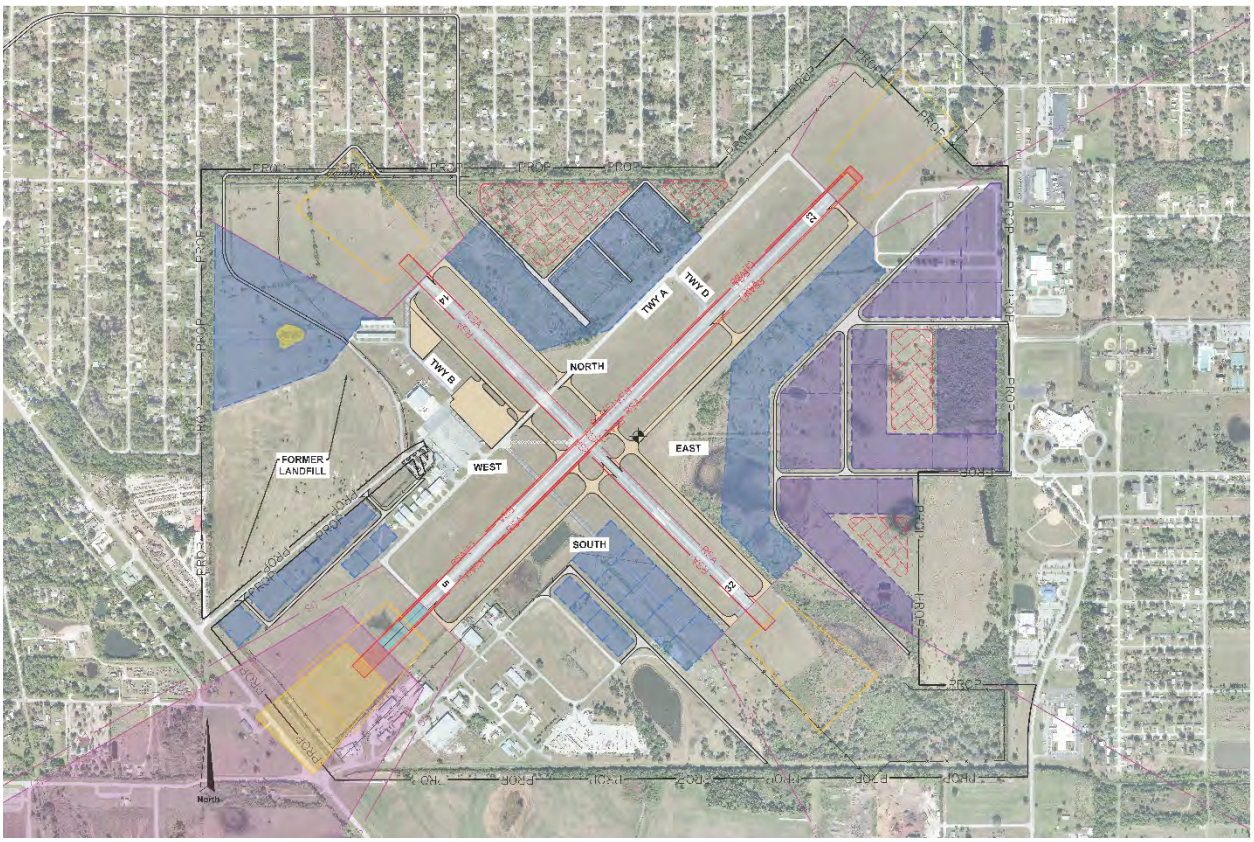


Table 6-1
RECOMMENDED AIRPORT IMPROVEMENTS LEGEND

LEGEND			
DESCRIPTION	**EXISTING**	**FUTURE**	**ULTIMATE**
AIRFIELD PAVEMENT	N/A		N/A
RUNWAY EXTENSION	N/A		N/A
STRUCTURE/HANGAR	N/A		
ROADWAY PAVEMENT	N/A		N/A
SERVICE ROADWAY PAVEMENT	N/A		N/A
PAVEMENT TO BE REMOVED	N/A		N/A
GRASS	N/A		N/A
AERONAUTICAL DEVELOPMENT	N/A		N/A
NON-AERONAUTICAL DEVELOPMENT	N/A		N/A
STORMWATER POND	N/A		N/A
WETLAND		N/A	N/A
PROPERTY LINE	-PROP-	N/A	N/A
DEPARTURE SURFACE	-DS-		N/A
RUNWAY PROTECTION ZONE	-RPZ-		N/A
RUNWAY SAFETY AREA	-RSA-		N/A
TAXIWAY OBJECT FREE AREA	-TOFA-	-TOFA(F)-	N/A
RUNWAY VISUAL ZONE	-RVZ-	N/A	N/A

6.2.2 Runway Improvements

The runway length analysis performed in the Facility Requirements chapter indicates the lengthening of Runway 5/23 to 5,500 feet is currently warranted. For Runway 14/32, no lengthening is justified, at this time. There are, however, impacts related to the Runway Protection Zones (RPZs) and Runway Safety Areas (RSA) that are discussed in Sections 6.2.4 and 6.2.5. These will need to be considered when contemplating future extension of either runway. Additionally, the *2017 FDOT Airport Pavement Evaluation Report* recommended that both runways be rehabilitated during the planning period with the Runway 14/32 pavement in greater need of rehabilitation.

6.2.3 Taxiway Improvements

The latest edition of FAA Advisory Circular 150/5300-13A, *Airport Design*, advises that taxiways should ideally approach a runway from a 90-degree angle and taxiways should not lead directly from an apron area to a runway. These types of configurations have been identified as causes for runway incursions at many airports. Okeechobee County Airport has no taxiways that lead directly from an apron to a runway.

6.2.3.1 Taxiway A

Taxiway A is a full-length parallel taxiway to Runway 5/23 and is currently in good to satisfactory condition, however, rehabilitation will be needed during the planning period. Also, the shifting of Taxiway A closer to Runway 5/23 was considered. While the relocation of Taxiway A closer to

the Runway could provide more land for development, the impact to both existing leaseholds and Part 77 surfaces related to hangar construction could offset these gains.

6.2.3.2 Taxiway B

Taxiway B is a full-length parallel taxiway to Runway 14/32. The taxiway pavement is in poor condition and is in need of rehabilitation along with the removal of those portions of the taxiway that are at 45-degree angles to the taxiway proper and Runway 14/32, which do not meet current FAA taxiway design standards. Also, the centerline to centerline separation between Runway 14/32 and the taxiway is 525 feet, which is greater than the required 240 feet for Design Group B-II aircraft. Airport management has expressed a desire to develop hangars along the southeast side of Taxiway B. Thus, the relocation of the Taxiway closer to Runway 14/32 is recommended. The relocation is also necessary for the expansion of the existing apron to occur.

6.2.3.3 Taxiway C

Taxiway C, as shown in Figure 6-2, is located between the intersections of Runways 5/23 and 14/32 and Taxiways A and B. It does not meet current taxiway design standards. The FAA advises that existing taxiway geometry should be improved whenever feasible, with emphasis on “hot spots,” and to the extent practicable, the removal of existing pavement may be necessary to correct confusing layouts. Okeechobee County Airport does not have any official FAA “hotspots”. However, Taxiway C enters the intersection of both runways at a 45-degree angle and is in the middle third of both runways. To meet existing FAA design standards and to eliminate any impacts related to the proposed relocation of Taxiway B, the elimination of Taxiway C is recommended.

6.2.3.4 Taxiway D

A 14,810 square foot portion of Taxiway D, which is located between Taxiway A and Runway 5/23, north of Runway 14/32, is currently in fair condition per the *2017 FDOT Airport Pavement Evaluation Report* and is also in need of rehabilitation during the planning period.

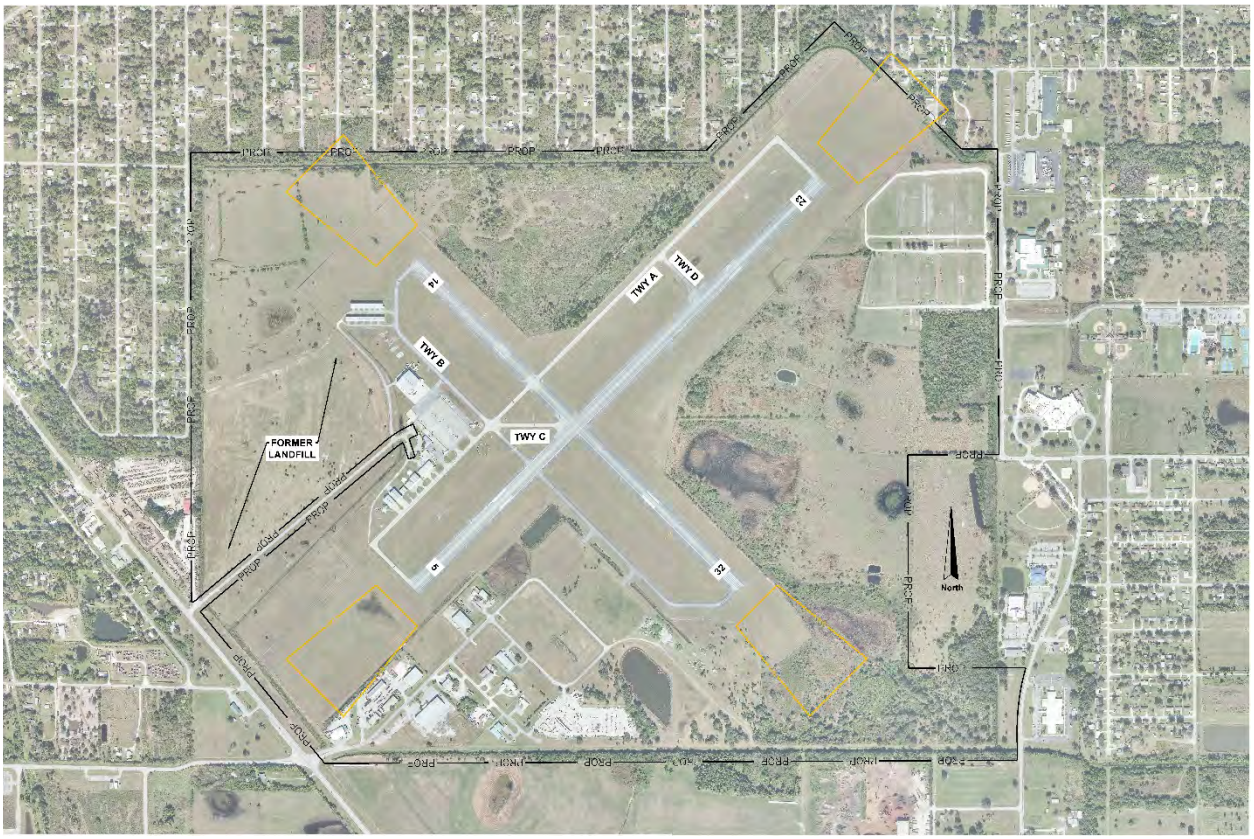
Figure 6-2
TAXIWAY C

6.2.4 Runway Protection Zones

The purpose of a Runway Protection Zone (RPZ) is to enhance safety and protection of people and property on the ground. Further, The FAA recommends that the Airport sponsor (Okeechobee County) acquire or control the land in the RPZ. While the FAA does not require the Airport to purchase the land located within an RPZ it is in the best interest of the Airport to do so. In owning the land, the Airport controls development of the property while preventing incompatible uses. This is also in keeping with Chapter 163 and Chapter 333 of Florida Statutes. However, if the land cannot be acquired, an avigation easement should be obtained to prevent incompatible land use from the surrounding community.

Since the last Master Plan Update, all runways at the Airport have acquired non-precision approaches, which has resulted in changes to the RPZs. Those changes are depicted in Figure 6-3.

Figure 6-3
EXISTING RUNWAY PROTECTION ZONES



6.2.4.1 Runway 5/23 RPZ Impacts

Per the runway length analysis conducted for Runway 5/23, it was determined that a 5,500 -foot length is currently justified based on the Design Group aircraft B-II. The existing Runway length is 5,000 feet. The dimensions of the RPZs have changed since the last master plan update and 11 parcels that include 10 single/multi-family residences are located within the Runway 23 RPZ. Extending Runway 23 would increase the number of homes impacted. It is probable that these homes would need to be acquired and razed should Runway 23 be extended.

Currently, there are no RPZ impacts associated with Runway 5. However, extending Runway 5 would impact one parcel as well as a portion of U.S. Highway 98. Additionally, extending Runway 5 would likely trigger the relocation of U.S. 98 around the RPZ.

In summary, extending Runway 5/23 would incur additional RPZ impacts. Those potential future impacts are shown in Figure 6-4 and Figure 6-5.

6.2.4.2 Runway 14/32 RPZ Impacts

The runway length analysis for Runway 14/32 shows that a 5,500-foot length is currently justified based on the Existing and Future Critical Aircraft. Runway 14/32 is currently 4,001 feet long.

There are two small vacant parcel that could be affected by the RPZ for Runway 14. There are, however, no impacts associated with the RPZ for Runway 32. The existing and potential future impacts for Runway 14/32 are shown in Figure 6-6 and Figure 6-7.

6.2.5 Runway Safety Area Impacts

To enhance safety of aircraft operations, the FAA requires that the land adjacent to the runways be clear of objects, properly graded, and drained. Runway Safety Areas (RSAs), as defined in FAA AC 150/5300-13, *Airport Desig*n, are a defined, rectangular surface centered along the real and extended runway centerline designed to reduce the risk of damage to aircraft in the event of an undershoot, overshoot, or excursion from the runway. RSAs are required to be cleared of all objects except those based on their function such as Runway End Identifier Lights (REILS) and approach lighting systems.

The existing Runway Design category for Runway 5/23 is B-II. It is anticipated to change to a C-II within the planning period. Currently, the RSA for Runway 5 meets FAA standards for both runway design categories as shown in Figure 6-4. If a 500-foot extension were added to the approach end of Runway 5, the RSA would remain within the Airport property and would not be impacted. The RSA for Runway 23 also meets current FAA standards as shown in Figure 6-5 and extending this runway would still result in the RSA remaining on Airport.

Figure 6-4
RUNWAY 5 RUNWAY PROTECTION ZONE & RUNWAY SAFETY AREA

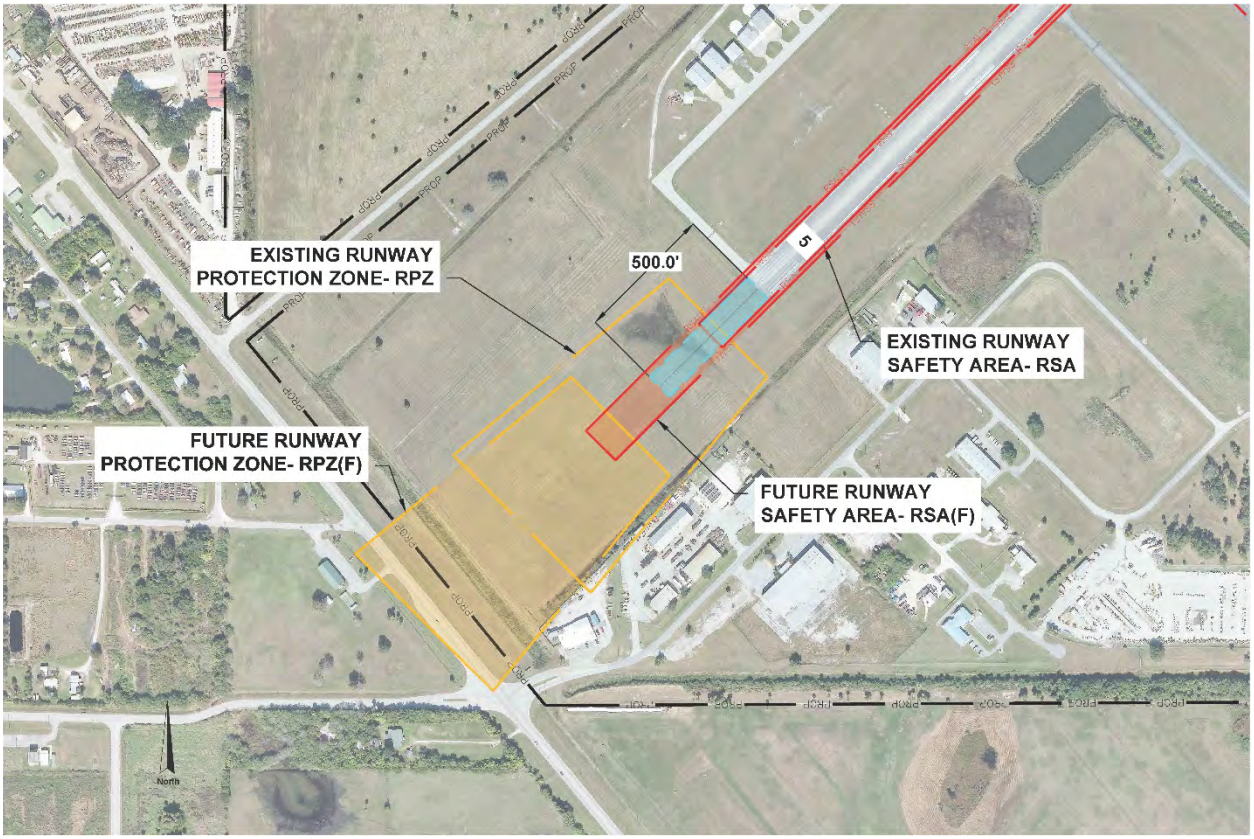
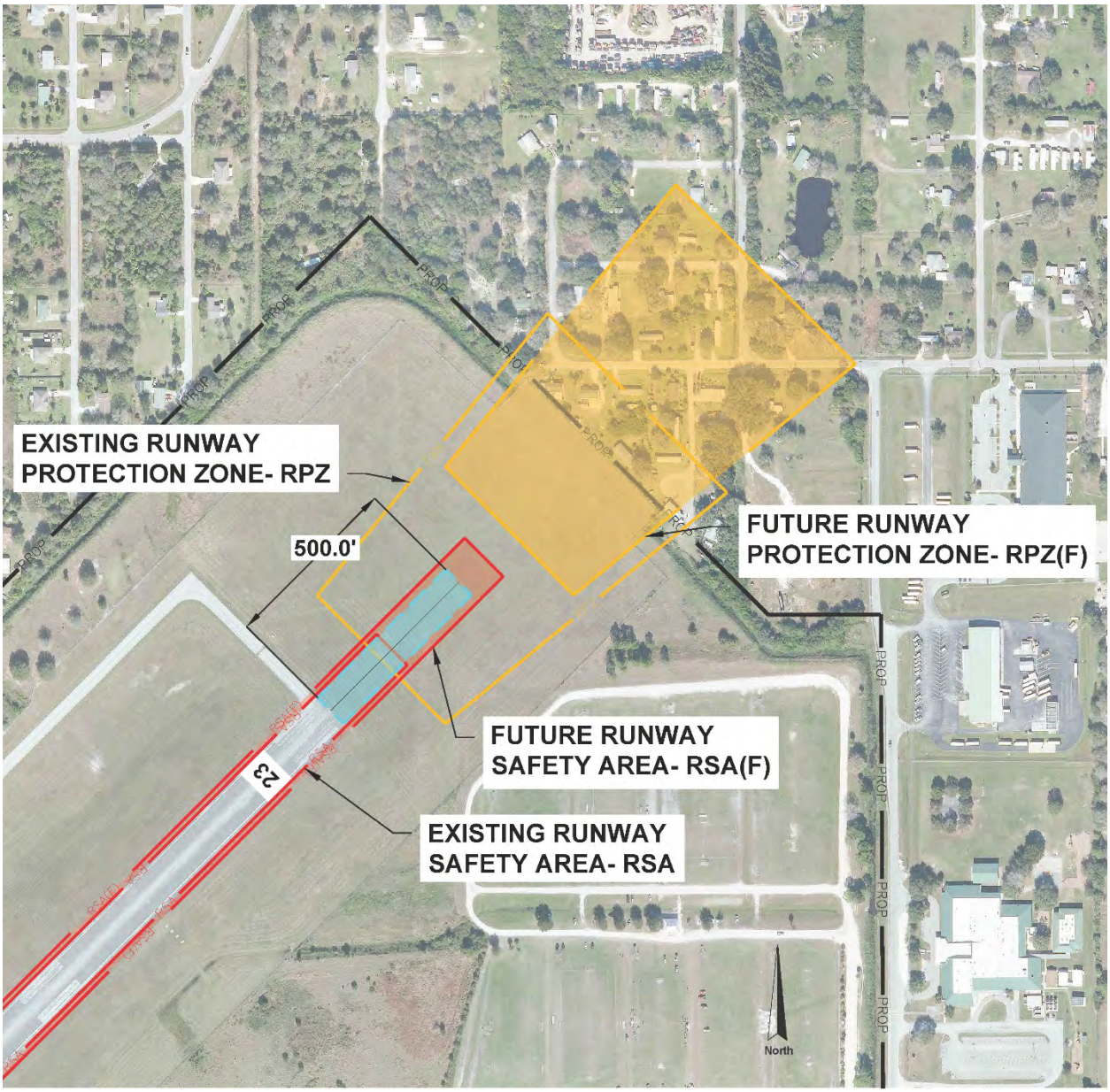


Figure 6-5
RUNWAY 23 RUNWAY PROTECTION ZONE & RUNWAY SAFETY AREA



The existing and future Runway Design Category for Runway 14/32 is B-II, resulting in an RSA width of 150 feet and extending 300 feet beyond the runway thresholds. Currently, the RSA for this runway is 150 feet wide and extends 300 feet beyond the runway thresholds. Thus, the RSA for runway 14/32 exceeds current FAA design standards. The RSAs for Runway 14/32 are shown in Figure 6-6 and 6-7.

Figure 6-6
RUNWAY 14 RUNWAY PROTECTION ZONE & RUNWAY SAFETY AREA

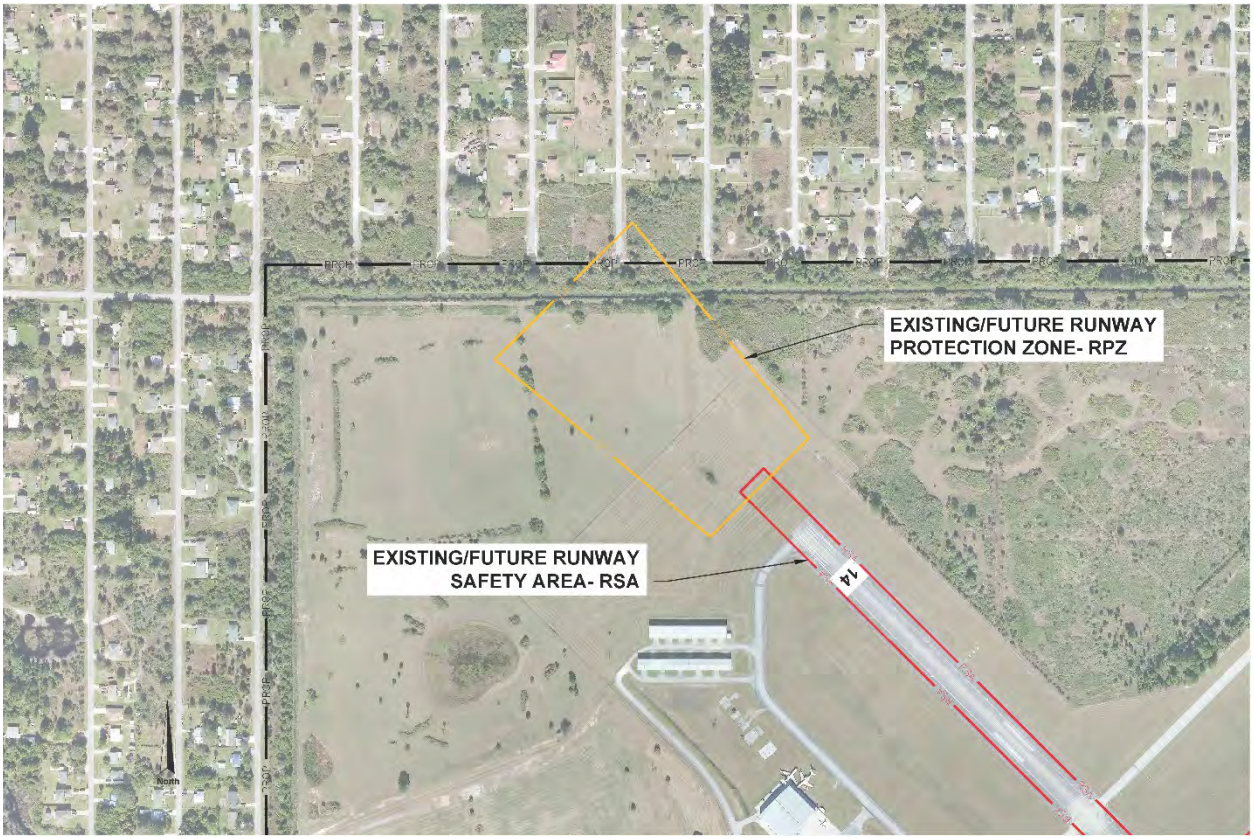
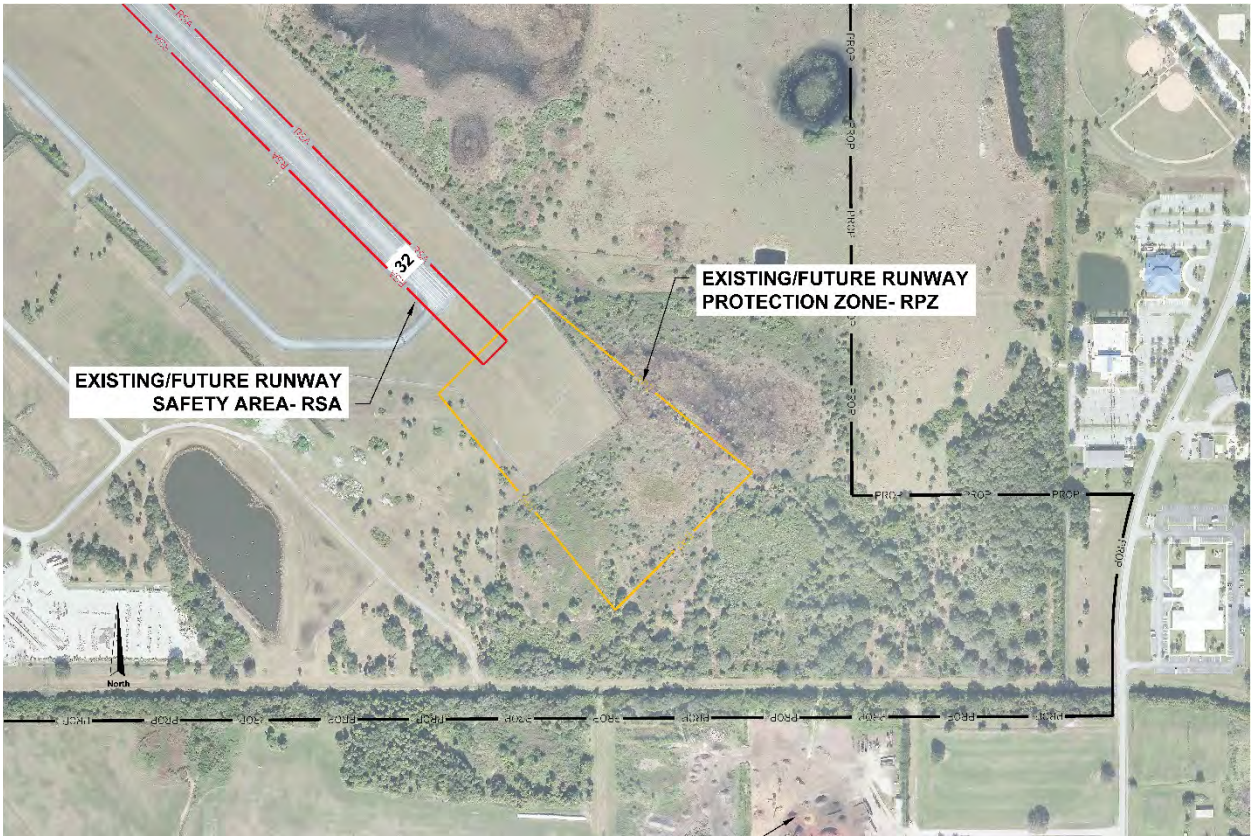


Figure 6-7
RUNWAY 32 RUNWAY PROTECTION ZONE & RUNWAY SAFETY AREA



6.3 Alternatives

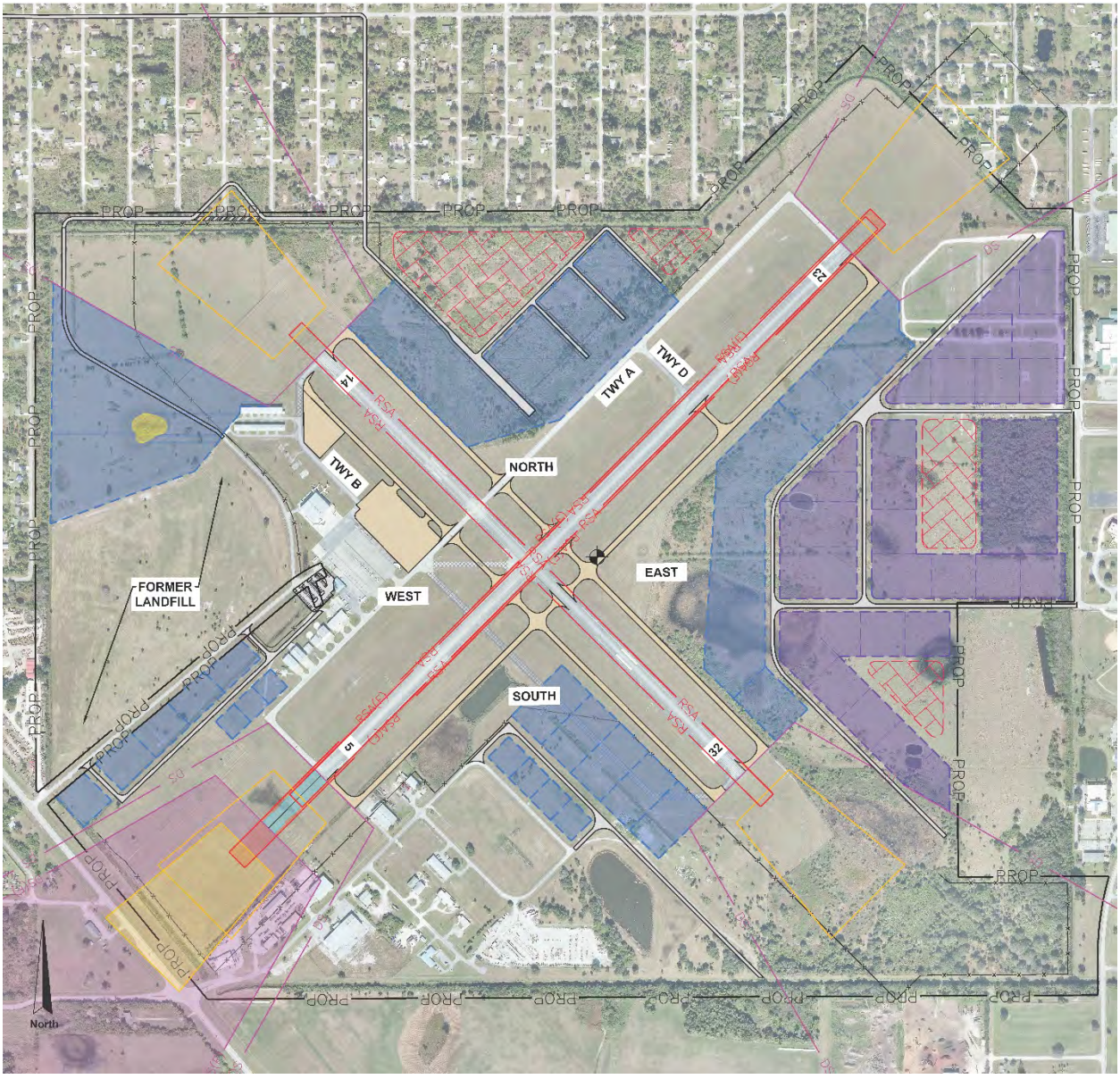
6.3.1 Potential Airport Development Areas

The potential Airport development areas are defined by the existing Airport Property Line, the RPZs for the runway ends, the limits of the approach and departure surfaces to each runway end, the Runway Visibility Zone, and the Building Restriction Lines, as shown in Figure 6-8. The Runway Visibility Zone is a zone around the intersection of the two runways that must remain clear of obstructions so that pilots on one runway can see aircraft on the other runway. The Building Restriction Line (BRL) is a line on either side of the runway past which no buildings should be built, as it would then penetrate the navigable airspace of the runway. Typically, the BRL is located to allow the building of a thirty-five-foot-high structure immediately adjacent to the BRL. This ensures that there are no building impacts to any of the Part 77 Approach and Transitional surfaces.

Different alternative development scenarios have been considered in planning for the ultimate development of OBE over the next 20-year planning period. Each alternative has been evaluated to determine the best use of the Airport's existing facilities based on the Facility

Requirements chapter as well as guidance from Airport management. While different alternatives have been created, there will be similarities in some of the development options as some items may be impacted by strict governmental requirements or other constraints. The development alternatives are presented in the following sections, which have been divided into four quadrants: West, North, East, and South.

Figure 6-8
POTENTIAL AIRPORT DEVELOPMENT AREAS



6.3.2 West Quadrant Development Area

The West Quadrant Development Area (QDA) is located between Runway 14 and Runway 5. This quadrant currently consists of most of the existing airfield facilities including the terminal/FBO/restaurant, fuel farm, hangars, tie-downs, and other aeronautical-related businesses. The West QDA encompasses approximately 104 acres, however, approximately 52 acres are associated with a closed landfill. This former landfill area, which closed in 1980, cannot be developed until it is clear of ground contamination in the area. The area north of the landfill consists of approximately 32 acres that are currently undeveloped and appear suitable for additional expansion. There are two small wetland areas, encompassing approximately three acres, located in the proposed development area that will need to be mitigated if disturbed. Additionally, approximately 20 acres south of Building 111 also provide for future development opportunities.

The development alternatives for the West QDA focus on the development of numerous landside and airside facilities. Included in the landside developments is the construction of new box and T-hangars, the expansion of the existing FBO facilities, construction of an additional FBO multi-use hangar, and vehicle parking redevelopment. Figure 6-9 presents the layout of the West QDA.

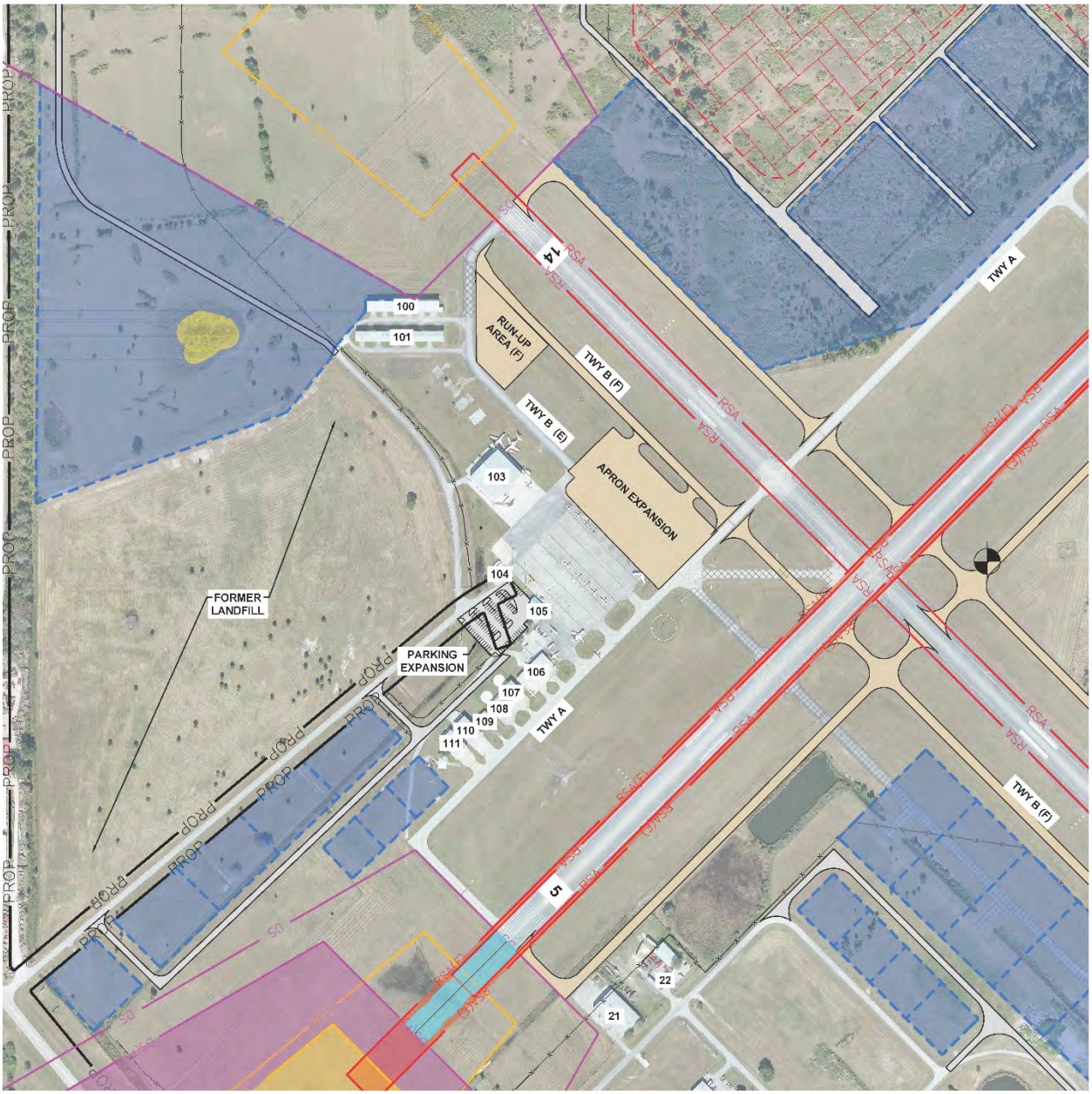
6.3.2.1 Landfill Area

One of the future development options to be considered is redevelopment of the former 52-acre landfill. The landfill groundwater monitoring activities were discontinued in 2012 and no other studies have been completed since then. Thus, there may be opportunities to redevelop the landfill area. For example, over the past few years, renewable energy projects involving closed landfills have begun to materialize around the country. RE-Powering America's Land, an EPA renewable energy initiative, lists about 141 solar installations on former municipal solid waste landfills since June 2018. However, while the overall redevelopment of the landfill may appear appealing, the risks and costs associated with this type of development are very high and may not be financially feasible. A complete analysis of the landfill area would need to be completed to determine the cost/benefit of improving the area, as well as identifying the highest and best use of the property, which is outside of the scope of this project.

6.3.2.2 Relocation of Taxiway B

As discussed in Section 6.2.3.2, by shifting Taxiway B towards Runway 14-32, a larger area of land becomes available for the development of hangars, additional apron space, aircraft run-up areas, and other landside facilities. The proposed relocation of Taxiway B is presented in Figure 6-9.

Figure 6-9
WEST DEVELOPMENT QUADRANT AREA



6.3.2.3 East Apron Expansion

Airport management has expressed a desire to expand the FBO apron. The expansion of the restaurant immediately prior to this Master Plan Update has complimented a steady increase of itinerant traffic at the Airport. Expansion of the existing apron, however, is limited due to the location of Taxiways A and B and the large Paint Hangar located at the north end of the apron. By relocating Taxiway B closer to Runway 14-32, it would allow expansion of the apron eastward towards the relocated Taxiway B as follows:

- East Apron Alternative A1: This alternative provides for expansion of the apron based on the relocation of Taxiway B by 285 feet eastward and consists of three options:
    - Option A1-1 as shown in Figure 6-10:
        - 14 tie-down spaces designed for smaller aircraft
        - Aircraft runup pad located southwest of the relocated Taxiway B
        - Taxiway B pavement modifications to meet FAA design requirements
    - Option A1-2 as shown in Figure 6-11:
        - 17 tie-down spaces designed for smaller aircraft
        - Expansion of the Paint Hangar Ramp
        - Aircraft runup pad located southwest of the relocated Taxiway B
        - Taxiway B pavement modifications to meet FAA design requirements
    - Option A1-3 as shown in Figure 6-12:
        - 5 tie-down spaces designed for large aircraft
        - Expansion of the Paint Hangar Ramp
        - Aircraft runup pad located southwest of the relocated Taxiway B
        - Taxiway B pavement modifications to meet FAA design requirements

- East Apron Alternative A2: This alternative consists of a similar option to Alternative A1. The only difference is that the distance from the Runway 14 centerline to the Taxiway B centerline is 250 feet, instead of the previous 285 feet.

Figure 6-10
APRON OPTION A1-1

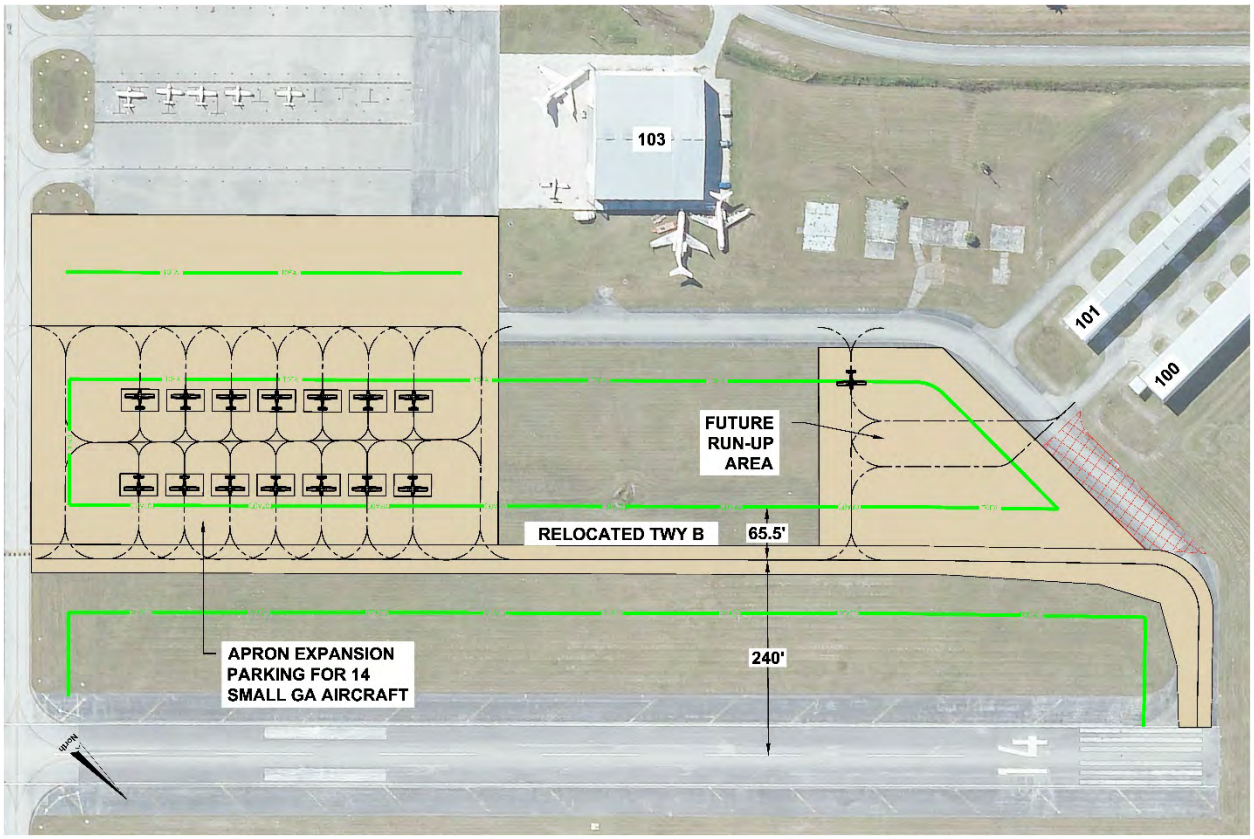


Figure 6-11
APRON OPTION A1-2

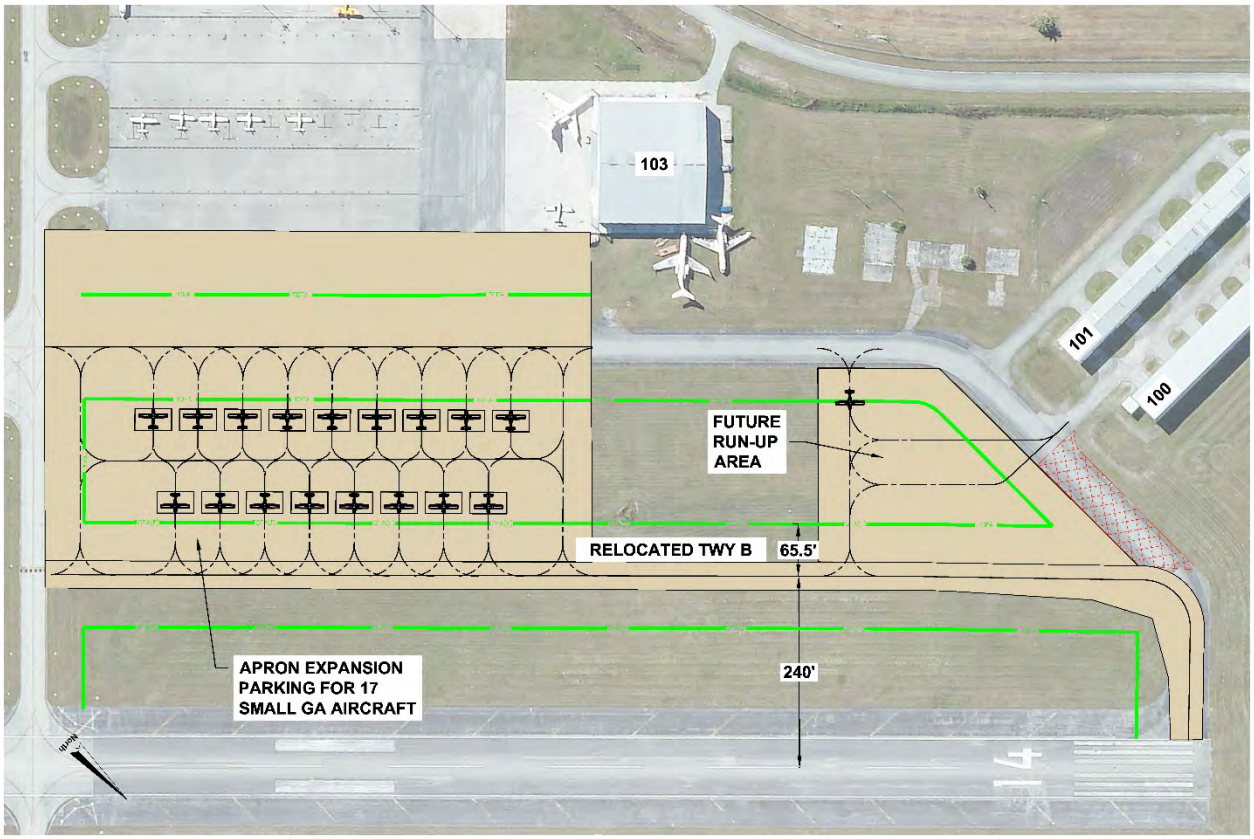
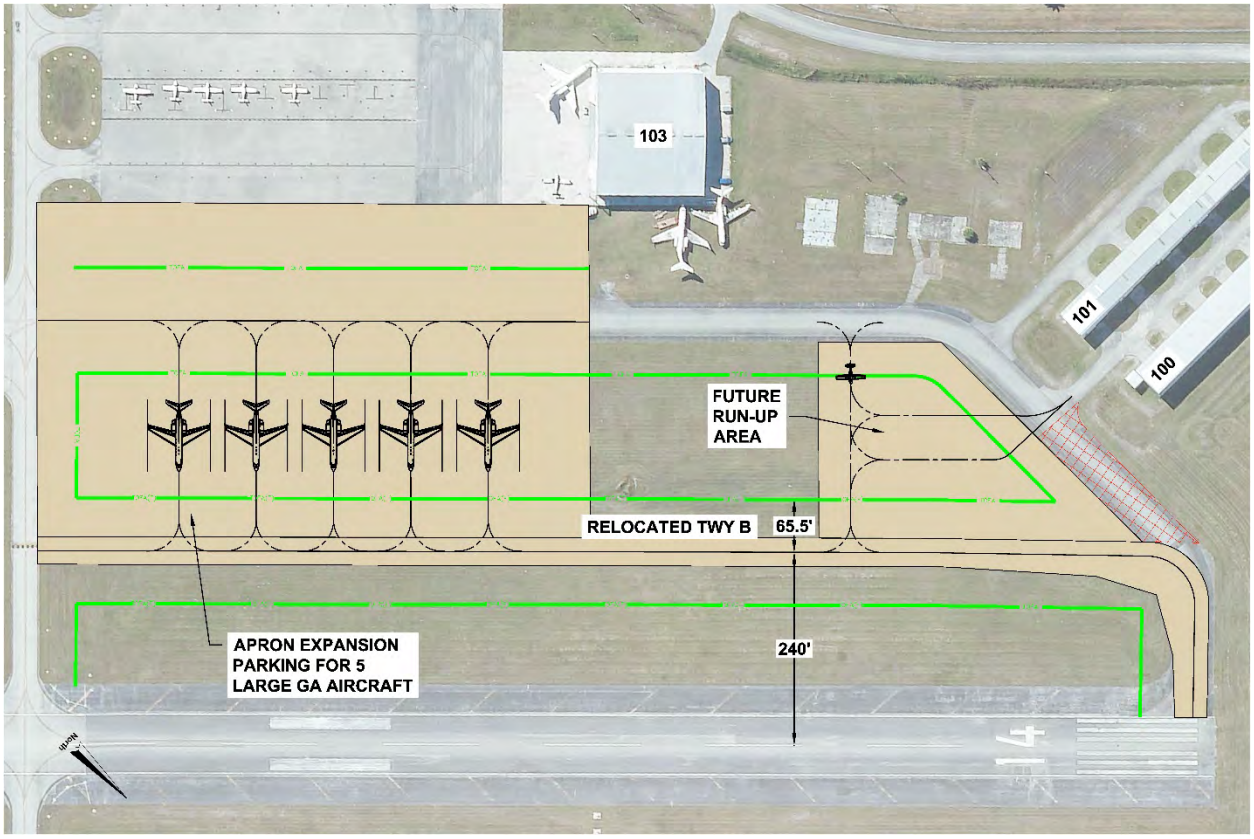


Figure 6-12
APRON OPTION A1-3



6.3.2.4 T-Hangar and Taxilane Area

The area of the existing T-hangars, box hangars, and associated taxilane were shown previously in Figure 6-9. The area currently supports one ten-bay T-hangar building (Building 100) and six box-hangars units (Building 101). Per Airport management, there is currently a waiting list for 15 hangar spaces. Development options in this area are bounded by the former landfill, wetland areas, and the departure surface for Runway 32. However, the following four alternatives that includes nine various options, provide enhanced development opportunities for the area.

- T-Hangar Alternative T1: This alternative provides for initial expansion of the West Quadrant Development Area and consists of three options:
    - Option T1-1 as shown in Figure 6-13:
        - Two 7-bay box hangar units
            - 14 units exceed year 2036 T-hangar unit needs
            - 46-foot x 40-foot hangar covers 99.9 percent of small aircraft
        - Provides two vehicle parking spaces per box hangar unit
        - Remains clear of all Departure surfaces
        - Disadvantage:
            - Shifting of Airport Operations Area (AOA) fence line
            - Drainage swale near 100 and 101
    - Option T1-2 as shown in Figure 6-14:
        - Three 6-bay box hangar units
            - 18 units exceed year 2036 T-hangar unit needs
            - 46-foot x 40-foot hangar covers 99.9 percent of small aircraft
        - Provides two vehicle parking spaces per box hangar unit
        - Remains clear of all Departure surfaces
        - Disadvantage:
            - Cars parked at entrances to hangars 100 and 101 impacting the taxi route
            - Shifting of AOA fence line
            - Drainage swale near 100 and 101
    - Option T1-3 as shown in Figure 6-15:
        - Same layout as Option T1-2
        - Allows for redevelopment of the T-Hangar area
        - Shifting of dry retention pond
        - Reconfigured access to existing box hangar

Figure 6-13
T-HANGAR OPTION T1-1

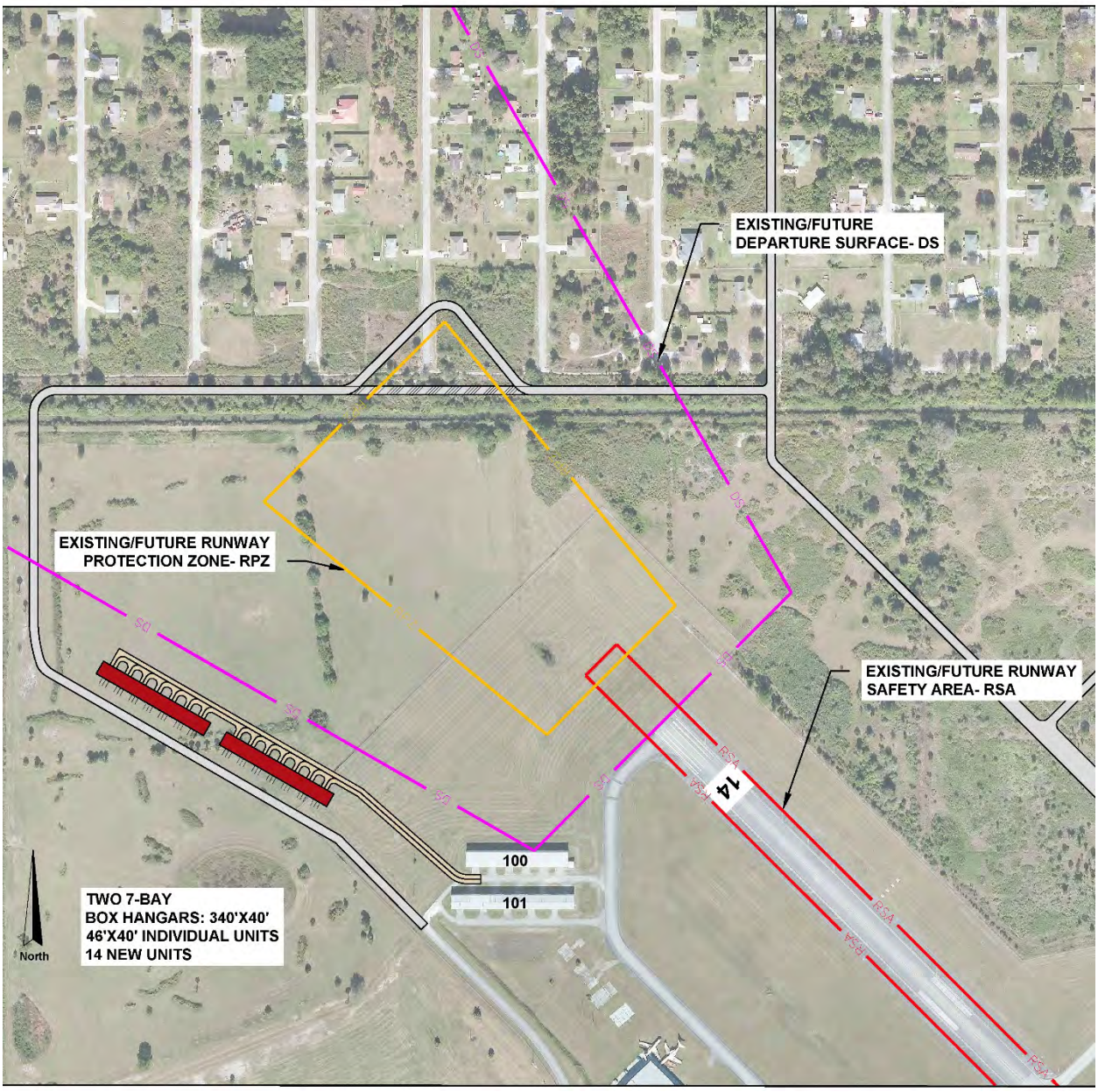


Figure 6-14
T-HANGAR OPTION T1-2

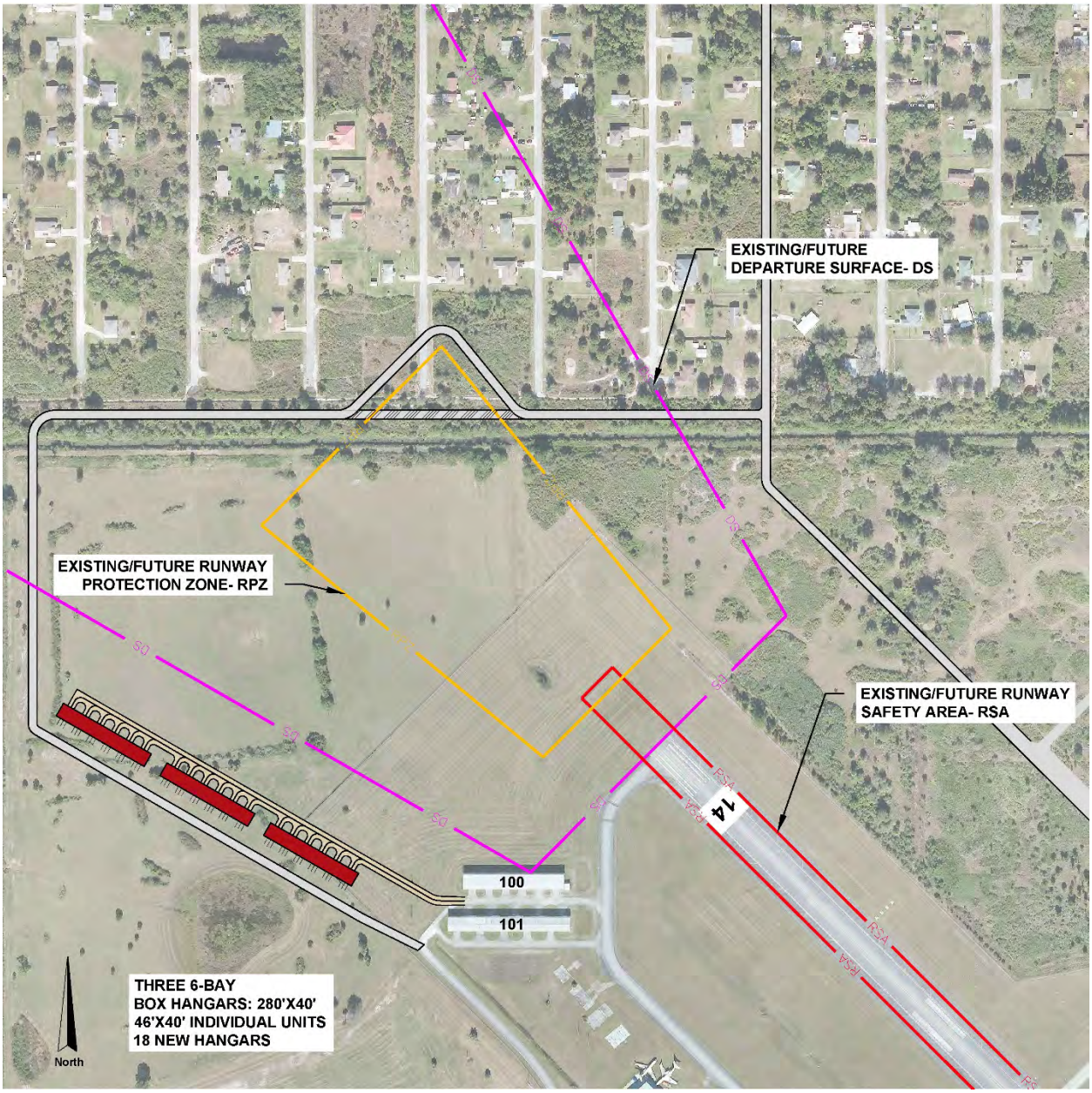
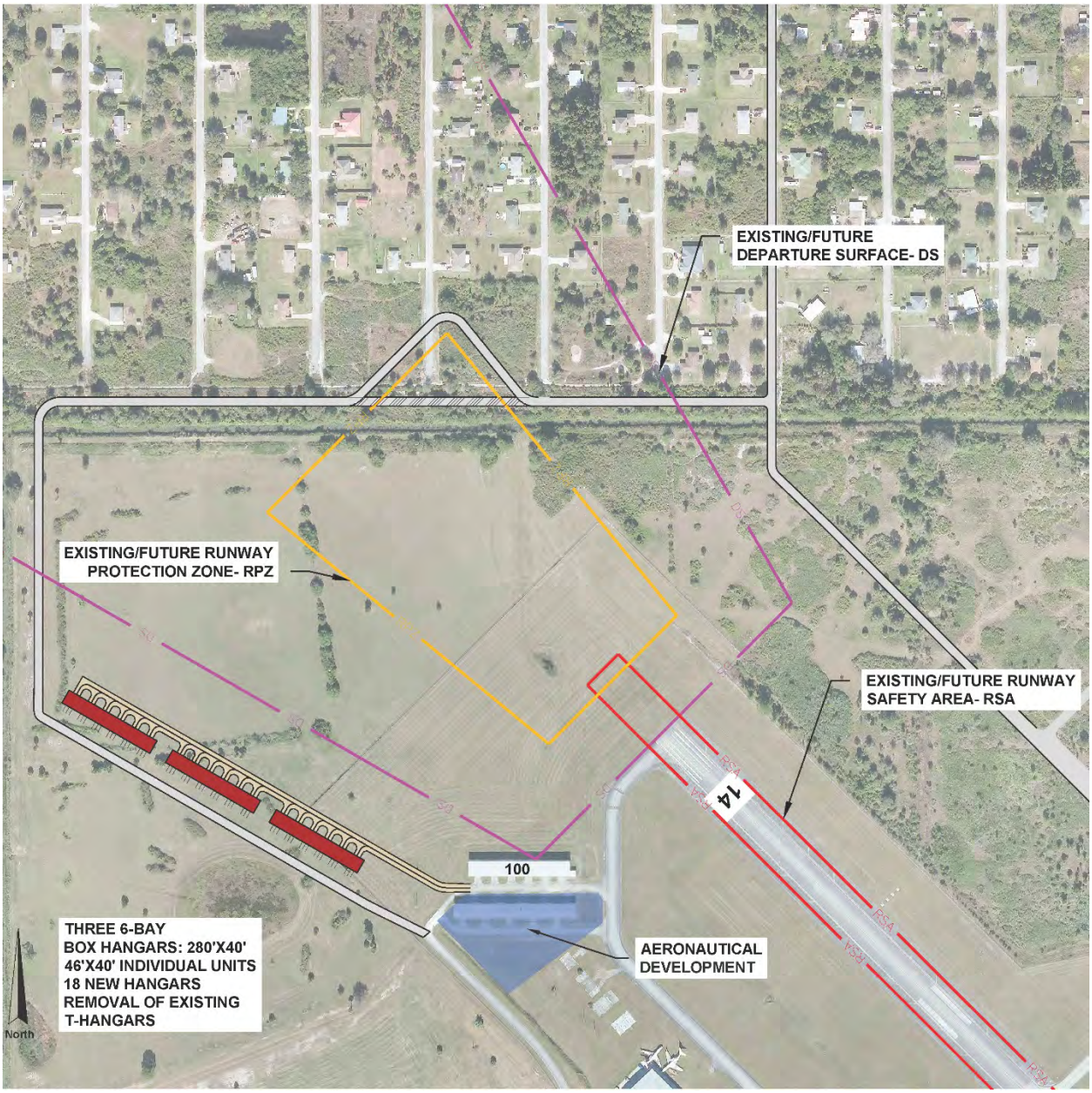


Figure 6-15
T-HANGAR OPTION T1-3



- T-Hangar Alternative T2: This alternative provides for additional expansion of the West Quadrant Development Area and consists of two options:
    - Option T2-1 as shown in Figure 6-16:
        - Four 7-bay box hangar units
            - 28 units exceed year 2036 T-hangar unit needs
            - 46-foot x 40-foot hangar covers 99.9 percent of small aircraft
        - Semi-circular drive access to hangars
        - Provides two vehicle parking spaces per box hangar unit
        - Remains clear of all Departure surfaces
        - Disadvantage:
            - Shifting of AOA fence line
            - Drainage swale near 100 and 101
    - Option T2-2 as shown in Figure 6-17
        - Same layout as Option 2A
        - Allows for redevelopment of the T-Hangar area
        - Shifting of dry retention pond
        - Reconfigured access to existing box hangar
        - Provides a wash rack area between the taxilane and roadway area

Figure 6-16
T-HANGAR OPTION T2-1

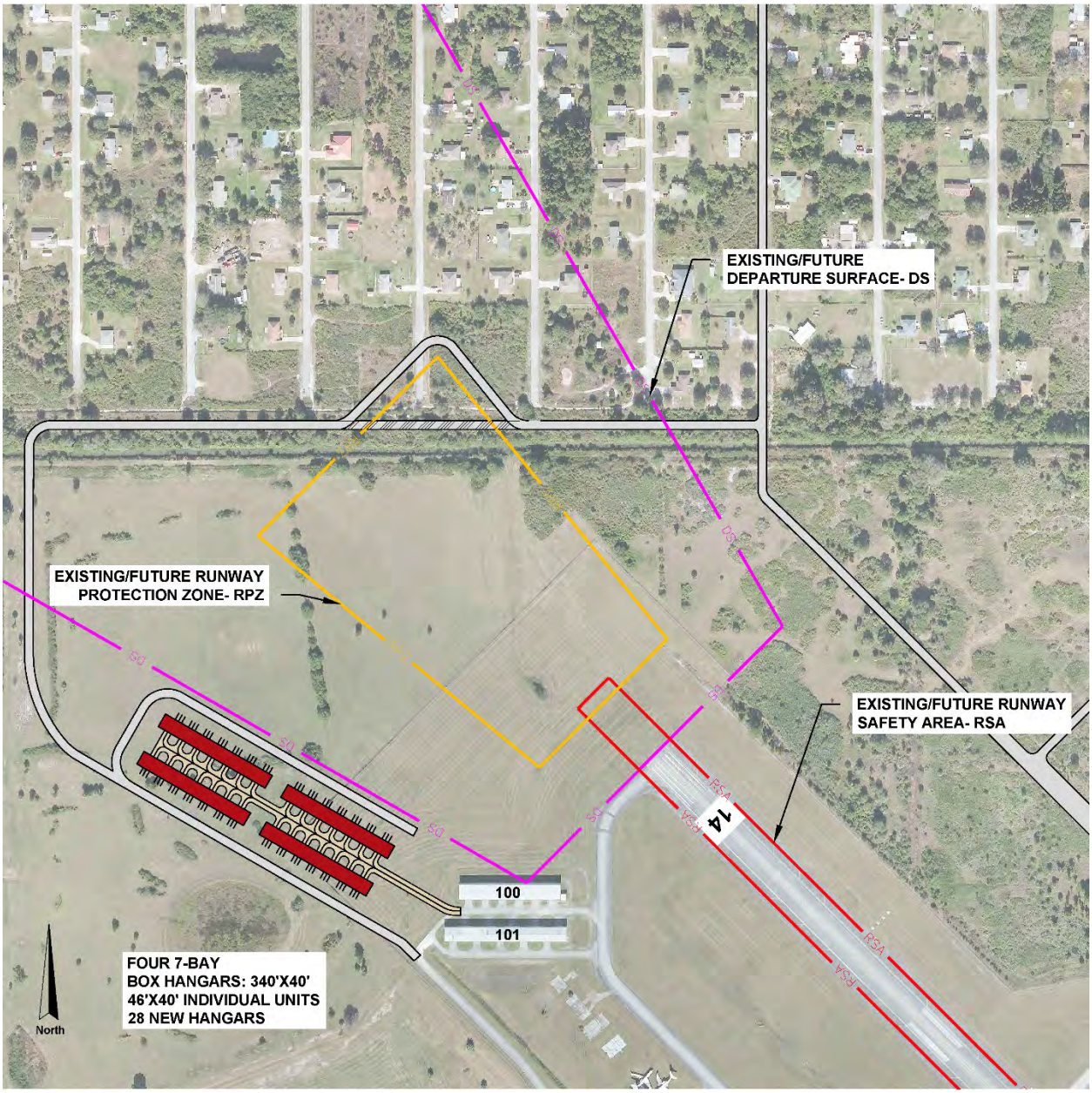
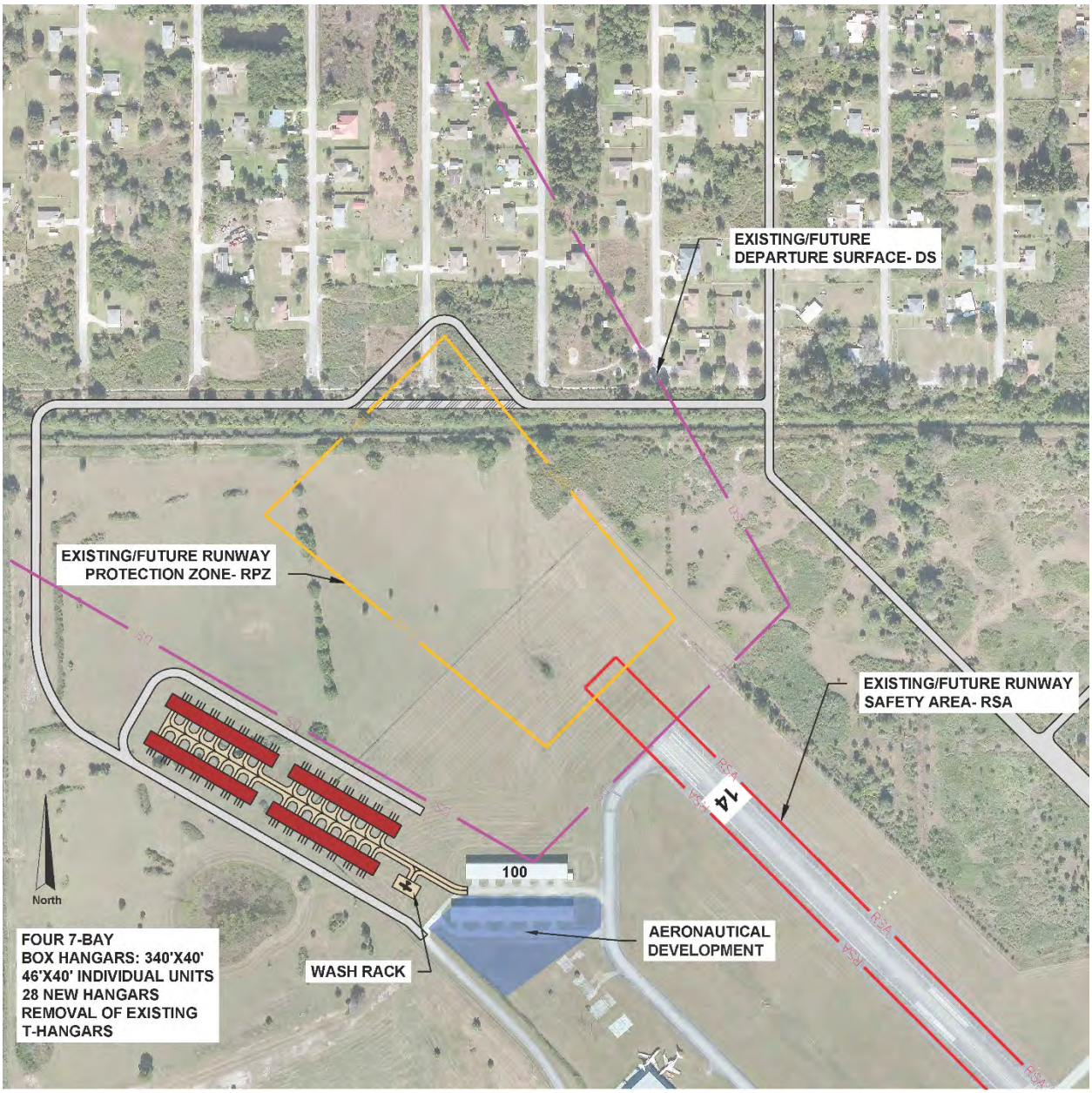


Figure 6-17
T-HANGAR OPTION T2-2



- T-Hangar Alternative T3: This alternative builds on Alternative 2 by providing additional expansion of the West Quadrant Development area with three options:
    - Option T3-1 as shown in Figure 6-18:
        - Six 6-bay box hangar units
            - 36 units
            - Provides two vehicle parking spaces per unit
            - 46-foot x 40-foot hangar covers 99.9 percent of small aircraft
        - Semi-circular drive access to hangars
        - Remains clear of all Departure surfaces
        - Disadvantage:
            - Shifting of AOA fence line
            - Drainage swale near 100 and 101
    - Option T3-2 as shown in Figure 6-19:
        - Same layout as Option 3A
        - Allows for redevelopment of the T-Hangar area
        - Shifting of dry retention pond
        - Reconfigured access to existing box hangar
        - Provides a wash rack area between the taxilane and roadway area
    - Option T3-3 as shown in Figure 6-20:
        - Same layout as 3B
        - Shortens taxilane and road access
        - Adds vehicle parking to Hangar 100
        - No wash rack

Figure 6-18
T-HANGAR OPTION T3-1

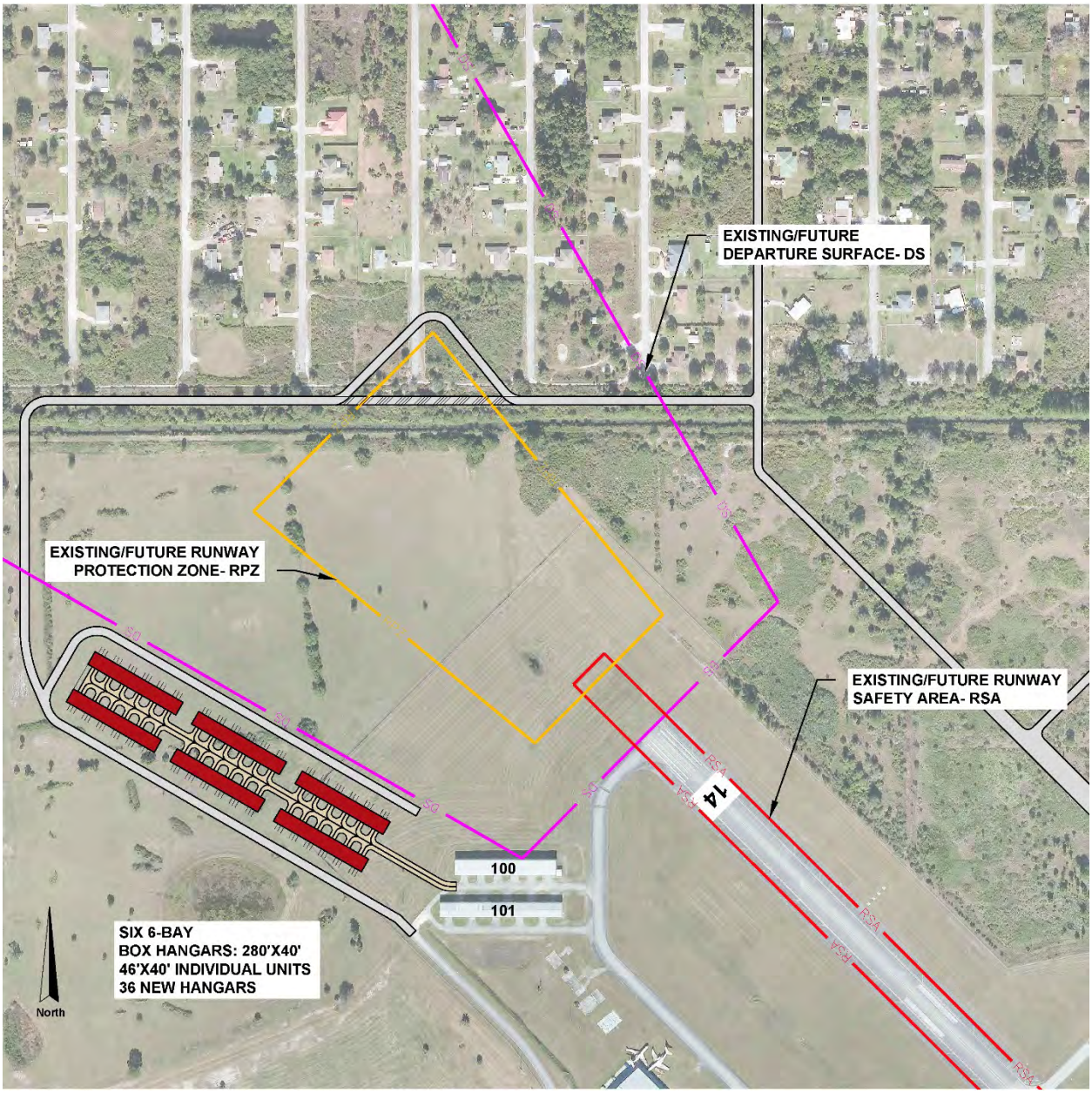


Figure 6-19
T-HANGAR OPTION T3-2

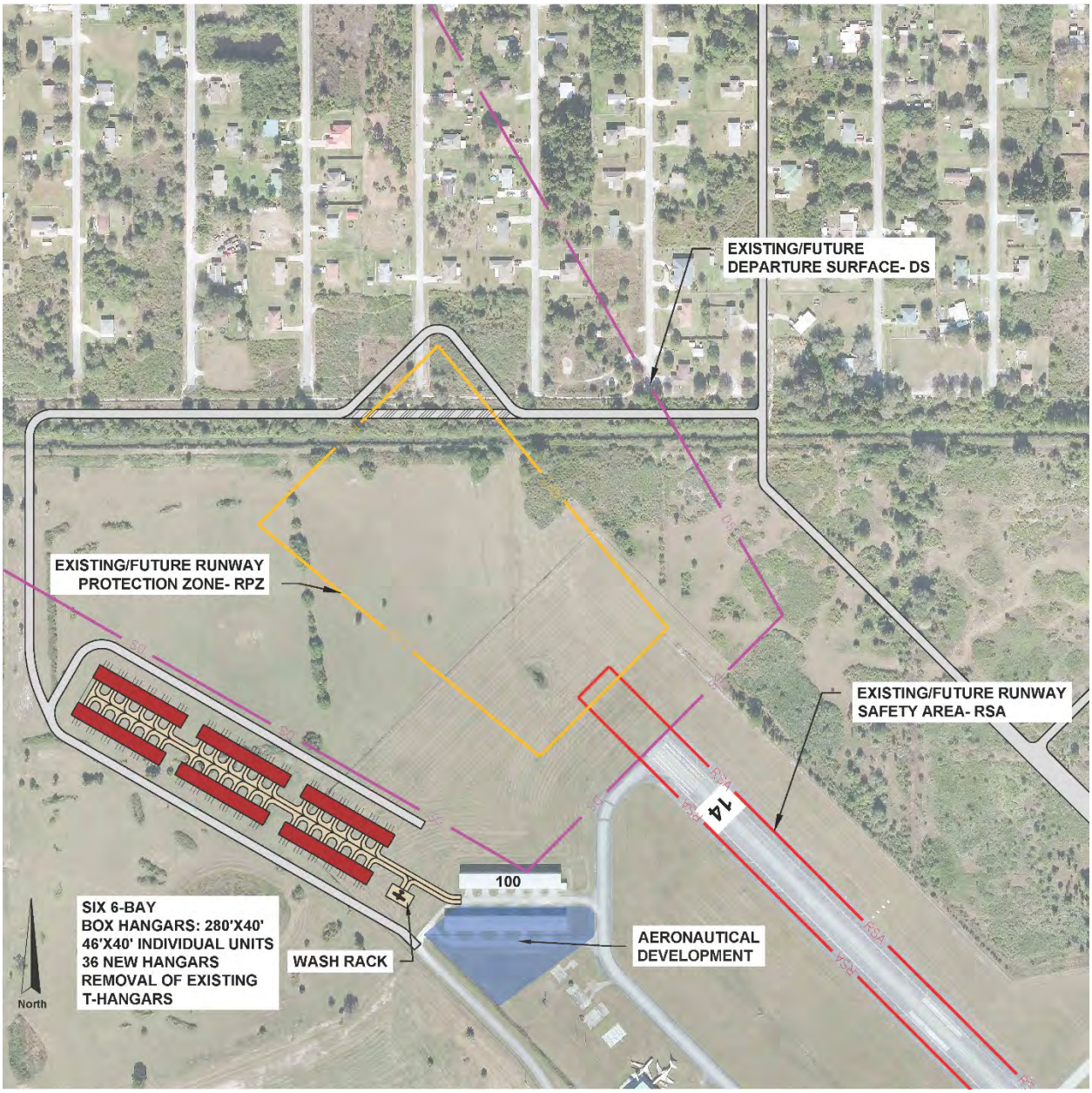
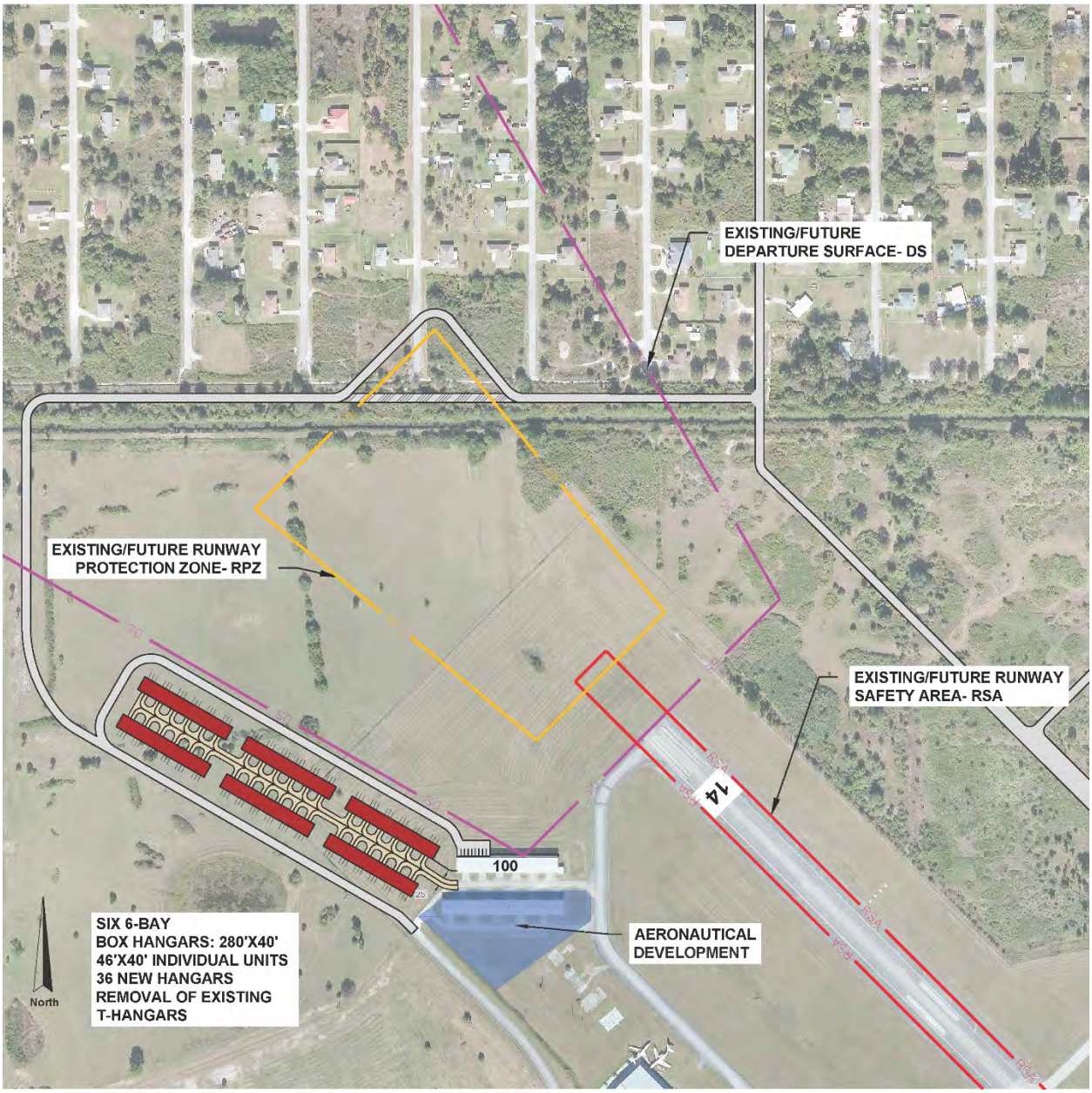


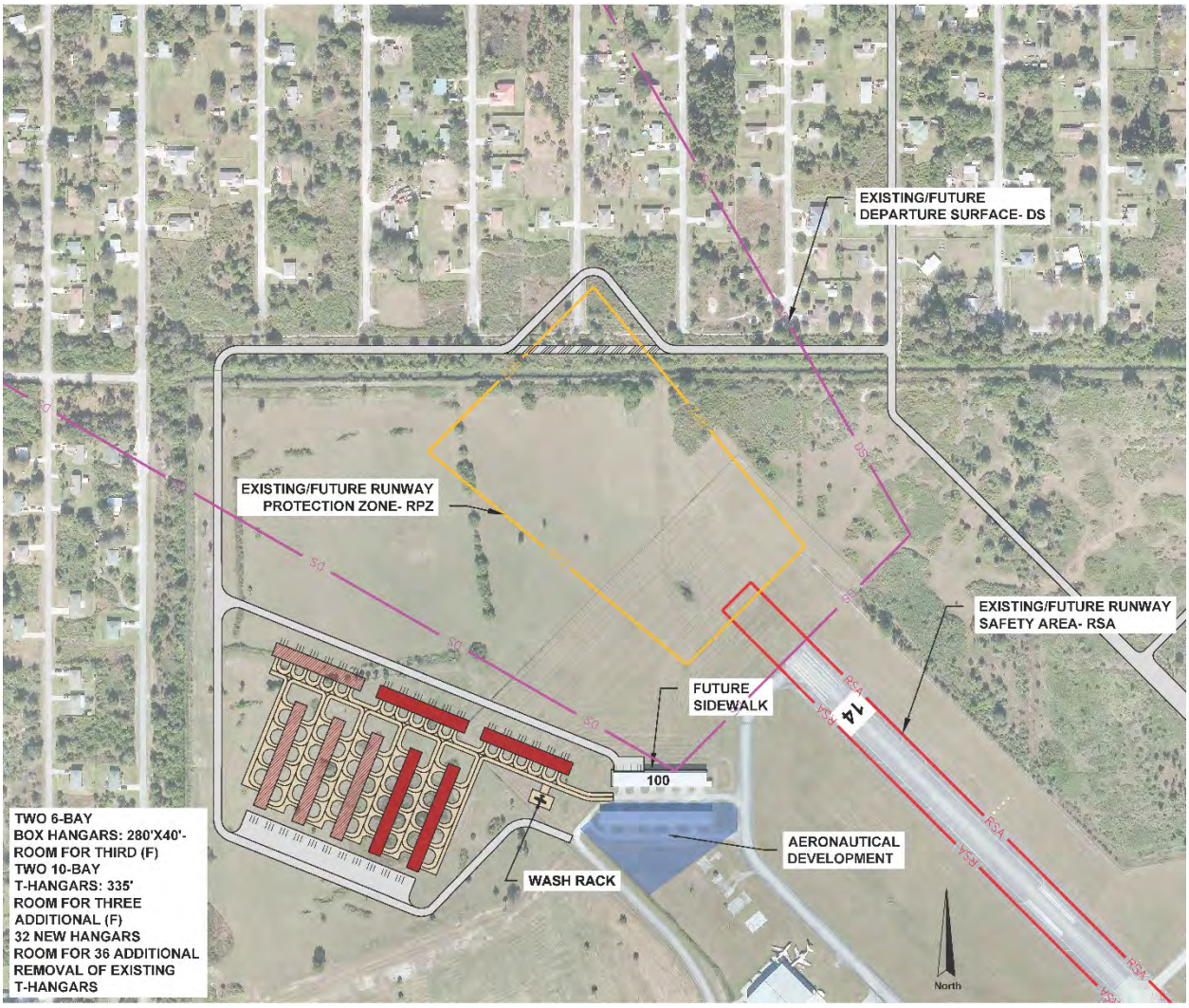
Figure 6-20
T-HANGAR OPTION T3-3



- T-Hangar Alternative T4: This alternative presents a hybrid approach by developing both T-hangar and box hanger units, while providing for future expansion and consists of one option:
    - Option T4-1 as shown in Figure 6-21:
        - Two 6-bay box hangar units with room for a third unit
        - Two 10-bay T-hangar units with room for three additional T-hangar units
        - Allows for redevelopment of the existing T-Hangar area
        - Adds vehicle parking and sidewalk to Hangar 100
        - Provides a wash rack area between the taxilane and roadway area
        - Provides vehicle parking for T-hangar area

The various T-hangar and box hangar development options provided give the Airport development flexibility for the West QDA. Additionally, while options related to redevelopment of the T-hangar building and the Building 101, area may appear challenging on the surface, it provides consideration for the modernization of existing resources while creating additional development options. Building 101 was originally constructed in 1996. In 2036, the building will be approximately 40 years old. Given the weather impacts to Florida structures, redeveloping this area could enhance safety and access to that area while providing opportunities for expanded aviation related businesses. Finally, FDOT recommends that the pavement for taxiways and taxilanes should be rehabilitated when the Pavement Condition Index (PCI) reaches 65 or lower. The current PCI for the taxilanes are 65. Consideration should be given to rehabilitate the taxilanes in the future either as a stand-alone project or as part of future hangar development in that area.

Figure 6-21
T-HANGAR OPTION T4-1



6.3.2.5 Additional Vehicle Parking Areas

With the expansion of the restaurant and the increase in operations since the last master plan update, there has been an uptick in the demand for vehicle parking by both pilots and restaurant patrons. There are currently 41 marked public parking spaces located in two lots one in front and southwest of the terminal and the other directly south of the terminal. Three alternatives for vehicle parking expansion at the terminal/FBO/restaurant area have been developed. Key to all three alternatives will be the reconfiguration of the existing drainage areas and stormwater outfalls located in the existing vehicle parking area.

The first parking alternative presented on Figure 6-22 depicts an expansion of the existing parking lot to the southwest along the entrance road, NW 20th Trail. This layout provides eight rows of parking that vary in size with an additional row that runs perpendicular to the other rows. This allows for up to 75 additional parking spaces, for a total of 116 vehicle parking spaces.

The second alternative, as shown on Figure 6-23, takes into consideration the development of a teardrop shaped lot, which modifies the existing circle in front of the existing terminal/FBO/restaurant. This design alternative would provide 35 parking spaces along the outer edge of the teardrop shape and another 24 spaces along the inner edge resulting in 79 total spaces for vehicular parking. Additionally, when the FBO Development Area located southwest of the terminal/FBO/restaurant starts to evolve, enough parking will also need to be constructed as the facility demands.

The third alternative depicted in Figure 6-24 shows redevelopment of the existing parking area and the realignment of the current hangar frontage road. By reconfiguring the existing hangar access road, it results in increased parking as well as room for future parking expansion as that area expands. The number of parking spaces provided under this alternative is 120; 79 more spaces than existing with 16 spaces designed as pass through. This alternative would also need to consider the relocation of the existing access gate, reconfiguration of the existing ramp parking area and security fencing, as well as protection for the rotating beacon.

Figure 6-22
VEHICLE PARKING ONE

Figure 6-23
VEHICLE PARKING TWO

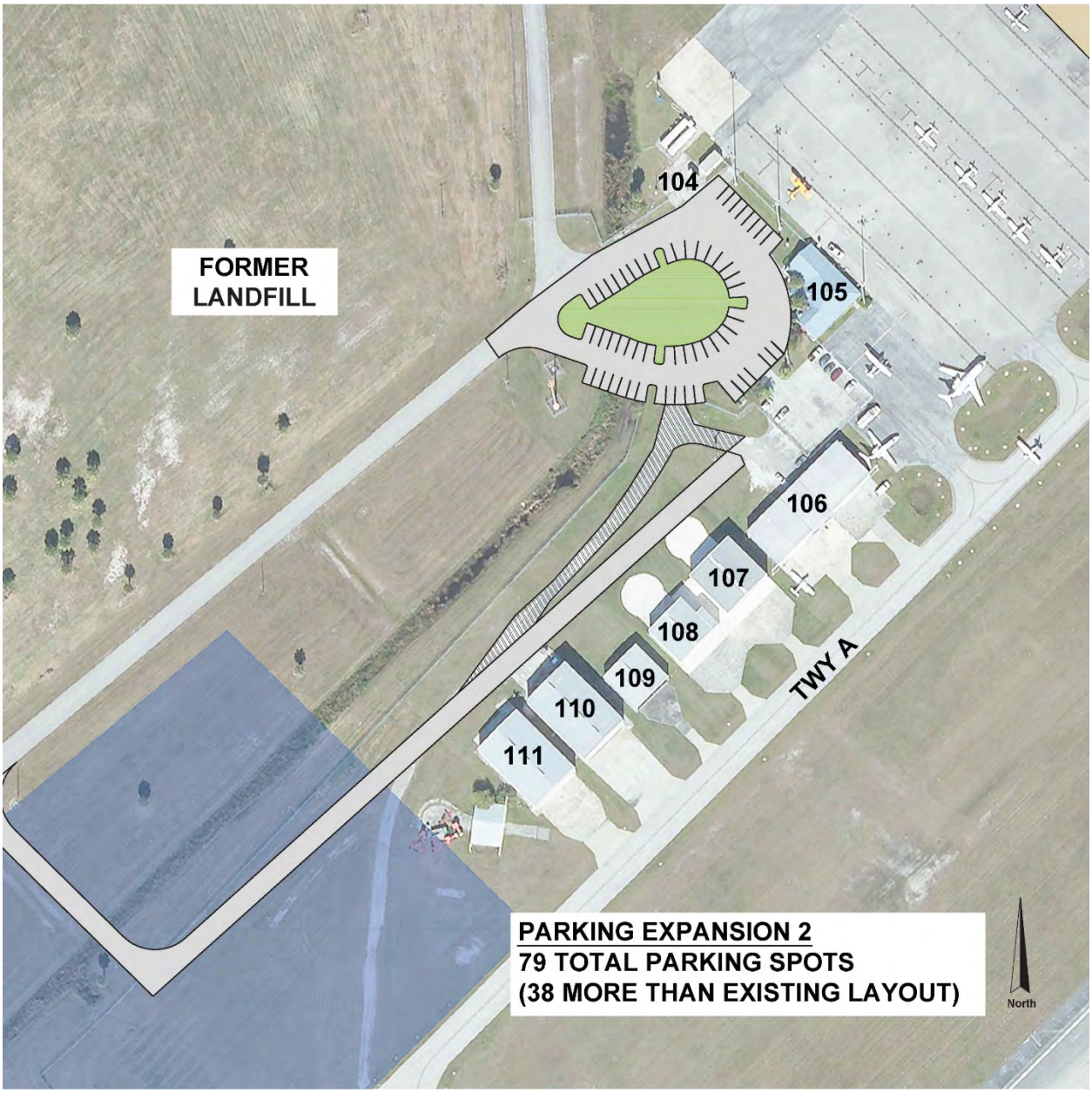
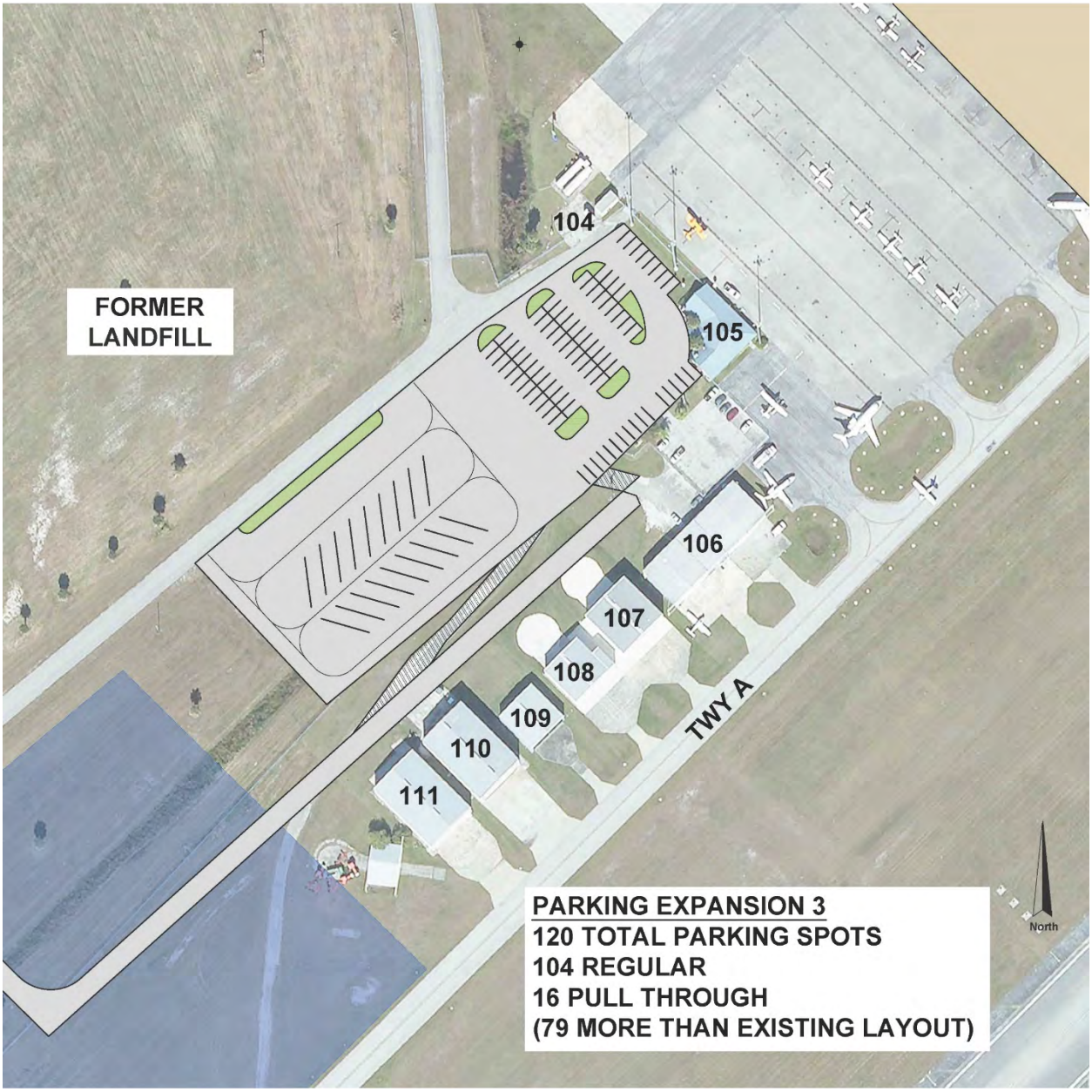


Figure 6-24
VEHICLE PARKING THREE



6.3.3 North Quadrant Development Area

The North Quadrant Development Area (QDA) primarily focuses upon the development of general aviation aircraft storage facilities. The primary landside developments consist of multiple rows of corporate and box hangar facilities. In addition to the hangars, a road would be extended from the West QDA to provide access to the new hangar facilities. The only airfield development that would take place in the North QDA is the development of a new parallel taxiway located to the north of Runway 14-32. The new parallel taxiway would provide airside access to the new hangar developments. Figure 6-25 presents the layout of the North QDA.

Vehicular access to this area could be via public roads located off-airport. This is due to potential public road access being impacted by the RPZ for Runway 14. There two options that could be considered for public road access. One option is using existing public roads to gain access to the North QDA with the entrance being secured by a gate. The other option would be to extend the proposed Airport access road to traverse off-airport in a loop around the Runway 14 RPZ and then connect to the North QDA via the purchase of residential parcels impacted by the RPZ. Airport service roads are not public roads and are directly controlled by the Airport operator. So, in considering the creation of a service road that could connect the North and West QDAs, additional off-airport property acquisition would still be required.

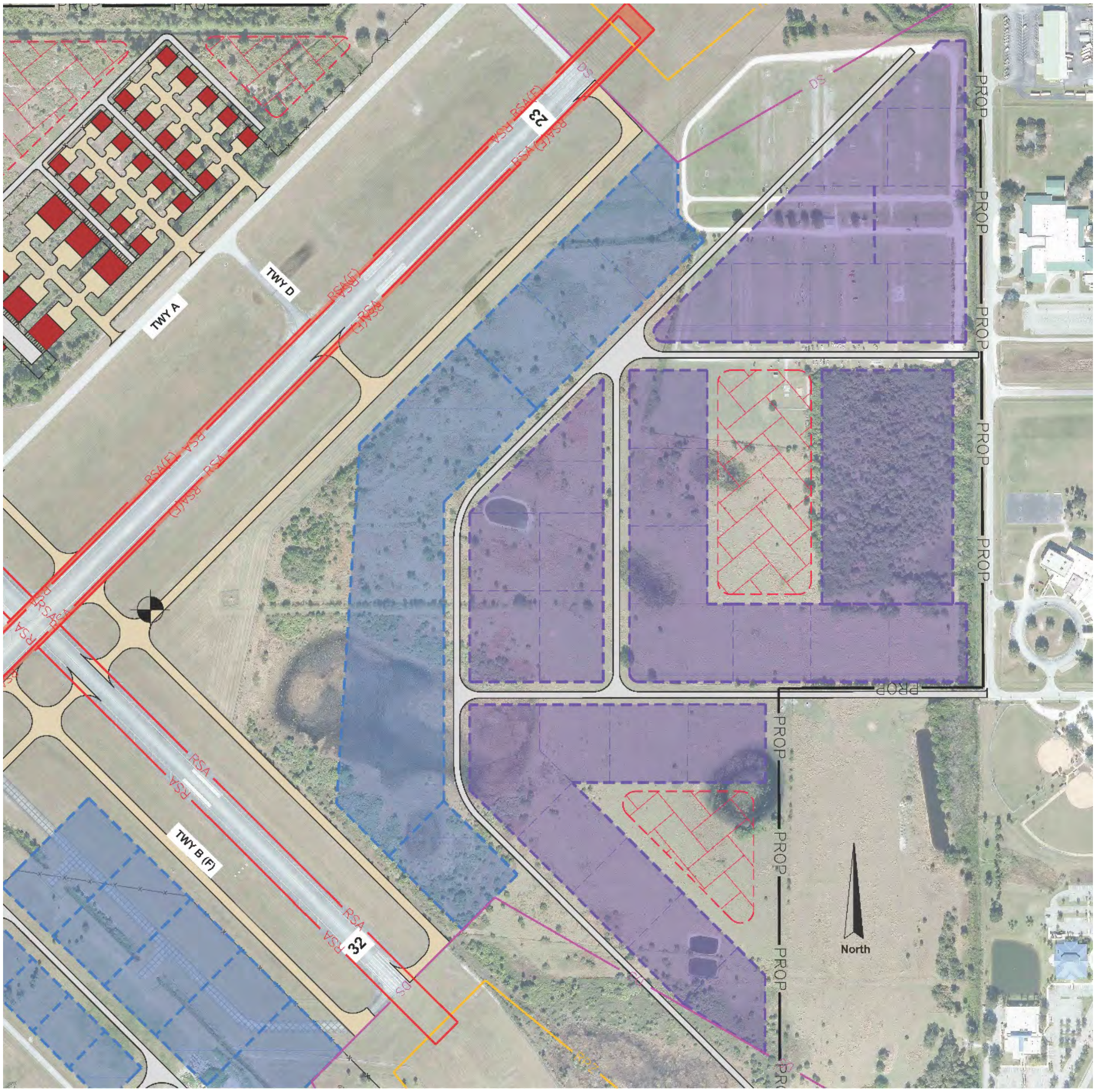
Figure 6-25
NORTH QUADRANT DEVELOPMENT AREA

6.3.4 East Quadrant Development Area

The East Quadrant Development Area (QDA) currently consists of a large undeveloped area that could feature various landside and airside development. The landside development would include the preservation of various parcels of land for either commercial or flight training developments. Multiple acre lots located along the new taxiway parallel to Runway 5-23 would be available for aeronautical development. Additional smaller commercial lots would be located to the east of the aeronautical areas. Access to these facilities could be provided from existing roads located to the east of Airport property. Other portions of this QDA consist of wetlands to which mitigation strategies are currently being considered that would allow for the development of this area in the future. The airfield development of the East QDA would include a new parallel taxiway south of Runway 5-23, and a new parallel taxiway north of Runway 14-32. The potential layout of the East QDA can be seen in Figure 6-26.

One item to note is that there is an FDOT State Road (SR) 710 Project Development & Environment (PD&E) study currently underway. The project encompasses several segments for a total of 14 miles starting in Okeechobee County and ending in Martin County. A review of the June 2017 final Preliminary Engineering Report (PER) identifies Segments 1 & 2 of the project starting in Okeechobee County from US 441, just north of NW 13th Street, to SR710. The design of the initial segment is currently funded by FDOT. This proposed extension project may present future economic opportunities for the Airport as the project start location is approximately 1/2 mile east of the southeast property boundary of the Airport and could provide additional access to the Airport**.**

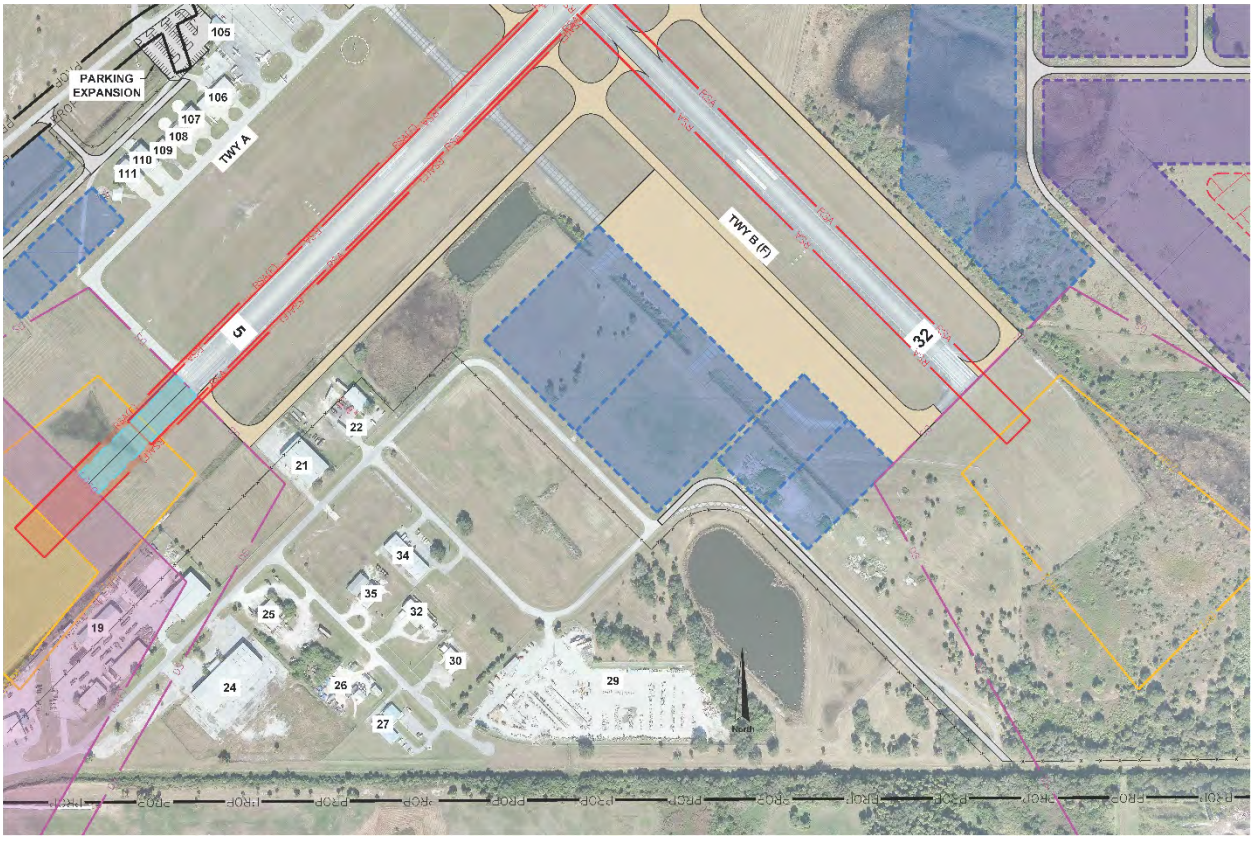
Figure 6-26
EAST QUADRANT DEVELOPMENT AREA



6.3.5 South Quadrant Development Area

The South Quadrant Development Area (QDA) features limited landside and airside developments. The landside developments would take place within the existing Industrial Park area. Additional areas along the relocated alignment of Taxiway B would be reserved for the development of aviation related facilities. The other areas of the existing Industrial Park will continue to serve various industries, both aviation and non-aviation related. The developments on the airside would include a new parallel taxiway to the south of Runway 5-23 and the relocation of Taxiway B. The features of the South QDA are presented in Figure 6-27.

Figure 6-27
SOUTH QUADRANT DEVELOPMENT AREA



6.4 Evaluation of Alternatives and Recommended Preferred Alternative

Each of the alternatives that has been presented are based on the FAA and FDOT approved Aviation Activity Forecasts and the Facility Requirements, which identified what type of development will be required over the next 20-year planning period and what facilities are likely to be needed and when. Based on the Facility Requirements evaluation, the following additional facilities will be required:

Landside Development:

1. 13 T-hangar units
2. 8 conventional hangar units
3. 20 additional vehicular parking spaces in front of the General Aviation Terminal
4. Additional vehicle parking spaces with all new facilities

Portions of the existing airfield infrastructure such as drainage, lighting, etc. will need to be addressed to accommodate the recommended airfield modifications as well as enhancing safety. In addition, the taxiway requirements required by FAA Advisory Circular 15/5300-13A, *Airport Design*, will also need to be addressed. Airside recommendations include:

1. Removal of Taxiway C to comply with FAA requirements
2. Mill and overlay Runway 5/23
3. Extension of Runway 5
4. Mill and overlay Runway 14/32
5. Installation of Medium Intensity Runway Lights (MIRL) on Runway 14/32
6. Installation of Runway End Identifier Lights (REIL) on Runway 14/32
7. Relocation of Taxiway B
8. Installation of Medium Intensity Taxiway Lights (MITL) for Taxiway B
9. Taxiway D Rehabilitation
10. General Aviation Terminal and Apron Expansion
11. Installation of Runup Pad on Runway 14
12. Taxilane Rehabilitation

The Airport also has a strategy to build commercial space on Airport property to increase the non-aeronautical revenue for the Airport. This strategy will be dependent on future aeronautical development in both the East and South Quadrants, as well as future demand. Business compatibility will be key, so the Airport remains in compliance with all Federal and State regulatory requirements.

Thus, the development presented in Figure 6-28 is recommended as the Preferred Alternative as it meets all of the facility requirements, provides the most aviation facilities with the space provided, and provides all of the nonaeronautical development areas desired by the Airport and Okeechobee County. Additionally, the following specific development recommendations that

support the overall Preferred Alternative for the West Quadrant Development Area are provided as follows:

- West Apron Expansion Alternative A1, Option A1-2: This preferred apron alternate provides the following improvements, based on shifting Taxiway B 285 feet eastward.
    - 17 tie-down spaces that can accommodate a variety of small to large aircraft
    - 14,000 square foot expansion of the existing Paint Hangar (Building 103) apron
    - An aircraft run-up pad located southeast of Hangars 100 and 101 and north of the relocated Taxiway B
    - Taxiway B pavement alterations to meet current FAA taxiway design requirements.
- T-Hangar Alternative T-4, Option T4-1: This preferred T-hangar development alternative provides a hybrid approach for T-hangar and box hangar development while meeting the future needs for the Airport. The following improvements are provided:
    - Two 6-bay box hangar units with room for expansion
    - Two 10-bay T-hangar units with room for expansion
    - Redevelopment of the T-hanger 101 area
    - Vehicle parking for Hangar 100
    - Perimeter road expansion
- Vehicle Parking Alternative 3: This preferred vehicle parking alternative enhances the existing vehicle parking, realigns the current hangar frontage road, and reconfigures the existing hangar access road. The expanded parking area provides for 120 spaces, 79 more spaces than the current parking area, with 16 spaces designated as pass through parking spaces.

6.5 Summary

This chapter takes into consideration the Facility Requirements forecasts developed in the last chapter, which are based on the Aviation Activity Forecasts. In the Facility Requirements Chapter, several items were identified needing to be addressed. These facilities have been addressed within this chapter as has the introduction of additional commercial development on the east side of the Airport. The overall development, as shown in Figure 6-28, results in the recommended Preferred Alternative for the Airport during the planning period. The Preferred Alternative meets all the facility requirements, provides the most aviation facilities with the space provided, and provides for commercial development desired by the Airport.

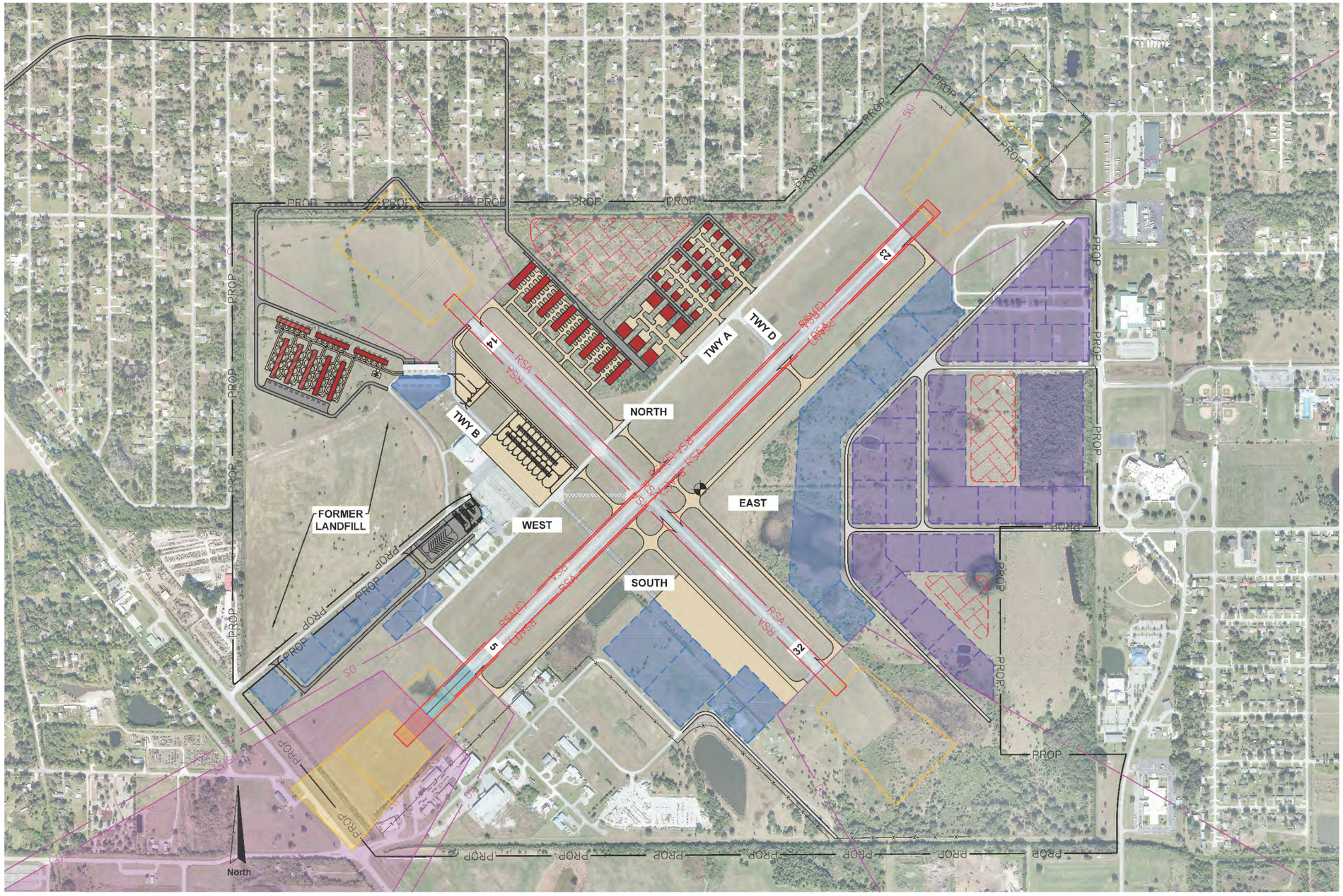


Figure 6-28
RECOMMENDED PREFERRED ALTERNATIVE

7 AIRPORT LAYOUT PLAN SET AND EXHIBIT "A"

7.1 Introduction

This chapter describes the Airport Layout Plan (ALP) set for the development of the Okeechobee County Airport from 2019 through 2038, presents the Airport's compliance with Federal Aviation Administration (FAA) design standards, lists revisions to the ALP, and presents a reduced size ALP set. The ALP graphically illustrates the existing facilities of the Airport, as well as the proposed development based on the aviation forecasts, facility requirements, and the alternatives analysis. An ALP set is made up of the ALP drawing, as well as other supporting drawings that are appended to the ALP drawing. As presented in the FAA Advisory Circular 150/5070-6B, *Airport Master Plans*, five primary functions of the ALP define its purpose:

- The approved plans are necessary to receive financial assistance under terms of the Airport and Airway Improvement Act of 1982 (AIP), as amended, and specific passenger facility charge actions. The current AIP program was originally established in 1944 as the Federal-Aid Airport Program (FAAP) and has evolved over time. The maintenance of a current plan and conformity to the plan are codified under 49 USC 47107, *General Written Assurances*. Compliance with the written grant assurances are required for an airport on which Federal funds have been expended per the AIP Program, as amended.

- The plans create a blueprint for airport development by depicting proposed facility improvements consistent with the strategic vision of the airport sponsor. The plans provide a guideline by which the airport sponsor can assure that development maintains airport design standards and safety requirements and is consistent with airport and community land use plans.

- The ALP serves as a public document that is a record of aeronautical requirements, both present and future, and as a reference for community deliberations on land use proposals and budget resource planning.

- The approved ALP provides the FAA and the FDOT with a plan for airport development. This will allow compatible planning for FAA owned facility improvements at the Airport. It also allows the FAA and the FDOT to anticipate needs for budgetary and procedural needs. The approved ALP will also allow the FAA to protect necessary airspace for planned facility or approach procedure improvements.

- The plans can be a working tool for use by Okeechobee County and Airport management.

The FAA and the FDOT require a complete ALP set for consideration of future funding. Programming of FAA and FDOT funds are based on development projects depicted on the ALP sheet.

The FAA provides airport design standards to ensure safe and efficient airport operations. The plans have been developed in accordance with the following:

- FAA Advisory Circular 150/5070-6B, *Airport Master Plans*
- FAA Advisory Circular 150/5070-6B, Appendix F, *Airport Layout Plan Drawing Set*
- FAA Advisory Circular 150/5300-13A, *Airport Design*
- Federal Regulations Part 77, *Safe, Efficient Use and Preservation of the Navigable Airspace*
- FAA Order 5200, *Runway Safety Area Program*
- FAA ARP Standard Operating Procedures No. 2, *ALP Review Checklist*
- FAA ARP Standard Operating Procedures No. 3, *Exhibit 'A' Review Checklist*

The ALP Drawing Set developed as a part of this master plan update complies with each of these documents.

7.2 ALP Set

The complete Okeechobee County ALP set, and the Exhibit "A" consists of eighteen drawings. The purpose of each drawing is described in this section. The ALP drawings are produced on 24-inch by 36-inch sheets and have been submitted County of Okeechobee, Florida; FDOT; and the FAA for review and approval. Reduced reproductions of the ALP are included at the end of this chapter for illustration purposes. All the ALP set, and Exhibit "A" drawings were created using AutoCAD version 2018.

7.2.1 Cover Sheet

The cover sheet of the ALP set provides basic Airport data that is not found elsewhere on the ALP. The cover sheet includes the Airport's name, the associated county, date, the project name, FAA, and FDOT grant numbers and the name of the County of Okeechobee as the Airport Sponsor. The cover sheet also displays a location map, which indicates the Airport, major cities in Florida, and major roads near the Airport.

7.2.2 Data Sheets

The two data sheets are separate sheets that contain the basic Airport and runway data tables. In this case, one also includes the wind roses and the wind observation data.

7.2.3 Airport Layout Plan Drawing

The ALP drawing is a graphic representation of existing and future Airport facilities. The ALP is the key document that reflects changes in physical features on and near the Airport, which may affect navigable airspace or the ability of the Airport to operate. The drawing includes dimensional information for recommended development to be in accordance with FAA planning and design recommendations outlined in FAA Advisory Circular 150/5300-13A, *Airport Design*, and 150/5070-6B, *Airport Master Plans*. Development shown on the ALP corresponds to the Airport's Capital Improvement Program (CIP) for the 20-year period, with emphasis on the first five-year period.

7.2.4 Terminal Area Plan

The Terminal Area Plan, as shown on sheet 5, is a large-scale depiction of the areas on the Airport that are linked to terminal facility development. The expanded drawing includes the Terminal and restaurant and associate parking, the terminal area ramp, the terminal area parking, several existing and new hangars, and several airfield improvements.

7.2.5 FAR Part 77 Airport Airspace Drawing

The Airport airspace drawing depicts "imaginary surfaces" that surround the Airport as defined in Federal Aviation Regulation (FAR) Chapter 14, Part 77 (FAR Part 77). They consist of the Primary Surface, the Approach Surface, the Transitional Surface, the Horizontal Surface, and the Conical Surface. The drawing is based on the runway configuration as planned to occur within the twenty-year planning period. Known obstructions have been identified.

7.2.6 Inner Portion of the Approach Surfaces for Runway 5/23

Sheets seven and eight show the plan and profile views of the inner portion of the approach surfaces to the runway ends of Runways 5 and 23 respectively at the Okeechobee County Airport. In addition to the approach surfaces contained in FAR Part 77, the drawing also depicts the threshold siting surfaces.

7.2.7 Inner Portion of the Approach Surfaces for Runway 14/32

Sheets ten and eleven show the plan and profile views of the inner portion of the approach surfaces to the runway ends of Runways 14 and 32 respectively at the Airport. In addition to the approach surfaces contained in FAR Part 77, the drawing also depicts the threshold siting surfaces.

7.2.8 Obstacle Action and Disposition Plans

Sheets nine and twelve show the Obstacle Action Plan (OAP) while sheet thirteen shows the Obstacle Disposition Plan. The purpose of the OAP and Disposition plans is to document existing obstacles within the approach and departures surfaces and to document the phases necessary to accomplish the mitigation of obstacles penetrating those surfaces in an expedited manner, to the maximum extent possible.

7.2.9 Existing and Future ROFA Obstructions

This sheet show in plan and tabular form the obstructions that are and will be in the Runway Object Free Areas (ROFA) of Runways 14/32 and 5/23. While a few of the obstructions are in the existing ROFAs, many more will be in the future ROFA for Runway 5/23 when its ARC transitions from a B-II to a C-II.

7.2.10 Departures Surfaces Plan

The Departure Surfaces Plan shows the applicable departure surfaces for instrument departures for the Airport. The surfaces shown are trapezoidal shaped surfaces with slopes of 40:1 beginning at the threshold of the respective runway. Obstructions are identified that penetrate the surface out from each runway end that is designated for instrument departures out to 10,200 feet beyond the runway threshold.

7.2.11 Land Use Plan

Sheet 16 depicts the Airport Land Use Plan. The property areas to be reserved for basic Airport functions are delineated on this drawing. Such functions include aeronautical and non-aeronautical land uses. These land uses are consistent with the Airport's requirements for aircraft operations and safety as well as compatible land use. The drawing also shows the existing land uses of areas adjacent to the Airport and the proposed future land uses both on- and off-Airport.

7.2.13 Airport Exhibit 'A' Property Inventory Map

The Airport Exhibit 'A' Property Inventory Map consists of three sheets and depicts the Airport's boundary, the various tracts of land that were sold after the County re-acquired the Airport after World War II. The Exhibit "A" must be updated when the Airport changes any property boundary, acquires new property, sells property, or acquires new easements.

7.3 ALP Highlights and Modifications

This section highlights significant elements of the proposed ALP and notes significant changes from the previous ALP prepared for the Okeechobee County Airport.

- Rehabilitate Runway 5/23
- Replace the outdated AWOS III weather reporting system
- Terminal area parking lot expansion and access road rehabilitation
- Realign Taxiway B, expand Terminal Area Apron, and add new run-up pad
- Rehabilitate Runway 14/32
- New T-hangars
- Runway 5 expansion
- Terminal building expansion
- Taxiway A rehabilitation
- New Airport Maintenance Building
- Electrical vault expansion and upgrade
- Taxiway C southwest expansion
- Southeast apron design and construction

7.4 Summary

The Airport Layout Plan represents the facility needs that have been justified and documented in the preceding chapters. This development of the Airport Layout Plan brings the document up to date by showing development for which the construction is already complete or very near completion. As discussed in the FAA Order 5100.38C, *AIP Handbook*, a current ALP that shows the proposed project and which has FAA approval from the standpoint of safety, utility, and efficiency of the Airport shall be required before a development project is approved. Thus, this update shows projects that are proposed to be completed within the next twenty years with an emphasis on the next five years.

OKEECHOBEE COUNTY AIRPORT

OKEECHOBEE, FLORIDA

AIRPORT MASTER PLAN UPDATE

OCTOBER 2020

VICINITY MAPS
N.T.S.

TITLE	SHEET NUMBER	REVISION DATE
COVER SHEET	1	
AIRPORT DATA SHEET (1 OF 2)	2	
AIRPORT DATA SHEET (2 OF 2)	3	
AIRPORT LAYOUT PLAN	4	
TERMINAL AREA PLAN	5	
AIRPORT AIRSPACE SHEET	6	
INNER PORTION OF THE APPROACH SURFACE FOR RUNWAY 5	7	
INNER PORTION OF THE APPROACH SURFACE FOR RUNWAY 23	8	
OBSTACLE ACTION & DISPOSITION PLANS RWY 5/23	9	
INNER PORTION OF THE APPROACH SURFACE FOR RUNWAY 14	10	
INNER PORTION OF THE APPROACH SURFACE FOR RUNWAY 32	11	
OBSTACLE ACTION & DISPOSITION PLANS RWY 14/32	12	
OBSTACLE ACTION & DISPOSITION PLANS TRANSITIONAL SURFACE	13	
EXISTING AND FUTURE ROFA OBSTRUCTIONS	14	
DEPARTURE SURFACES	15	
LAND USE PLAN	16	
EXHIBIT "A" AIRPORT PROPERTY INVENTORY MAP	17	
EXHIBIT "A" PROPERTY DESCRIPTION (1 OF 2)	18	
EXHIBIT "A" PROPERTY DESCRIPTION (2 OF 2)	19	

FLORIDA DEPARTMENT OF TRANSPORTATION APPROVAL

FDOT SIGNATURE _____ DATE _____

NAME _____

TITLE _____

SPONSOR APPROVAL
THIS AIRPORT DRAWING IS APPROVED BY:

SIGNATURE _____ DATE _____

ADAM HIED
NAME
AIRPORT MANAGER
TITLE

AVCON PROJECT NO. 2017.029.02

FAA AIP NO. 3-12-0056-019-2017

FDOT FM NO. 441689-94-01

REVISIONS

NO.	DATE	DESCRIPTION	SHEETS

OKEECHOBEE COUNTY FLORIDA

AVCON

AVCON, INC.
ENGINEERS & PLANNERS
335 BAYSHORE DRIVE, SUITE A • NICEVILLE, FLORIDA 32578
OFFICE: (850) 678-5050 • FAX: (850) 678-5047
CORPORATE CERTIFICATE OF AUTHORIZATION NUMBER: 5057
www.avconinc.com

Figure 7-1:
ALP SET COVER SHEET

RUNWAY DATA TABLE

DESCRIPTION	RUNWAY 5		RUNWAY 23		RUNWAY 14		RUNWAY 32	
	EXISTING	FUTURE	EXISTING	FUTURE	EXISTING	FUTURE	EXISTING	FUTURE
RUNWAY DESIGN CODE (RDC)	B-II-5000	C-II-5000	B-II-5000	C-II-5000	B-II-5000	SAME	B-II-5000	SAME
APPROACH REFERENCE CODE (APRC)	D-VI-5000	B-III-5000	D-VI-5000	B-III-5000	D-VI-5000	B-II-5000	D-VI-5000	B-II-5000
DEPARTURE REFERENCE CODE (DPRC)	D-VI	B-III-5000	D-VI	B-III-5000	D-VI	B-II	D-VI	B-II
RUNWAY PAVEMENT MATERIAL	ASPHALT CONCRETE	SAME	ASPHALT CONCRETE	SAME	ASPHALT CONCRETE	SAME	ASPHALT CONCRETE	SAME
PAVEMENT CLASSIFICATION NUMBER (PCN)	28/F/B/X/T	SAME	28/F/B/X/T	SAME	14/F/A/X/T	SAME	14/F/A/X/T	SAME
CRITICAL AIRCRAFT	CJ4/BEECHCRAFT SUPER KING	BOMBARDIER CHALLENGER 600/601/604	CJ4/BEECHCRAFT SUPER KING	BOMBARDIER CHALLENGER 600/601/604	CESSNA CONQUEST	SAME	CESSNA CONQUEST	SAME
PAVEMENT STRENGTH BY PCI	85/71	SAME	85/71	SAME	92/56	SAME	92/56	SAME
PAVEMENT SURFACE TREATMENT	NONE	SAME	NONE	SAME	NONE	SAME	NONE	SAME
EFFECTIVE RUNWAY GRADIENT	.07%	.05%	.07%	.05%	.10%	SAME	.10%	SAME
PERCENT WIND COVERAGE IFR (10.5 KNOTS/13 KNOTS)	98.15% / 99.11%	SAME	98.15% / 99.11%	SAME	99.02% / 99.02%	SAME	99.02% / 99.02%	SAME
PERCENT WIND COVERAGE VFR (10.5 KNOTS/13 KNOTS)	97.19% / 98.74%	SAME	97.19% / 98.74%	SAME	96.65% / 98.43%	SAME	96.65% / 98.43%	SAME
PERCENT WIND COVERAGE ALL WEATHER (10.5 KNOTS/13 KNOTS)	97.23% / 98.75%	SAME	97.23% / 98.75%	SAME	96.69% / 98.44%	SAME	96.69% / 98.44%	SAME
RUNWAY DIMENSIONS (LENGTH X WIDTH)	5,000' X 100'	5,500' X 100'	5,000' X 100'	5,500' X 100'	4001' X 75'	SAME	4,001' X 75'	SAME
RUNWAY SHOULDER WIDTH	25'	SAME	25'	SAME	37.5'	SAME	37.5'	SAME
RUNWAY SAFETY AREA WIDTH	150'	500'	150'	500'	150'	SAME	150'	SAME
RUNWAY SAFETY AREA LENGTH BEYOND DEPARTURE END	300'	1,000'	300'	1,000'	300'	SAME	300'	SAME
RUNWAY SAFETY AREA LENGTH PRIOR TO THRESHOLD	300'	600'	300'	600'	300'	SAME	300'	SAME
RUNWAY END LATITUDE – (NAD83)	27° 15' 43.72" N	27° 15' 40.22" N	27° 16' 18.72" N	SAME	27° 16' 11.73" N	SAME	27° 15' 43.71" N	SAME
RUNWAY END LONGITUDE – (NAD83)	80° 51' 19.28" W	80° 51' 23.18" W	80° 50' 40.08" W	SAME	80° 51' 19.25" W	SAME	80° 50' 47.92" W	SAME
RUNWAY END ELEVATION – (NAVD88)	32.8'	SAME	32.7'	SAME	32.8'	SAME	32.2'	SAME
TRUE BEARING	N 44° 57' 15" E	SAME	S 44° 57' 15" W	SAME	S 45° 03' 00" E	SAME	N 45° 03' 00" W	SAME
RUNWAY LIGHTING TYPE	MIRL	SAME	MIRL	SAME	NONE	SAME	NONE	SAME
RPZ INNER WIDTH DIMENSION	500'	500'	500'	500'	500'	SAME	500'	SAME
RPZ OUTER WIDTH DIMENSION	700'	1,010'	700'	1,010'	700'	SAME	700'	SAME
RPZ LENGTH	1,000'	1,700'	1,000'	1,700'	1,000'	SAME	1,000'	SAME
RUNWAY MARKING TYPE (CONDITION)	NON-PRECISION INSTRUMENT (GOOD)	SAME	NON-PRECISION INSTRUMENT (GOOD)	SAME	NON-PRECISION INSTRUMENT (GOOD)	SAME	NON-PRECISION INSTRUMENT (GOOD)	SAME
14 CFR FAR PART 77 APPROACH SLOPE	34:1	SAME	34:1	SAME	34:1	SAME	34:1	SAME
14 CFR FAR PART 77 APPROACH TYPE	NON-PRECISION	SAME	NON-PRECISION	SAME	NON-PRECISION	SAME	NON-PRECISION	SAME
14 CFR FAR PART 77 APPROACH DIMENSIONS (WXOWXL)	500'X3,500'X10,000'	SAME	500'X3,500'X10,000'	SAME	500'X3,500'X10,000'	SAME	500'X3,500'X10,000'	SAME
14 CFR FAR PART 77 APPROACH VISIBILITY MINIMUMS	1-MILE	SAME	1-MILE	SAME	1-MILE	SAME	1-MILE	SAME
VISIBILITY MINIMUMS (RVR)	1 MILE (5000)	SAME	1 MILE (5000)	SAME	1 MILE (5000)	SAME	1 MILE (5000)	SAME
TYPE OF AERONAUTICAL SURVEY REQUIRED	NOT VERTICALLY GUIDED	SAME	NOT VERTICALLY GUIDED	SAME	NOT VERTICALLY GUIDED	SAME	NOT VERTICALLY GUIDED	SAME
RUNWAY DEPARTURE SURFACE	YES	SAME	YES	SAME	YES	SAME	YES	SAME
RUNWAY OBJECT FREE AREA LENGTH (ROFA) BEYOND RUNWAY END	300'	1,000'	300'	1,000'	300'	SAME	300'	SAME
RUNWAY OBJECT FREE AREA (ROFA) WIDTH	500'	800'	500'	800'	500'	SAME	500'	SAME
RUNWAY OBSTACLE FREE ZONE (ROFZ) LENGTH BEYOND RUNWAY END	200'	SAME	200'	SAME	200'	SAME	200'	SAME
RUNWAY OBSTACLE FREE ZONE (ROFZ) WIDTH	250'	400'	250'	400'	250'	SAME	250'	SAME
THRESHOLD SITING SURFACE (TSS) SLOPE (TYPE 4)	20:1	SAME	20:1	SAME	20:1	SAME	20:1	SAME
DEPARTURE SITING SURFACE (DSS) SLOPE	40:1	SAME	40:1	SAME	40:1	SAME	40:1	SAME
TYPES OF INSTRUMENT APPROACH	NON-PRECISION (GPS)	SAME	NON-PRECISION (GPS)	SAME	NON-PRECISION (GPS)	SAME	NON-PRECISION (GPS)	SAME
NAVIGATIONAL AIDS	GPS	SAME	GPS	SAME	GPS	SAME	GPS	SAME
VISUAL AND INSTRUMENT NAVAIDS	4-LIGHT PAPI/REIL	SAME	4-LIGHT PAPI/REIL	SAME	4-LIGHT PAPI	SAME	4-LIGHT PAPI	SAME
TOUCHDOWN ZONE ELEVATION	33.4'	SAME	33.4'	SAME	33.3'	SAME	33.3'	SAME
TAXIWAY DESIGN GROUP	2	SAME	2	SAME	2	SAME	2	SAME
TAXIWAY WIDTH	35'	SAME	35'	SAME	35'	SAME	35'	SAME
TAXIWAY SAFETY AREA DIMENSIONS	49'	79'	49'	79'	49'	SAME	49'	SAME
TAXIWAY AND TAXILANE OBJECT FREE AREA WIDTH – (TDFA) AND (TLOFA)	89' AND 79'	131' AND 115'	89' AND 79'	131' AND 115'	89' AND 79'	SAME	89' AND 79'	SAME
TAXIWAY/TAXILANE SEPARATION	70'	105'	70'	105'	70'	SAME	70'	SAME
TAXIWAY/TAXILANE LIGHTING	MITL	SAME	MITL	SAME	NONE	SAME	NONE	SAME

AIRPORT DATA TABLE

DESCRIPTION	EXISTING	FUTURE
AIRPORT IDENTIFIER	OBE	SAME
AIRPORT REFERENCE CODE (ARC) FOR THE AIRPORT	B-II	C-III
MEAN MAXIMUM TEMPERATURE OF THE HOTTEST (MONTH,)	91° F (AUGUST)	SAME
AIRPORT ELEVATION – (NAVD83)(MSL)	33.4'	SAME
AIRPORT NAVIGATIONAL AIDS	GPS	SAME
AIRPORT REFERENCE POINT LATITUDE – (NAD83)	27° 15' 59.67" N	27° 15' 59.76" N
AIRPORT REFERENCE POINT LONGITUDE – (NAD83)	80° 51' 01.40" W	80° 51' 02.32" W
MISCELLANEOUS FACILITIES	MIRL, MITL, AWOS, LIGHTED WIND INDICATOR, SEGMENTED CIRCLE, ROTATING BEACON	SAME
AIRPORT CRITICAL AIRCRAFT – EXISTING AND FUTURE	CJ4/BEECHCRAFT SUPER KING	BOMBARDIER CHALLENGER 600/601/604
AIRPORT MAGNETIC VARIATION	6°38'00" W ± CHANGING BY 0.5° W PER YEAR	TBD
AIRPORT MAGNETIC VARIATION DATE	29 JANUARY 2020	TBD
AIRPORT MAGNETIC VARIATION SOURCE	NATIONAL GEOPHYSICAL DATA CENTER	SAME
NPIAS SERVICE LEVEL	REGIONAL	SAME
STATE SERVICE LEVEL	GENERAL AVIATION	SAME

MODIFICATIONS TO STANDARDS APPROVAL TABLE

DESCRIPTION OF MODIFICATION	REQUIRED STANDARD	DATE OF MODIFICATION APPROVAL

GENERAL NOTES

1. ALL LATITUDE AND LONGITUDE COORDINATES ARE NORTH AMERICAN DATUM OF 1983 (NAD83)
2. ALL ELEVATIONS ARE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
3. RUNWAY MEETS RUNWAY VISIBILITY REQUIREMENTS

ABBREVIATIONS

AMSL	ABOVE MEAN SEA LEVEL
ARC	AIRPORT REFERENCE CODE
ARP	AIRPORT REFERENCE POINT
AS	APPROACH SLOPE
ASDA	ACCELERATED STOP DISTANCE AVAILABLE
AWOS	AUTOMATIC WEATHER OBSERVATION STATION
BRL	BUILDING RESTRICTION LINE
DS	DEPARTURE SLOPE
EL	ELEVATION
F	FAHRENHEIT
GA	GENERAL AVIATION
GPS	GLOBAL POSITIONING SYSTEM
IFR	INSTRUMENT FLIGHT RULES
LAT	LATITUDE
LDA	LANDING DISTANCE AVAILABLE
LONG	LONGITUDE
LBS	POUNDS
MIRL	MEDIUM INTENSITY RUNWAY LIGHTS
MN	MAGNETIC NORTH
MPH	MILES PER HOUR
NAD83	NORTH AMERICAN DATUM OF 1983
N/A	NOT AVAILABLE
NAVAIDS	NAVIGATIONAL AIDS
NAVD 88	NORTH AMERICAN VERTICAL DATUM OF 1988
NGDC	NATIONAL GEOPHYSICAL DATA CENTER
NOAA	NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NPIAS	NATIONAL PLAN OF INTEGRATED AIRPORT SYSTEMS
PAPI	PRECISION APPROACH PATH INDICATORS
PCI	PAVEMENT CONDITION INDEX
RDC	RUNWAY DESIGN CODE
REIL	RUNWAY END IDENTIFIER LIGHTS
ROFA	RUNWAY OBJECT FREE AREA
ROFZ	RUNWAY OBJECT FREE ZONE
RPZ	RUNWAY PROTECTION ZONE
RRC	RUNWAY REFERENCE CODE
RSA	RUNWAY SAFETY AREA
RW	RUNWAY
SW	SINGLE WHEEL
TBD	TO BE DETERMINED
TDZE	TOUCHDOWN ZONE ELEVATION
TN	TRUE NORTH
TODA	TAKE OFF DISTANCE AVAILABLE
TOFA	TAXIWAY OBJECT FREE AREA
TORA	TAKE OFF RUN AVAILABLE
TSA	TAXIWAY SAFETY AREA
TSS	THRESHOLD SITING SURFACE
TW	TAXIWAY

TAXIWAY DESIGN GROUPS (TDG)

TAXIWAY	TDG
TAXIWAY A	2
TAXIWAY B	2

AVCON, INC.
ENGINEERS & PLANNERS

OKEECHOBEE COUNTY AIRPORT

AIRPORT LAYOUT PLAN SET

AIRPORT DATA SHEET (1 OF 2)

SCALE:

REVISIONS:

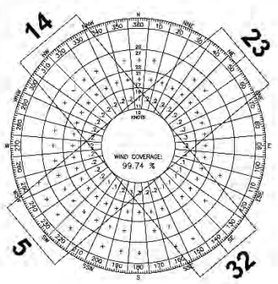
NO.	DATE	BY	DESCRIPTION

DESIGNED BY:	M.S
DRAWN BY:	M.A
CHECKED BY:	M.S
APPROVED BY:	M.S
DATE:	OCTOBER 2020
FAA AIP NO.	3-12-0058-019-2017
FDOT FM NO	441689-94-01
AVCON PROJECT NO.	2017.029.02

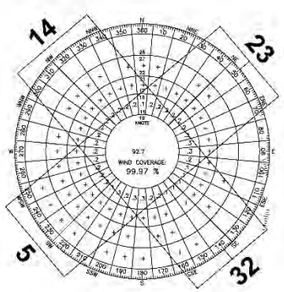
SHEET NUMBER

2

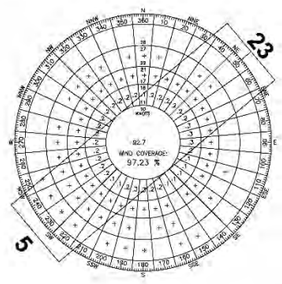
Figure 7-2:
AIRPORT DATA SHEET (1 OF 2)



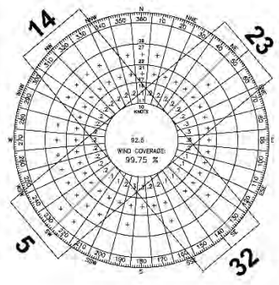
ALL WEATHER
WIND COVERAGE 10.5 KNOTS (12 MPH)
99.74%



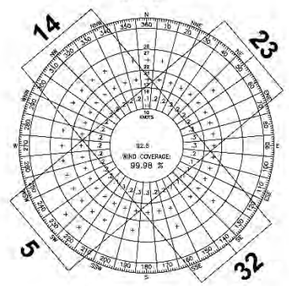
ALL WEATHER
WIND COVERAGE 13 KNOTS (15 MPH)
99.97%



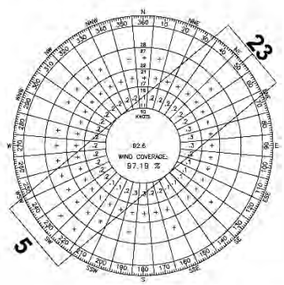
ALL WEATHER
WIND COVERAGE 10.5 KNOTS (12 MPH)
97.23%



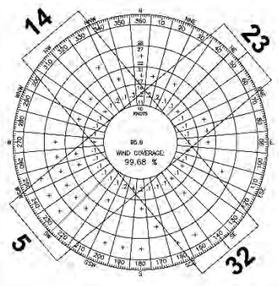
VISUAL FLIGHT RULES (VFR)
WIND COVERAGE 10.5 KNOTS (12 MPH)
99.75%



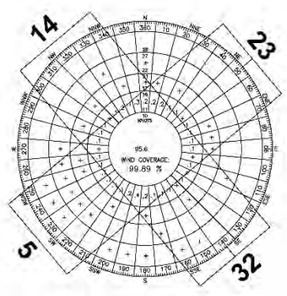
VISUAL FLIGHT RULES (VFR)
WIND COVERAGE 13 KNOTS (15 MPH)
99.98%



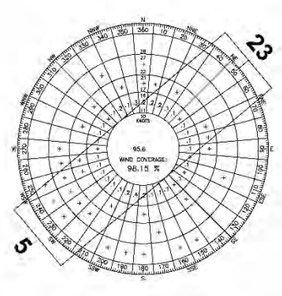
VISUAL FLIGHT RULES (VFR)
WIND COVERAGE 10.5 KNOTS (13 MPH)
97.19%



INSTRUMENT FLIGHT RULES (IFR)
WIND COVERAGE 10.5 KNOTS (12 MPH)
99.68%



INSTRUMENT FLIGHT RULES (IFR)
WIND COVERAGE 13 KNOTS (15 MPH)
99.89%



INSTRUMENT FLIGHT RULES (IFR)
WIND COVERAGE 10.5 KNOTS (13 MPH)
98.15%

WIND DATA SOURCE: FAA AGIS YEARS
2010-2017
STATION: OKEECHOBEE COUNTY AIRPORT

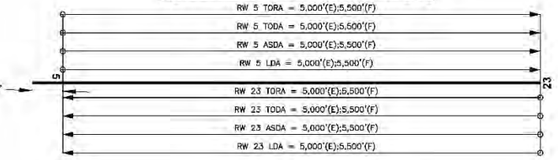
ALL WEATHER WIND COVERAGE		
RUNWAY	CROSSWIND COMPONENT	
	10.5 KNOTS (12 MPH)	13.0 KNOTS (15 MPH)
5–23	97.23%	98.75%
14–32	95.69%	98.44%
COMBINED	99.74%	99.97%

VFR WIND COVERAGE		
RUNWAY	CROSSWIND COMPONENT	
	10.5 KNOTS (12 MPH)	13.0 KNOTS (15 MPH)
5–23	97.19%	98.74%
14–32	98.85%	98.43%
COMBINED	99.75%	99.98%

IFR WIND COVERAGE		
RUNWAY	CROSSWIND COMPONENT	
	10.5 KNOTS (12 MPH)	13.0 KNOTS (15 MPH)
5–23	98.15%	99.11%
14–32	98.02%	99.02%
COMBINED	99.68%	99.89%

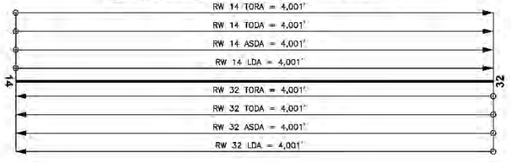
DECLARED DISTANCES TABLE				
	RUNWAY 5		RUNWAY 23	
	EXISTING	FUTURE	EXISTING	FUTURE
TAKE OFF RUN AVAILABLE (TORA)	5,000'	5,500'	5,000'	5,500'
TAKE OFF DISTANCE AVAILABLE (TODA)	5,000'	5,500'	5,000'	5,500'
ACCELERATED STOP DISTANCE AVAILABLE (ASDA)	5,000'	5,500'	5,000'	5,500'
LANDING DISTANCE AVAILABLE (LDA)	5,000'	5,500'	5,000'	5,500'

RUNWAY 5-23 EXISTING AND FUTURE



DECLARED DISTANCES TABLE				
	RUNWAY 14		RUNWAY 32	
	EXISTING	FUTURE	EXISTING	FUTURE
TAKE OFF RUN AVAILABLE (TORA)	4,001'	4,001'	4,001'	4,001'
TAKE OFF DISTANCE AVAILABLE (TODA)	4,001'	4,001'	4,001'	4,001'
ACCELERATED STOP DISTANCE AVAILABLE (ASDA)	4,001'	4,001'	4,001'	4,001'
LANDING DISTANCE AVAILABLE (LDA)	4,001'	4,001'	4,001'	4,001'

RUNWAY 14-32 EXISTING AND FUTURE



AVCON, INC.
ENGINEERS & PLANNERS

OKEECHOBEE COUNTY AIRPORT

AIRPORT LAYOUT PLAN SET

AIRPORT DATA SHEET (2 OF 2)

SCALE:

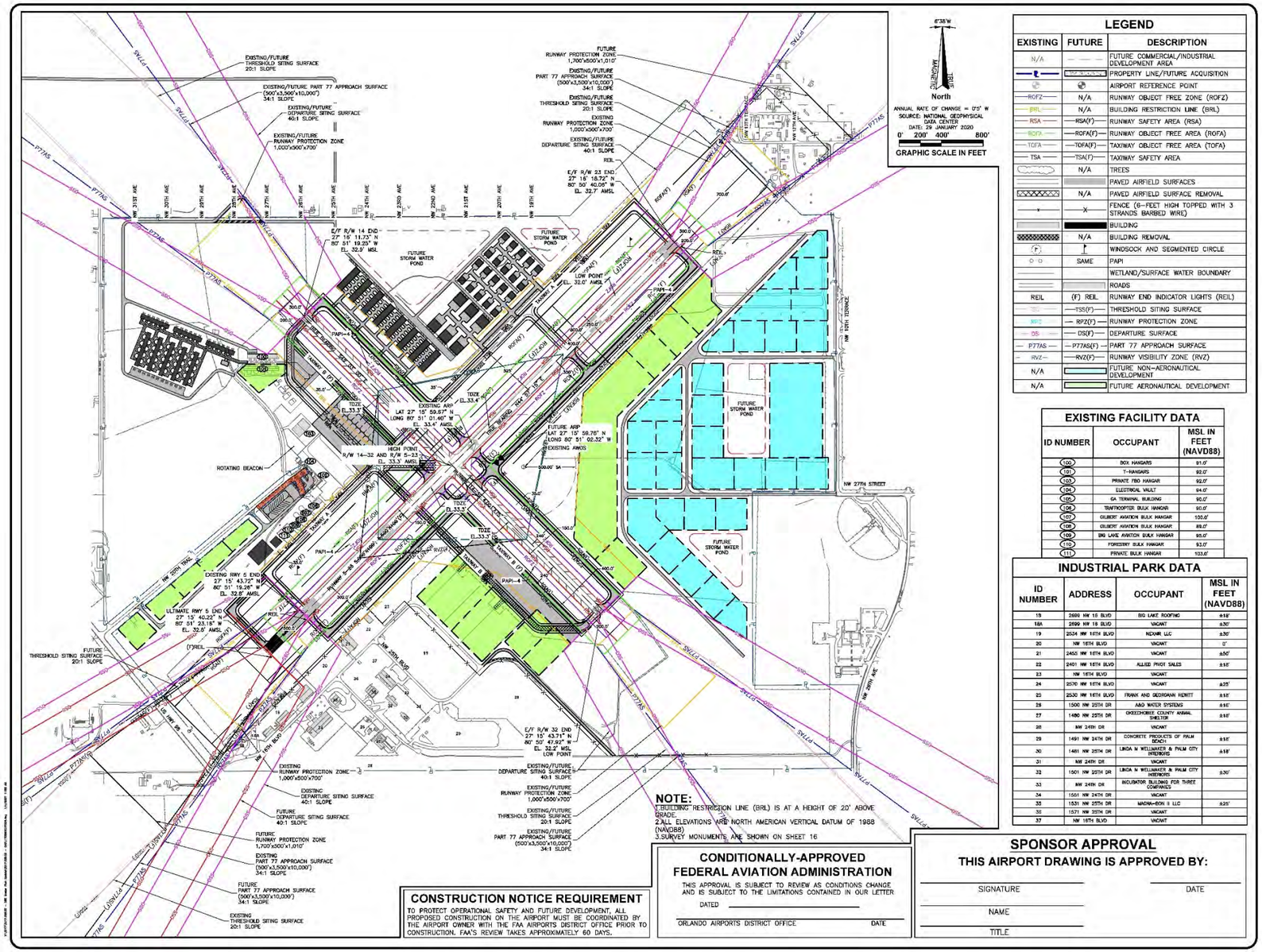
REVISIONS:			
NO.	DATE	BY	DESCRIPTION

DESIGNED BY:	M.S
DRAWN BY:	M.A
CHECKED BY:	M.S
APPROVED BY:	M.S
DATE:	OCTOBER 2020
FAA AIP NO.	3-12-0056-019-2017
FDOT FM NO	441689-94-01
AVCON PROJECT NO.	2017.029.02

SHEET NUMBER

3

Figure 7-3:
AIRPORT DATA SHEET (2 OF 2)



NOTE:
1.BUILDING RESTRICTION LINE (BRL) IS AT A HEIGHT OF 20' ABOVE GRADE.
2.ALL ELEVATIONS ARE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
3.SURVEY MONUMENTS ARE SHOWN ON SHEET 16

CONSTRUCTION NOTICE REQUIREMENT
TO PROTECT OPERATIONAL SAFETY AND FUTURE DEVELOPMENT, ALL PROPOSED CONSTRUCTION ON THE AIRPORT MUST BE COORDINATED BY THE AIRPORT OWNER WITH THE FAA AIRPORTS DISTRICT OFFICE PRIOR TO CONSTRUCTION. FAA'S REVIEW TAKES APPROXIMATELY 60 DAYS.

CONDITIONALLY-APPROVED FEDERAL AVIATION ADMINISTRATION
THIS APPROVAL IS SUBJECT TO REVIEW AS CONDITIONS CHANGE AND IS SUBJECT TO THE LIMITATIONS CONTAINED IN OUR LETTER
DATED _____
ORLANDO AIRPORTS DISTRICT OFFICE. DATE

SPONSOR APPROVAL
THIS AIRPORT DRAWING IS APPROVED BY:
SIGNATURE _____ DATE _____
NAME _____
TITLE

LEGEND

EXISTING	FUTURE	DESCRIPTION
N/A		FUTURE COMMERCIAL/INDUSTRIAL DEVELOPMENT AREA
		PROPERTY LINE/FUTURE ACQUISITION
		AIRPORT REFERENCE POINT
ROFZ	N/A	RUNWAY OBJECT FREE ZONE (ROFZ)
BRL	N/A	BUILDING RESTRICTION LINE (BRL)
RSA	RSA(F)	RUNWAY SAFETY AREA (RSA)
ROFA	ROFA(F)	RUNWAY OBJECT FREE AREA (ROFA)
TOFA	TOFA(F)	TAXIWAY OBJECT FREE AREA (TOFA)
TSA	TSA(F)	TAXIWAY SAFETY AREA
	N/A	TREES
		PAVED AIRFIELD SURFACES
	N/A	PAVED AIRFIELD SURFACE REMOVAL
	X	FENCE (6-FEET HIGH TOPPED WITH 3 STRANDS BARBED WIRE)
		BUILDING
	N/A	BUILDING REMOVAL
F		WINDSOCK AND SEGMENTED CIRCLE
	SAME	PAPI
		WETLAND/SURFACE WATER BOUNDARY
		ROADS
REIL	(F) REIL	RUNWAY END INDICATOR LIGHTS (REIL)
TSS	TSS(F)	THRESHOLD SITING SURFACE
RPZ	RPZ(F)	RUNWAY PROTECTION ZONE
DS	DS(F)	DEPARTURE SURFACE
P77AS	P77AS(F)	PART 77 APPROACH SURFACE
RVZ	RVZ(F)	RUNWAY VISIBILITY ZONE (RVZ)
N/A		FUTURE NON-AERONAUTICAL DEVELOPMENT
N/A		FUTURE AERONAUTICAL DEVELOPMENT

EXISTING FACILITY DATA

ID NUMBER	OCCUPANT	MSL IN FEET (NAVD88)
100	BOX HANGARS	91.0'
101	T-HANGARS	92.0'
103	PRIVATE FBO HANGAR	92.0'
104	ELECTRICAL VAULT	94.0'
105	GA TERMINAL BUILDING	90.0'
106	TEMPROPTER BULK HANGAR	90.0'
107	GILBERT AVIATION BULK HANGAR	100.0'
108	GILBERT AVIATION BULK HANGAR	89.0'
109	BIG LAKE AVIATION BULK HANGAR	95.0'
110	FORESTRY BULK HANGAR	93.0'
111	PRIVATE BULK HANGAR	103.0'

INDUSTRIAL PARK DATA

ID NUMBER	ADDRESS	OCCUPANT	MSL IN FEET (NAVD88)
18	2699 NW 18 BLVD	BIG LAKE ROOFING	±18'
18A	2699 NW 18 BLVD	VACANT	±30'
19	2524 NW 18TH BLVD	NEXAIR LLC	±30'
20	NW 18TH BLVD	VACANT	0'
21	2452 NW 18TH BLVD	VACANT	±50'
22	2401 NW 18TH BLVD	ALLIED PIVOT SALES	±18'
23	NW 18TH BLVD	VACANT	
24	2570 NW 18TH BLVD	VACANT	±25'
25	2530 NW 18TH BLVD	FRANK AND GEORGANN HEWITT	±18'
26	1500 NW 25TH DR	A&D WATER SYSTEMS	±18'
27	1480 NW 25TH DR	OKEECHOBEE COUNTY ANIMAL SHELTER	±18'
28	NW 24TH DR	VACANT	
29	1491 NW 24TH DR	CONCRETE PRODUCTS OF PALM BEACH	±18'
30	1481 NW 25TH DR	LINDA M WILLIAMS'R & PALM CITY INTERIORS	±18'
31	NW 24TH DR	VACANT	
32	1501 NW 25TH DR	LINDA M WILLIAMS'R & PALM CITY INTERIORS	±30'
33	NW 24TH DR	INCUBATOR BUILDING FOR THREE COMPANIES	
34	1551 NW 24TH DR	VACANT	
35	1531 NW 25TH DR	MACHA-BON II LLC	±25'
36	1571 NW 25TH DR	VACANT	
37	NW 16TH BLVD	VACANT	

OKEECHOBEE COUNTY FLORIDA

AVCON

AVCON, INC.
ENGINEERS & PLANNERS

OKEECHOBEE COUNTY AIRPORT

AIRPORT LAYOUT PLAN SET

AIRPORT LAYOUT PLAN

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SCALE:

REVISIONS:

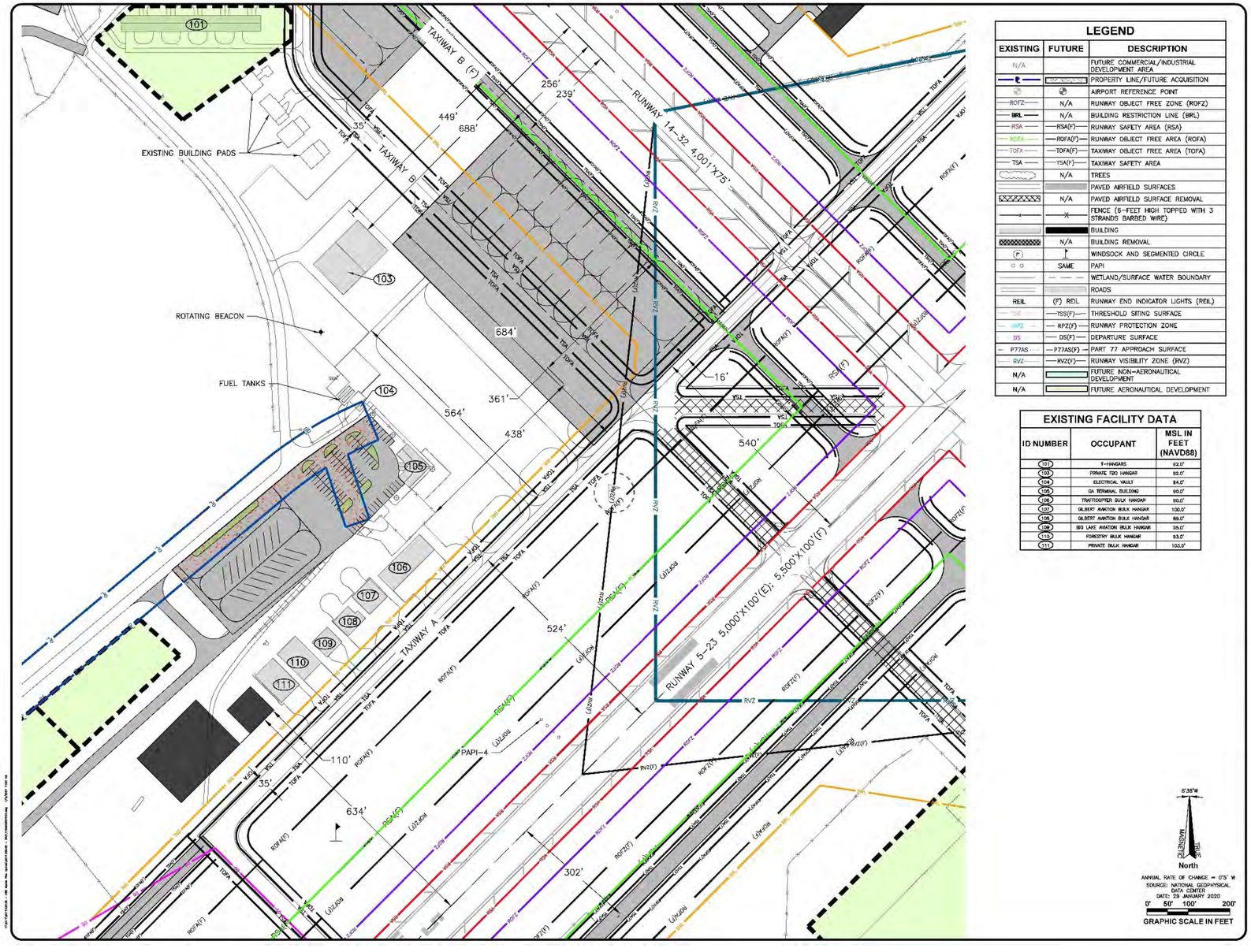
NO.	DATE	BY	DESCRIPTION

DESIGNED BY:	M.S
DRAWN BY:	M.A
CHECKED BY:	M.S
APPROVED BY:	M.S
DATE:	OCTOBER 2020
FAA AIP NO.	3-12-0056-019-2017
FDOT FM NO	441689-94-01
AVCON PROJECT NO.	2017.029.02

SHEET NUMBER

4

Figure 7-4:
AIRPORT LAYOUT PLAN



LEGEND		
EXISTING	FUTURE	DESCRIPTION
N/A		FUTURE COMMERCIAL/INDUSTRIAL DEVELOPMENT AREA
		PROPERTY LINE/FUTURE ACQUISITION
		AIRPORT REFERENCE POINT
ROFZ	N/A	RUNWAY OBJECT FREE ZONE (ROFZ)
BRL	N/A	BUILDING RESTRICTION LINE (BRL)
RSA	RSA(F)	RUNWAY SAFETY AREA (RSA)
ROFA	ROFA(F)	RUNWAY OBJECT FREE AREA (ROFA)
TOFA	TOFA(F)	TAXIWAY OBJECT FREE AREA (TOFA)
TSA	TSA(F)	TAXIWAY SAFETY AREA
	N/A	TREES
		PAVED AIRFIELD SURFACES
	N/A	PAVED AIRFIELD SURFACE REMOVAL
		FENCE (6-FEET HIGH TOPPED WITH 3 STRANDS BARBED WIRE)
		BUILDING
	N/A	BUILDING REMOVAL
(F)		WINDSOCK AND SEGMENTED CIRCLE
	SAME	PAPI
		WETLAND/SURFACE WATER BOUNDARY
		ROADS
REIL	(F) REIL	RUNWAY END INDICATOR LIGHTS (REIL)
TSS	TSS(F)	THRESHOLD SITING SURFACE
RPZ	RPZ(F)	RUNWAY PROTECTION ZONE
DS	DS(F)	DEPARTURE SURFACE
P77AS	P77AS(F)	PART 77 APPROACH SURFACE
RVZ	RVZ(F)	RUNWAY VISIBILITY ZONE (RVZ)
N/A		FUTURE NON-AERONAUTICAL DEVELOPMENT
N/A		FUTURE AERONAUTICAL DEVELOPMENT

EXISTING FACILITY DATA

ID NUMBER	OCCUPANT	MSL IN FEET (NAVD88)
101	T-HANGARS	92.0'
103	PRIVATE FBO HANGAR	92.0'
104	ELECTRICAL VAULT	94.0'
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109	BIG LAKE AVIATION BULK HANGAR	95.0'
110	FORESTRY BULK HANGAR	93.0'
111	PRIVATE BULK HANGAR	103.0'

OKEECHOBEE COUNTY FLORIDA

AVCON

AVCON, INC.
ENGINEERS & PLANNERS

OKEECHOBEE COUNTY AIRPORT

AIRPORT LAYOUT PLAN SET

TERMINAL AREA PLAN

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SCALE:

REVISIONS:

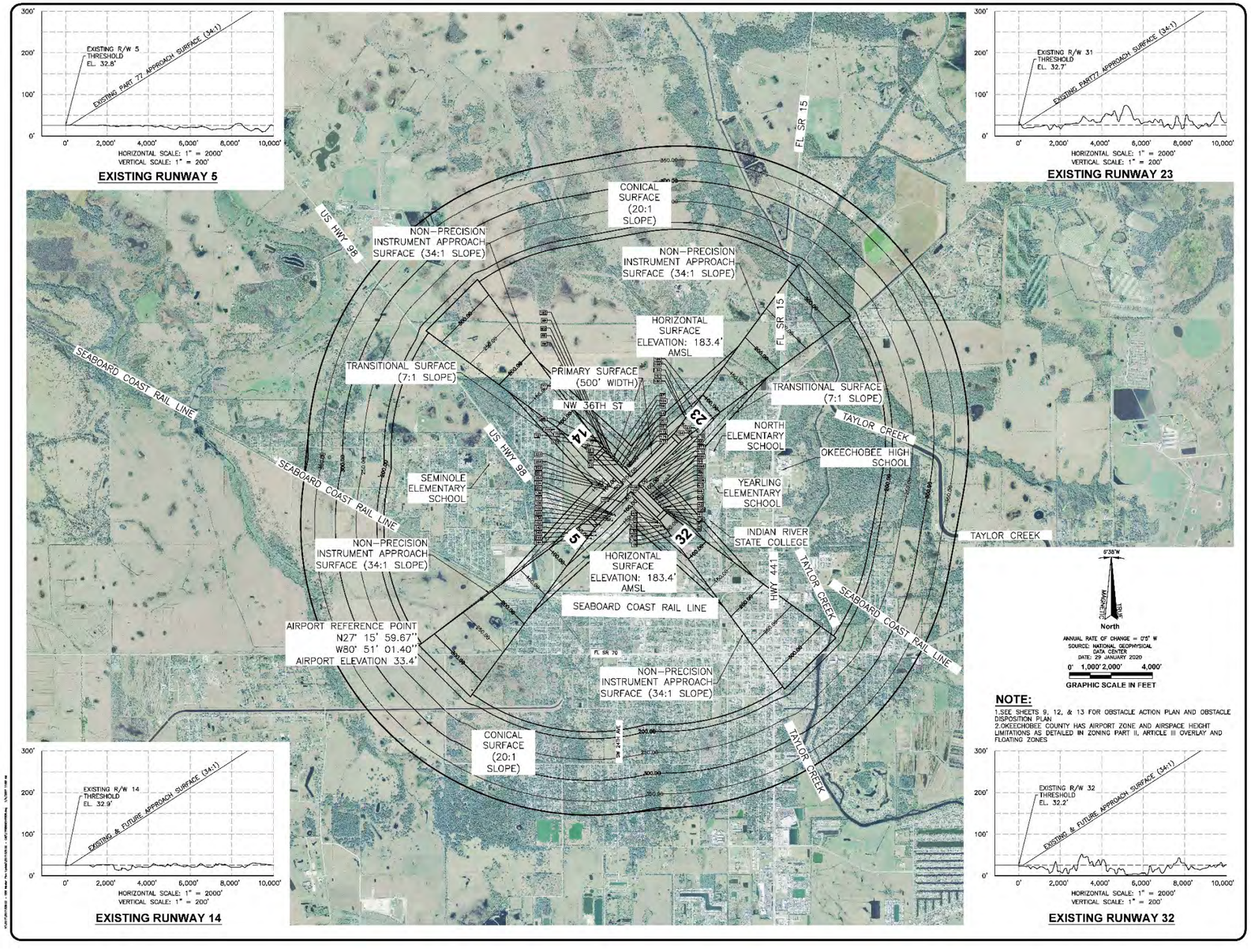
NO.	DATE	BY	DESCRIPTION

DESIGNED BY:	M.S
DRAWN BY:	M.A
CHECKED BY:	M.S
APPROVED BY:	M.S
DATE:	OCTOBER 2020
FAA AIP NO.	3-12-0056-019-2017
FDOT FM NO	441689-94-01
AVCON PROJECT NO.	2017.029.02

SHEET NUMBER

5

Figure 7-5:
TERMINAL AREA PLAN



NOTE:
1.SEE SHEETS 9, 12, & 13 FOR OBSTACLE ACTION PLAN AND OBSTACLE DISPOSITION PLAN.
2.OKEECHOBEE COUNTY HAS AIRPORT ZONE AND AIRSPACE HEIGHT LIMITATIONS AS DETAILED IN ZONING PART II, ARTICLE III OVERLAY AND FLOATING ZONES

AVCON, INC.

OKEECHOBEE COUNTY AIRPORT

AIRPORT LAYOUT PLAN SET

AIRPORT AIRSPACE DRAWING

SCALE:

REVISIONS:

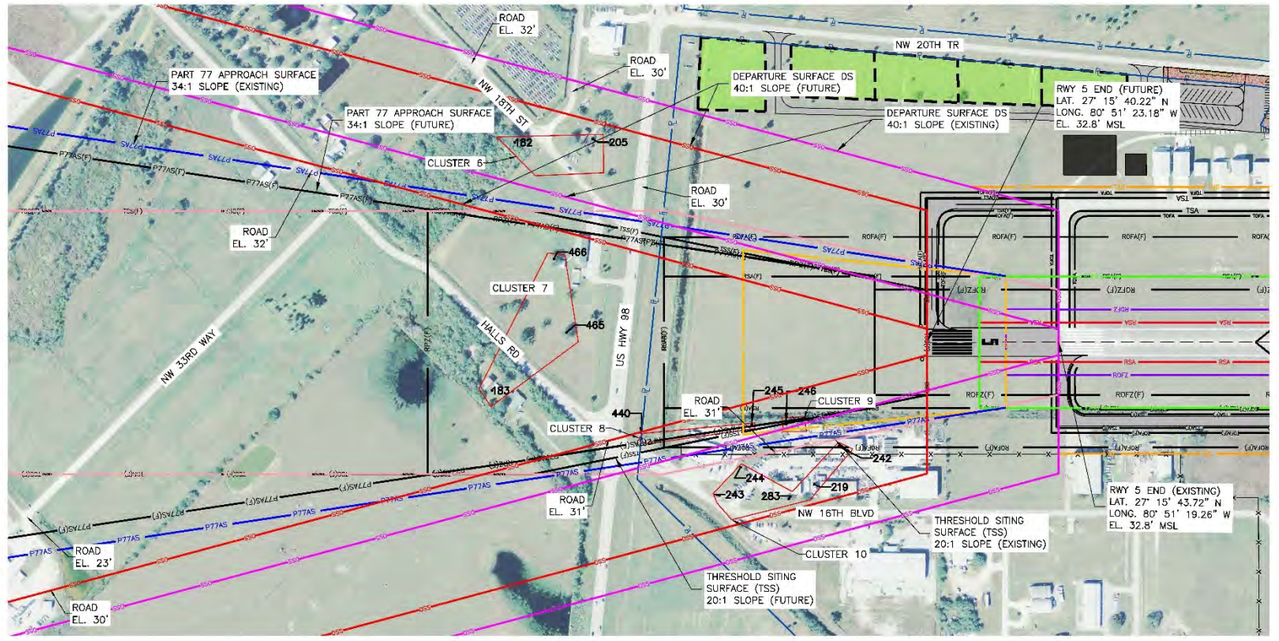
NO.	DATE	BY	DESCRIPTION

DESIGNED BY:	M.S
DRAWN BY:	M.A
CHECKED BY:	M.S
APPROVED BY:	M.S
DATE:	OCTOBER 2020
FAA AIP NO.	3-12-0056-019-2017
FDOT FM NO	441689-94-01
AVCON PROJECT NO.	2017.029.02

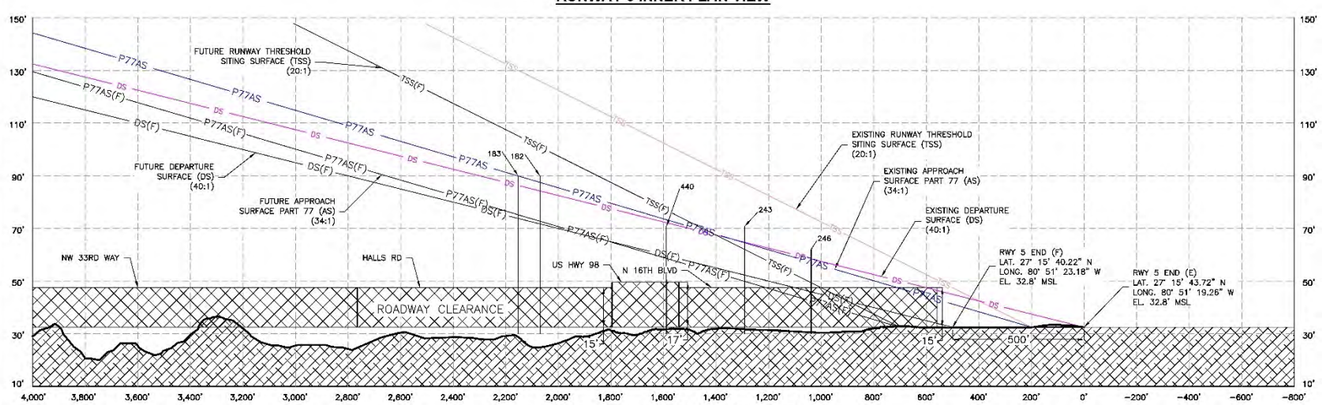
SHEET NUMBER

6

Figure 7-6:
AIRPORT AIRSPACE DRAWING



RUNWAY 5 INNER PLAN VIEW



RUNWAY 5 APPROACH PROFILE VIEW

NOTES:

1. SEE LEGEND ON SHEET 4.
2. SEE SHEET 9 FOR OBSTACLE ACTION PLAN, OBSTACLE DISPOSITION PLAN, AND ADDITIONAL OBSTRUCTION DETAIL.
3. THE OBSTRUCTION DATA WAS TAKEN FROM THE FAA'S OAS DATA.
4. PLAN VIEW DRAWING SHOWS ALL OBSTRUCTIONS THAT PENETRATE OR ARE WITHIN 10 FEET OF PENETRATING THE PART 77 APPROACH, DEPARTURE, AND/OR THE THRESHOLD SITING SURFACES; PROFILE VIEW DRAWING SHOWS THE HIGHEST OBSTRUCTION WITHIN EACH CLUSTER.

OKEECHOBEE COUNTY AIRPORT

AIRPORT LAYOUT PLAN SET

INNER PORTION OF THE APPROACH SURFACE FOR RUNWAY 5

SCALE:

REVISIONS:

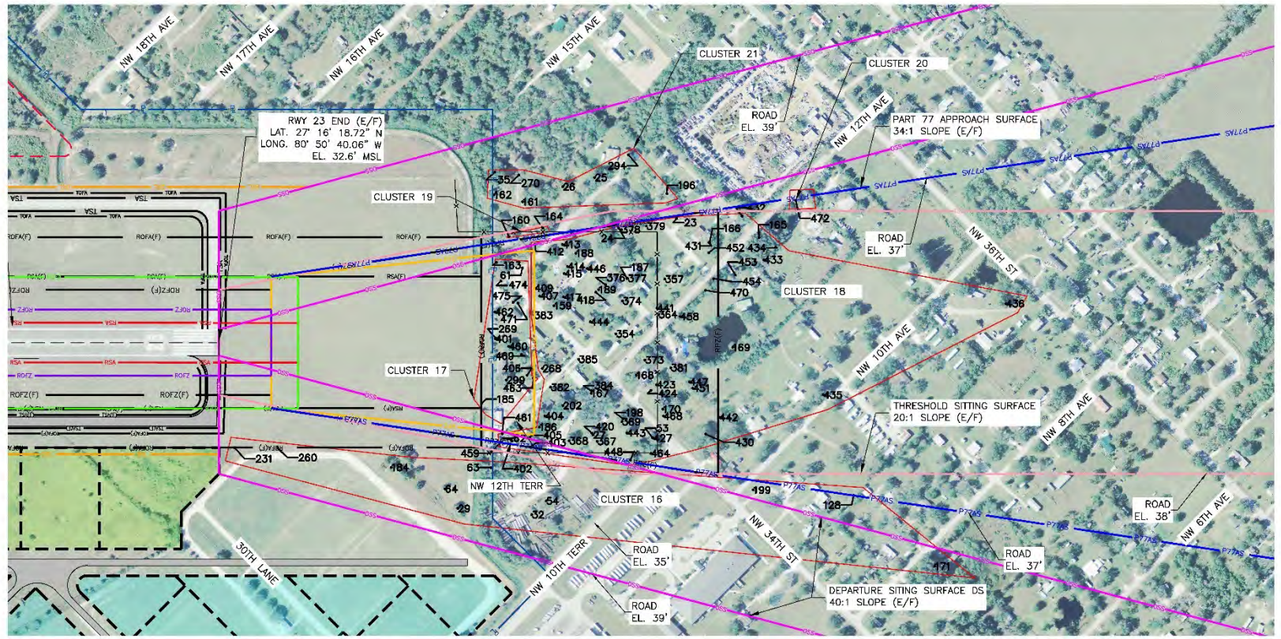
NO.	DATE	BY	DESCRIPTION

DESIGNED BY:	M.S
DRAWN BY:	M.A
CHECKED BY:	M.S
APPROVED BY:	M.S
DATE:	OCTOBER 2020
FAA AIP NO.	3-12-0056-019-2017
FDOT FM NO	441689-94-01
AVCON PROJECT NO.	2017.029.02

SHEET NUMBER

7

Figure 7-7:
INNER PORTION OF THE APPROACH SURFACE FOR RUNWAY 5



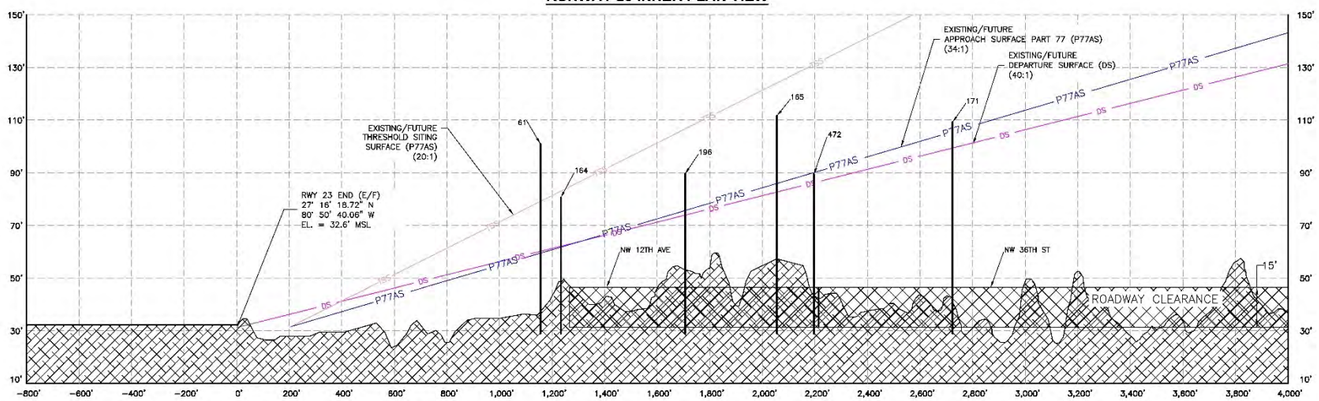
North

ANNUAL RATE OF CHANGE = 0°5' W
SOURCE: NATIONAL GEOPHYSICAL DATA CENTER
DATE: 29 JANUARY 2020

0' 100' 200' 400'

GRAPHIC SCALE IN FEET

RUNWAY 23 INNER PLAN VIEW



RUNWAY 23 APPROACH PROFILE VIEW

NOTES:

1. SEE LEGEND ON SHEET 4.
2. SEE SHEET 9 FOR OBSTACLE ACTION PLAN, OBSTACLE DISPOSITION PLAN, AND ADDITIONAL OBSTRUCTION DETAIL.
3. THE OBSTRUCTION DATA WAS TAKEN FROM THE FAA'S OAS DATA.
4. PLAN VIEW DRAWING SHOWS ALL OBSTRUCTIONS THAT PENETRATE OR ARE WITHIN 10 FEET OF PENETRATING THE PART 77 APPROACH, DEPARTURE, AND/OR THE THRESHOLD SITING SURFACES; PROFILE VIEW DRAWING SHOWS THE HIGHEST OBSTRUCTION WITHIN EACH CLUSTER.

VERTICAL 20 0 20

HORIZONTAL 200 0 200

GRAPHIC SCALE

OKEECHOBEE COUNTY AIRPORT

AIRPORT LAYOUT PLAN SET

INNER PORTION OF THE APPROACH SURFACE FOR RUNWAY 23

SCALE:

REVISIONS:

NO.	DATE	BY	DESCRIPTION

DESIGNED BY:	M.S
DRAWN BY:	M.A
CHECKED BY:	M.S
APPROVED BY:	M.S
DATE:	OCTOBER 2020
FAA AIP NO.	3-12-0056-019-2017
FDOT FM NO	441689-94-01
AVCON PROJECT NO.	2017.029.02

SHEET NUMBER

8

Figure 7-8:
INNER PORTION OF THE APPROACH SURFACE FOR RUNWAY 23

CLUSTER NO. 6 RWY 5	OBS NO.	DESCRIPTION	TOP EL (MSL)	APPR. SURFACE (34:1)	DEP. SURFACE (40:1)	TSS (20:1)	DISPOSITION
	182	TREE	92		-6.98		TRIM/REMOVE
	205	TREE	87			-9.41	TRIM/REMOVE

CLUSTER NO. 7 RWY 5	OBS NO.	DESCRIPTION	TOP EL (MSL)	APPR. SURFACE (34:1)	DEP. SURFACE (40:1)	TSS (20:1)	DISPOSITION
	183	TREE	91	25.42	4.36		REMOVE
	465	TREE	79	21.79	-0.53		REMOVE
	466	TREE	80	21.37	-0.74		REMOVE

CLUSTER NO. 8 RWY 5	OBS NO.	DESCRIPTION	TOP EL (MSL)	APPR. SURFACE (34:1)	DEP. SURFACE (40:1)	TSS (20:1)	DISPOSITION
	245	POLE	66	29.50	8.57	-0.16	LIGHT
	440	POLE	72	23.13	0.59		LIGHT

CLUSTER NO. 9 RWY 5	OBS NO.	DESCRIPTION	TOP EL (MSL)	APPR. SURFACE (34:1)	DEP. SURFACE (40:1)	TSS (20:1)	DISPOSITION
	246	POLE	63		5.81	3.35	LIGHT

CLUSTER NO. 10 RWY 5	OBS NO.	DESCRIPTION	TOP EL (MSL)	APPR. SURFACE (34:1)	DEP. SURFACE (40:1)	TSS (20:1)	DISPOSITION
	219	TANK	67			12.71	LIGHT
	242	BUILDING	59			9.39	LIGHT
	243	POLE	71			-1.34	LIGHT
	244	POLE	64			-4.33	LIGHT
	283	TREE	63			3.87	REMOVE

CLUSTER NO. 16 RWY 23	OBS NO.	DESCRIPTION	TOP EL (MSL)	APPR. SURFACE (34:1)	DEP. SURFACE (40:1)	TSS (20:1)	DISPOSITION
	63	TREE	63		-9.41		TRIM/REMOVE
	128	TREE	99	11.23	6.05		REMOVE
	171	TREE	108		6.58		REMOVE
	199	TREE	89		5.61		REMOVE

CLUSTER NO. 17 RWY 23	OBS NO.	DESCRIPTION	TOP EL (MSL)	APPR. SURFACE (34:1)	DEP. SURFACE (40:1)	TSS (20:1)	DISPOSITION
	61	TREE	101	50.30	39.55	10.71	REMOVE
	163	TREE	100	52.22	41.04	14.67	REMOVE
	185	TREE	57	10.85	-0.57		REMOVE
	269	TREE	62	14.79	3.10		REMOVE
	299	TREE	73	24.11	13.09		REMOVE
	401	TREE	56	8.32	-2.88		REMOVE
	406	TREE	59	7.76	-2.90		REMOVE
	460	TREE	59	9.84	-1.13		REMOVE
	462	TREE	57	9.39	-1.82		REMOVE
	463	TREE	58	6.09	-4.48		REMOVE
	469	TREE	59	8.40	-2.36		REMOVE
	471	TREE	56	5.82	-5.01		REMOVE
	474	POLE	65	16.72	5.61		LIGHT
	475	TREE	58	8.35	-2.55		REMOVE

CLUSTER NO. 18 RWY 23 (1 OF 2)	OBS NO.	DESCRIPTION	TOP EL (MSL)	APPR. SURFACE (34:1)	DEP. SURFACE (40:1)	TSS (20:1)	DISPOSITION
	23	TREE	81	13.05	4.89		REMOVE
	24	TREE	89	27.55	18.41		REMOVE
	27	TREE	79	20.40	10.85		REMOVE
	53	TREE	79	13.74	5.18		REMOVE
	62	TREE	83	33.57	20.49	-5.13	REMOVE
	159	TREE	74	19.75	9.54		REMOVE
	165	TREE	114	36.83	30.06		REMOVE
	166	TREE	83	11.38	3.77		REMOVE
	167	TREE	90	31.60	22.01		REMOVE
	168	TREE	81	17.57	8.74		REMOVE
	169	TREE	85	10.77	3.56		REMOVE
	170	TREE	79	12.57	4.19		REMOVE
	186	TREE	76	23.40	12.94		REMOVE
	187	TREE	79	16.59	7.60		REMOVE
	188	TREE	80	23.32	13.47		REMOVE
	189	TREE	77	17.77	8.31		REMOVE
	198	TREE	75	13.03	3.98		REMOVE
	202	TREE	76	20.77	10.70		REMOVE
	268	TREE	70	17.07	6.66		REMOVE
	354	POLE	68	6.85	-2.33		LIGHT
	357	POLE	68	1.38	-6.98		LIGHT
	364	POLE	73	7.07	-1.39		LIGHT
	367	TREE	65	5.93	-3.56		REMOVE
	368	TREE	64	8.06	-1.90		REMOVE
	369	TREE	67	5.17	-3.80		REMOVE
	373	TREE	71	6.58	-2.10		REMOVE

CLUSTER NO. 18 RWY 23 (2 OF 2)	OBS NO.	DESCRIPTION	TOP EL (MSL)	APPR. SURFACE (34:1)	DEP. SURFACE (40:1)	TSS (20:1)	DISPOSITION
	374	TREE	62	0.11	-8.96		REMOVE
	376	TREE	65	5.01	-4.34		REMOVE
	377	TREE	67	4.53	-4.45		REMOVE
	378	TREE	69	7.22	-1.86		REMOVE
	379	TREE	66	1.43	-7.24		REMOVE
	381	TREE	68	0.70	-7.55		REMOVE
	382	POLE	63	9.14	-1.13		LOWER/REMOVE
	383	POLE	55	3.03	-7.52		LIGHT
	384	POLE	62	3.58	-6.00		LIGHT
	385	POLE	60	3.01	-6.79		LOWER/REMOVE
	402	TREE	54	4.50	-9.00		REMOVE
	403	TREE	61	9.43	-4.02		REMOVE
	404	TREE	61	7.80	-2.57		REMOVE
	405	TREE	60	8.50	-2.13		REMOVE
	407	TREE	60	7.37	-3.08		REMOVE
	409	TREE	60	7.96	-2.58		REMOVE
	412	TREE	58	5.91	-4.93		REMOVE
	413	TREE	65	9.81	-0.26		REMOVE
	414	TREE	62	6.26	-3.73		REMOVE
	415	TREE	57	1.62	-8.42		REMOVE
	417	TREE	59	3.69	-6.37		REMOVE
	418	TREE	62	3.11	-6.41		REMOVE
	420	TREE	66	7.51	-2.06		REMOVE
	423	TREE	68	2.29	-6.20		REMOVE
	424	TREE	65		-8.66		REMOVE
	427	TREE	68	2.66	-5.88		REMOVE
	430	TREE	70		-8.87		REMOVE
	431	TREE	71		-8.20		REMOVE
	432	TREE	77	1.72	-5.34		REMOVE
	433	TREE	80	2.30	-4.40		REMOVE
	434	TREE	82	2.95	-3.54		REMOVE
	435	TREE	90	9.63	-0.07		REMOVE
	436	TREE	100		-7.41		REMOVE
	441	TREE	72	6.25	-2.24		REMOVE
	442	TREE	78	5.28	-2.16		REMOVE
	443	TREE	71	8.63	-0.37		REMOVE
	444	TREE	68	9.71	0.10		REMOVE
	446	TREE	66	8.07	-1.59		REMOVE
	447	TREE	76	6.61	-1.33		REMOVE
	448	TREE	68	5.20	-3.73		REMOVE
	451	TREE	77	7.25	-0.64		REMOVE
	452	TREE	78	6.46	-1.16		REMOVE
	453	TREE	80	5.48	-1.69		REMOVE
	454	TREE	78	5.88	-1.65		REMOVE
	458	TREE	75	6.67	-1.43		REMOVE
	459	TREE	57	8.69	-6.34		REMOVE
	461	TREE	54	5.56	-6.42		REMOVE
	464	TREE	71	5.92	-2.67		REMOVE
	468	TREE	73	6.52	-1.86		REMOVE
	470	TREE	78	6.81	-0.86		REMOVE

CLUSTER NO. 19 RWY 23	OBS NO.	DESCRIPTION	TOP EL (MSL)	APPR. SURFACE (34:1)	DEP. SURFACE (40:1)	TSS (20:1)	DISPOSITION
	160	TREE	82		16.38	-5.72	REMOVE
	164	TREE	83		14.38		REMOVE

CLUSTER NO. 20 RWY 23	OBS NO.	DESCRIPTION	TOP EL (MSL)	APPR. SURFACE (34:1)	DEP. SURFACE (40:1)	TSS (20:1)	DISPOSITION
	472	TREE	87	5.71	-0.45		REMOVE

CLUSTER NO. 21 RWY 23	OBS NO.	DESCRIPTION	TOP EL (MSL)	APPR. SURFACE (34:1)	DEP. SURFACE (40:1)	TSS (20:1)	DISPOSITION
	25	TREE	78		-8.52		TRIM/REMOVE
	161	TREE	73		-4.97		TRIM/REMOVE
	196	TREE	88		7.20		REMOVE

NOTES:

1. THE OBSTRUCTION DATA WAS TAKEN FROM THE FAA'S OAS DATA.
2. THE OBSTRUCTIONS LISTED ARE PENETRATING OR WITHIN 10 FEET OF PENETRATING THE PART 77 APPROACH, DEPARTURE, AND/OR THRESHOLD SITING SURFACES.
3. THE HIGHLIGHTED OBSTRUCTION IS THE HIGHEST WITHIN EACH CLUSTER.

AVCON, INC.

OKEECHOBEE COUNTY AIRPORT

AIRPORT LAYOUT PLAN SET

RWY 5/23 OBSTACLE ACTION & DISPOSITION PLANS (1 OF 4)

SCALE:

REVISIONS:

NO	DATE	BY	DESCRIPTION

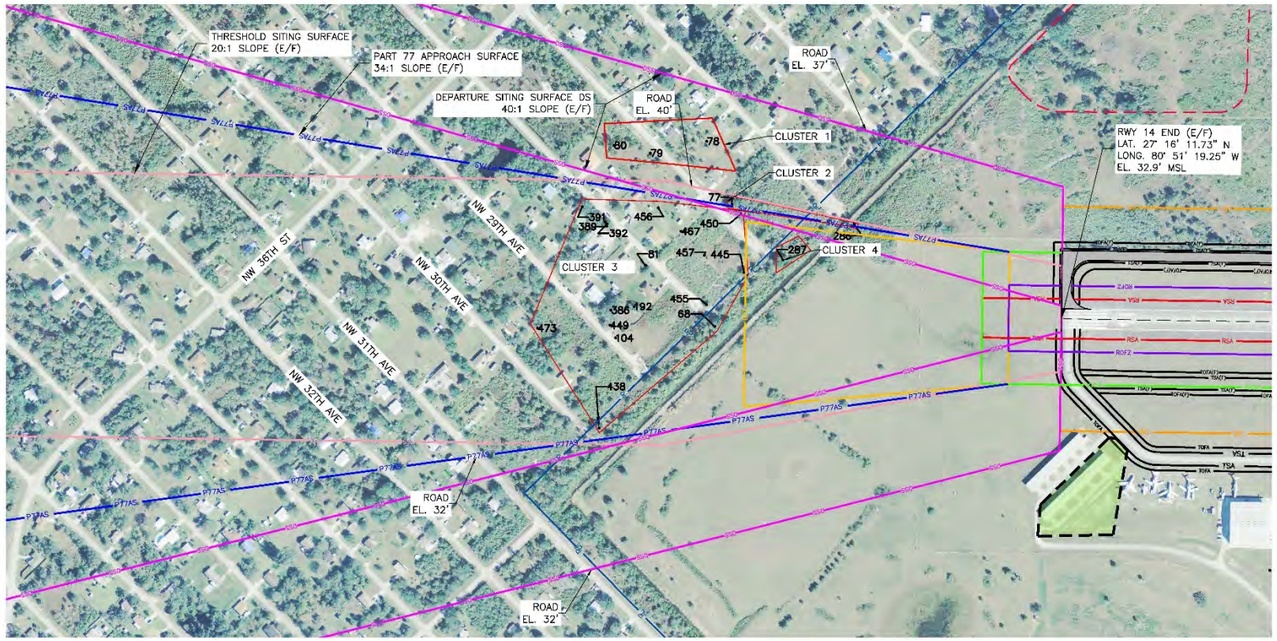
DESIGNED BY:	M.S
DRAWN BY:	M.A
CHECKED BY:	M.S
APPROVED BY:	M.S
DATE:	OCTOBER 2020

FAA AIP NO.	3-12-0056-019-2017
FDOT FM NO	441689-94-01
AVCON PROJECT NO.	2017.029.02

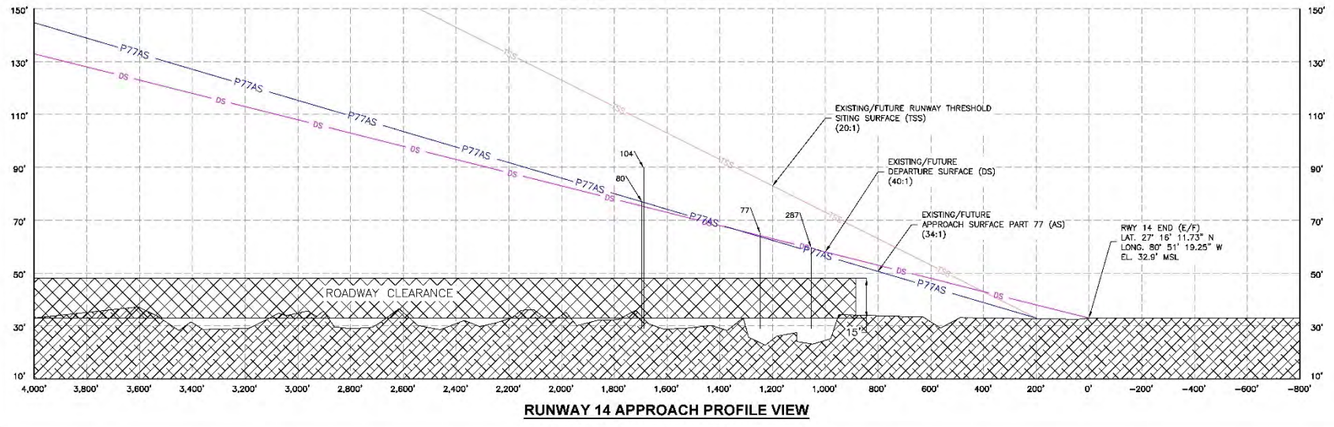
SHEET NUMBER

9

Figure 7-9:
RUNWAY 5/23 OBSTACLE ACTION AND DISPOSITION PLAN



RUNWAY 14 INNER PLAN VIEW



RUNWAY 14 APPROACH PROFILE VIEW

NOTES:

1. SEE LEGEND ON SHEET 4.
2. SEE SHEET 12 FOR OBSTACLE ACTION PLAN, OBSTACLE DISPOSITION PLAN, AND ADDITIONAL OBSTRUCTION DETAIL.
3. THE OBSTRUCTION DATA WAS TAKEN FROM THE FAA'S OAS DATA.
4. PLAN VIEW DRAWING SHOWS ALL OBSTRUCTIONS THAT PENETRATE OR ARE WITHIN 10 FEET OF PENETRATING THE PART 77 APPROACH, DEPARTURE, AND/OR THE THRESHOLD SITING SURFACES; PROFILE VIEW DRAWING SHOWS THE HIGHEST OBSTRUCTION WITHIN EACH CLUSTER.

VERTICAL 20 0 20
HORIZONTAL 200 0 200
GRAPHIC SCALE

OKEECHOBEE COUNTY AIRPORT

AIRPORT LAYOUT PLAN SET

INNER PORTION OF THE APPROACH SURFACE FOR RUNWAY 14

SCALE:

REVISIONS:

NO.	DATE	BY	DESCRIPTION

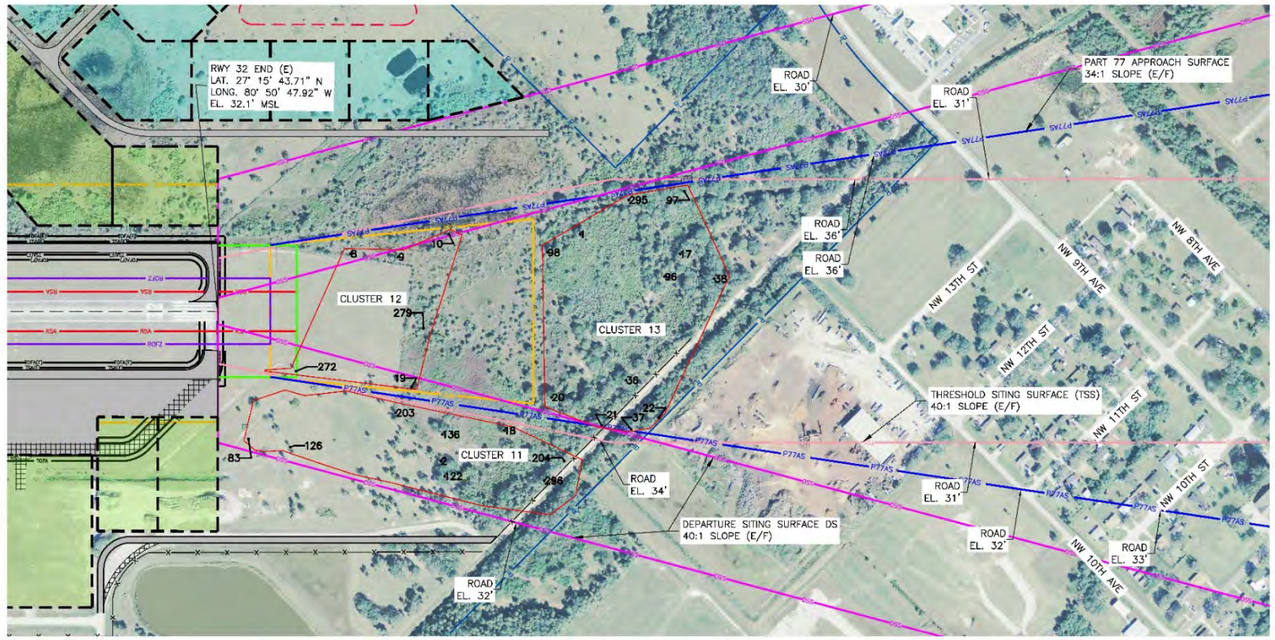
DESIGNED BY: M.S
DRAWN BY: M.A
CHECKED BY: M.S
APPROVED BY: M.S
DATE: OCTOBER 2020

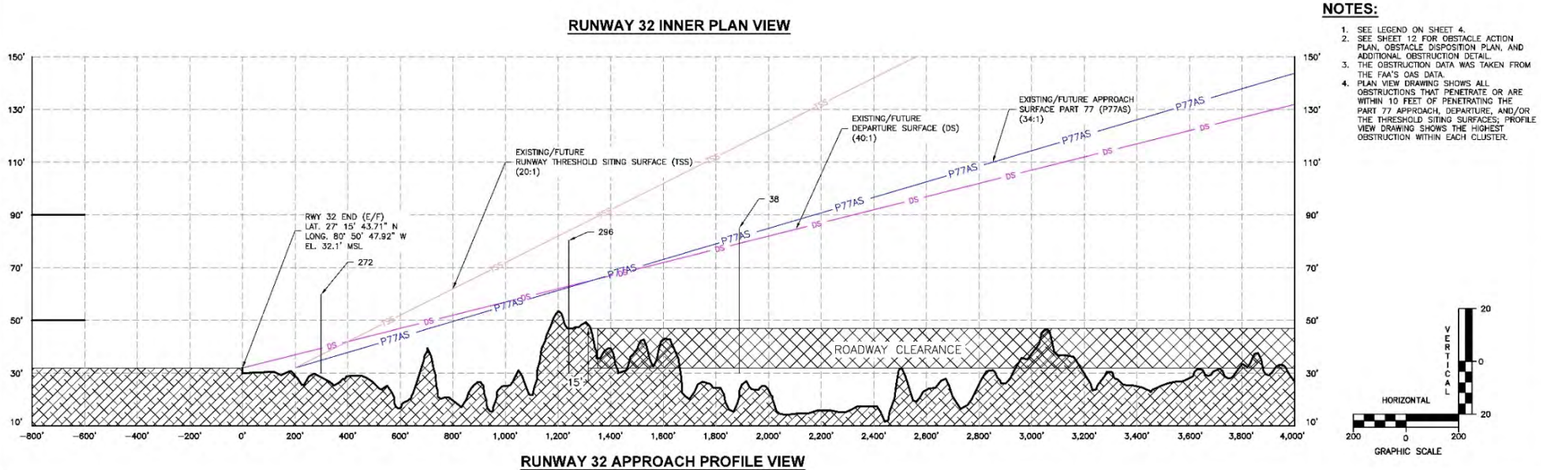
FAA AIP NO. 3-12-0058-019-2017
FDOT FM NO 441689-94-01
AVCON PROJECT NO. 2017.029.02

SHEET NUMBER

10

Figure 7-10:
INNER PORTION OF THE APPROACH SURFACE FOR RUNWAY 14





NOTES:

1. SEE LEGEND ON SHEET 4.
2. SEE SHEET 12 FOR OBSTACLE ACTION PLAN, OBSTACLE DISPOSITION PLAN, AND ADDITIONAL OBSTRUCTION DETAIL.
3. THE OBSTRUCTION DATA WAS TAKEN FROM THE FAA'S OAS DATA.
4. PLAN VIEW DRAWING SHOWS ALL OBSTRUCTIONS THAT PENETRATE OR ARE WITHIN 10 FEET OF PENETRATING THE PART 77 APPROACH, DEPARTURE, AND/OR THE THRESHOLD SITING SURFACES; PROFILE VIEW DRAWING SHOWS THE HIGHEST OBSTRUCTION WITHIN EACH CLUSTER.

OKEECHOBEE COUNTY AIRPORT

AIRPORT LAYOUT PLAN SET

INNER PORTION OF THE APPROACH SURFACE FOR RUNWAY 32

AVCON, INC.
ENGINEERS & PLANNERS

SCALE:

REVISIONS:

NO.	DATE	BY	DESCRIPTION

DESIGNED BY:	M.S
DRAWN BY:	M.A
CHECKED BY:	M.S
APPROVED BY:	M.S
DATE:	OCTOBER 2020
FAA AIP NO.	3-12-0056-019-2017
FDOT FM NO	441689-94-01
AVCON PROJECT NO.	2017.029.02

SHEET NUMBER

11

Figure 7-11:
INNER PORTION OF THE APPROACH SURFACE FOR RUNWAY 32

	OBS NO.	DESCRIPTION	TOP EL (MSL)	APPR. SURFACE (34:1)	DEP. SURFACE (40:1)	TSS (20:1)	DISPOSITION
CLUSTER NO. 1 RWY 14	79	TREE	74		-11.83		TRIM/REMOVE
	80	TREE	77		-11.39		TRIM/REMOVE
CLUSTER NO. 2 RWY 14	77	TREE	66		-2.22		REMOVE
	286	TREE	61		-0.72		REMOVE
CLUSTER NO. 3 RWY 14	68	TREE	80	19.74	9.65		REMOVE
	81	TREE	77	8.93	0.02		REMOVE
	104	TREE	89	17.72	9.29		REMOVE
	192	TREE	80	10.74	2.01		REMOVE
	386	TREE	80	8.15	-0.20		REMOVE
	389	TREE	73	0.36	-7.87		REMOVE
	391	TREE	75		-8.05		REMOVE
	392	TREE	71		-9.67		REMOVE
	438	TREE	74	1.01	-7.17		REMOVE
	445	TREE	59	1.93	-8.64		REMOVE
	449	TREE	74	2.07	-6.27		REMOVE
	450	TREE	60	2.50	-4.86		REMOVE
	455	TREE	62	0.79	-9.15		REMOVE
	456	POLE	68	1.28	-7.84		LIGHT
	457	POLE	66	4.47	-5.43		LIGHT
	467	POLE	68	3.86	-5.65		LIGHT
	473	TREE	81	0.99	-6.14		REMOVE
CLUSTER NO. 4 RWY 14	287	TREE	58	5.27	-5.95		REMOVE
CLUSTER NO. 11 RWY 32	18	TREE	65		-5.99		REMOVE
	126	TREE	55		10.59		REMOVE
	136	TREE	66		-6.35		REMOVE
	203	TREE	53		-11.71		TRIM/REMOVE
	204	TREE	66		-15.77		TRIM/REMOVE
	296	TREE	82		-6.07		REMOVE

	OBS NO.	DESCRIPTION	TOP EL (MSL)	APPR. SURFACE (34:1)	DEP. SURFACE (40:1)	TSS (20:1)	DISPOSITION
CLUSTER NO. 12 RWY 32	8	TREE	57	20.54	6.89		REMOVE
	9	TREE	54	12.21	-0.65		REMOVE
	10	TREE	56	8.52	0.21		REMOVE
	19	TREE	50	6.74	-5.73		REMOVE
	272	TREE	60	29.62	2.41		REMOVE
	279	TREE	56	11.38	-1.05		REMOVE
CLUSTER NO. 13 RWY 32	1	TREE	67	4.86	-4.95		REMOVE
	17	TREE	80	6.67	-1.45		REMOVE
	20	TREE	70	11.05	0.77		REMOVE
	21	TREE	80	15.47	10.70		REMOVE
	22	TREE	76	5.07	3.41		REMOVE
	36	TREE	80	12.74	3.70		REMOVE
	37	TREE	78	10.17	1.22		REMOVE
	38	TREE	85	7.87	0.31		REMOVE
	96	TREE	84	12.45	4.04		REMOVE
	97	TREE	79	5.21	-2.84		REMOVE
	98	TREE	64	5.53	-4.83		REMOVE
	295	TREE	83	15.42	6.43		REMOVE
CLUSTER NO. 14 RWY 32	437	ELEVATOR	182		-9.34		LIGHT

NOTES:

1. THE OBSTRUCTION DATA WAS TAKEN FROM THE FAA'S DAS DATA.
2. THE OBSTRUCTIONS LISTED ARE PENETRATING OR WITHIN 10 FEET OF PENETRATING THE PART 77 APPROACH, DEPARTURE, AND/OR THRESHOLD SITING SURFACE.
3. THE HIGHLIGHTED OBSTRUCTION IS THE HIGHEST WITHIN EACH CLUSTER.

AVCON, INC.
ENGINEERS & PLANNERS

OKEECHOBEE COUNTY AIRPORT

AIRPORT LAYOUT PLAN SET

RWY 14/32 OBSTACLE ACTION & DISPOSITION PLANS

SCALE:

REVISIONS:

NO.	DATE	BY	DESCRIPTION

DESIGNED BY:	M.S
DRAWN BY:	M.A
CHECKED BY:	M.S
APPROVED BY:	M.S
DATE:	OCTOBER 2020
FAA AIP NO.	3-12-0056-019-2017
FDOT FM NO	441689-94-01
AVCON PROJECT NO.	2017.029.02

SHEET NUMBER

12

Figure 7-12:
OBSTACLE ACTION AND DISPOSITION PLANS

TRANSITIONAL SURFACE PENETRATIONS

OBS. NO.	DESCRIPTION	TOP EL (MSL)	TRANS. SURFACE (7:1)	DISPOSITION
6	TREE	51	-0.82	REMOVE
7	TREE	80	15.18	REMOVE
13	TREE	37	2.13	REMOVE
14	TREE	39	1.73	REMOVE
18	TREE	65	-3.79	REMOVE
40	TREE	55	6.77	REMOVE
41	TREE	57	15.48	REMOVE
42	TREE	47	-10.12	REMOVE
45	TREE	52	11.39	REMOVE
46	TREE	67	28.38	REMOVE
47	TREE	50	7.13	REMOVE
48	TREE	58	18.35	REMOVE
51	TREE	56	17.54	REMOVE
55	TREE	51	0.65	REMOVE
59	TREE	42	-2.62	REMOVE
63	TREE	63	-8.91	REMOVE
69	TREE	45	-2.09	REMOVE
72	TREE	52	-4.48	REMOVE
73	TREE	45	-5.45	REMOVE
77	TREE	66	1.34	REMOVE
82	TREE	59	3.41	REMOVE
85	TREE	39	0.3	REMOVE
86	TREE	58	17.25	REMOVE
87	TREE	73	9.65	REMOVE
90	TREE	41	2.43	REMOVE
93	TREE	52	16.53	REMOVE
99	TREE	52	-9.87	REMOVE
101	VERTICAL_STRUCTURE	45	-8.46	LIGHT
102	TANK	38	-5.88	LIGHT
106	TREE	36	-6.53	REMOVE
107	TREE	35	-10.39	REMOVE
109	TREE	44	-4.18	REMOVE
112	TREE	56	-6.14	REMOVE
116	TREE	51	-6.56	REMOVE
129	TREE	81	19.36	REMOVE
130	TREE	56	-3.43	REMOVE
131	TREE	44	-0.32	REMOVE
134	TREE	56	-0.4	REMOVE
135	TREE	39	-8.38	REMOVE
136	TREE	66	-3.22	REMOVE
138	TREE	73	-9.24	REMOVE
139	TREE	74	1.11	REMOVE
152	TREE	53	11.98	REMOVE
160	TREE	82	20.32	REMOVE
161	TREE	73	-8.34	REMOVE
164	TREE	83	15.65	REMOVE
172	TREE	83	-5.08	REMOVE
174	TREE	83	-8.71	REMOVE
175	TREE	81	-6.89	REMOVE
181	TREE	79	-6.75	REMOVE
184	TREE	66	-2.92	REMOVE
193	TREE	55	2.03	REMOVE
194	TREE	49	6.89	REMOVE
195	TREE	51	14.2	REMOVE
196	TREE	88	-1.92	REMOVE
199	TREE	89	-2.86	REMOVE
201	TERRAIN	34	-0.62	LIGHT
203	TREE	53	-2.94	REMOVE
207	TREE	70	-9.09	REMOVE
209	TREE	53	5.2	REMOVE
219	TANK	67	-9.8	LIGHT
220	POLE	67	1.87	LIGHT
221	POLE	112	4.27	LIGHT
222	POLE	124	-1.59	LIGHT
223	POLE	54	-4.33	LIGHT
224	BUILDING	53	-10.47	LIGHT
225	BUILDING	59	-7.15	LIGHT
233	FENCE	38	-2.43	LIGHT
242	BUILDING	59	3.99	LIGHT
244	POLE	64	-5.46	LIGHT
246	POLE	63	18.85	LIGHT
253	POLE	112	2.22	LIGHT
256	POLE	134	-1.33	LIGHT
273	TREE	63	-4.15	REMOVE
281	TREE	55	11.05	REMOVE
286	TREE	61	9.9	REMOVE
298	TREE	58	12.01	REMOVE

NOTES:

1. THE OBSTRUCTION DATA WAS TAKEN FROM THE FAA'S OAS DATA.
2. THE OBSTRUCTIONS LISTED ARE PENETRATING OR WITHIN 10 FEET OF PENETRATING THE TRANSITIONAL SURFACE.
3. TRANSITIONAL SURFACE PENETRATIONS ARE SHOWN ON SHEET 6.

OKEECHOBEE COUNTY FLORIDA

AVCON

AVCON, INC.
ENGINEERS & PLANNERS

OKEECHOBEE COUNTY AIRPORT

AIRPORT LAYOUT PLAN SET

OBSTACLE ACTION & DISPOSITION PLANS TRANSITIONAL SURFACE

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REVISIONS:

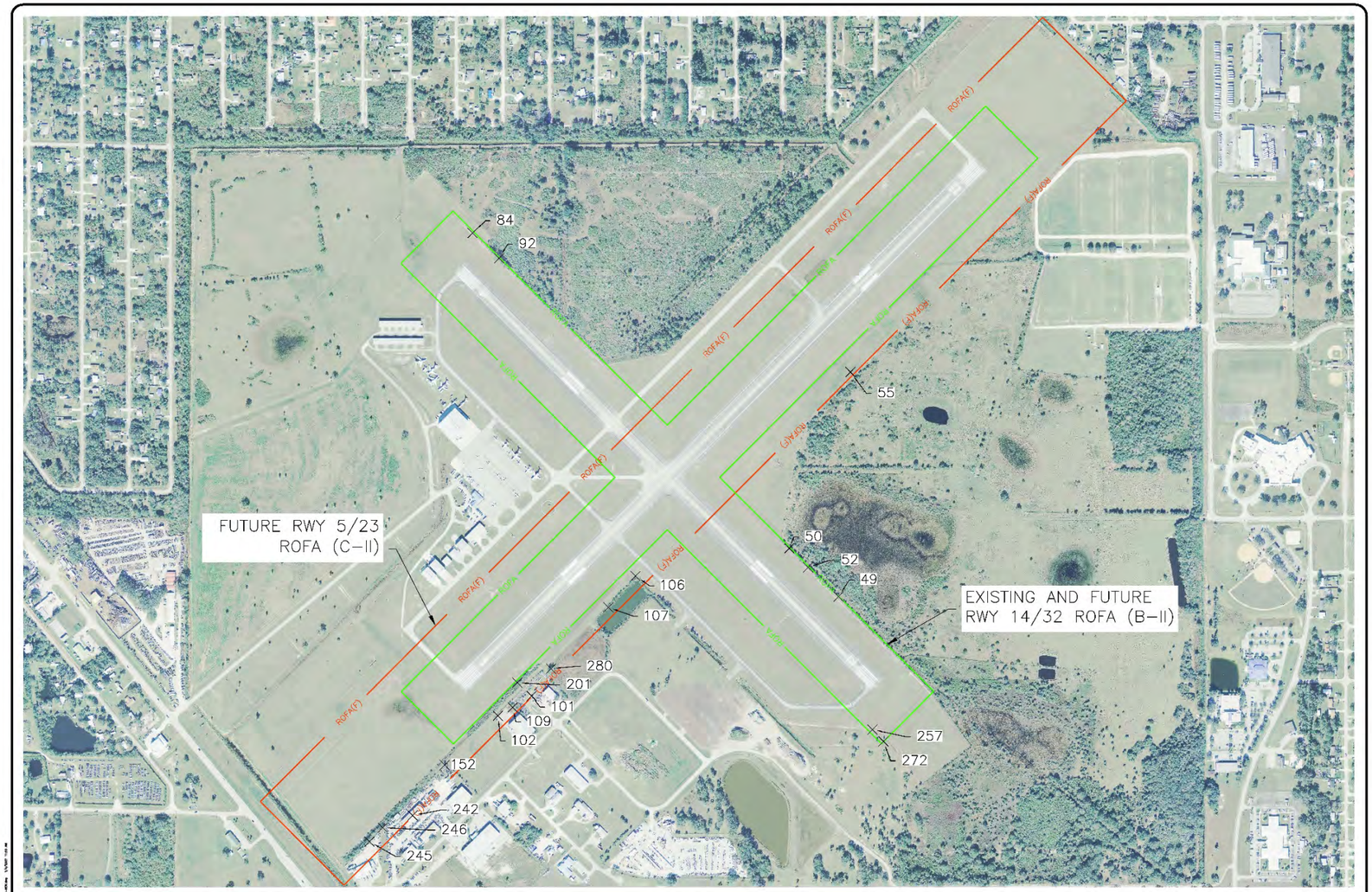
NO.	DATE	BY	DESCRIPTION

DESIGNED BY:	M.S
DRAWN BY:	M.A
CHECKED BY:	M.S
APPROVED BY:	M.S
DATE:	OCTOBER 2020
FAA AIP NO.	3-12-0056-019-2017
FDOT FM NO	441689-94-01
AVCON PROJECT NO.	2017.029.02

SHEET NUMBER

13

Figure 7-13:
OBSTACLE ACTION AND DISPOSITION PLANS TRANSITIONAL SURFACE



ROFA OBSTRUCTIONS (EXISTING AND FUTURE)

OBS. NO.	DESCRIPTION	E/F	RUNWAY	DISPOSITION
49	TREE	E	32	REMOVE
50	TREE	E	32	REMOVE
52	TREE	E	32	REMOVE
84	TREE	E	14	REMOVE
92	TREE	E	14	REMOVE
257	FENCE	E	32	MOVE
272	TREE	E	32	REMOVE
55	TREE	F	23	REMOVE
101	VERTICAL_STRUCTURE	F	5	REMOVE
102	TANK	F	5	MOVE
106	TREE	F	5	REMOVE
107	TREE	F	5	REMOVE
109	TREE	F	5	REMOVE
152	TREE	F	5	REMOVE
201	TERRAIN	F	5	REMOVE
242	BUILDING	F	5	LIGHT
245	POLE	F	5	MOVE
246	POLE	F	5	MOVE
280	TREE	F	5	REMOVE

NOTES:

1. THE OBSTRUCTION DATA WAS TAKEN FROM THE FAA'S OAS DATA.
2. THE ROFA DATA TABLE SHOWS OBSTRUCTIONS WITHIN THE EXISTING (E) OR FUTURE (F) RUNWAY OBJECT FREE AREAS.
3. MANY OF THE TREES WITHIN THE EXISTING RWY 14/32 ROFA LIE CLOSE TO THE ROFA LINE. THESE TREES MAY NEED TO BE TRIMMED INSTEAD OF REMOVED TO REMAIN OUTSIDE OF THE BOUNDARY.

North

OKEECHOBEE COUNTY FLORIDA

AVCON

AVCON, INC.
ENGINEERS & PLANNERS
3555 E. MICHIGAN ST., SUITE 210 - ORLANDO, FL 32812-2775
OFFICE (407) 304-1122 - FAX (407) 304-1125
CORPORATE CERTIFICATE OF AUTHORIZATION NUMBER: 8-57
www.avcon.com

OKEECHOBEE COUNTY AIRPORT

AIRPORT LAYOUT PLAN SET

EXISTING AND FUTURE ROFA OBSTRUCTIONS

SCALE:

REVISIONS:

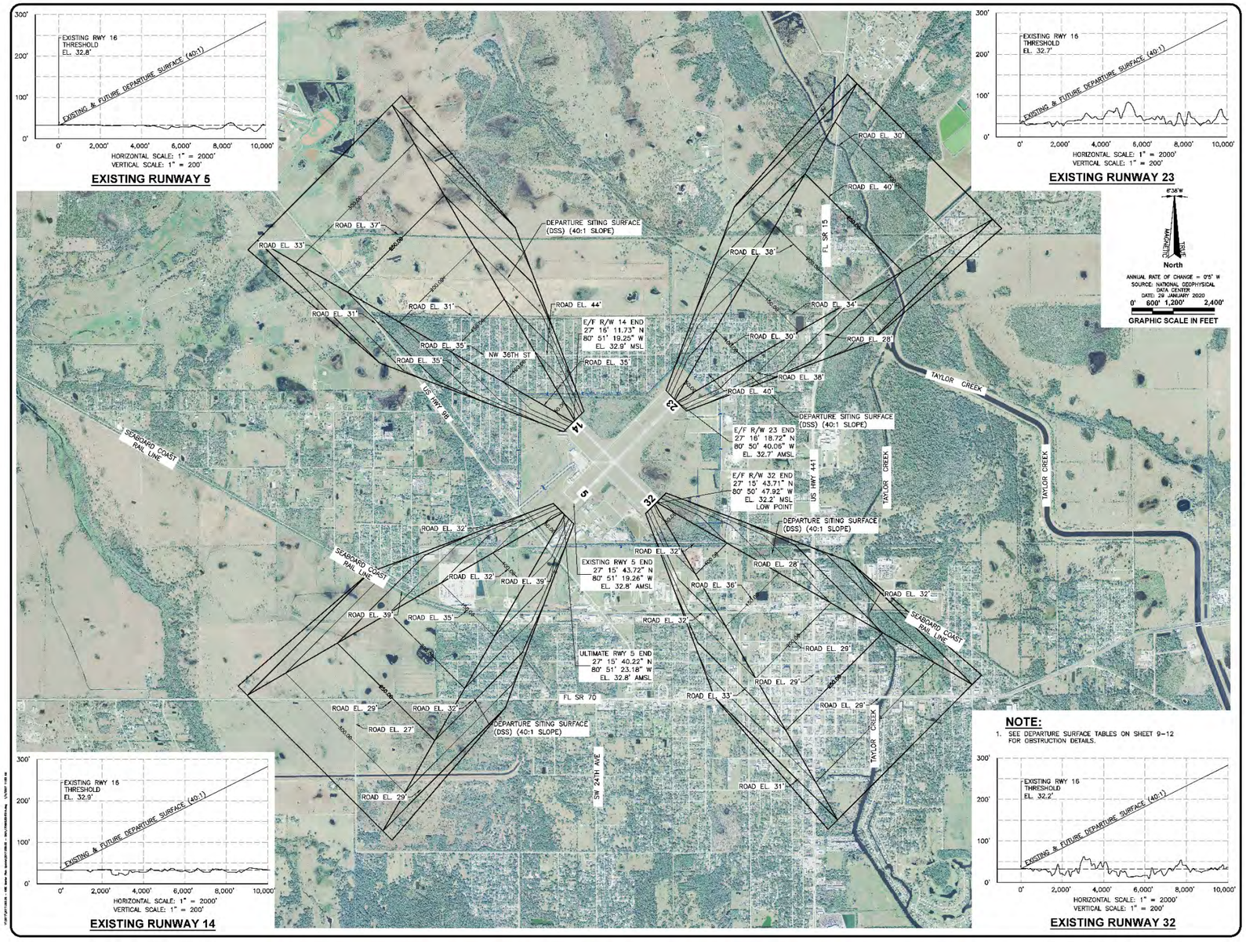
NO.	DATE	BY	DESCRIPTION

DESIGNED BY:	M.S
DRAWN BY:	M.A
CHECKED BY:	M.S
APPROVED BY:	M.S
DATE:	OCTOBER 2020
FAA AIP NO.	3-12-0056-019-2017
FDOT FM NO	441689-94-01
AVCON PROJECT NO.	2017.029.02

SHEET NUMBER

14

Figure 7-14
EXISTING AND FUTURE ROFA OBSTRUCTIONS



OKEECHOBEE COUNTY AIRPORT

AIRPORT LAYOUT PLAN SET

DEPARTURE SURFACES

AVCON, INC.
ENGINEERS & PLANNERS

SCALE:

REVISIONS:

NO.	DATE	BY	DESCRIPTION

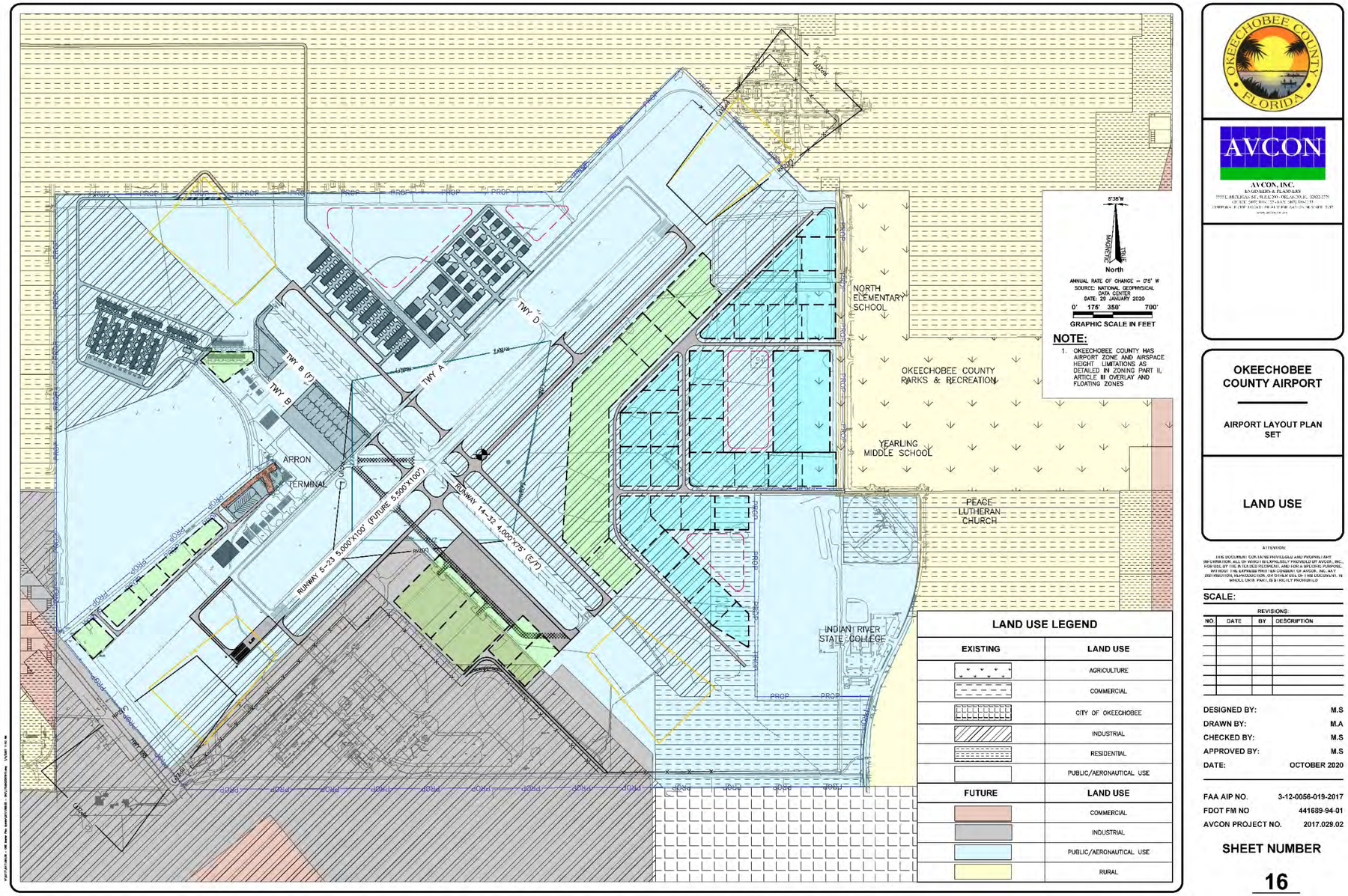
DESIGNED BY: M.S
DRAWN BY: M.A
CHECKED BY: M.S
APPROVED BY: M.S
DATE: OCTOBER 2020

FAA AIP NO. 3-12-0058-019-2017
FDOT FM NO 441689-94-01
AVCON PROJECT NO. 2017.029.02

SHEET NUMBER

15

Figure 7-15:
DEPARTURE SURFACES



OKEECHOBEE COUNTY FLORIDA

AVCON

AVCON, INC.
ENGINEERS & PLANNERS

OKEECHOBEE COUNTY AIRPORT

AIRPORT LAYOUT PLAN SET

LAND USE

SCALE:

REVISIONS:

NO.	DATE	BY	DESCRIPTION

DESIGNED BY:	M.S
DRAWN BY:	M.A
CHECKED BY:	M.S
APPROVED BY:	M.S
DATE:	OCTOBER 2020

FAA AIP NO.	3-12-0056-019-2017
FDOT FM NO	441689-94-01
AVCON PROJECT NO.	2017.029.02

SHEET NUMBER

16

Figure 7-16:
LAND USE PLAN

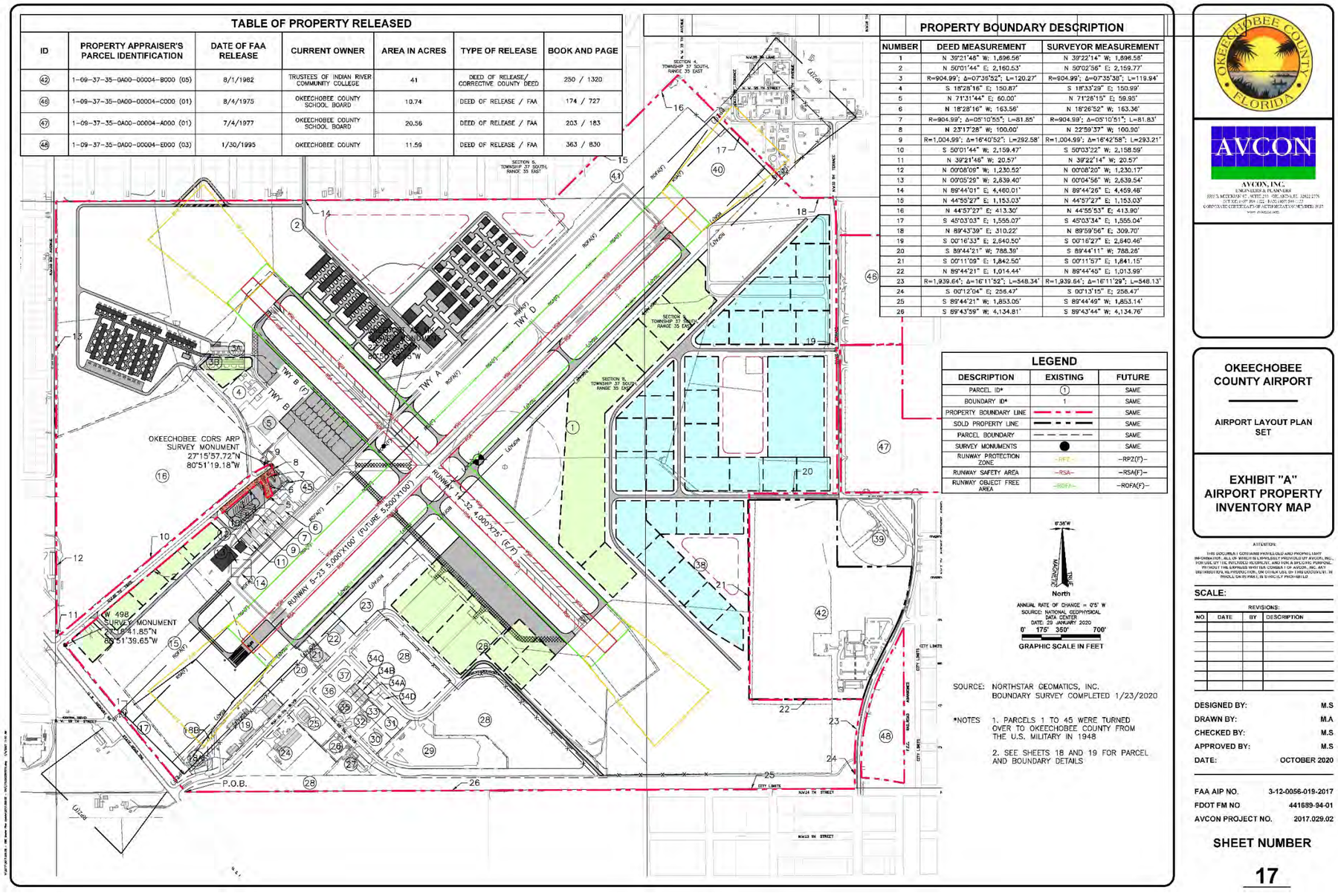


Figure 7-17:
EXHIBIT "A" AIRPORT PROPERTY INVENTORY MAP

OKEECHOBEE PARCEL INFORMATION

PARCEL ID	PROPERTY APPRAISER #	FAA/ AIP GRANT	S-T-R	BOOK-PAGE	DATE	GRANTOR	GRANTEE	ACREAGE	INTEREST ACQUIRED	INSTRUMENT OF CONVEYANCE	USE
					EXISTING						
(1)	1-08-37-35-0A00-00001-0000	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	259.12	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	COUNTY IMPROVEMENTS
(2)	1-08-37-35-0A00-00002-0000	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	135.21	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	COUNTY IMPROVEMENTS/LEASE
(3A)	1-08-37-35-0A00-00003-013N	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	0.78	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	LEASE/BOX HANGARS
(3B)	1-08-37-35-0A00-00003-011N	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	1.198	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	LEASE/T-HANGARS
(4)	1-08-37-35-0A00-00003-007N	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	1.541	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	LEASE/MAP UNIVERSAL LLC
(5)	1-08-37-35-0A00-00003-003N	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	3.477	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	COUNTY IMPROVEMENTS
(6)	1-08-37-35-0A00-00004-001S	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	0.803	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	LEASE/CURREN ELECTRIC CO
(7)	1-08-37-35-0A00-00004-002S	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	0.301	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	LEASE/GIL'S AUTO CENTER INC
(8)	1-08-37-35-0A00-00004-003S	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	0.301	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	LEASE/GIL'S AUTO CENTER INC
(9)	1-08-37-35-0A00-00004-004S	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	0.301	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	LEASE/REDD INC
(10)	1-08-37-35-0A00-00004-005S	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	0.301	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	LEASE/FLORIDA DIVISION OF FORESTRY
(11)	1-08-37-35-0A00-00004-06S	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	0.301	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	LEASE/DARRYL R DEYOUNG
(12)	1-08-37-35-0A00-00004-007S	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	0.305	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	LEASE/VACANT
(13)	PARCEL ID RESERVED										
(14)	PARCEL ID RESERVED										
(15)	1-08-37-35-0A00-00006-0000	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	36.95	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	COUNTY IMPROVEMENTS
(16)	1-08-37-35-0A00-00005-0000	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	52.15	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	COUNTY/VACANT
(17)	1-08-37-35-0A00-00007-0000	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	6.78	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	COUNTY/VACANT
(18A)	1-08-37-35-0010-00000-00A0	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	1.18	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	LEASE/BIG LAKE ROOFING INC
(18B)	1-08-37-35-0010-00000-00A1	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	0.32	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	COUNTY/VACANT
(19)	1-08-37-35-0010-00000-0010	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	5.07	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	LEASE/NEXAIR LLC
(20)	1-08-37-35-0010-00000-0060	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	3.099	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	COUNTY/VACANT
(21)	1-08-37-35-0010-00000-0080	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	1.03	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	COUNTY IMPROVEMENTS
(22)	1-08-37-35-0010-00000-0100	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	2.066	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	LEASE/ALLIED PIVOT SALES INC
(23)	1-08-37-35-0010-00000-0120	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	3.439	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	COUNTY/VACANT
(24)	1-08-37-35-0010-00000-0150	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	6.52	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	COUNTY IMPROVEMENTS
(25)	1-08-37-35-0010-00000-0190	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	1.84	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	LEASE/FRANK & GEORGEANN HEWITT
(26)	1-08-37-35-0010-00000-0180	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	0.92	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	LEASE/A&D WATER SYSTEMS
(27)	1-08-37-35-0010-00000-0250	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	1.58	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	COUNTY IMPROVEMENTS/ANIMAL SHELTER
(28)	1-08-37-35-0010-00000-00D0	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	41.48	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	COUNTY/VACANT
(29)	1-08-37-35-0A00-00000-024A	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	7.95	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	LEASE/CONCRETE PRODUCTS OF PALM BEACH
(30)	1-08-37-35-0010-00000-0240	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	0.96	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	LEASE/LINDA WELLMAKER & PALM CITY
(31)	1-08-37-35-0A00-00000-0340	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	0.98	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	COUNTY/VACANT
(32)	1-08-37-35-0010-00000-0230	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	0.92	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	LEASE/LINDA WELLMAKER & PALM CITY
(33)	1-08-37-35-0A00-00000-0330	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	0.46	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	COUNTY/VACANT
(34A)	1-08-37-35-0A00-00000-032A	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	0.16	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	LEASEHOLD
(34B)	1-08-37-35-0A00-00000-032B	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	0.16	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	LEASEHOLD
(34C)	1-08-37-35-0A00-00000-032C	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	0.16	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	COUNTY IMPROVEMENTS
(34D)	1-08-37-35-0A00-00000-0320	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	0.89	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	COUNTY IMPROVEMENTS
(35)	1-08-37-35-0010-00000-0220	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	0.92	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	LEASE/MAGNA-BON II LLC
(36)	1-08-37-35-0010-00000-0210	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	0.92	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	LEASE/VACANT
(37)	1-08-37-35-0A00-00000-0310	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	0.92	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	LEASE/VACANT
(38)	1-09-37-35-0A00-00000-0000	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	176	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	COUNTY IMPROVEMENTS
(39)	1-08-37-35-0A00-00004-D000	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	9.11	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	COUNTY IMPROVEMENTS
(40) (41)	1-04-37-35-0A00-00002-0000	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	20.35	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	COUNTY/VACANT
(42)	1-09-37-35-0A00-00004-B000	N/A	8-37-35	250-1320	9/18/1982	OKEECHOBEE COUNTY	THE DISTRICT BOARD OF TRUSTEES OF INDIAN RIVER COMMUNITY COLLEGE	41	FEE SIMPLE	CORRECTIVE COUNTY DEED	COLLEGES
(43)	1-08-37-35-0A00-00003-012N	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	0.203	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	COUNTY IMPROVEMENTS
(44)	1-08-37-35-0A00-00009-0000	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	9.069	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	COUNTY IMPROVEMENTS
(45)	1-08-37-35-0A00-00001-A000	N/A	8-37-35	46-283	2/24/1948	UNITED STATES OF AMERICA	OKEECHOBEE COUNTY	0.039	FEE SIMPLE	CANCELLATION OF LEASE/ QUIT CLAIM DEED	LEASE/THE LANDING STRIP

PARCEL INFORMATION

SOURCE: OKEECHOBEE COUNTY PROPERTY APPRAISER WEBSITE

NOTES: 1. PARCELS SHOWN WERE RELEASED OVER TO OKEECHOBEE COUNTY FROM THE U.S. MILITARY ON FEBRUARY 24, 1948 AS PART OF THE WAR ASSETS ADMINISTRATION

2. PARCEL INFORMATION SHOWN IS TAKEN FROM THE MOST RECENT LEGAL RECORDING

BOUNDARY LEGAL DESCRIPTION

SOURCE: NORHSTAR GEOMATICS, INC.
SURVEY COMPLETED 1/23/2020

NOTE: SEE SHEET 19 FOR BOUNDARY LEGAL DESCRIPTION DETAILS

OKEECHOBEE COUNTY AIRPORT

AIRPORT LAYOUT PLAN SET

EXHIBIT "A" PROPERTY INFORMATION 1 OF 2

SCALE:

REVISIONS:

NO.	DATE	BY	DESCRIPTION

DESIGNED BY: M.S
DRAWN BY: M.A
CHECKED BY: M.S
APPROVED BY: M.S
DATE: OCTOBER 2020

FAA AIP NO. 3-12-0056-019-2017
FDOT FM NO 441689-94-01
AVCON PROJECT NO. 2017.029.02

SHEET NUMBER

18

Figure 7-18:
EXHIBIT "A" PROPERTY INFORMATION

AIRPORT PROPERTY - LEGAL DESCRIPTION

A PARCEL OF LAND LYING IN SECTIONS 4, 5, 8 AND 9, TOWNSHIP 37 SOUTH, RANGE 35 EAST, OKEECHOBEE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHWEST CORNER OF SAID SECTION 8;

THENCE NORTH 89°43'59" EAST ALONG THE SOUTH LINE OF SAID SECTION 8 (AS A BASE OF BEARINGS), A DISTANCE OF 1149.14 FEET TO THE INTERSECTION WITH THE NORTHEASTERLY RIGHT OF WAY LINE OF US HIGHWAY 98 (STATE ROAD 700, 59, 66) AS SHOWN ON THE FLORIDA DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MAP SECTION (9150) 91090-2102, LAST REVISED JANUARY 1, 1961, AND THE POINT OF BEGINNING;

THENCE NORTH 39°21'46" WEST ALONG SAID RIGHT OF WAY LINE, A DISTANCE OF 1696.56 FEET TO THE INTERSECTION WITH THE SOUTHEASTERLY RIGHT OF WAY LINE OF AIRPORT ROAD (NW 20TH TRAIL), AS SHOWN ON THE FLORIDA DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MAP SECTION 91563 – 2601, LAST REVISED FEBRUARY 26, 1960;

THENCE NORTH 50°01'44" EAST ALONG SAID RIGHT OF WAY LINE, A DISTANCE OF 2160.53 FEET TO THE BEGINNING OF A TANGENT CURVE, CONCAVE SOUTHEASTERLY;

THENCE NORTHEASTERLY ALONG SAID RIGHT OF WAY LINE AND THE ARC OF SAID CURVE, HAVING A RADIUS OF 904.99 FEET, A CENTRAL ANGLE OF 07°36'52" AND AN ARC DISTANCE OF 120.27 FEET TO A POINT OF NON-TANGENCY;

THENCE SOUTH 18°28'16" EAST ALONG SAID RIGHT OF WAY LINE, A DISTANCE OF 150.87 FEET;

THENCE NORTH 71°31'44" EAST ALONG SAID RIGHT OF WAY LINE, A DISTANCE OF 60.00 FEET;

THENCE NORTH 18°28'16" WEST ALONG SAID RIGHT OF WAY LINE, A DISTANCE OF 163.56 FEET TO THE POINT ON THE ARC OF A NON-TANGENT CURVE, CONCAVE SOUTHEASTERLY (SAID POINT BEARS NORTH 28°28'24" WEST FROM THE RADIUS POINT OF THE NEXT DESCRIBED CURVE);

THENCE NORTHEASTERLY ALONG SAID RIGHT OF WAY LINE AND ALONG THE ARC OF SAID CURVE, HAVING A RADIUS OF 904.99 FEET, A CENTRAL ANGLE OF 05°10'55" AND AN ARC DISTANCE OF 81.85 FEET TO A POINT OF NON-TANGENCY AND THE NORTHEASTERLY RIGHT OF WAY LINE OF SAID AIRPORT ROAD;

THENCE NORTH 23°17'28" WEST ALONG SAID RIGHT OF WAY LINE AND ALONG A LINE RADIAL TO THE NEXT DESCRIBED CURVE, A DISTANCE OF 100.00 FEET TO THE NORTHWESTERLY RIGHT OF WAY LINE OF SAID AIRPORT ROAD;

THENCE SOUTHWESTERLY ALONG SAID RIGHT OF WAY LINE AND THE ARC OF SAID CURVE HAVING A RADIUS OF 1004.99 FEET, A CENTRAL ANGLE OF 16°40'52" AND AN ARC DISTANCE OF 292.58 FEET TO THE POINT OF TANGENCY;

THENCE SOUTH 50°01'44" WEST ALONG SAID RIGHT OF WAY LINE, A DISTANCE OF 2159.47 FEET TO THE INTERSECTION WITH THE NORTHEASTERLY RIGHT OF WAY LINE OF SAID US 98 (STATE ROAD 700, 59, 66);

THENCE NORTH 39°21'46" WEST ALONG SAID RIGHT OF WAY LINE, A DISTANCE OF 20.57 FEET TO THE INTERSECTION WITH THE WEST LINE OF THE SOUTHWEST ONE-QUARTER OF SAID SECTION 8, TOWNSHIP 37 SOUTH, RANGE 35 EAST;

THENCE NORTH 00°08'09" WEST ALONG THE WEST LINE OF SAID SOUTHWEST ONE-QUARTER OF SECTION 8, A DISTANCE OF 1230.52 FEET TO THE SOUTHWEST CORNER OF THE NORTHWEST ONE-QUARTER OF SAID SECTION 8;

THENCE NORTH 00°05'29" WEST ALONG THE WEST LINE OF SAID NORTHWEST ONE-QUARTER OF SECTION 8, A DISTANCE OF 2639.40 FEET TO THE NORTHWEST CORNER OF SAID SECTION 8;

THENCE NORTH 89°44'01" EAST ALONG THE NORTH LINE OF SAID SECTION 8, A DISTANCE OF 4460.01 FEET TO THE SOUTHWEST CORNER OF THOSE LANDS AS DESCRIBED IN OFFICIAL RECORDS BOOK 40, PAGE 129, PUBLIC RECORDS OF OKEECHOBEE COUNTY FLORIDA;

THENCE NORTH 44°55'27" EAST ALONG THE NORTHWESTERLY LINE OF SAID LANDS AS DESCRIBED IN OFFICIAL RECORDS BOOK 40, PAGE 129, A DISTANCE OF 1153.03 FEET TO THE WEST LINE SAID SECTION 4, TOWNSHIP 37 SOUTH, RANGE 35 EAST;

THENCE CONTINUE NORTH 44°55'27" EAST ALONG SAID LINE, A DISTANCE OF 413.30 FEET TO THE NORTHERN MOST CORNER OF THOSE LANDS AS DESCRIBED IN OFFICIAL RECORDS BOOK 39, PAGE 523, PUBLIC RECORDS OF OKEECHOBEE COUNTY, FLORIDA;

THENCE SOUTH 45°03'03" EAST ALONG THE NORTHEASTERLY LINE OF SAID LANDS AS DESCRIBED IN OFFICIAL RECORDS BOOK 39, PAGE 523, A DISTANCE OF 1555.07 FEET TO A POINT ON THE NORTH LINE OF SAID SECTION 9, TOWNSHIP 37 SOUTH, RANGE 35 EAST;

THENCE NORTH 89°43'39" EAST ALONG THE NORTH LINE OF SAID SECTION 9, A DISTANCE OF 310.22 FEET TO THE NORTHWEST CORNER OF THOSE LANDS AS DESCRIBED IN OFFICIAL RECORDS BOOK 203, PAGE 187, PUBLIC RECORDS OF OKEECHOBEE COUNTY, FLORIDA;

THENCE SOUTH 00°16'33" EAST ALONG THE WEST LINE OF SAID LANDS AS DESCRIBED IN OFFICIAL RECORDS BOOK 203, PAGE 187, AND THOSE LANDS AS DESCRIBED IN OFFICIAL RECORDS BOOK 174, PAGE 731, PUBLIC RECORDS OF OKEECHOBEE COUNTY, FLORIDA, A DISTANCE OF 2640.50 FEET TO THE SOUTHWEST CORNER OF SAID LANDS AS DESCRIBED IN OFFICIAL RECORDS BOOK 174, PAGE 731 AND THE NORTH RIGHT OF WAY LINE OF NW 27TH STREET;

THENCE SOUTH 89°44'21" WEST ALONG SAID NORTH RIGHT OF WAY LINE, A DISTANCE OF 788.39 FEET TO THE WESTERLY RIGHT OF WAY LINE OF SAID NW 27TH STREET AND THE NORTHERLY EXTENSION OF THOSE LANDS AS DESCRIBED IN OFFICIAL RECORDS BOOK 250, PAGE 1320, PUBLIC RECORDS OF OKEECHOBEE COUNTY, FLORIDA;

THENCE SOUTH 00°11'09" EAST ALONG THE WEST LINE OF SAID LANDS AS DESCRIBED IN OFFICIAL RECORDS BOOK 250, PAGE 1320 AND THEIR NORTHERLY EXTENSION, A DISTANCE OF 1842.50 FEET TO THE SOUTHWEST CORNER OF SAID LANDS;

THENCE NORTH 89°44'21" EAST ALONG THE SOUTH LINE OF SAID LANDS AS DESCRIBED IN OFFICIAL RECORDS BOOK 250, PAGE 1320, A DISTANCE OF 1014. 44 FEET TO THE WEST RIGHT OF WAY LINE OF NW 9TH AVE, AS LAID OUT AND IN USE, AND TO THE POINT ON THE ARC OF A NON-TANGENT CURVE, CONCAVE SOUTHEASTERLY (SAID POINT BEARS NORTH 74°00'12" WEST FROM THE RADIUS POINT OF THE NEXT DESCRIBED CURVE);

THENCE SOUTHWESTERLY ALONG SAID RIGHT OF WAY LINE AND THE ARC OF SAID CURVE HAVING A RADIUS OF 1939.64 FEET, A CENTRAL ANGLE OF 16°11'52" AND AN ARC DISTANCE OF 548.34 FEET TO THE POINT OF TANGENCY;

THENCE SOUTH 00°12'04" EAST ALONG SAID RIGHT OF WAY LINE, A DISTANCE OF 256.47 FEET TO THE SOUTH LINE OF SAID SECTION 9, TOWNSHIP 37 SOUTH, RANGE 35 EAST;
THENCE SOUTH 89°44'21" WEST ALONG THE SOUTH LINE OF SAID SECTION 9, A DISTANCE OF 1853.05 FEET TO THE SOUTHEAST CORNER OF SAID SECTION 8, TOWNSHIP 37 SOUTH, RANGE 35 EAST;

THENCE SOUTH 89°43'59" WEST ALONG THE SOUTH LINE OF SAID SECTION 8, A DISTANCE OF 4134.81 FEET TO THE NORTHEASTERLY RIGHT OF WAY LINE OF US HIGHWAY 98 (STATE ROAD 700, 59, 66), AND THE POINT OF BEGINNING.

SAID LANDS SITUATE IN OKEECHOBEE COUNTY, FLORIDA, CONTAINING 819.80 ACRES, MORE OR LESS.

AVCON, INC.
ENGINEERS & PLANNERS

OKEECHOBEE COUNTY AIRPORT

AIRPORT LAYOUT PLAN SET

EXHIBIT "A" PROPERTY INFORMATION 2 OF 2

SCALE:

REVISIONS:

NO.	DATE	BY	DESCRIPTION

DESIGNED BY:	M.S
DRAWN BY:	M.A
CHECKED BY:	M.S
APPROVED BY:	M.S
DATE:	OCTOBER 2020

FAA AIP NO.	3-12-0056-019-2017
FDOT FM NO	441689-94-01
AVCON PROJECT NO.	2017.029.02

SHEET NUMBER

19

Figure 7-19:
EXHIBIT "A" BOUNDARY INFORMATION

8 CAPITAL IMPROVEMENT PROGRAM

8.1 Introduction

The Capital Improvement Program (CIP) for Okeechobee County Airport has been developed based on the Airport's current and future needs as justified in Chapter 3, *Forecast of Aviation Activity,* and as identified in the Chapter 4, *Facility Requirements*. The development captures the various airport projects identified within the Airport Layout Plan over the 20-year planning period. Recognizing the costs associated with these projects along with the various federal and state funding programs and requirements are essential in determining the feasibility of the planned projects. Accordingly, the goal of this chapter is to:

- Provide a list of projects that will fulfill CIP requirements
- Give a brief description of each project
- Provide a general cost estimate of each project
- Give general financial guidance to Airport management concerning potential funding sources
- Provide a recommended schedule that logically balances the need for a project with the prospects of available funds for the project

The various projects identified in the CIP are broken out over three-time frames:

- Short-term (2019-2023) – five years
- Mid-term (2024-2028) – five years
- Long-term (2029-2038) – 10 years

The proposed implementation schedule provided herein gives estimated time periods for initiating the proposed projects. Continuous re-evaluation of these timelines is necessary to account for changes in aviation demand, funding availability, and other unforeseen factors. Actual project implementation should generally occur just prior to when the actual need for an improvement is anticipated to occur and when funding for the project is available. This will allow the facility to be available just as the need is realized. Additionally, other improvements not identified in this report may be needed over the planning period.

All projects noted in this chapter are compatible with the development noted on the ALP. However, there may be occasions where certain projects may require an FAA and FDOT approved amendment to the ALP.

The project cost estimates provided in this chapter reflect a preliminary opinion of probable implementation costs. Included in the implementation costs are construction costs, engineering, testing, and surveying fees, and a pricing allowance. All cost estimates are provided in 2019 dollars.

The projects have been arranged in recognition of the probable availability of FAA and FDOT funds as well as through input from the Airport. Particularly within the short-term, it also

recognizes the probable availability of local funding sources. It is possible that the Airport may identify additional funding resources that may allow projects to be moved forward at that time. It is just as possible that any of the funding sources may not be as available as shown in this document. In that event, one or more projects may be pushed to a later year.

8.2 Short-Term Projects (2019-2023)

The projects planned over the short-term will become the basis for the FAA/FDOT JACIP process, where the appropriate funding can be programmed and applied for following submittal and acceptance of this report. A probable breakdown of the funding sources for the individual projects is also presented in this chapter. The total project cost over the short-term time frame is estimated at $9.4 million. While cost estimates for the completed projects are provided, the exact scopes of these projects have yet to be completed and will be subject to change. These projects costs are estimated as accurately as possible based upon available data. Prior to the initiation of these projects, a detailed engineering investigation may be needed to obtain a more detailed cost estimate.

19-01 NAVAID Improvements/AWOS III - Design
Project Cost: $43,500

This project is for the design related to replacing outdated NAVAID equipment, including an existing AWOS-III Weather Reporting System that was constructed in 2002, which has become functionally obsolete.

20-01 Rehabilitate Runway 5/23 - Design
Project Cost: $250,000

Runway 5/23 was last repaved in 2004 and is reaching the end of its useful life. This project is for the design of the rehabilitation of existing asphalt pavement as well as replacement of associated lighting, signage, and pavement markings.

20-02 NAVAID Improvements/AWOS III - Construction
Project Cost: $300,000

This project is the construction phase of ACIP 19-01, which consists of the replacement of identified NAVAIDS along with the AWOS-III Weather Reporting System.

21-01 Parking Lot Expansion and Access Road
Project Cost: $700,000

The current parking for the terminal and restaurant is inadequate. In addition, the only access to the box hangars located on Taxiway A must also go through the already crowded parking lot. This project involves the design and construction of an expanded parking lot for the terminal along with a new access road for the box hangars.

21-02 Rehabilitate Runway 5/23 - Construction
Project Cost: $2,600,000

This project will complete the rehabilitation of Runway 5/23 as designed under ACIP 20-01

22-01 Realign Taxiway B, Terminal Apron Expansion, and New Run-up Pad - Design
Project Cost: $203,334

The current Taxiway B alignment is non-standard, which impacts the existing terminal apron area. This project consists of the design phase of demolishing the existing Taxiway B and constructing a new taxiway that will be closer to Runway 14/32. This project also allows for concurrent expansion of the existing terminal apron by approximately 20,000 square yards, as well as the addition of a runup pad for Runway 14.

23-01 Realign Taxiway B, Terminal Apron Expansion, and New Run-up Pad - Construction
Project Cost: $3,000,000

This project is the construction portion of ACIP 22-01, which involves the construction of a new Taxiway B along with an aircraft runup pad and expansion of the terminal apron.

23-02 Rehabilitate Runway 14/32 - Design and Construction
Project Cost: $2,300,000

The Runway 14/32 asphalt pavement is approximately 22 years old and has reached the end of its useful life. This project consists of the design and construction associated with the rehabilitation of Runway 14/32.

Table 8 1 presents the list of projects anticipated to occur in the Short-term as well as the proposed year. An order of magnitude cost estimate in 2019 dollars is also provided. Figure 8-1 shows the location and extent of each project.

Table 8-1
SHORT-TERM CAPITAL IMPROVEMENT PROGRAM PROJECTS

Year	Project Number	Project Description	Estimated Project Cost
2019	19-01	NAVAID Improvements/AWOS III (Design)	$ 43,500
2020	20-01	Rehabilitate RWY 5-23 [Design]	$ 250,000
	20-02	NAVAID Improvements/AWOS III (Construction)	$ 300,000
2021	21-01	Parking Lot Expansion and Access Road	$ 700,000
	21-02	Rehabilitate RWY 5-23 (Construction)	$ 2,600,000
2022	22-01	Realign Taxiway B/Apron/Run-up Pad (Design)	$ 203,334
2023	23-01	Realign Taxiway B (Construction)	$ 3,000,000
	23-02	Rehabilitate Runway 14/32 - Design and Construction	$ 2,300,000
		TOTALS:	**$ 9,396,834**

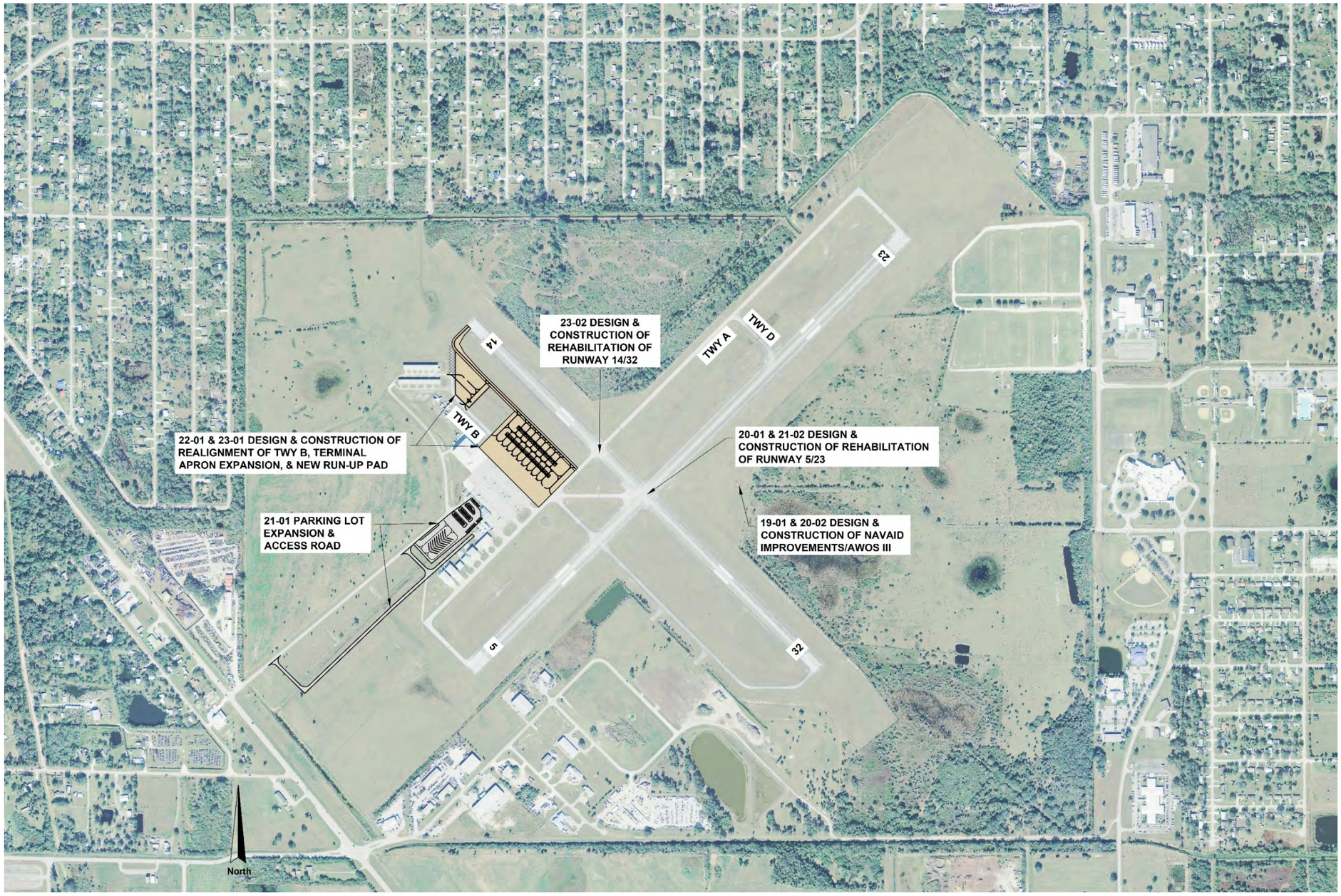


Figure 8-1
SHORT-TERM PROJECTS

8.3 Mid-Term Projects (2024-2028)

The mid-term projects have been identified for submittal to the FAA and FDOT for funding purposes. The sum of the development project costs and anticipated funding needs over the mid-term period is estimated to be approximately $8.6 million in 2019 dollars. Some of the projects identified as mid-term projects may move forward into the short-term as additional funds are identified. Conversely, if anticipated funding sources are not available some-term projects may be pushed back into the mid-term. The primary focus of the mid-term program is the development of hangars and the rehabilitation of existing airfield pavement. The following is a summary of the mid-term projects:

24-01 T-Hangars West Area Phase 1 – Design and Construction
Project Cost: $1,200,000

This multiphase project consists of the initial design and infrastructure construction associated with the proposed west development area. The infrastructure includes the initial taxilane construction and site drainage and utilities. The development area is located west of Runway 14 near the existing t-hangar and box hangar area.

25-01 T-Hangars West Area Phase 2 - Construction
Project Cost: $944,256

This project consists of the first half of the hangar and related infrastructure construction that was previously designed under ACIP 24-01. The project construction is located to the west of Taxiway B near Runway 14.

26-01 Runway 5 Extension - Environmental Assessment
Project Cost: $312,000

This project will consist of preparing an Environmental Assessment to determine the impact, purpose, and need of the proposed 500-foot extension of Runway 5.

26-02 Terminal Building Expansion
Project Cost: $350,000

This project consists of the rehabilitation of the existing Airport Terminal Building. Due to the growth of the Airport, it is necessary to improve the terminal facilities so that enough space is available to accommodate public functions.

27-01 Acquire Land for Runway 5 Extension
Project Cost: $900,000

This project consists of acquiring land and for the proposed 500-foot extension of Runway 5.

27-02 T-Hangars West Area Phase 3 - Construction
Project Cost: $944,256

This construction project is the second half of the hangar and related infrastructure construction that was initiated under ACIP 26-03. The project construction is located to the west of Taxiway B near Runway 14.

28-01 Taxiway A Rehabilitation - Design and Construction
Project Cost: $3,000,000

This project consists of the design and construction associated with the rehabilitation of Taxiway A. The Taxiway A pavement is 17 years old and is approaching the end of its useful life. Rehabilitation allows the Airport to maintain compliance with federal and state grant assurances

28-02 Airport Master Plan Update
Project Cost: $350,000

This project will involve an update to this Airport Master Plan Update. This project keeps the Airport compliant with FAA Grant Assurance 29, Airport Layout Plan.

28-03 Airport Maintenance Building
Project Cost: $300,000

The project consists of the design and construction of an Airport Maintenance Building. The Airport Maintenance Building would house and protect various Airport equipment required to perform routine airfield and building maintenance.

28-04 Electrical Vault Expansion and Upgrade
Project Cost: $250,000

This project is for the design and construction of the expansion and upgrade to the existing airfield electrical vault.

Table 8-2
MID-TERM CAPITAL IMPROVEMENT PROGRAM PROJECTS

Year	Project Number	Project Description	Estimated Project Cost
2024	24-01	T-Hangars West Area Phase 1 - Design and Construction	$ 1,200,000
2025	25-01	T-Hangars West Area Phase 2 - Construction	$ 944,256
2026	26-01	Runway 5 Extension - Environmental Assessment	$ 312,000
	26-02	Terminal Building Expansion	$ 350,000
2027	27-01	Acquire Land for Runway 5 Extension	$ 900,000
	27-02	T-Hangars West Area Phase 3 - Construction	$ 944,256
2028	28-01	Taxiway A Rehabilitation - Design and Construction	$ 3,000,000
	28-02	Airport Master Plan Update	$ 350,000
	28-03	Airport Maintenance Building	$ 300,000
	28-04	Electrical Vault Expansion and Upgrade	$ 250,000
		TOTAL	**$ 8,550,512**

8.4 Long-Term Projects (2029-2038)

Based upon the anticipated need and available funding, many projects associated with the preferred alternative of development will be developed over the ten-year, long-term period. The projects have been scheduled for specific years but are loosely prioritized. The total project development costs and funding needs over the long-term period is estimated in 2019 dollars at approximately $11.9 million. The projects included in the long-term are:

29-01 Runway 5/23 Rehabilitation - Design
Project Cost: $250,000

Runway 5/23 was last repaved in 2021. This project is for the design of the rehabilitation of existing asphalt pavement, as well as replacement of associated lighting, signage, and pavement markings, which will extend the useful life of the runway.

30-01 Runway 5/23 Rehabilitation - Construction
Project Cost: $1,500,000

This project is to complete the rehabilitation of Runway 5/23 as designed under ACIP 29-01

31-01 Extend Runway 5/23 - Design
Project Cost: $325,000

This project is for the design of the extension for Runway 5.

Table 8-2 presents the list of projects anticipated to occur in the Mid-term as well as the proposed year. An order of magnitude cost estimate in 2019 dollars is also provided.

32-01 Extend Runway 5/23 - Construction
Project Cost: $1,162,000

This project is a continuation of ACIP 31-01 and consists of the construction of the Runway 5 extension.

32-02 Terminal Access Road - Design and Construction
Project Cost: $2,000,000

This project consists of the design and construction of the extension to the existing terminal access road from US Highway 98 to the Terminal.

33-01 T-Hangars West Area Phase 4 - Construction
Project Cost: $2,918,930

This project is Phase 4 of ACIP 24-01. The project involves the construction of an additional hangar and related infrastructure identified under ACIP 24-01. The project is located to the west of Taxiway B close to Runway 14.

34-01 Taxiway C Southwest Expansion - Design
Project Cost: $166,667

This project is for the design of the southwest portion of the future parallel Taxiway C from the intersection of Taxiway B to the end of Runway 5.

35-01 Taxiway C Southwest Expansion - Construction
Project Cost: $1,000,000

This project is a continuation of ACIP 34-01 and consists of the construction of a southwest parallel taxiway from Runway 5 up to the intersection of Taxiway B.

36-01 Runway 14/32 Rehabilitation
Project Cost: $1,500,*000*

This project consists of the design and construction associated with the rehabilitation of Runway 14-32, which was last completed in 2025.

37-01 Southeast Apron - Design
Project Cost: $100,000

This project consists of the design of the southeast apron area located southwest of Taxiway B on the southeast side of the Airport.

38-01 Southeast Apron - Construction
Project Cost: $1,000,000

This project consists of the construction phase of ACIP 37-01 which creates an apron access area located southwest of Taxiway B on the southeast side of the Airport.

Table 8-3 presents the list of projects anticipated to occur in the long-term, as well as the proposed year. An order of magnitude cost estimate in 2019 dollars is also provided.

Table 8-3
LONG-TERM CAPITAL IMPROVEMENT PROGRAM PROJECTS

Year	Project Number	Project Description	Estimated Project Cost
2029	29-01	Runway 5/23 Rehabilitation - Design	$ 250,000
2030	30-01	Runway 5/23 Rehabilitation - Construction	$ 1,500,000
2031	31-01	Extend Runway 5/23 - Design	$ 325,000
2032	32-01	Extend Runway 5/23 - Construction	$ 1,162,000
	32-02	Terminal Access Road - Design and Construction	$ 2,000,000
2033	33-01	T-Hangars West Area Phase 4 - Construction	$ 2,918,930
2034	34-01	Taxiway C Southwest Expansion - Design	$ 166,667
2035	35-01	Taxiway C Southwest Expansion - Construct	$ 1,000,000
2036	36-01	Runway 14/32 Rehabilitation	$ 1,500,000
2037	37-01	Southeast Apron - Design	$ 100,000
2038	38-01	Southeast Apron - Construction	$ 1,000,000
		TOTAL	**$11,922,597**

8.5 Potential Funding Sources

Airports rely primarily on revenues from tenants and funding from governmental sources. Generally, funding from the FAA and state agencies such as the Florida Department of Transportation (FDOT) are very important to airports. While the main revenue from tenant leases and fuel sales may cover operating costs and some existing debt service, there are limited residual funds to cover the costs of necessary airport capital improvement projects.

Depending on the project, these capital improvements may be eligible for FAA or FDOT funding. However, the Airport is competing with every other airport in the State and in the United States for the same funding. Because a project is eligible for Federal or State funding does not ensure that the funding will be received. The following sections describe several funding programs and general eligibility requirements associated with each.

8.5.1 Federal Funding

The Airport Improvement Program (AIP), administered by the FAA, was established to assist in the growth of public-use airports within the National Plan of Integrated Airport System (NPIAS). The AIP provides grants to public-use airports such as Okeechobee County Airport for a wide variety of airport improvement projects. Projects funded by the AIP include runway and taxiway rehabilitation and construction, land acquisition, planning and environmental studies, navigational aid installation, and airfield marking and signage projects. Airports must be in the NPIAS to be eligible for AIP funds. Okeechobee County Airport is one of 3,328 airports in the nation that is eligible for federal funding.

For General Aviation (GA) airports such as Okeechobee County Airport, the AIP will fund up to 90 percent of the eligible costs of the project. The remaining 10 percent is the responsibility of an airport's local governing body and potential matching monies from the State. Some of the

projects over the 20-year planning period at the Airport that are eligible for AIP funding include runway and taxiway rehabilitation, aprons, lighting, and visual aids. Additionally, land acquisition, planning, and environmental projects are also eligible for AIP funds. However, most revenue producing projects, such as hangars, fuel farms, and FBO facilities, and routine maintenance are not AIP eligible.

The AIP typically allows for the annual disbursement of $150,000 to applicable GA airports within the NPIAS. The annual $150,000 is referred to as a Non-Primary Entitlement. In order for an airport to receive this money it must be applied for each year. Additionally, the money may only be used towards the development of projects that are approved for federal funding under the AIP.

When entitlement funds are not sufficient to cover the costs of AIP eligible projects, airports can also apply for FAA discretionary funds. In order to allocate those discretionary grants, the FAA has developed a priority ranking system, which accounts for the type of project and airport. Projects concerning runway safety are generally the priority. From these rankings the appropriate funds are distributed.

8.5.2 State Funding

Like the FAA, FDOT has established a program to support the funding of various airport improvement projects. The FDOT aviation grant program provides funding to four major types of projects: airport planning, airport improvement, land acquisition, and airport economic development. Examples of projects funded under these different categories include:

- Airport Planning: master plans, master drainage plans, and environmental assessments
- Airport Improvements: terminal building improvements and runway/taxiway construction
- Land Acquisition: acquisition of land, aviation easements, and mitigation land
- Airport Economic Development: hangar construction, commerce park infrastructure and building development, and the development of other facilities that will enhance economic impact.

FDOT may provide up to 80 percent of the remaining (non-federal) share of general aviation airport project costs when federal funding is available. Basically, if FAA is providing 90 percent of funding for a project, FDOT can fund up to 80 percent of the remaining 10 percent. When FAA funding is not available, FDOT may fund up to 80 percent of the total project cost. For on-airport revenue-producing economic development projects such as industrial parks or buildings, FDOT may fund up to 50 percent of the project costs. The remaining cost of a project is typically covered by the Airport Sponsor, in this case, Okeechobee County.

Other FDOT Aviation funding programs include the Secure Airports for Florida's Economy (SAFE) and the Strategic Airport Investment Program. The SAFE Funds program was created in 2002 as a mechanism to fund security-related aviation projects. The Strategic Airport Investment Program, which was created in 2014 by the Florida Legislature, can provide funding up to 100 percent for projects that meet the following criteria:

- Provide important access and on-airport capacity improvements.
- Provide capital improvements to strategically position the state to maximize opportunities in international trade, logistics, and the aviation industry.
- Achieve state goals of an integrated intermodal transportation system.
- Demonstrate the feasibility and availability of matching funds through federal, local, or private partners.

FDOT has other funding programs that may be used for certain types of projects. This includes the State Infrastructure Bank Program, The Transportation Regional Incentive Program (TRIP), and the Economic Development Transportation Fund Program (EDTF). The State Infrastructure Bank Program (SIB) is a revolving loan and credit enhancement program used to leverage funds to improve project feasibility. The SIB can provide loans and other assistance to public or private entities carrying out or proposing to carry out projects eligible for assistance under federal and state law. The SIB cannot provide assistance in the form of a grant.

TRIP provides state matching funds for improvements to regionally significant transportation facilities identified and prioritized by regional partners. TRIP funds are to be used to match local or regional funds up to 50 percent of the total project costs for public transportation projects.

The EDTF Program is an economic incentive program that works collaboratively with other state-specific economic incentive programs to attract businesses and jobs in state-targeted industry sectors. Eligible projects typically include but are not limited to safety and capacity improvements to existing roadways, the development of new roads and rail spurs, and certain seaport, airport, and spaceport infrastructure improvements. EDTF is a reimbursement of eligible costs program.

Additionally, the state of Florida has established numerous economic development programs to provide incentives for companies to locate to Florida. These programs are administered through Enterprise Florida, a public-private partnership responsible for leading Florida's statewide economic development efforts. Some of the programs administered by Enterprise Florida include:

- Qualified Target Industry Tax Refund: Available for companies that create high wage jobs in targeted high value-added industries
- Qualified Defense Contractor Tax Refund: Up to $5,000 is offered per job created or saved in Florida through the conversion of defense jobs to civilian production, the acquisition of a new defense contract, or the consolidation of a defense contract, which results in at least a 25 percent increase in Florida employment or a minimum of 80 jobs
- Capital Investment Tax Credit: is used to attract and grow capital-intensive industries in Florida

- The High Impact Performance Incentive: A negotiated grant used to attract and grow major high impact facilities in Florida
- Enterprise Zone Incentives: Assortment of tax incentives to businesses that choose to create employment within an enterprise zone, which is a specific geographic area targeted for economic revitalization.

While these programs are not meant to specifically fund airport improvement projects, they may be utilized to fund commercial development areas, similar to those planned for the Airport.

8.5.3 Local Funding

Depending on the type of project funding available, local funding sources may or may not account for a major part in the costs of an airport improvement project. Sources of local funding can vary over a diverse group from county and city governments to private investors. While it is usually necessary for an airport or its sponsor to cover some percentage of the costs associated with these projects, the local percentage is generally quite small compared to that of other entities.

The local share of airport improvement projects that receive FAA or FDOT funding are generally funded through the governing body of the airport, typically referred to as the Airport Sponsor. Okeechobee County would be responsible for funding the local share of the improvement projects at the Okeechobee County Airport. Other projects throughout the Airport that may receive additional funding from the County could include the development of infrastructure such as the commerce park and other development areas that would increase the number of revenue producing tenants on Airport property. How the County goes about funding their share of a project can vary.

Funding may be drawn from various sources or it may be drawn from programs such as issuing a development bond. Although issuing bonds is more common at larger commercial service airports, which produce larger revenues as opposed to small GA airports, it remains a viable source of funding.

In the case of private development on an airport, local funding may account for a much higher portion if not all the funding necessary for certain developments. Historically, private investors are generally not a major source of funding for airport improvement projects unless they have a very significant impact on a current or future tenant. However, recent occurrences at more than one airport include private investors wishing to fully fund developments that are strictly investments such as T-hangar complexes for subsequent lease, hangar, apron, or other facilities.

8.6 Potential Allocation of Funding

Tables 8-4 through 8-6 provide a companion oversight of grant funding scenarios for the short-, mid-, and long-term time periods based upon current programs and eligible funding sources. It should be noted that these current programs are subject to change and the CIP should be updated at least annually to adjust for changes in funding and priorities, as necessary. In

addition to the funding sources, the projected cost estimated for the various airport improvement projects are provided in 2019 dollars. These costs should also be updated annually.

The proper management of funds is important to achieve self-sufficiency and to safely develop the Airport to match the projected growth over the planning period. It is recommended that the Airport apply for all available grant money for which it is eligible. It is also imperative that Airport Management meet often with the local representatives of the FAA and FDOT to provide them with a clear, consistent vision of what the County desires to accomplish at the Airport.

By obtaining government assistance to fund airport improvements throughout the planning period, the ability of the Airport to progress toward operational and capital self-sufficiency will be greatly enhanced in future years. Additionally, a sound Capital Improvement Program may reduce the Airport's reliance on governmental aid as the Airport continues to grow and mature as an economic engine.

It is important to understand that the development of the Airport's Capital Improvement Program does not represent an obligation of local funds or commitment of federal or state funding until proper project justification and environmental consent has been determined. Additionally, other state and local agency coordination may also be necessary, depending upon the project. Collaboration with the FAA/FDOT is vital in facilitating project formulation and coordinating project implementation in a timely manner.

Table 8-4
POTENTIAL ALLOCATION OF SHORT-TERM (2019-2023) CIP PROJECT FUNDING

Year	Project Number	Project	Entitlement	FAA Percent	Discretionary	FAA Percent	FDOT	FDOT Percent	Local	Local Percent	Total
2019											
	19-01	NAVAID Improvements/AWOS III - Design	$ 39,150	90.0%	$ -	0.0%	$ 3,480	8.0%	$ 870	2.0%	$ 43,500
			$ 39,150	90.0%	$ -	0.0%	$ 3,480	8.0%	$ 870	2.0%	$ 43,500
2020											
	20-01	Rehabilitate Runway 5/23 - Design	$ 225,000	90.0%	$ -	0.0%	$ 20,000	8.0%	$ 5,000	2.0%	$ 250,000
	20-02	NAVAID Improvements/AWOS III - Construction	$ 270,000	90.0%	$ -	0.0%	$ 24,000	8.0%	$ 6,000	2.0%	$ 300,000
			$ 495,000	90.0%	$ -	0.0%	$ 44,000	8.0%	$ 11,000	2.0%	$ 550,000
2021											
	21-01	Parking Lot Expansion and Access Road	$ -	0.0%	$ -	0.0%	$ 560,000	80.0%	$ 140,000	20.0%	$ 700,000
	21-02	Rehabilitate Runway 5/23 - Construction	$ 215,850	8.3%	$ 2,124,150	81.7%	$ 208,000	8.0%	$ 52,000	2.0%	$ 2,600,000
			$ 215,850	6.5%	$ 2,124,150	64.4%	$ 768,000	23.3%	$ 192,000	5.8%	$ 3,300,000
2022											
	22-01	Realign Taxiway B, Terminal Apron Expansion, and New Run-up Pad - Design	$ -	0.0%	$ -	0.0%	$ 162,667	80.0%	$ 40,667	20.0%	$ 203,334
			$ -	0.0%	$ -	0.0%	$ 162,667	80.0%	$ 40,667	20.0%	$ 203,334
2023											
	23-01	Realign Taxiway B, Terminal Apron Expansion, and New Run-up Pad - Construction	$ -	0.0%	$ -	0.0%	$ 2,400,000	80.0%	$ 600,000	20.0%	$ 3,000,000
	23-02	Rehabilitate Runway 14/32 - Design and Construction	$ -	0.0%	$ -	0.0%	$ 1,840,000	80.0%	$ 460,000	20.0%	$ 2,300,000
			$ -	0.0%	$ -	0.0%	$ 4,240,000	80.0%	$ 1,060,000	20.0%	$ 5,300,000
Totals											
		Total Short-term Projects	$ 750,000	0.00%	$ 2,124,150		$ 5,218,147		$ 1,304,537		$ 9,396,834
		Total Percentage	8.0%		22.6%		55.5%		13.9%		100.0%
		Annual Average Cost	$ 150,000		$ 424,830		$ 1,043,629		$ 260,907		$ 1,879,367

Table 8-5
POTENTIAL ALLOCATION OF MID-TERM (2024-2028) CIP PROJECT FUNDING

Year	Project Number	Project	Entitlement	FAA Percent	Discretionary	FAA Percent	FDOT	FDOT Percent	Local	Local Percent	Total
2024											
	24-01	T-Hangars West Area Phase 1 - Design and Construction	$ -	0.0%	$ -	0.0%	$ 960,000	80.0%	$ 240,000	20.0%	$ 1,200,000
			$ -	0.0%	$ -	0.0%	$ 960,000	80.0%	$ 240,000	20.0%	$ 1,200,000
2025											
	25-01	T-Hangars West Area Phase 2 - Construction	$ -	0.0%	$ -	0.0%	$ 755,405	8.0%	$ 188,851	2.0%	$ 944,256
			$ -	0.0%	$ -	0.0%	$ 755,405	80.0%	$ 188,851	20.0%	$ 944,256
2026											
	26-01	Runway 5 Extension - Environmental Assessment	$ -	0.0%	$ 296,400	95.0%	$ 7,800	2.5%	$ 7,800	2.5%	$ 312,000
	26-02	Terminal Building Expansion	$ -	0.0%	$ -	0.0%	$ 280,000	80.0%	$ 70,000	20.0%	$ 350,000
			$ -	0.0%	$ 296,400	44.8%	$ 287,800	43.5%	$ 77,800	11.8%	$ 662,000
2027											
	27-01	Acquire Land for Runway 5 Extension	$ -	0.0%	$ 855,000	95.0%	$ 22,500	2.5%	$ 22,500	2.5%	$ 900,000
	27-02	T-Hangars West Area Phase 3 - Construction	$ -	0.0%	$ -	0.0%	$ 755,405	80.0%	$ 188,851	20.0%	$ 944,256
			$ -	0.0%	$ 855,000	46.4%	$ 777,905	42.2%	$ 211,351	11.5%	$ 1,844,256
2028											
	28-01	Taxiway A Rehabilitation - Design and Construction	$ -	0.0%	$ 2,700,000	90.0%	$ 240,000	8.0%	$ 60,000	2.0%	$ 3,000,000
	28-02	Airport Master Plan Update	$ 315,000	90.0%	$ -	0.0%	$ 28,000	8.0%	$ 7,000	2.0%	$ 350,000
	28-03	Airport Maintenance Building	$ -	0.0%	$ -	0.0%	$ 240,000	80.0%	$ 60,000	20.0%	$ 300,000
	28-04	Electrical Vault Expansion and Upgrade	$ -	0.0%	$ 237,500	95.0%	$ 6,250	2.5%	$ 6,250	2.5%	$ 250,000
			$ 315,000	8.1%	$ 2,937,500	75.3%	$ 514,250	13.2%	$ 133,250	3.4%	$ 3,900,000
Totals:											
		Total Mid-term Projects	$ 315,000		$ 4,088,900		$3,295,360		$ 851,252		$ 8,550,512
		Total Percentage	3.7%		47.8%		38.5%		10.0%		100.0%
		Annual Average Cost	$ 63,000		$ 817,780		$ 659,072		$ 170,250		$ 1,710,102

Table 8-6
POTENTIAL FUNDING OF LONG-TERM (2029-2038) CIP PROJECT FUNDING

Year	Project Number	Project	Entitlements	FAA Percent	Discretionary	FAA Percent	FDOT	FDOT Percent	Local	LOCAL Percent	Total
2029											
	29-01	Runway 5/23 Rehabilitation - Design	$ -	0.0%	$ 225,000	90.0%	$ 20,000	8.0%	$ 5,000	2.0%	$ 250,000
			$ -	0.0%	$ 225,000	90.0%	$ 20,000	8.0%	$ 5,000	2.0%	$ 250,000
2030											
	30-01	Runway 5/23 Rehabilitation - Construction	$ 300,000	20.0%	$ 1,050,000	70.0%	$ 120,000	8.0%	$ 30,000	2.0%	$ 1,500,000
			$ 300,000	20.0%	$ 1,050,000	70.0%	$ 120,000	8.0%	$ 30,000	2.0%	$ 1,500,000
2031											
	31-01	Extend Runway 5/23 - Design	$ -	0.0%	$ 300,000	92.3%	$ 12,500	3.8%	$ 12,500	3.8%	$ 325,000
			$ -	0.0%	$ 300,000	92.3%	$ 12,500	3.8%	$ 12,500	3.8%	$ 325,000
2032											
	32-01	Extend Runway 5/23 - Construction	$ 150,000	12.9%	$ 953,900	82.1%	$ 29,050	2.5%	$ 29,050	2.5%	$ 1,162,000
	32-02	Terminal Access Road - Design and Construction	$ -	0.0%	$ -	0.0%	$ 1,600,000	80.0%	$ 400,000	20.0%	$ 2,000,000
			$ 150,000	4.7%	$ 953,900	30.2%	$ 1,629,050	51.5%	$ 429,050	13.6%	$ 3,162,000
2033											
	33-01	T-Hangars West Area Phase 4 - Construction	$ -	0.0%	$ -	0.0%	$ 2,335,144	80.0%	$ 583,786	20.0%	$ 2,918,930
			$ -	0.0%	$ -	0.0%	$ 2,335,144	80.0%	$ 583,786	20.0%	$ 2,918,930
2034											
	34-01	Taxiway C Southwest Expansion - Design	$ 150,000	90.0%	$ -	0.0%	$ 13,333	8.0%	$ 3,334	2.0%	$ 166,667
			$ 150,000	90.0%	$ -	0.0%	$ 13,333	8.0%	$ 3,334	2.0%	$ 166,667
2035											
	35-01	Taxiway C Southwest Expansion - Construct	$ 300,000	30.0%	$ 600,000	60.0%	$ 80,000	8.0%	$ 20,000	2.0%	$ 1,000,000
			$ 300,000	30.0%	$ 600,000	60.0%	$ 80,000	8.0%	$ 20,000	2.0%	$ 1,000,000
2036											
	36-01	Runway 14/32 Rehabilitation	$ -	0.0%	$ -	0.0%	$ 1,200,000	80.0%	$ 300,000	20.0%	$ 1,500,000
			$ -	0.0%	$ -	0.0%	$ 1,200,000	80.0%	$ 300,000	20.0%	$ 1,500,000
2037											
	37-01	Southeast Apron - Design	$ -	0.0%	$ -	0.0%	$ 80,000	80.0%	$ 20,000	20.0%	$ 100,000
			$ -	0.0%	$ -	0.0%	$ 80,000	80.0%	$ 20,000	20.0%	$ 100,000
2038											
	38-01	Southeast Apron - Construction	$ -	0.0%	$ -	0.0%	$ 800,000	80.0%	$ 200,000	20.0%	$ 1,000,000
			$ -	0.0%	$ -	0.0%	$ 800,000	80.0%	$ 200,000	20.0%	$ 1,000,000
Totals:											
		Total Long-term Projects	$ 900,000		$ 3,128,900		$ 6,290,027		$ 1,603,670		$ 11,922,597
		Total Percentage	7.5%		26.2%		52.8%		13.5%		100.0%
		Annual Average Cost	$ 90,000		$ 312,890		$ 629,003		$ 160,367		$ 1,192,260

8.7 SUMMARY

The total estimated cost of the Short-term CIP Projects is $9,396,834 over a five-year period beginning in 2019 and ending in 2023. Projects proposed for the Short-term period include:

- NAVAID Improvements/AWOS III (Design)
- Rehabilitate RWY 5-23 [Design]
- NAVAID Improvements/AWOS III (Construction)
- Parking Lot Expansion and Access Road
- Rehabilitate RWY 5-23 (Construction)
- Realign Taxiway B/Apron/Run-up Pad (Design)
- Realign Taxiway B (Construction)
- Rehabilitate Runway 14/32 - Design and Construction

The potential funding of the proposed Short-term Projects is as follows:

FAA Entitlement Funds	$ 750,000
FAA Discretionary Funds	$ 2,124,150
FDOT	$ 5,218,147
Okeechobee County	$ 1,304,537
	$ 9,396,834

The total estimated cost of the Mid-term CIP Projects is $8,550,512 over a five-year period beginning in 2024 and ending in 2028. Projects proposed for the Mid-term period include:

- T-Hangars West Area Phase 1 - Design and Construction
- T-Hangars West Area Phase 2 - Construction
- Runway 5 Extension - Environmental Assessment
- Terminal Building Expansion
- Acquire Land for Runway 5 Extension
- T-Hangars West Area Phase 3 - Construction
- Taxiway A Rehabilitation - Design and Construction
- Airport Master Plan Update
- Airport Maintenance Building
- Electrical Vault Expansion and Upgrade

The potential funding of the proposed Mid-term Projects is as follows:

FAA Entitlement Funds	$ 315,000
FAA Discretionary Funds	$ 4,088,900
FDOT	$ 3,295,360
Okeechobee County	$ 851,252
	$ 8,550,512

The total estimated cost of the Long-term CIP Projects is $11,922,597 over a ten-year period beginning in 2029 and ending in 2038. Projects proposed for the Long-term period include:

- Runway 5/23 Rehabilitation - Design
- Runway 5/23 Rehabilitation - Construction
- Extend Runway 5/23 - Design
- Extend Runway 5/23 - Construction
- Terminal Access Road - Design and Construction
- T-Hangars West Area Phase 4 - Construction
- Taxiway C Southwest Expansion - Design
- Taxiway C Southwest Expansion - Construct
- Runway 14/32 Rehabilitation
- Southeast Apron - Design
- Southeast Apron – Construction

The potential funding of the proposed Long-term Projects is as follows:

FAA Entitlement Funds	$ 900,000
FAA Discretionary Funds	$ 3,128,900
FDOT	$ 6,290,027
Okeechobee County	$ 1,603,670
	$ 11,922,597