CALHOUN COUNTY AIRPORT MASTER PLAN UPDATE

APRIL 2022

FINAL REPORT

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1 INTRODUCTION

This Airport Master Plan Update has been prepared for Calhoun 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 Calhoun County Airport (Airport). 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 Office.

The FAA requires airports receiving AIP funding to conduct periodic updates of their planning documents. The last Airport Layout Plan for the Airport was completed in September of 2007. Since then, several changes have taken place on the Airport.

This study considers future Airport improvements for the 20-year period of 2020 to 2040. This period will be broken into three phases over which Airport improvement projects will be undertaken: Short-Term (2020-2025), Mid-Term (2026-2030) and Long-Term (2031-2040). The previous Airport Layout 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, the Calhoun County Industrial Development Authority, and the funding agencies. This Master Plan addresses the following:

- Updates the 2007 Airport Layout 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
- Develops an "Exhibit "A" Airport Property Inventory Map

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 Calhoun County Comprehensive Plan are searched for Airport-related information. Additionally, information related to the area demographics is collected.



STEPS IN THE TYPICAL 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 planning period. The aviation activity forecasts are the basis and the justification for the projects and development which are a result of 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 project.
- 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 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, the Airport Layout Plan set, and the Exhibit "A" Airport Property Inventory Map 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 three key documents – the ALP set, the Exhibit "A" Airport Property Map, and the Master Plan Update report. The development of an approved ALP and an Exhibit "A" Airport Property Inventory Map are requirements 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 Calhoun 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 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, a fueling facility, the Airport terminal, and the vehicular facilities are also discussed. A field visit was conducted on September 9, 2020, which included a visual assessment of each facility's condition.

The Calhoun County Industrial Park and Airport Board of Commissioners set the following Goals and Objectives for this Master Plan Update:

Goal 1: Grow the Airport to Provide more jobs to the County. Objective 1.1: Lengthen Runway 18/36 to at least 5,000 feet when justified

Objective 1.2: Provide additional T-hangars

Objective 1.3: Provide additional conventional hangars to invite industry to locate on the Airport

Goal 2: Provide or repair amenities that would entice pilots to use the Airport. Objective 2.1: Repair and relocate the damaged AWOS on the Airport

Objective 2.2: Provide an Airport restaurant on property

Objective 2.3: Relocate the existing fuel farm somewhere other than in the middle of the apron and provide easier access to fuelers.

Goal 3: Comply with the Safety Practices of the FAA and the FDOT. Objective 3.1: Keep all roads and other development out of the Runway Protection Zones.

2.2 Airport Setting

Calhoun County Airport is located between Blountstown and Altha, Florida. Calhoun County is in the central portion of the Florida panhandle. Liberty County borders Calhoun County to the east, Bay County to the west, Gulf County to the south, and Jackson County to the north. Calhoun County is shown in Figure 2-1.

2.2.1 Location

Calhoun County Airport is located about five miles northwest of Blountstown, Florida, which is the County seat of Calhoun County. The location of the Airport to the City is shown in Figure

2-2. The Airport is located west of State Road 71 and public access to the Airport is achieved via NW Agri Park Road. The Airport covers approximately 350 acres, and the airfield has an elevation of approximately 122 feet above mean sea level. Major cities near the Airport include Panama City, FL (36.1 miles), Tallahassee, FL (39.8 miles), and Pensacola, FL (107.2 miles).



Figure 2-1 VICINITY MAP

Source: Google Maps



2.2.2 Administration

The Airport is owned and operated by Calhoun County, Florida and began operations in December of 1993. The day-to-day operations at the Airport are handled by the Calhoun County Industrial Park and Airport Board of Commissioners, with the Chairman of the Authority acting as the de facto Airport Manager. The Calhoun County Industrial Park and Airport Board of Commissioners also acts as the Fixed Base Operator (FBO) of the Airport.

2.2.3 National Air Transportation System Role

Every two years, the U.S. Secretary of Transportation is required to publish a national plan to 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 Calhoun County Airport is included in the NPIAS and is classified as a GA airport. As such, Calhoun County Airport serves an important role in the national and state aviation systems.

The FAA 2021-2025 NPIAS report indicated 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. Calhoun County Airport is classified as a Basic Category airport. Basic Category airports generally have an average of 10 or more based aircraft or four or more based helicopters. Typically, most of the flying is by propeller-driven aircraft in support of business and personal needs. In addition, these airports typically accommodate flight training, emergency services, and most flying is self-piloted. The flying tends to be within a state or immediate region. Facilities for aircraft storage and fueling are offered at the Airport.

2.2.4 Airport Identifier

Within the United States, the FAA assign's 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 usually derived from the name of the airport or the city it serves, while ICAO codes are distributed by region and country. Calhoun County Airport has the IATA designation of F95 and the ICAO designation of KF95.

2.2.5 Florida Aviation System Plan

The Florida Aviation System Plan (FASP) is administered by the FDOT Aviation 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 constant changes by updating the FASP periodically.

Within the CFASPP, there are nine regions in the State of Florida. Calhoun County Airport is in the Northwest Region of the CFASPP. This region encompasses Escambia, Santa Rosa, Okaloosa, Walton, Holmes, Washington, Bay, Calhoun, Golf, Liberty, Jackson, Gadsden, Franklin, Wakulla, Len, and Jefferson counties. There are twenty-one public-use airports in the Northwestern Region. Of these, seventeen, including Calhoun County Airport, are designated as general aviation airports. There are no designated reliever airports. There are four commercial service airports in the Region, as shown in Figure 2-3. The four commercial service airports are Pensacola International, Destin-Fort Walton Beach, Northwest Florida Beaches International, and Tallahassee International Airports.



Figure 2-3 NORTHWEST FLORIDA REGION 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 Calhoun County area's climate and wind characteristics is presented in this section.

2.3.1 <u>Climate</u>

Calhoun County and the surrounding region are typically warm throughout the year. The average high temperature varies between 60° Fahrenheit (F) in January to 92° F in July. In summer, the temperature generally drops approximately 20° F at night. The area experiences a distinct change of seasons accompanied by short cold periods in the winter. The average annual rainfall is 61.2 inches and there are typically 109 days per year with precipitation.

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 Calhoun County Airport has an Automated Weather Observing System (AWOS), which is operated by the National Weather Service. This was damaged by Hurricane Michael in October 2018 and the Airport is seeking to replace the system. The FAA AC 150/5300-13A, *Airport Design*, states that a period of at least 10 consecutive years of wind data should be examined when analyzing airfield wind coverage. Because there are not ten years available for Calhoun County airport, wind data from Marianna Airport was downloaded. Marianna Airport is approximately 21 nautical miles to the north of Calhoun County Airport. This data is available through the FAA Airports Information and Data portal and was downloaded for the years 2010 through 2019; a period of ten years. The Marianna Airport's wind data combined with the Runway 18/36 configuration of Calhoun County Airport yielded the results contained in Table 2-1.

Runway 18/36	Calhoun County
All Weather	
10.5 knots (12 mph)	96.26%
13 knots (15 mph)	98.16%
16 knots (18 mph)	99.58%
Visual Flight Rules (VFR)	
10.5 knots (12 mph)	96.42%
13 knots (15 mph)	98.31%
16 knots (18 mph)	99.69%
Instrument Flight Rules (IFR)	
10.5 knots (12 mph)	95.51%
13 knots (15 mph)	97.37%
16 knots (18 mph)	98.98%

Table 2-1WIND DATA FOR RUNWAY 18/36

Source: FAA AGIS Years 2010 through 2019

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.

The information from the wind data indicates that the single runway can fulfill the wind requirements without assistance from a crosswind runway. Specific wind rose information for Runway 18/36 can be found in Appendix A.

2.4 Historical Aviation Activity Data

The historical aviation activity data for the Calhoun County Airport was taken from the 2020 FAA Terminal Area Forecast (TAF) for the Airport and the FDOT Florida Aviation Database (FAD). This historical data is typically reported to the FAA by each respective airport on the FAA Airport Master Record (Form 5010). The information in the FAD is reported each year during the Airport's annual inspection. The information for the Airport within the 2020 FAA TAF and the FDOT FAD did not match. It was decided to use the FDOT FAD data as it goes back to the 1996, only three years after the opening of the Airport. Further, the FDOT FAD data more closely resembles that of the Airport's records.

2.4.1 Based Aircraft

The historical data for based aircraft for the Airport, as shown in the FDOT FAD for the Airport begins in 1996 and goes through 2015. That data was then augmented by the Airport's records. The data is shown in Figure 2-4 and Table 2-2.



Figure 2-4 HISTORICAL BASED AIRCRAFT

Source: 2015 FDOT FAD and Airport Records

Table 2-2		
HISTORICAL BASED AIRCRAFT		

Year	Historical
1996	6
1997	6
1998	6
1999	6
2000	5
2001	5
2002	3
2003	3
2004	3
2005	3
2006	3
2007	3
2008	13
2009	20
2010	40
2011	40
2012	40
2013	12
2014	11
2015	11
2016	11
2017	11
2018	11
2019	11
2020	33

From 1996 through 1999, the number of aircraft based at the Airport remained at six. In 2000 the number of based aircraft was reported as five. The number declined again in 2002 to three aircraft where it remained through 2007. In 2008, the number of based aircraft rose 13 aircraft and rose again to 20 in 2009. From 2010 through 2012, the number remained at 40, but fell to 12 in 2013 and then to 11 in 2014 where it reportedly remained through 2019. During the Inventory meeting held on September 9, 2020, the Airport reported that they had 35 aircraft in T-hangars and 3 in one of their conventional hangars. Of these 35, 33 have been validated through <u>www.basedaircraft.com</u>, as shown in Appendix C. Of the 33 validated aircraft, 30 are single engine aircraft and 3 a multi-engine aircraft. Of the aircraft reported but not validated, two are single-engine aircraft and one is a glider.

2.4.2 <u>Aircraft Operations</u>

Like the based aircraft forecast, the number of annual operations was taken from the January 2020 FAA Terminal Area Forecast (TAF). The data is shown Figure 2-5 and Table 2-4.



Figure 2-5 HISTORICAL ANNUAL AIRCRAFT OPERATIONS

Source: FDOT FAD and Airport Records

Year	Historical
1996	1,620
1997	1,620
1998	1,620
1999	1,620
2000	1,020
2001	1,020
2002	1,020
2003	1,020
2004	1,020
2005	1,020
2006	1,020
2007	1,020
2008	3,000
2009	3,000
2010	3,000
2011	3,000
2012	3,000
2013	3,000
2014	3,000
2015	3,000
2016	3,000
2017	3,000
2018	3,000
2019	3,000
2020	3,000

Table 2-3 HISTORICAL ANNUAL AIRCRAFT OPERATIONS

From the year 1996 through the year 1999, the Airport reported the number of annual operations at 1,620. In 2,000, the number of annual operations dropped to 1,020 where it remained through 2007 when it rose to 3,000. The Airport has continued to report 3,000 annual operations since 2008 through 2020. As with the based aircraft, the Airport does not believe that the 2,000 annual operations are a valid number, but they have no documentation to verify a different number. The Airport cites that in addition to the 33 validated based aircraft that operate out of the field, the Airport is also used by various flight schools in the area and that the military also uses the Airport for practice.

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 provides an aerial view of the runway at the Airport, Runway 18/36, as well as the full-length parallel Taxiway A, and the apron.



Figure 2-6 CALHOUN COUNTY AIRPORT AERIAL PHOTO

2.5.1.1 <u>Runway 18-36</u>

Runway 18/36 is oriented north/south and is a 3,729-foot-long by 75-foot-wide runway. Displaced thresholds are thresholds located at a point on a runway beyond the beginning of the runway. Displaced thresholds shorten the length of the runway and are typically put into effect to allow aircraft to avoid obstructions to the airspace at the ends of a runway. The pavement markings indicate that there is a 130-foot displaced threshold, which would reduce the runway length to 3,599 feet. However, the displaced threshold has not been published and is therefore, not official.

Per the FDOT Statewide Airfield Pavement Management Program Report of November 2019, the pavement of Runway 18/36 consists of two sections. The first section constitutes most of the runway, which is constructed of asphalt concrete overlaid on asphalt concrete. This section has a Pavement Condition Index (PCI) of 85, or Satisfactory. The second section constitutes the 130-foot-long section on the Runway 36 end that was constructed in 2016. As expected, this section has a PCI of 100, or good condition.

Characteristic	Runway 18/36
Length and Width (feet)	3,729' x 75'
Displaced Threshold	130 feet
Surface Type	Asphalt Concrete
Marking (condition)	Non-Precision (Good)
Approach Aids	2-Light PAPI
Weight Bearing Capacity	60,000 Dual Gear
Effective Gradient (%)	0.09%
Pavement Condition Number (PCN)	13/F/A/Y/T

 Table 2-4

 CALHOUN COUNTY AIRPORT RUNWAY DATA

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 Object Free Zone (OFZ)**: Very like the ROFA, the OFZ is centered on the runway centerline and extends beyond each runway end by 200 feet. The OFZ must remain free of all objects during an aircraft operation.
- **Runway Protection Zones (RPZ)**: The RPZ is a trapezoid shaped surface 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 procedure to that specific runway end. Airport operators are recommended by the FAA to have legal control over the property within the defined RPZ at each runway end.

2.5.1.2 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 one principal taxiway, Taxiway A.

Taxiway A travels in a north/south direction, is 35-feet wide, and is a full-length parallel taxiway to Runway 18/36. It connects Runway 18/36 with the terminal area, the corporate hangars, and the tie-down apron. Per the FDOT Statewide Airfield Pavement Management Program Report of November 2019, the pavement of Taxiway A was in Good condition with a PCI of 100. The Taxiway A stubs had the following PCIs:

- Taxiway A1 100 Good
- Taxiway A2 100 Good
- Taxiway A3 100 Good

Currently, none of the taxiways at Calhoun County have shoulders.

	Taxiway A (feet)
Taxiway Safety Area Width (TSA)	79
Taxiway Object Free Area Width (OFA)	131
Taxiway Centerline to Parallel Runway Centerline	240
Taxiway Centerline to Parallel Taxiway/Taxilane Centerline	n/a
Taxiway Centerline to Fixed or Moyeable Object	57 5

Table 2-5DESIGN STANDARDS FOR TAXIWAY A

2.5.2 Airfield Lighting

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

2.5.2.1 <u>Runway Lighting</u>

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 per their intensity or brightness. Runway 18/36 is equipped with Medium Intensity Runway Lights (MIRL). This system can be activated by pilots through the Common Traffic Advisory Frequency (CTAF), frequency 122.900 MHz.

2.5.2.2 <u>Taxiway Lighting</u>

Taxiway A has Medium Intensity Taxiway Edge Lights (MITL). The condition of the lights on the taxiway are in good condition.

2.5.3 Pavement Markings

Pavement markings delineate the various movement areas on the airfield. Runway 18/36 has designation numbers and centerline striping. Runway 18/36 also has threshold bars and aiming point markers. These markings indicate a non-precision instrument approach, and they are in fair condition. Runway 36 has a displaced threshold marking. The displaced threshold is not published.

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.

Taxiway A has a visible centerline stripe 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 Calhoun 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 Rotating Beacon

An airport rotating beacon is a visual navigational aid (navaid) located at many airports, including the Calhoun County Airport. A 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, each colored white, 180 degrees apart, in accordance with FAA criteria. This indicates that the Airport is an unlighted, land airport. This is not completely true as the Airport does have runway lighting. One of the lenses on the rotating beacon should be changed to green to denote a lighted, land airport. The rotating Beacon operates from sunset to sunrise. The Airport's Rotating Beacon is located approximately 60 feet from the terminal and hangar that are being replaced after Hurricane Michael severely damaged them. The rotating beacon is shown in Figure 2-7.



Figure 2-7 AIRPORT ROTATING BEACON

2.5.4.2 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. It is located to the east of the Runway, between the Runway ad Taxiway A just north of Taxiway A2.

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 on an airport. Segmented circles are recommended at airports receiving FAA funds in FAA AC 150/5340-5D and are particularly helpful to pilots at non-towered airports. The Calhoun County Airport has a segmented circle co-located with the lighted windsock.

2.5.4.3 Runway End Identification Lights

The identification of the runway end and threshold 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 light. Both ends of Runway 18/36 have REILS.

2.5.4.4 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 Calhoun County Airport, Precision Approach Path Indicators (PAPI) systems have been installed on both ends of Runway18/36. 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 18/36 have a 2-light PAPI system located on the left side of the Runway when viewed from an approaching aircraft. The 2-light PAPI system is an older system that is being phased out in favor of 4-light systems. It is anticipated that it will soon become difficult to find replacement parts for those airports that still have 2-light PAPI systems.

2.6 Airspace and Air Traffic Control

The FAA has regulatory control over flight routes whether enroute, 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 2-10.

Table 2-6 AIRSPACE CLASSIFICATIONS

Controlled Airspace Classification	Description
	Begins at 18,000 feet above mean sea level (AMSL) and continues upward.
A	Used to manage enroute air traffic
В	Surrounds the busiest airports such as Orlando and Tampa
С	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 Calhoun County Airport does not have an air traffic control tower and it is not located within the close environs of another busy airport. It does not have published instrument approach procedures for either runway end. Its airspace is classified as Class E. Class E airspace is typically established around airports without an air traffic control tower.



Figure 2-8 AIRSPACE CLASSIFICATIONS

Source: Avstop.com

The Airport is also situated beneath the Tyndall C & H Military Operating Area (MOA), which it excludes at and below 1,500 feet above ground level. The Airport is also immediately adjacent to, and north of Tyndall D MOA.

There is other controlled airspace near the Airport, as shown in Figure 2-9. These include those for the Tyndall Air Force Base (PAM) to the southwest, Tri-County (1J0) to the northeast, Marianna (MAI) to the north, and Quincy (2J9) and Tallahassee (TLH) to the northeast. Figure 2-9 also shows the edges of the airspace for Northwest Florida Beach International (ECP) to the northwest and Quincy (2J9) and Tallahassee International (TLH) to the northeast.

2.6.1 Approach Procedures

Calhoun County Airport currently does not have any instrument approaches for Runway 18/36. The Runway is currently listed as a visual approach only. The Airport management would like to have a non-precision instrument approach added to the Runway, particularly when they plan on extending the Runway to at least 5,000 feet in the future.



Figure 2-9 CALHOUN COUNTY AIRPORT AIRSPACE

Source: FAA New Orleans Aeronautical Chart Expires November 5, 2020

2.6.2 Vicinity Airports

Pilots who use Calhoun County Airport can travel to a large variety of airports within a short distance. Commercial service, general aviation, and private airports surround the Airport and provide many different services to the flying public. Table 2-12 presents a list of commercial service airports within the vicinity of Calhoun County 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 2-13 is a list of general aviation public-use airports located within 50 nautical miles of the Calhoun County Airport.

 Table 2-7

 VICINITY COMMERCIAL AIRPORTS

						Services					Nautical
Airport	ID	City	Runways	Pavement	Instrument Approaches	Fuel	Airframe and Powerplant	Avionics	Based Aircraft	Annual Operations	Miles from Calhoun County
Northwest Florida Beaches International	ECP	Panama City Beach	16/34: 10,000x150	Concrete	ILS, GPS, VOR	100LL, Jet A	Yes	Yes	96	62,780	36.1
Tallahassee International	TLH	Tallahassee	9/27: 8,000 x 150, 18/36: 7,000 x 150	asphalt, asphalt	ILS, GPS, VOR	100LL, Jet A	Yes	Yes	178	66,795	39.8

							Services				Nautical
Airport	ID	City	Runways	Pavement	Instrument Approaches	Fuel	Airframe and Powerplant	Avionics	Based Aircraft	Annual Operations	Miles from Calhoun County
Calhoun County	F95	Blountstown	18/36: 3,729x75	asphalt	none	100LL, Jet A	Yes	No	35	1,976	0
Marianna Municipal	MAI	Marianna	18/36: 6001x100 8/26: 4,763x100	asphalt asphalt	GPS	100LL, Jet A	Yes	No	36	28,100	21.4
Quincy Municipal	2J9	Quincy	16/34: 2,964x75	asphalt	none	100LL	Yes	No	37	6,240	29.5
Tri-County	1J0	Bonifay	1/19: 5,398x75	asphalt	GPS	100LL, Jet A	Yes	No	32	28,500	33.1
Tallahassee Commercial	68J	Tallahassee/ Havana	16/34: 3,249x62	asphalt	none	Closed	No	No	Closed/1	Closed/ 18,250	38.4
Carrabelle-	X40	O amaka II a	E/00 4 000 7E			40011	N	N		4.005	44.0
	X13		5/23: 4,000x75	asphait	none	TUULL	NO	INO	0	4,205	44.2
Costin	A51	Port St. Joe	18/36:4,230x65	turf	none	none	No	No	5	3,224	44.6
Apalachicola Regional	AAF	Apalachicola	14/32: 5,425x150 6/24: 5,271x150 18/36: 5,251x150	concrete, concrete, concrete	GPS	100LL.let A	Yes	Yes	20	24 375	45.8
Wakulla	2J0	Panacea	18/36: 2.570x70	turf	none	none	No	No	3	2.392	47 7
St. George Island	F47	Apalachicola	14/32: 3,339x65	asphalt	none	none	No	No	0	505	51.6

Table 2-8 PUBLIC-USE GENERAL AVIATION AIRPORTS WITHIN 50 NAUTICAL MILES

2.7 Airport Facilities

Most of the Airport's facilities are located on the center of the airfield on the east side of Runway 18/36. This area is accessed from State Road 71 via NW Agri Park Road.

2.7.1 Airport Terminal

The Airport Terminal was previously a lean-to structure adjacent to a hangar. Hurricane Michael demolished both the hangar and the terminal as shown in Figure 2-10. Both are currently being reconstructed, as shown in Figure 2-11. The new terminal will have 4,000 square feet of space for the Airport management and Fixed Base Operator (FBO) functions and will, in the future, contain a flight school. The terminal building will contain the Airport administration offices, the Fixed Base Operator (FBO), a pilot's lounge, a conference room, and restrooms.

Figure 2-10 AIRPORT TERMINAL AND ADJACENT HANGAR AFTER HURRICANE MICHAEL

Source: Google Earth April 2019



Figure 2-11 RECONSTRUCTION OF TERMINAL AND HANGAR

2.7.2 Hangars and Other Buildings

There are several types of hangars, and Calhoun County Airport hosts at least two different types; T-hangars and conventional or "box" hangars. T-hangars typically house a single small aircraft. Several of these are usually 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. Conventional hangars are built in several sizes and can house one or more aircraft depending on the size of the structure.

2.7.2.1 <u>T-Hangars</u>

The Airport currently has three buildings of T-hangars. Each building has twelve T-hangar units. The T-hangars appear to be in good condition, as shown in Figure 2-12. One was replaced and two have been repaired after severe damage during Hurricane Michael.



Figure 2-12 T-HANGAR BUILDING ONE OF THREE

2.7.2.2 Conventional Hangars

In addition to the storage hangar that was destroyed during the hurricane, there are two remaining conventional hangars. Both the remaining conventional hangars are located north of the entrance road and adjacent to the apron. The southern-most hangar measures approximately 60 by 60 feet. The second hangar measures approximately 60 by 100 feet. Both are shown in Figure 2-13.

A fourth hangar was also destroyed during the hurricane. It measured approximately 90 by 100 feet. Re-construction has yet to begin on the fourth hangar.



Figure 2-13 CONVENTIONAL HANGARS

2.7.3 Former Catfish Plant

Here is a building on the Airport that is currently standing vacant as it sustained damage during Hurricane Michael. In its former life, it was a catfish processing plant. Immediately prior to Hurricane Michael it housed the Skydive Panama City offices. They would like to return to the Airport if facilities can be found and the Airport would like for them to return, as well. The former catfish plant is shown in Figure 2-14.



Figure 2-14 FORMER CATFISH PLANT

2.7.4 Maintenance Facility

The Airport Maintenance Facility was also destroyed by Hurricane Michael. It was located northeast of the rotating beacon, east of the destroyed hangar, and north of the northernmost T-hangar building, as shown in Figure 2-15. The Airport has plans to re-build this building.



Figure 2-15 FORMER AIRPORT MAINTENANCE FACILITY

Source: Google Earth, April 2019

2.7.5 Sheriff's Office Aviation Facility

On the west side of the airfield is a parcel of land that is dedicated to the Sheriff's Office Aviation Facility. In addition to an enclosed aircraft hangar, there is also a shade hangar, a shooting range, and vehicular parking, as shown in Figure 2-16.



1. Figure 2-16 SHERIFF'S OFFICE AVIATION FACILITY

2.7.6 Aircraft Parking Aprons

There is approximately 1,485 square yards of aircraft parking apron at the Airport. It is approximately 165 feet deep in most areas and there are several activities that occur on the apron. There are an indeterminate number of tie-downs on the apron as the aircraft parking area markings have faded. All the parking positions on the apron are dedicated to itinerant aircraft.

There are also two fuel tanks in a middle portion of the apron. The Airport would like to see these tanks re-located to a position adjacent to the apron.

There is a helipad painted on the apron, the helipad is not marked with the current helipad markings recommended by the FAA Advisory Circular (AC) 150/5390-2C, *Heliport Design*. There are no approach and departure surfaces to the helipad licensed with the FDOT. If the helipad were to be used, it would be used as a helicopter parking area whereby the approach and departure from the marked area would be via Runway 18/36 accessed by low hover taxing along the taxiways. It is recommended that the helipad be re-painted to reflect its status as a helicopter parking area.

Figure 2-17 AIRPORT APRON



2.7.7 Aviation Fuel Storage

The Airport has two 10,000-gallon fuel tanks. One tank contains 100 Low Lead (LL) fuel or Avgas. The second tank supports Jet A fuel. The fuel facilities are self-serve and are available 24 hours a day seven days a week with the use of a credit card.



Figure 2-18 FUEL FACILITY

Figure 2-19 FUEL FACILITY



2.7.8 Automated Surface Observing System

The Airport was equipped with an Automated Weather Observing System (AWOS) before Hurricane Michael damaged it in 2018. Specifically, it was an AWOS A/V, which measures altimeter and visibility. An AWOS is operated by the Federal Aviation Administration (FAA). An AWOS is several weather sensors that whether they are purchased by the FAA, or the Airport must meet FAA requirements. The sensors operating as a system transmit a 20 to 30 second message that is updated each minute. The Airport would like to upgrade the AWOS to an AWOS 3 when it is replaced so that in addition to the previous information supplied, cloud and ceiling data would also be included.

2.7.9 Airfield Electrical Vault

The Airport's airfield electrical vault is located east of the hangar and terminal that were destroyed by Hurricane Michael. It is also located north of the beacon and T-Hangar Building One. As can be seen in Figure 2-17, the building is very small.

Figure 2-20 AIRFIELD ELECTRICAL VAULT

2.7.10 Airfield Security Fencing

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

Figure 2-21 MAIN AIRPORT ENTRANCE GATE



2.8 Industrial Park Facilities

The operating entity for the Calhoun County Airport is the Calhoun County Industrial Park and Airport Board. There are several facilities that are adjacent to the Airport that make up the Industrial Park. There is little distinction, except for a fence line and the function of the facilities, between the Airport and the Industrial Park.

2.8.1 County Agricultural Pavilion

The County Agricultural Pavilion is accessed off NW Magnolia Church Road via Merchel Drive and is located southeast of the apron area of the Airport. It is separated from the Airport Operating Area (AOA) by a fence. The facility consists primarily of an open-air pavilion that measures approximately 225 by 380 feet. There are a handful of smaller buildings associated with the facility. Figure 2-22 shows the County Agricultural Pavilion as viewed from the Airport apron.



Figure 2-22 COUNTY AGRICULTURAL PAVILION

2.8.2 Water Tower

The Calhoun County Industrial Park and Airport Water Tower is located next to State Road 71, between that road and the Airport apron. Figure 2-23 shows the water tower as it looks from the Airport apron.



Figure 2-23 WATER TOWER

2.8.3 Wastewater Treatment Plant

There is a former wastewater treatment plant located on about 8.9 acres on the far west side of the Airport. It is reached via an access road off NW Magnolia Church Road and is west across the access road from the Sherriff's Office Aviation Facility and it does not currently have direct airfield access. It appears that most of the plant facilities have been removed, although the ponds are still visible and at least one structure, minus its roof, remains.

2.8.4 Forestry Facility

The forestry facility consists of five metal buildings on about two acres that are leased to the Florida Forest Service. It is accessed off NW Magnolia Church Road.

2.8.5 Calhoun Recycling Center

The Calhoun Recycling Center is also accessed via NW Magnolia Church Road, and it also is on about 3.2 acres of land. There are three buildings on the site and a few other structures.

2.8.6 Magnolia Volunteer Fire Department

The Magnolia Volunteer Fire Department leases about three-quarters of an acre of land adjacent to State Road 71 and the Water Tower upon which they have erected a structure. As viewed from the Airport entrance road, it can be seen in Figure 2-24, that this structure also sustained damage from Hurricane Michael that has yet to be repaired.



Figure 2-24 MAGNOLIA VOLUNTEER FIRE DEPARTMENT

2.9 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; the Panama City-Lynn Haven, Florida Economic Area; and Calhoun County, Florida areas. The Southeastern United States for this data are defined as Kentucky, West Virginia, Virginia, Tennessee, North Carolina, South Carolina, Arkansas, Louisiana, Mississippi, Alabama, Georgia, and Florida. The Panama City-Lynn Haven Economic Area is defined as Bay County, Calhoun County, Gulf County, Holmes County, Jackson County, and Washington County.

2.9.1 Population

The population in Calhoun County experienced an average annual growth rate of 1.3 percent in the period between 1969 and 2019. This rate of growth was ahead of that of the United States, but less than that of the Southeast United States, the Panama City-Lynn Haven Economic Area, and Florida. The Southeast U.S. had 1.4 percent average annual growth, the Panama City-Lynn Haven Economic Area had 1.5 percent, and Florida had 2.4 percent average annual growth during this period as shown in Figure 2-25 and Table 2-13.



Figure 2-25 HISTORICAL AND PROJECTED COMPOUNDED ANNUAL GROWTH RATE FOR POPULATION

For the period between 2019 and 2040, the average annual rate of growth for population for each of the areas is anticipated to slow. Calhoun County's average annual rate of growth is anticipated to continue to be less than the other sectors for the next 20 years with an average annual growth rate of 0.3 percent. The United States is anticipated to grow at a rate of 0.6 average annual growth, as is the Panama City-Lynn Haven, FL Economic Area. The Southeast U.S. and Florida are forecast to decrease significantly, but still outpace Calhoun County.

 Table 2-9

 HISTORICAL AND PROJECTED COMPOUNDED ANNUAL GROWTH RATE FOR POPULATION

Period	United States	Southeast United States	Florida	Panama City - Lynn Haven, FL Economic Area	Calhoun County
2019-2040	0.6%	0.8%	1.1%	0.6%	0.3%
1969-2019	1.0%	1.4%	2.4%	1.5%	1.3%

Source: Woods and Poole Economics 2020

2.9.2 Employment

The average annual growth rate for employment in Calhoun County during the years between 1969 and 2019 was at 1.3 percent, which was below that of each of the other regions being compared. Again, both the Southeastern U.S., the Panama City-Lynn Haven, FL Economic Area, and Florida outpaced the average of the United States. Florida experienced an average annual growth rate of 3.0 percent, and the Southeast U.S. experienced a 1.9 percent average annual rate of growth. The Panama City Lynn Haven Economic Area experienced a 2.2 percent average annual rate of growth as shown in Figure 2-26 and Table 2-14.



Calhoun County's employment growth is anticipated to be much smaller than the other sectors, achieving an average annual growth rate of 0.3 percent for the next 20 years. The average annual growth rate for employment for the other comparative areas is anticipated to slow with the Florida and the Southeast regions anticipated to have 1.6 percent and 1.3 percent average annual rates of growth respectively over the same period. The United States is projected to decrease to 1.2 percent and the Panama City-Lynn Haven, FL Economic Area is forecast to slow to an average annual growth rate of 1.1 percent for total employment.

Table 2-10

HISTORICAL AND PROJECTED COMPOUNDED ANNUAL GROWTH RATE FOR EMPLOYMENT

Period	United States	Southeast United States	Florida	Panama City - Lynn Haven, FL Economic Area	Calhoun County
2019-2040	1.2%	1.3%	1.6%	1.1%	0.3%
1969-2019	1.6%	1.9%	3.0%	2.2%	1.3%

Source: Woods and Poole Economics 2020

2.9.3 Personal Income Per Capita

At 5.4 percent, the Personal Income Per Capita average annual growth rate in Calhoun County was close to the comparative areas during the period from 1969 through 2019. However, each of the comparative areas was between 4.5 and 4.9 percent average annual compounded growth, as shown in Figure 2-27 and Table 2-15.

Figure 2-27 HISTORICAL AND PROJECTED COMPOUNDED ANNUAL GROWTH RATE FOR PERSONAL INCOME PER CAPITA



During the period between 2019 and 2040, it is anticipated that the average annual compounded growth will decrease to between 5.4 percent and 5.6 percent average annual growth for all sectors. The Personal Income Per Capita for Calhoun County is anticipated to

match that of Florida behind the other regions with an average annual compounded rate of 5.4 percent.

Period	United States	Southeast United States	Florida	Panama City - Lynn Haven, FL Economic Area	Calhoun County
2019-2040	4.6%	4.8%	4.9%	4.5%	4.5%
1969-2019	5.5%	5.6%	5.4%	5.5%	5.4%

Table 2-11 HISTORICAL AND PROJECTED COMPOUNDED ANNUAL GROWTH RATE FOR PERSONAL INCOME PER CAPITA

Source: Woods and Poole Economics 2020

2.10 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.

2.10.1 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 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, such as Calhoun County, with an airport 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 Regulation Title 14 Part 77.

2.10.2 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 14 C.F. R. Part 77.19 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 2-28 shows the areas around the Calhoun County Airport that would be restricted from having a landfill. There is a recycling center on Airport property, but this is not a bird attractant, which is the primary drawback of solid waste landfills. Currently, there are no landfills located within these limits. The nearest solid waste landfill is at 15888 SW Silas Green Road, which is 5.77 miles away from the center point of the Airport. This address is well outside of the limits shown on Figure 2-28.



Figure 2-28 LANDFILL RESTRICTED AREAS

2.10.3 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 Calhoun 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 the 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 2-29 shows the extent of the residential and educational restrictions with respect to the Calhoun County Airport.

There are several areas of residential development in the highlighted 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." This is a prohibition on the construction of <u>new</u> schools or residences within the highlighted areas. Table 2-16 shows all the Schools in Calhoun County and their distance to the Airport.

School	Address	Distance from Airport (miles)
Blountstown High	18597 NE State Road 69, Blountstown, FL	4.32
Calhoun County Adult Education	17288 NW Charlie Johns Street, Blountstown, FL	4.63
Blountstown Elementary	20883 NE Fuller Warren Drive, Blountstown, FL	4.82
Blountstown Middle	17586 Main Street North, Blountstown, FL	4.87
Carr Elementary and Middle	18987 NW State Road 73, Clarksville, FL	5.01
Altha Public School	25793 North Main Street, Altha, FL	5.85

Table 2-12 CALHOUN COUNTY SCHOOLS

There are no schools located within the highlighted areas. The nearest school is Blountstown High School, which is 4.32 miles southeast of the center of the Runway.

2.10.4 Changes to Florida Statutes Chapter 333

Changes to Florida Statutes 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*.

Calhoun County has had airport zoning regulations since 1977. The latest zoning regulation was passed in 1999. This regulation can be seen in its entirety in Appendix B to this report.



Figure 2-29 EDUCATIONAL AND RESIDENTIAL RESTRICTED AREAS

2.10.5 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. However, there should be coordination between an airport, the local government, and, where applicable, the Metropolitan Planning Organization (MPO). Calhoun County is not part of an MPO. 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 Aviation funding. The current Calhoun County Comprehensive Plan makes two mentions of the Calhoun County Airport. They are shown below:

- Page 3: Land Use: Industrial/Airport, Maximum Density, and Intensity: F.A.R. of 1.0 in Industrial Parks.
- Policy 5:12, Continue to explore new business opportunities with County Airport.

The County might consider adopting this Airport Master Plan Update in its entirety into the Comprehensive Plan upon its completion.

2.11 Inventory of Existing Conditions Summary

This inventory of existing conditions discussion has focused on the existing conditions and facilities located at and around the Calhoun County Airport. As noted, many of the Airport's facilities are in good condition, whereas others need some repair, rehabilitation, or replacement. The information in this chapter will serve as the basis of comparison for the Facility Requirement.

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 (2020-2025). The second is the mid-term period and usually takes place within the second five years of the forecasts (2026-2030). The third, or long-term, period usually takes place within the last ten years of the forecasts (2031-2040).

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

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

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 FDOT Florida Aviation Database (FAD) forecast (FDOT FAD). This data is typically reported to the FDOT by each respective airport annually during the inspection of the airport. While the FAA also has historical data for this airport, it does not go back as far, and the FDOT data is more in-line with the Airport's records. The current FDOT FAD was published in 2016. The Airport's records were used for the years 2016 through 2020. The historical numbers of based aircraft for the Calhoun County Airport are shown in Table 3-1 and Figure 3-1.

Table 3-1				
HISTORICAL BASED AIRCRAFT				

Year	Historical
1996	6
1997	6
1998	6
1999	6
2000	5
2001	5
2002	3
2003	3
2004	3
2005	3
2006	3
2007	3
2008	13
2009	20
2010	40
2011	40
2012	40
2013	12
2014	11
2015	11
2016	11
2017	11
2018	11
2019	11
2020	33

Source: 2016 FDOT FAD and Airport Records



Figure 3-1 HISTORICAL BASED AIRCRAFT

The number of aircraft based at the Calhoun County Airport has varied over the last 24 years. The high number of 40 aircraft occurred in the years 2010 through 2012. The low period occurred between 2002 and 2007. The number of based aircraft at the Airport in 2020 has been validated through the website www.basedaircraft.com, as shown in Appendix C.

The number of annual operations for the Airport was gathered from the FDOT FAD through year 2015 and augmented by the Airport records from 2016 through 2020. 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 1,020 which occurred between 2000 and 2009. The high was first reported in 2009 when the total number of annual operations reached 3,000. The number of annual operations has remained steady at 3,000 since that time.

Year	Historical
2002	1,020
2003	1,020
2004	1,020
2005	1,020
2006	1,020
2007	1,020
2008	1,020
2009	1,020
2010	1,020
2011	1,020
2012	1,020
2013	1,020
2014	1,020
2015	2,000
2016	2,000
2017	2,000
2018	2,000

Table 3-2 HISTORICAL ANNUAL OPERATIONS

Source: 2020 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 Calhoun County Airport. These forecasts resulted 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 2020 FAA TAF shown in Table 3-3 and Figure 3-3 was released in January of 2020.

Year	Historical	2020 FAA TAF Forecast
2002	5	
2003	0	
2008	12	
2013	13	
2018	11	
2023		11
2028		11
2033		11
2038		11
AACG		
2002-2018	5.1%	
2018-2023		0.0%
2023-2028		0.0%
2028-2033		0.0%
2033-2038		0.0%
2018-2038		0.0%

Table 3-3 2020 FAA TAF BASED AIRCRAFT FORECAST

Note: TAF = Terminal Area Forecast, AACG = Average Annual Compounded Growth Source: 2020 FAA Terminal Area Forecast


Figure 3-3 and Table 3-3 show not only the FAA forecast of based aircraft for the Airport but their data on the number of historical based aircraft. The 2020 FAA TAF indicates that the Airport had 11 based aircraft in 2018. The FAA anticipates that the 11 aircraft will remain constant throughout the forecast period resulting in 11 based aircraft by the year 2038.

The 2007 Airport Layout Plan Update counted 3 aircraft at the Airport in 2005. It was anticipated, at that time, that the number would remain at 3 based aircraft in 2010 as shown in Table 3-4 and Figure 3-4, and that the number would grow to 5 based aircraft by the year 2025.

Year	Historical	2007 Airport Layout Plan Update Forecast
2000	5	
2005	3	
2010		3
2015		4
2020		4
2025		5
AACG		
2000-2005	-9.7%	
2005-2010		0%
2010-2015		5.9%
2015-2020		0.0%
2020-2025		4.6%
2005-2025		2.6%

 Table 3-4

 2007 AIRPORT LAYOUT PLAN BASED AIRCRAFT FORECAST

Note: AACG= Average Annual Compounded Growth Source: 2007 Airport Layout Plan Update



Figure 3-4 2007 AIRPORT LAYOUT PLAN BASED AIRCRAFT FORECAST

In 2016, a forecast for the Calhoun County Airport was published 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 Calhoun County Airport from the 2016 FAD are shown in Table 3-5 and Figure 3-5.

Year	Historical	2016 FAD Forecast
1996	6	
2000	5	
2005	3	
2010	40	
2015	11	
2020		12
2025		14
2030		16
2035		18
AACG		
1996-2015	3.2%	
2015-2020		1.8%
2020-2025		3.1%
2025-2030		2.7%
2030-2035		2.4%
2020-2035		2.5%

Table 3-5 2016 FAD BASED AIRCRAFT FORECAST

Note: FAD = Florida Aviation Database, AACG = Average Annual Compounded Growth Source: 2016 Florida Aviation Database



The FAD forecast indicates that the Airport had 11 based aircraft in 2015 and that this number would grow to 14 by the year 2025. It further predicts that the number of based aircraft will eventually reach 18 aircraft in the year 2035.

3.3.2 New Based Aircraft Forecasts

In addition to the previously developed forecasts of based aircraft, this Master Plan Update has also developed additional forecasts of based aircraft. The first new forecast is called an Indexed 2020 FAA TAF forecast for based aircraft. The 2020 FAA TAF indicates that there were 11 based aircraft at the Airport and forecasts that there would continue to be 11 based aircraft at the Airport through the year 2040. However, the Airport has validated through <u>www.basedaircraft.com</u> that there are 33 based aircraft at the Airport in 2020. Therefore, the Indexed 2020 FAA TAF would show the current based aircraft at the current verified number of 33 and then increase the number of forecast based aircraft at the same rate of average annual compounded growth as that of the 2020 FAA TAF, 0.0 percent. This is shown in Table 3-6 and Figure 3-6.

		2020 FAA TAF	Indexed 2020 FAA TAF
Year	Historical		Forecast
2002	5		
2005	5		
2010	13		
2015	11		
2020	33		
2025		11	33
2030		11	33
2035		11	33
2040		11	33
AACG			
2002-2020	11.1%		
2020-2025		-19.7%	0.0%
2025-2030		0.0%	0.0%
2030-2035		0.0%	0.0%
2035-2040		0.0%	0.0%
2020-2040		-5.3%	0.0%

Table 3-6 INDEXED 2020 FAA TAF

Note: TAF = Terminal Area Forecast

AACG = Average Annual Compounded Growth



The second forecast of based aircraft developed for this Master Plan Update is the Market Share of all aircraft based at public-use airports in Florida, as obtained from the FAA Terminal Area Forecast. This forecast compares the based aircraft at the Airport with <u>all</u> 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 this forecast are shown in Table 3-7 and Figure 3-7.

		_
Year	Historical	Forecast
1996	6	
2000	5	
2005	3	
2010	40	
2015	11	
2020	33	
2025		35
2030		38
2035		40
2040		43
AACG		
1996-2020	7.4%	
2020-2025		1.4%
2025-2030		1.3%
2030-2035		1.3%
2035-2040		1.3%
2020-2040		1.4%

Table 3-7 MARKET SHARE OF FLORIDA BASED AIRCRAFT

Note: AACG = Average Annual Compounded Growth Source: 2020 FAA TAF





The Market Share forecast indicates that the Airport would have 35 based aircraft in 2025, 38 in 2030, 40 in 2035, and 43 in 2040. This is an overall average annual compounded rate of growth of 1.4 percent for the forecast.

The third forecast is one that was developed using the *FAA Aerospace Forecasts 2020-2040*. The FAA develops these annually and they are much more global in nature than the FAA 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 2020-2040*, Table 28, *Active General Aviation and Air Taxi Aircraft* projects that the total number of fixed wing general aviation aircraft will increase by an average of 1.8 percent per year from 2020-2040. By applying this percentage, the 33-based aircraft for all the forecast years is the result, as shown in Table 3-8 and Figure 3-8.

		FAA Aerospace
		Based
Year	Historical	Forecast
1996	6	
2000	5	
2005	3	
2010	40	
2015	11	
2020	33	
2025		36
2030		40
2035		44
2040		48
AACG		
1996-2020	7.4%	
2020-2025		1.9%
2025-2030		1.9%
2030-2035		1.8%
2035-2040		1.8%
2020-2040		1.8%

 Table 3-8

 PROJECTIONS USING FAA AEROSPACE FORECASTS

Note: AACG = Average Annual Compounded Growth Source: *FAA Aerospace Forecasts 2020-2040*



Figure 3-8 PROJECTIONS USING FAA AEROSPACE FORECASTS

The based aircraft projections for the Airport based on the 2020 FAA Aerospace Forecasts show that the number of based aircraft would increase at an average annual compounded rate of 1.8 percent per year beginning with 33 based aircraft in 2020 and continuing to 48 based aircraft in the year 2040.

The fourth through sixth forecasts are based on the historic trend in the number of based aircraft and trend line analyses. 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 24 years, the Airport has averaged a 7.7 percent average annual growth in the number of based aircraft. By projecting this percentage and other shorter historical periods, the results shown in Table 3-9 and Figure 3-9 are obtained.

		Forecast		
Year	Historical	1996-2019	1996-2012	2009-2020
1996	6			
2000	5			
2005	3			
2010	40			
2015	11			
2020	33			
2025		47	60	41
2030		67	108	52
2035		96	195	65
2040		137	354	82
AACG				
1996-2020	7.4%			
2020-2025		7.4%	12.6%	4.7%
2025-2030		7.4%	12.6%	4.7%
2030-2035		7.4%	12.6%	4.7%
2035-2040		7.4%	12.6%	4.7%
2020-2040		7.4%	12.6%	4.7%

Table 3-9 HISTORICAL TREND FORECASTS

Note: AACG = Average Annual Compounded Growth



Figure 3-9 HISTORICAL TREND FORECASTS

Using the historical trend methodology for the period from 1996 through 2020, there would be 47 based aircraft at the Airport in 2025. By the year 2040, it is projected that there would be 137 based aircraft. This is the equivalent of an average annual compounded growth rate of 7.4 percent. This rate of growth occurred between the years 1996 and 2019 and covers a period of 23 years.

The historical trend methodology used for the period between 1996 and 2012 would yield 60 based aircraft at the Airport in 2025 and 354 based aircraft in the year 2040. This period represents a 12.6 percent average annual compounded growth over a period of 16 years. Because the likelihood of consistently achieving this rate of increase in based aircraft over the next 20 years is extremely unlikely, this forecast was not brought forward for review and comparison with the other forecasts.

By using the period between 2009 through 2020, the result would be 41 based aircraft in 2025 and 82 based aircraft in the year 2040. Over this latest eleven-year period, the average annual compounded growth would be 4.7 percent.

The 2020 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 3-10 and Figure 3-10.

Year	Historical	FAA 2020 Forecast	Indexed FAA Based Aircraft	FDOT FAD Forecast	2007 ALP Narrative Report	FAA Aerospace Forecast	Florida Market Share Forecast	Trend Forecast 1996- 2020	Trend Forecast 2008- 2020
1996	6								
2000	5								
2005	3								
2010	40								
2015	11								
2020	33								
2025		11	33	14	5	36	35	47	41
2030		11	33	40	N/A	40	38	67	52
2035		11	33	44	N/A	44	40	96	65
2040		11	33	N/A	N/A	48	43	137	82
AACG									
1996-2020	7.4%								
2020-2025		-19.7%	0.0%	-15.8%	-31.4%	1.9%	1.4%	7.4%	4.7%
2025-2030		0.0%	0.0%	23.3%	N/A	1.9%	1.3%	7.4%	4.7%
2030-2035		0.0%	0.0%	1.8%	N/A	1.8%	1.3%	7.4%	4.7%
2035-2040		0.0%	0.0%	N/A	N/A	1.8%	1.3%	7.4%	4.7%
2020-2040		-5.3%	0.0%	N/A	N/A	1.8%	1.4%	7.4%	4.7%

 Table 3-10

 COMPARISON OF BASED AIRCRAFT FORECASTS

Note: FAD = Florida Aviation Database, N/A = not available, AACG = Average Annual Compounded Growth ALP = Airport Layout Plan



Figure 3-10 COMPARISON OF BASED AIRCRAFT FORECASTS

3.3.3 Preferred Based Aircraft Forecast

After comparing the eight forecasts, it was determined that the results achieved by the Florida Market Share forecast yielded the best results for the Airport. While the 1996 to 2020 Trend anticipates more based aircraft in the long term, this appears to be unrealistic; that much growth is unlikely to be sustainable over the period of twenty years.

Further, the 1996-2020 Trend forecast would not be considered consistent with the 2020 FAA TAF or the Indexed 2020 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 2020 FAA TAF predicts that there will be 11 based aircraft at the Airport in 2025 and 11 based aircraft in 2030. However, as the Airport has already exceeded the 11 based aircraft, this Master Plan Update will be comparing the based aircraft forecasts to the Indexed 2020 FAA TAF. The selected preferred forecast, the Florida Market Share Forecast is the only forecast that meets the FAA's

criteria of "consistent with" the Indexed 2020 FAA TAF. It projects an average annual compounded growth of 1.4 percent per year, as shown in Table 3-11 and Figure 3-11.

Year	Historical	Preferred Forecast
1996	6	
2000	5	
2005	3	
2010	40	
2015	11	
2020	33	
2025		35
2030		38
2035		40
2040		43
	AACG	
1996-2020	7.4%	
2020-2025		1.4%
2025-2030		1.3%
2030-2035		1.3%
2035-2040		1.3%
2020-2040		1.4%

Table 3-11 PREFERRED BASED AIRCRAFT FORECAST

Note: AACG = Average Annual Compounded Growth



Figure 3-11 PREFERRED BASED AIRCRAFT FORECAST

3.3.4 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 2020-2040. The resulting fleet mix is shown in Table 3-12 and Figure 3-12.

Year	Single Engine	Multi- engine	Jet	Rotorcraft	Other	Total
2020	30	3	0	0	0	33
2025	31	3	0	0	0	35
2030	33	3	1	0	1	38
2035	33	3	2	1	1	40
2040	36	3	2	1	1	43

Table 3-12 FUTURE BASED AIRCRAFT FLEET MIX



Figure 3-12

The percentage of single engine and multi-engine aircraft operating in the United States and at the Airport is projected to decline over the next 20 years. In 2020, there were 33 validated based aircraft on the Airport. Of these, 30 were single-engine aircraft, or 90.9 percent of the

total based aircraft. The Airport is anticipated to have 36 single-engine based aircraft in the year 2040, which will represent only 83.7 percent of the total based aircraft.

Multiple-engine aircraft based at the Airport are projected to remain at the same number over the same period from the 3 in 2020 to 3 in the year 2040. The percentage of multiple-engine aircraft in the fleet mix will decrease from 9.1 percent in 2020 to 7.0 percent in 2040.

There are currently no jets based at the Airport. This number is projected to increase to two in the year 2040. The percentage of jets in the fleet mix is anticipated to reach 4.7 percent of the based aircraft fleet mix by the year 2040.

There are no rotorcraft based at the Airport in 2020. This number is projected to increase to one within the planning period. The rotorcraft of 2040 are projected to represent 2.3 percent of the fleet mix in 2040.

There are currently no validated ultralight aircraft based at the Airport. The number of aircraft within the "other" category is anticipated to increase to 1 by 2040. The percentage of "other" aircraft is expected to rise from the current 0.0 percent to 2.3 percent in 2040. 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

Calhoun 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 Calhoun 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 Calhoun County Airport were completed prior to the initiation of this Master Plan Update. These include a forecast developed by the FAA, the 2007 Airport Layout Plan Update, and the 2016 Florida Aviation Database.

Not only does the 2020 FAA TAF give historical data and forecast projections for based aircraft, but it also provides the same information for annual operations. Further, the 2020 FAA TAF breaks the annual operations into local and itinerant traffic. The latest FAA TAF was published in January 2020 and is shown in Table 3-13 and Figure 3-13.

The 2020 FAA TAF predicts that the annual operations at the Airport will remain constant at the 2,000 annual operations in 2018 to 2,000 in the year 2040. This is an overall average annual compounded growth rate of 0.0 percent per year.

Year	Historical	Forecast
2002	1,020	
2004	1,020	
2009	1,020	
2014	1,020	
2018	2,000	
2023		2,000
2028		2,000
2023		2,000
2028		2,000
AACG		
2002-2018	4.3%	
2018-2023		0.0%
2023-2028		0.0%
2029-2034		0.0%
2033-2038		0.0%
2018-2038		0.0%

Table 3-132020 FAA TAF ANNUAL OPERATIONS FORECAST

Note: TAF = Terminal Area Forecast,

AACG = Average Annual Compounded Growth Source: 2020 FAA Terminal Area Forecast



The second forecast completed for the Airport, the 2007 Airport Layout Plan Update, developed a forecast that can be seen in Table 3-14 and Figure 3-14.

 Table 3-14

 2007 AIRPORT LAYOUT PLAN ANNUAL OPERATIONS FORECAST

		2007
Year	Historical	Forecast
2000	1,020	
2005	1,020	
2010		1,040
2015		1,066
2020		1,093
2025		1,121
AACG		
2000-2005	0.0%	
2005-2010		0.4%
2010-2015		0.5%
2015-2020		0.5%
2020-2025		0.5%
2005-2025		0.5%

Note: ALPU = Airport Layout Plan Update, AACG = Average Annual Compounded Growth Source: 2007 Calhoun County Airport Layout Plan Update



Figure 3-14 2007 MASTER PLAN ANNUAL OPERATIONS FORECAST

The 2007 Airport Layout Plan Update reported that there were 1,020 operations at the Airport in 2005. The Airport Layout Plan Update projected that there would be 1,040 annual operations in 2010, and 1,121 in the year 2018. This projection represents an average annual compounded growth rate of 0.5 percent.

The Florida Aviation Database (FAD) published a forecast of annual operations for the Calhoun County Airport in 2016. This is shown in Table 3-15 and Figure 3-15.

Year	Historical	Forecast
1996	1,620	
2000	1,020	
2005	1,020	
2010	3,000	
2015	3,000	
2020		3,153
2025		3,314
2030		3,483
2035		3,661
1996-2015	3.3%	
2015-2020		1.0%
2020-2025		1.0%
2025-2030		1.0%
2030-2035		1.0%
2015-2035		1.0%

Table 3-152016 FAD ANNUAL OPERATIONS FORECAST

Note: FAD = Florida Aviation Database,

AACG = Average Annual Compounded Growth Source: Florida Aviation Database



The 2016 FAD forecasts indicated that the 3,000 annual operations in 2015 would grow to 3,153 annual operations in the 2020 and to 3,14 operations in the year 2025. Finally, the annual operations would climb to 3,661 in the year 2035. This represents an average annual compounded growth rate of 1.0 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 Airport believes that the total number of annual operations reported by both the FAA and the FDOT undercounts the total number of operations occurring at the Airport and are looking into various methodologies to obtain a more accurate count of the annual operations.

The first forecast uses the Florida Market Share of annual operations forecast. This forecast takes the annual operations at Calhoun County Airport and compares them to the total annual operations at <u>all</u> the public-use airports in the State of Florida. This forecast presumes that the market share of the Airport will remain the same over the planning period with the results shown in Table 3-16 and Figure 3-16.

Year	Historical	Market Share Forecast
1996	1,620	
2000	1,020	
2005	1,020	
2010	1,020	
2015	2,000	
2018	2,000	
2023		2,198
2028		2,300
2033		2,415
2038		2,537
AACG		
1996-2018	1.0%	
2018-2023		1.9%
2023-2028		0.9%
2028-2033		1.0%
2033-2038		1.0%
2018-2038		1.2%

Table 3-16 MARKET SHARE OF FLORIDA OPERATIONS

Note: AACG = Average Annual Compounded Growth Source: 2020 FAA Terminal Area Forecast



Figure 3-16 MARKET SHARE OF FLORIDA ANNUAL OPERATIONS

Using the Florida Market Share, the results would be 2,198 annual operations in the year 2023, 2,300 in the year 2028, and 2,537 in the year 2038. This would be an average annual compounded growth rate of 1.2 percent.

The second forecast is one that was developed using the *FAA Aerospace Forecasts 2020-2040* like that done for the based aircraft. The *FAA Aerospace Forecasts 2020-20407*, 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 0.2 percent per year from 2020 through 2040, as shown in Table 3-17 and Figure 3-17.

Table 3-17
FAA AEROSPACE BASED FORECAST OF ANNUAL OPERATIONS

Year	Historical	Florida Market Share Forecast
1996	1,620	
2000	1,020	
2005	1,020	
2010	1,020	
2015	2,000	
2018	2,000	
2023		2,020
2028		2,040
2033		2,061
2038		2,082
AACG		
1996-2018	1.0%	
2018-2023		0.2%
2023-2028		0.2%
2028-2033		0.2%
2033-2038		0.2%
2018-2038		0.2%

Note: AACG = Average Annual Compounded Growth Source: FAA Aerospace Forecasts 2020-2040



Figure 3-17 FAA AEROSPACE BASED FORECAST OF ANNUAL OPERATIONS

Projections of total annual operations based on the FAA 2020-2040 Aerospace forecasts would result in a forecast of 2,020 annual operations in 2023 and 2,040 annual operations in 2028. By 2038, the total annual operations are forecast to rise to 2,082.

The third forecasting methodology used to develop a new forecast of annual operations is one that is based on the historic trend in the number of annual operations and trend line analyses 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 22 years, the Airport has averaged a 1.0 percent average annual compounded growth in the number of annual operations. By projecting this percentage, as well as two of other interim periods, the results shown in Table 3-18 and Figure 3-18 are obtained.

		Forecast				
Voar	Historical	1996- 2009- 2018 2012		1999- 2014		
1996	1.620	2010	LUIL	2014		
1999	1,620					
2004	1,020					
2010	1,020					
2015	2,000					
2018	2,000					
2023		2,098	2,801	2,146		
2028		2,201	3,922	2,302		
2033		2,309	5,491	2,469		
2028		2,422	7,689	2,649		
ACCG						
1996-2018	1.0%					
2018-2023		1.0%	7.0%	1.4%		
2023-2028		1.0%	7.0%	1.4%		
2028-2033		1.0%	7.0%	1.4%		
2033-2038		1.0%	7.0%	1.4%		
2018-2038		1.0%	7.0%	1.4%		

 Table 3-18

 HISTORICAL TREND FORECAST OF ANNUAL OPERATIONS

Note: AACG = Average Annual Compounded Growth



Figure 3-18 HISTORICAL TREND FORECAST OF ANNUAL OPERATIONS

The period between 1996 and 2018 represents the last 22-year historical period of the Airport. During this period, the Airport reported an increase in the total number of operations that averaged 1.0 percent per year. If this were projected forward, it is predicted that there would be 2,098 annual operations in 2023, 2,201 annual operations in 2028, and 2,422 annual operations in 2038.

The period that represents the last ten years of operations at the Airport would be the period between 2008 through 2018. This period had an average annual compounded growth rate of 7.0 percent. If this were forecast forward the result would be 2,801 operations in 2023, 3,922 annual operations in 2028, and 7,689 annual operations in 2038.

The third period represents the fifteen years between 1999 and 2014. This period had an average annual growth rate of 1.4 percent. If this were projected forward starting in 2019, the result would be 2,146 annual operations in 2023, 2,302 operations in 2028, and 2,649 operations in 2038.

The 2020 FAA TAF was compared to the 2007 Airport Layout Plan Update and the 2016 FDOT FAD Forecast. It was also compared to the newly developed forecasts: the Florida Market Share, the FAA Aerospace, and the Historical Trends forecasts. These are shown in Table 3-19 and Figure 3-19.

Year	Historical	FAA 2020 TAF Forecast	FDOT FAD Forecast	2007 ALP Narrative Report	FAA Aerospace Forecast	Florida Market Share Forecast	Trend 1996- 2018 Forecast	Trend 2009- 2012 Forecast	Trend 1999- 2014 Forecast
1996	1,620								
2000	1,020								
2005	1,020								
2010	1,020								
2015	2,000								
2018	2,000								
2023		2,000	3,249	1,110	2,004	2,128	2,098	2,801	2,146
2028		2,000	3,414	N/A	2,004	2,128	2,201	3,922	2,302
2033		2,000	3,588	N/A	2,004	2,128	2,309	5,491	2,469
2038		2,000	3,772	N/A	2,004	2,128	2,422	7,689	2,649
AACG									
1996-2018	1.0%								
2018-2023		0.0%	10.2%	-11.1%	0.0%	1.2%	1.0%	7.0%	1.4%
2023-2028		0.0%	1.0%	N/A	0.0%	0.0%	1.0%	7.0%	1.4%
2028-2033		0.0%	1.0%	N/A	0.0%	0.0%	1.0%	7.0%	1.4%
2033-2038		0.0%	1.0%	N/A	0.0%	0.0%	1.0%	7.0%	1.4%
2018-2038		0.0%	3.2%	N/A	0.0%	0.3%	1.0%	7.0%	1.4%

 Table 3-19

 COMPARISON OF ANNUAL OPERATIONS FORECASTS

Note: FAD = Florida Aviation Database, TAF = Terminal Area Forecast, AACG = Average Annual Compounded Growth N/A = Not Available



Figure 3-19 COMPARISON OF CURRENT FORECASTS OF ANNUAL OPERATIONS

3.4.3 Preferred Annual Operations Forecast

By comparing the eight forecasts, it was determined that the Trend Forecast 1999-2014 resulted in the highest number of annual operations, while still being consistent with the 2020 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 2020 FAA TAF forecasts that the Airport will have 2,000 based aircraft in 2023 and 2,000 based aircraft in 2028. The 2020 FAA TAF, which is the comparison forecast this report will use, shows that the annual operations forecast would remain constant at 2,000. Thus, the allowable ranges would be between 1,800 and 2,200 in the year 2023, and between 1,700 and 2,300 in the year 2028. This would eliminate the FDOT FAD Forecast, the 2007 ALP Narrative Report Forecast, and the 1996-2018 Trend Forecast. Of the remaining forecasts, the Trend Forecast 1999-2014 has the highest number of forecast annual operations. It projects a steady 1.4 percent average annual compounded growth throughout the 20 years of the planning period as shown in Table 3-2 and Figure 3-20.

		Recommended
Year	Historical	Forecast
1996	1,620	
2000	1,020	
2005	1,020	
2010	1,020	
2015	2,000	
2018	2,000	
2023		2,146
2028		2,302
2033		2,469
2038		2,649
AACG		
1996-2018	1.0%	
2018-2023		1.4%
2023-2028		1.4%
2028-2033		1.4%
2033-2038		1.4%
2018-2038		1.4%

Table 3-20 RECOMMENDED ANNUAL OPERATIONS FORECAST

Note: AACG = Average Annual Compounded Growth

Figure 3-20 RECOMMENDED 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 2020 FAA TAF has not varied over the years. The split of local to itinerant between the years 2002 and 2018 has been 50 percent local and 50 percent itinerant. This split has been distributed across the preferred forecast for annual operations with the results as shown in Table 3-21 and Figure 3-21.

	Histo	rical	Fore	cast			
Year	Itinerant	Local	Itinerant	Local			
2002	510	510					
2005	510	510					
2010	510	510					
2015	1,000	1,000					
2020	1,000	1,000					
2025			1,073	1,073			
2030			1,151	1,151			
2035			1,235	1,235			
2040			1,324	1,324			
AACG	AACG						
2002-2018	4.3%	4.3%					
2018-2023			1.4%	1.4%			
2023-2028			1.4%	1.4%			
2028-2033			1.4%	1.4%			
2033-2038			1.4%	1.4%			
2020-2038			1.4%	1.4%			

Table 3-21 LOCAL VERSUS ITINERANT OPERATIONS DISTRIBUTION


Figure 3-21 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. Calhoun 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 2020 FAA TAF indicates that the Airport has seen no military aircraft operations since the year since 2002.

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 2020-2040.* The resulting operational fleet mix is shown in Table 3-22 and Figure 3-22.

Year	Single Engine	Multi- engine	Jets	Rotorcraft	Other	Total
2018	1,554	398	28	20	0	2,000
2023	1,527	446	97	76	0	2,146
2028	1,479	499	176	147	0	2,302
2033	1,442	515	264	226	22	2,469
2038	1,369	507	362	313	97	2,649
Percentag	ge of Fleet	Mix				
2018	77.7%	19.9%	1.4%	1.0%	0.0%	100.0%
2023	71.1%	20.8%	4.5%	3.5%	0.0%	100.0%
2028	64.3%	21.7%	7.6%	6.4%	0.0%	100.0%
2033	58.4%	20.9%	10.7%	9.1%	0.9%	100.0%
2038	51.7%	19.2%	13.7%	11.8%	3.6%	100.0%

Table 3-22 OPERATIONAL FLEET MIX

Note: Rows may not equal totals shown due to rounding

Figure 3-22 OPERATIONAL FLEET MIX



The total number of annual operations is anticipated to increase at the Airport over the next twenty years. The mix in aircraft making those operations is anticipated to also change. The percentage of single-engine and multiple-engine aircraft operations are forecast to decline as

the other sectors increase. Single engine aircraft continue to perform most of the operations at the Airport, but in smaller numbers than currently. In the year 2018, single engine aircraft make up 77.7 percent of the operational fleet mix. By the year 2038, it is anticipated that they will make up only 51.7 percent of the fleet mix. They will continue to make up the majority, but a smaller percentage. The percentage of multi-engine aircraft operations will also continue to dip from 19.9 percent in 2018 to 19.2 percent in 2038. Filling in these numbers will be an increase in jets from 1.4 percent in 2018 to 13.7 percent in 2038 and rotorcraft from 1.0 percent today to 11.8 percent in 2038. Completing the operational mix will be the "other" category made up of gliders, ultra-light aircraft, and experimental aircraft. It is anticipated that this category will go from 0.0 percent in 2018 to 3.6 percent of the traffic in 2038.

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 peak hour of the average day of the peak month, 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 Calhoun County Airport typically has the highest levels of activity during the months beginning in March and ending in June, with a small secondary peak in September. The peak month is typically June. It was estimated that approximately 10 percent of the Airport's annual activity occurs during the peak month. The 10 percent of annual operations was used to determine the peak month activities through the year 2040 as shown in Table 3-23.

Year	Annual Operations	Peak Month	Average Day	Peak Hour
2018	2,000	200	7	1
2023	2,146	215	7	1
2028	2,302	230	8	1
2033	2,469	247	8	1
2038	2,649	265	9	1

Table 3-23 PROJECTED PEAK OPERATIONS

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 30. An estimate of an eighth 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 Calhoun 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 Indexed 2020 FAA TAF is shown in Table 3-24.

	Proformed	2020 FAA	2020 EA A	
Forecast	Forecast	TAF	TAF	Difference
Based Aircraft				
Base Year (2020)	33	33	N/A	0.0%
5 Year (2025)	35	33	N/A	6.9%
10 Year (2030)	38	33	N/A	12.9%
Annual Operations				
Base Year (2018)	2,000	N/A	2,000	0.0%
5 Year (2023)	2,146	N/A	2,000	6.8%
10 Year (2028)	2,302	N/A	2,000	13.1%

 Table 3-24

 COMPARISON OF 2020 FAA TAF AND PREFERRED FORECASTS

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 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 3-25.

Table 3-25 AIRCRAFT APPROACH CATEGORIES

Aircraft Approach Category	Aircraft Approach Speed
A	Less than 91 knots
В	91 knots or more but less than 121 knots
С	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 3-26.

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
	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

Table 3-26 AIRPLANE DESIGN GROUPS

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 3-27. The third component would read "VIS" for runways designated with a visual approach only.

Table 3-27 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 $\frac{3}{4}$ mile (APV $\ge 3/4$ 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 Calhoun County Airport currently does not have GPS coverage. Runway 18/36 is currently a visual runway. The RDC is based on current or planned development and does not have an operational application.

3.6.2 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.

3.6.3 Critical Aircraft

The Critical Aircraft is the aircraft that best represents most aircraft that are flying to and from the Airport as well as those that are anticipated to operate from the airfield based on past operations. The critical Aircraft can also be a group of aircraft. The groups are typically based on the Runway Design Code and the Airport Reference Code, which are in turn made up of other elements as discussed in this section.

The design aircraft identified for Runway 18/36 in the approved 2007 Airport Layout Plan was the Beechcraft Baron 58. This aircraft has an approach speed of 95 knots, a wingspan of 37.83 feet, a tail height of 9.75 feet, and a Maximum Take Off Weight (MTOW) of 5,500 pounds. This brought the design aircraft for Runway 18/36 solidly into the B-I category.

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 period from October 2017 through August 2020. 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 Calhoun County Airport in are summarized in Table 3-28. The full output from the TFMSC can be found as Appendix D.

Aircraft Type	Airplane Approach Category	Airplane Design Group	FY 2018 Operations (October through December)	FY 2019 Operations (January through December)	FY 2019 Operations (January through August)	Total Naturalized Operations
AA5 - American AA-5 Traveler	A	I	2		1	3
BE33 - Beech Bonanza 33	A	I	2	4	1	7
BE35 - Beech Bonanza 35	A	I	1	1	1	3
BE36 - Beech Bonanza 36	A		21	15	3	39
BE55 - Beech Baron 55	A		1	1	2	4
BE95 - Beech 95 Travel Air	A		2			2
C150 - Cessna 150	A				2	2
C172 - Cessna Skyhawk 172/Cutlass	A	I	4	4	3	11
C182 - Cessna Skylane 182	A		7	3	1	11
C210 - Cessna 210 Centurion	A		6			6
C240 - Cessna TTx Model T240	A	I			3	3
C72R - Cessna Cutlass RG	A			1		1
COL4 - Lancair LC-41 Columbia 400	A	I			2	2
EVOT - Lancair Evolution Turbine	A	I		2		2
HXB - Experimental Aircraft	A		1			1
HXC - Experimental Aircraft	A				2	2
M20P - Mooney M-20C	A		20	4	3	27
Ranger						
M20T - Turbo Mooney M20K	A	I			1	1
P28A - Piper Cherokee	A		1	3	6	10
P28R - Cherokee Arrow/Turbo	A	I			1	1
Table 3-28 is continued on the	next page					

Table 3-28 CALHOUN COUNTY TFMSC OPERATIONS

Aircraft Type	Airplane Approach Category	Airplane Design Group	Naturalized FY 2018 Operations (October through December)	Naturalized FY 2019 Operations (January through December)	Naturalized FY 2019 Operations (January through August)	Total Naturalized Operations
P32R - Piper 32	A		1	,	; ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1
P46T - Piper Malibu Meridian	Α		2			2
PA30 - Piper PA-30	A		1			1
PA31 - Piper Navaio PA-31	A		1		2	3
PA32 - Piper Cherokee Six	A		4	3		7
PA44 - Piper Seminole	A		1	0		1
RV7 - Experimental RV-7	A		1			1
S22T - Cirrus SR-22 Turbo	A		1		3	4
SR20 - Cirrus SR-20	A				1	1
SR22 - Cirrus SR 22	A		3	3	1	7
TOTAL A-I OPERATIONS		•	83	44	39	166
AEST - Piper Aero Star	В		1		•••	1
B58T - Beechcraft Baron	B		· · ·		2	2
BE58 - Beech 58	В		2	2		4
BE9L - Beech King Air 90	B		2			2
C206 - Cessna 206 Stationair	B		1		2	3
C525 - Cessna	B		-	2		2
CitationJet/CJ1	_			_		_
TEX2 - Raytheon Texan 2	В				2	2
TOTAL B-I OPERATIONS			5	4	6	16
F18 - Boeing FA-18 Hornet	D		2			2
T38 - Northrop T-38 Talon	D		2			2
TOTAL D-I OPERATIONS	1		4	0	0	4
B350 - Beech Super King Air 350	В	II	2	2		4
BE20 - Beech 200 Super King	В		4			4
C208 - Cessna 208 Caravan	В		2	4	2	8
TOTAL B-II OPERATIONS		1	8	6	2	16
CN35 - CASA CN-235	В		4			4
TOTAL B-III OPERATIONS			4	0	0	4
-1 - unknown	No Data	No Data	14	5		19
			14	5	0	19
BE50 - Beech Twin Bonanza	No Data	No Data	1		2	3
GLAS - New Glasair	No Data	No Data	4		2	2
M28 - PZL M-28 SKytruck	No Data	No Data	4			4
TD21 - SOCALA TD-21	No Data	No Data	1			1
	No Data	No Data	1			
			9	0	1	20
FC/5 - Euroconter EC-1/5 Potor Potor			1	0	4	1
UH60 - Blackhawk Helicopter	Rotor	Rotor		1		1
TOTAL HELICOPTERS	1.0001		1	1	0	2
TOTAL ALL OPERATIONS			135	60	51	246

Note: TFMSC = Traffic Flow Management System Counts

Table 3-28 shows the TFMSC "naturalized" operations attributed to the Airport by year or partial year. "Naturalized" operations are those 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 naturalized. There was no one aircraft or group of aircraft that recorded 500 or more operations within the period. The A-I aircraft, as a group, have the largest number of operations. However, no group achieves the recommended 500 annual operations. Indeed, the number of naturalized operations for the 23-month period amount to less than half of 500 operations. The grouping of A-I aircraft is determined to be the Existing Critical Aircraft for Runway 18/36 with the Beechcraft Queen Air 65A has an approach speed of 87 knots, a wingspan of 45.88 feet, a tail height of 14.25 feet, a length of 35.50 feet, and a MTOW of 8,800 pounds.

The Future Critical Aircraft was determined by Aircraft Approach Category groups and by Airplane Design Groups as shown in Table 3-29. The numbers for 2019 correspond to the naturalized TFMSC shown in Table 3-28. The forecast years were calculated using the average annual compounded rate of growth of 1.4 percent as recommended for the forecast of operations.

Aircraft Groups	2019	2025	2030	2035	2040
Total Operations	s by Aircraf	t Approach	Category		
А	44	48	51	51	59
В	10	11	12	12	13
Total Operations by Airplane Design Group					
	50	54	58	58	67
II	6	7	7	7	8

 Table 3-29

 FUTURE CRITICAL AIRCRAFT GROUPS

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

Table 3-29 shows that it is likely that the Critical Aircraft Group will remain an A-I throughout the remainder of the planning period. The Beechcraft Queen Air 65A will likely remain the Critical Aircraft throughout the planning period. Thus, the existing RDC for Runway 18/36 would be A-I-VIS. The ARC would be A-I.

3.7 Effects of COVID-19 on the Airport

The Airport has been in a re-building mode since Hurricane Michael came through the Airport in 2018. When the COVID-19 pandemic hit the United States, many aviation facilities were adversely affected. The Calhoun County Airport was in a re-building mode. Their fuel sales were already depressed, as were the number of operations. However, neither did their numbers go down. For the first couple of months after the pandemic hit, Calhoun County remained

stable. Fuel sales remained low, but steady. The construction of new replacement facilities continued, as did the design of additional facilities. By July, fuel sales and operations were gaining momentum. The new facilities caught the attention of pilots who were confined, and many made enquiries with the Airport to use the new facilities.

Pilots are using the Airport now more and more. The T-hangars are almost completely full. Of the two new 60-foot by 60-foot conventional hangars, one has already been leased and interest has been shown in the second new hangar. The Airport is anticipating that they will have continued interest for the next several years.

3.8 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 Calhoun County Airport over the next 20 years without being either too conservative or too optimistic. Table 3-30 shows an overview of the recommended forecasts.

	2020	2025	2030	2035	2040
Based Aircraft					
Single Engine	30	31	33	33	36
Multi-engine	3	3	3	3	3
Jet	0	0	1	2	2
Rotor craft	0	0	0	1	1
Other	0	0	1	1	1
Total	33	35	38	40	43
	2018	2023	2028	2033	2038
Annual Operations					
Local	1,000	1,073	1,151	1,235	1,324
Itinerant	1,000	1,073	1,151	1,235	1,234
Total	2,000	2,146	2,302	2,469	2,649

 Table 3-30

 SUMMARY OF RECOMMENDED AVIATION ACTIVITY FORECASTS

Note: Columns may not equal totals shown due to rounding

4 ENVIRONMENTAL CONSIDERATIONS

4.1 General

An Environmental Site Assessment (ESA) was performed for an approximately 350-acre property located at 16701 State Road 71 in Altha, Calhoun County, Florida, otherwise known as the Calhoun County Airport. This Assessment was performed to identify Recognized Environmental Conditions (RECs) associated with the Airport. The ESA is intended to constitute "all appropriate inquiry" into the previous ownership and uses of the Airport consistent with good commercial and customary practices as defined by the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (42 USC § 9601).

This ESA addresses existing and past uses and conditions relating to the A i r p o r t. The AVCON Team makes no representation regarding the future or potential use of the A i r p o r t except for those items explicitly stated in this report.

This assessment was conducted in general accordance with the scope and limitations of ASTM Standard E-1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (the Standard Practice) unless otherwise stated herein. The assessment, conclusions and recommendations are based on site conditions, observations, interviews, and a review of readily available information, as they existed at the time of the review.

4.1.1 Scope of Services

ESAs are described as general characterizations of environmentally sensitive activities and conditions that are identifiable through practically reviewable information and visual, non-invasive observations for the purpose of identifying RECs. The Standard Practice provides the following definition for a REC:

- The presence or likely presence of any hazardous substances or petroleum products in, on, or at a property
- Due to any release to the environment
- Under conditions indicative of a release to the environment
- Under conditions that pose a material threat of a future release to the environment.

The term REC includes hazardous substances or petroleum products, even under conditions in compliance with laws. The Standard Practice also provides the following definitions for an HREC, a CREC and a BER:

• HREC – a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for

example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).

- CREC a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).
- BER a risk that may have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate, not necessarily limited to those environmental issues required to be investigated in this practice.

These terms are not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment, and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

In addition, the potential for *vapor migration* in the subsurface discussed in this assessment should not be construed as the identification of Vapor Encroachment Conditions (VEC) defined by ASTM Standard E-2600, *Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions*.

Services performed for this project include a process involving and/or considering the following:

- Review of available environmental lists published by federal and state agencies (i.e., regulatory database report) to identify environmentally sensitive activities (past or present) on the subject and adjoining properties.
- Review of physical characteristics of the Airport Property through field observations and a review of readily available documents including geologic and topographic maps, aerial photographs, and historic maps.
- Reconnaissance of reasonably accessible portions of the Airport Property and surrounding areas to visually identify obvious present or past conditions or activities that may pose an environmental threat to the Airport Property.
- Interview of local regulatory agency personnel and others knowledgeable about the history of the Airport Property.
- A qualitative hydrogeological evaluation of the Airport Property and vicinity using both published topographic maps and field observations.

• Preparation of this report summarizing our services, findings, and conclusions.

A site vicinity map, topographic map, aerial photograph, site photographs, regulatory database report, regulatory and/or government agency correspondence, and other supporting documents and information are included as appendices to this report.

The sampling and testing of soil, air and/or other materials is beyond the scope of this study. The identification of asbestos containing materials (ACM), radon, vapor encroachment, lead based paint (LBP), lead in drinking water, wetlands, Waters of the United States, Waters of the State, regulatory compliance, cultural and historic resources, industrial hygiene, health and safety, ecological resources, rare or endangered species, air quality, noise impacts, biological agents and mold are also beyond the scope of this ESA. No implication is intended as to the relative importance of these additional environmental items, and this list of items is not intended to be all inclusive.

4.1.2 Assumptions

The information gathered during this assessment was information that was "practically reviewable." This is, by definition, information that is provided by the source in a manner and in a form that, upon examination, yields information relevant to the property without the need for extraordinary analysis of irrelevant data. The form of the information is such that the environmental professional can review the records for a limited geographic area. Records that cannot be feasibly retrieved by reference to the location of the property or a geographic area in which the property is located (such as records that are sorted chronologically) are not considered practically reviewable.

In addition, for large databases with numerous records it is common for an unmanageable number of sites to be identified, even within a smaller geographic area such as a ZIP code. In these cases, when so much data is generated that it cannot be feasibly reviewed for its impact on the property, it is considered not practically reviewable.

The information provided herein is that which is publicly available. Information that is publicly available means that the source of the information allows access to the information by anyone upon request at a reasonable time and cost.

4.1.3 Limitations and Exceptions

An ESA was performed in accordance with the Standard Practice, which is a <u>limited</u> inquiry into a property's environmental status and is not sufficient to discover every potential source of environmental liability or environmental impact, if any, of the property to be evaluated. No ESA can wholly eliminate uncertainty regarding the potential for RECs in connection with a property. Performance of this practice is intended to reduce, but not eliminate, uncertainty regarding the potential for RECs in connection with a property, and this practice recognizes reasonable limits of time and cost.

The appropriate level of inquiry is variable. Not every property will warrant the same level of assessment. Consistent with good commercial or customary practices, the appropriate level of environmental site assessment will be guided by the type of property subject to

assessment, the expertise and risk tolerance of the Users, and the information developed during the inquiry.

The findings, opinions, and conclusions are based on information which is reasonably ascertainable from standard sources at the time of the assessment through site reconnaissance, visual assessment of surficial conditions, records review, interviews, and other standard investigative techniques used in the industry at this time. It is possible that other information exists or may subsequently become known that may impact or change the site assessment after this report is complete.

In conducting this ESA and preparing the ESA report, information provided by others was reviewed, interpreted, and relied upon, including, but not limited to individuals, government authorities, subcontractors, and other entities. An independent evaluation of the accuracy or completeness of such information was not performed.

This assessment represents the professional opinion of the authors, only. Therefore, the authors cannot, under any circumstances, make a statement of warranty or guarantee, expressed or implied, that RECs, environmental impairment, or environmental impacts are limited to those that are discovered while the ESA was being performed.

Specific limitations, exceptions, and/or data gaps/failures related to this ESA were encountered.

- Historical information was available from 1940 to present. The ASTM standard requires verification of property history to at least 1940 or first developed use and requires indicates no more than an approximate 5-year gap between resources. Although the requirement for research to first developed use was achieved, the requisite 5-year interval was not met between 1940-1949, 1949-1957, 1957-1964, 1964-1975, 1975-1983, and 1983-1994. Although there is data failure, the available data indicate apparent undeveloped usage this period.
- Apparent usage of the property between 1999 and 2005 for the main airport area on the Airport Property is unknown.
- Could not access Hangers 1-3
- Could not access recycling facility, forestry office, and Sheriff's facility.
- Other former property owners, tenants, and/or onsite managers were not available for interviews regarding the Airport Property's history and use.
- Chain-of-title, which is optional per the ASTM standard, was not provided for review.

The authors professional opinion regarding the significance and/or materiality of these limiting conditions, exceptions, and/or data gaps/failures is provided in Section 4.9.

4.2 Site Description

4.2.1 Location and Legal Description

The Airport consists of nine parcels with an approximate area of 350-acres identified as Calhoun County Parcel ID #s:

- 14-1N-09-0000-0008-0100
- 14-1N-09-0000-0008-0400
- 14-1N-09-0000-0008-0401
- 14-1N-09-0000-0008-0402
- 14-1N-09-0000-0008-0403
- 15-1N-09-0000-0002-0100
- 14-1N-09-0000-0008-0102
- 14-1N-09-0000-0008-0101
- 11-1N-09-0000-0013-0200

The Airport Property parcels are currently owned by Calhoun County.

A Site Location Map and a Topographic Map depicting the location of the Airport Property and its surrounding topography are included in Appendix E - A. The approximate latitude and longitude coordinates of the Airport Property are 30.48793° North, -85.11319° West, respectively.

4.2.2 <u>Airport Property and Vicinity General Characteristics</u>

The existing site grades within the proposed construction areas are generally level. The vicinity of the Airport Property generally includes developed lots and is bordered by the following:

Direction	Land Use Description/Observations
North	Undeveloped land and residential property
East	Undeveloped land and Highway 71
South	Undeveloped land and NW Magnolia Church Road
West	Undeveloped land and farmland

Table 4-1 LAND USE DESCRIPTIONS AND OBSERVATIONS

Select photographs of the Airport Property taken during the site reconnaissance activities are included as Appendix E - B.

4.2.3 <u>Current Use of the Property</u>

At the time of this investigation, the Airport Property is a developed airfield and airplane holding facility. It also has a recycling facility and forestry management office in the southern portion of the Airport Property. Photos of the items listed above are included and referenced in Appendix E - B.

4.2.4 Descriptions of Property improvements

The Airport Property, as observed during the site reconnaissance activities, consisted of an approximate 350-acre parcel. The Airport Property contains one runway going from north to south, three (3) storage hangers all with an approximate area of 20,000 square feet, two (2) approximately 5,000 square foot hangers north of the gate with one of them holding a plane for maintenance, new construction near the entrance gate, two (2) 10,000-gallon aviation and jet fuel tanks. There is a recycling facility near the southern boundary of the Airport Property with two buildings with areas of 10,000 square feet for the eastern building and 5,500 square feet for the western building. Also, there is a forestry management facility with a main structure with an area of approximately 6,000 square feet and two maintenance ports with metal roofs with areas of 1,500 square feet and 4,000 square feet. There is also a Calhoun County Sheriff's office facility near the western boundary of the Airport Property across from the Airport security gate. This facility has a pre-engineered metal framed building with an approximate area of 4,000 square feet and a storm water pond south of the building. There is also a facility just north of the southern boundary of the Airport Property, which is an open metal frame building with metal farm fences appearing to have held livestock. This structure is approximately 90,000 s q u a r e f e e t and there appears to be a pond south of this structure. There is also a fire station facility just north of the main storm water pond. This is primarily used as a garage for multiple engines and is approximately 6,500 square feet. There is also an abandoned building northeast of the gate entrance that has been widely damaged presumably by hurricane Michael with an approximate area of 15,000 square feet. There is a large wet pond on the eastern boundary of the site just south of the water tower.

4.3 User Provided Information

The "All Appropriate Inquiries" Final Rule (40 CFR Part 312) requires certain tasks be performed by the User to qualify for one of the Landowner Liability Protections (LLPs) to CERCLA liability. Failure to provide this information could result in a determination that all appropriate inquiry is not complete; consequently, fulfillment of these User responsibilities is key to qualification for the available defenses to CERCLA liability.

The User is asked to provide information or knowledge of the following:

4.3.1 Land Title Records

Chain-of-Title information was not provided to NOVA for review, which is optional per the Standard Practice.

4.3.2 Environmental Liens or Activity and Use Limitations

No Environmental Liens or Activity Use Limitations (AULs) were reported to or encountered during the conduct of this ESA. No Institutional Controls (ICs) nor Engineering Controls (ECs) were reported within the ERIS® database information.

4.3.3 Specialized Knowledge

Information was not provided in the ASTM Questionnaire regarding specialized knowledge or experience that is material to the identification of RECs in connection with the Airport Property.

4.3.4 Actual Knowledge

No actual knowledge was provided in the Questionnaire that indicated any information that would identify RECs in connection with the Airport Property.

4.3.5 Valuation Reduction for Environmental Issues

It was revealed that the valuation of the Airport Property is considered fair market value and not diminished due to known or perceived environmental impacts at this time.

4.3.6 Commonly Known or Reasonably Ascertainable Information

The User has stated that they are not aware of any commonly known or reasonably ascertainable information that is material to the identification of RECs in connection with the Airport Property at this time.

4.3.7 Obvious Indicators

Obvious indicators are those that are plain or evident, a condition or fact that could not be ignored or overlooked by a reasonable observer while visually or physically observing the property. The User did not comment on obvious indicators of environmental conditions or concerns in connection with the Airport Property.

4.4 Interviews

As part of the ESA, interviews were conducted with select persons familiar with the Airport Property to provide insight into past activities or conditions material to the identification of RECs in connection with the Airport Property.

4.4.1 Interview with Owner

No interview was conducted with the owner.

4.4.2 Interview with Site Manager

An interview was conducted with the site manager, Ms. Ashley Odom. Her responses indicated nothing of environmental concern.

4.4.3 Interviews with Occupants

No interviews were conducted with the occupants.

4.4.4 Interviews with Local Government Officials

The Florida Department of Environmental Protection (FDEP) was contacted via email requesting information related to any potential violations, environmental permits, storage tanks and discharges, or spills/emergency responses related to possible groundwater contamination for the Airport Property. A response to this FOIA request was received stating that there were no additional FDEP records for the Airport Property that are not located in publicly available databases, which were searched during this assessment.

The Florida Department of Health (FLDOH) was contacted via email to request information related to the on-site water well and septic tank systems related to possible groundwater contamination, in addition to asbestos, radon, or lead based paint issues or violations for the Airport Property. A response to this FOIA request was not received at the time of completion of this report, likely due

to the department's involvement with the ongoing COVID-19 pandemic. Any future responses that lead to the identification of RECs will be forwarded to the user as an addendum to this report.

4.5 Records Review

4.5.1 Physical Setting Sources

4.5.1.1 Topography

The Property, consisting of nine parcels, is located within the Blountstown, Florida, United States Geological Survey, 7.5-minute series topographic quadrangle map. Topographically, the Airport Property gently slopes to the south from the north portion of the site and slopes north from the southern portion of the site and then slopes eastward toward the pond near the water tower, at a central elevation of approximately one hundred and fifteen (115) feet above mean sea level (MSL).

4.5.1.2 Site and Area Geology

The site is in Calhoun County, Florida and according to the United States Geological Survey (USGS), is situated within the Gulf Coastal Plain, separated from the Florida Platform by geologic structures known as the Gulf Trough and Apalachicola Embayment. These structures formed a bathymetric and environmental barrier from the earliest Eocene or earliest Oligocene periods into the Miocene.

According to the "Text to Accompany the Geologic Map of Florida" by Scott, 2001, the site is generally underlain by undifferentiated sediments deposited during the Holocene period. These sediments typically consist of quartz sands, carbonate sands, muds, and organics.

Residuum on Holocene sediments (Tro) is the undifferentiated Oligocene residuum, mapped on parts of the Chattahoochee "Anticline", characteristically consists of reddish brown, variably sandy clay with inclusions of variably fossiliferous, silicified limestone (Huddlestun, 1993). The residuum includes Lower and Upper Oligocene weathered sediments (Huddlestun, 1993).

Surficial soils in the region are primarily siliciclastic sediments deposited in response to the renewed uplift and erosion in the Appalachian highlands to the north and sea-level fluctuations. The extent and type of deposit is influenced by numerous factors, including mineral composition of the parent rock.

4.5.1.3 <u>Hydrogeology</u>

Groundwater in the Gulf Coastal Plain typically occurs as an unconfined aquifer condition. Recharge is provided by the infiltration of rainfall and surface water through the soil overburden. More permeable zones in the soil matrix can affect groundwater conditions. The groundwater table is expected to be a subdued replica of the original surface topography.

Regional groundwater flow is likely to be variable based on the area's topography, subsurface conditions, and relative locations to the low-lying wetland areas, lakes, bayous, drainage ditches, and ponds in the area.

Actual groundwater flow and estimated groundwater levels may also be influenced by underground structures, seasonal fluctuations in rainfall, tidal influences, local usage demands, soil and bedrock geology, nearby bodies of water, production/irrigation wells or dewatering operations.

4.5.1.4 <u>Soils</u>

Based on a review of the United States Department of Agriculture (USDA) online web soil survey (WSS) maps for Calhoun County, Florida and USDA Soil Survey of Calhoun County, Florida (published 2016), the Airport Property is primarily underlain by:

- Albany Sand 0 to 2 percent slopes The Albany complex can be found from 0' to 150' in elevation with a marine and fluviomarine deposit parent material. It consists of 0-60" of loamy sand and 60" to 80" of sandy clay loam.
- Dothan loamy Sand 0 to 2 percent slopes The Dothan series consists of fine and fine loamy sand. It can be found at an elevation of 170' to 500' forming on knolls of marine terraces. It has a fluviomarine parent material.
- Fuquay loamy Sand 0 to 2 percent slopes The Fuquay series consists of fine and fine loamy sand. It can be found at an elevation of 30' to 400' forming on knolls of marine terraces. It has a fluviomarine parent material.
- Leefield loamy Sand 0 to 5 percent slopes The Leefield series consists of fine and fine loamy sand. It can be found at an elevation of 170' to 500' forming shoulders of marine terraces. It has a fluviomarine parent material.
- Pansey sandy loam 0 to 2 percent slopes The Pansey series consists of fine and fine loamy sand. It can be found at an elevation of 20' to 400' forming on knolls of marine terraces. It has a fluviomarine parent material.
- Plummer Sand 0 to 5 percent slopes The Plummer series consists of fine and fine loamy sand. It can be found at an elevation of 0' to 400' forming flats of marine terraces. It has a fluviomarine parent material.
- Croatan loamy Sand 0 to 1 percent slopes The Croatan series consists of fine and fine loamy sand. It can be found at an elevation of 20' to 400' forming depressions within marine terraces. It has a fluviomarine organic parent material.
- Stilson loamy Sand 0 to 2 percent slopes The Stilson series consists of fine and fine loamy sand. It can be found at an elevation of 20' to 400' forming rises on marine terraces. It has a fluviomarine parent material.

4.5.1.5 Groundwater

The actual groundwater flow direction under the Airport Property can be accurately determined only by installing groundwater monitoring wells, which was beyond the scope of work for this project. Surface water runoff at the Airport Property is expected to generally follow

the Airport Property's contoured surface topography and discharge offsite to the east as the north generally flows south and south generally flows north and into the eastern pond near the water tower.

4.5.1.6 Flood Zone Information

Based on a review of the Federal Emergency Management Agency (FEMA) online Flood Insurance Rate Maps (FIRM) for the Airport Property (map number 12013C0185H, effective 6-18-2013, it is located within Zone X and A-01. Zone X areas are defined as areas outside the 0.1-percent annual-chance flood event and therefore an area of minimal flood hazard, and Zone A-01 areas are areas within the 0.1-percent annual chance of flood event.

A copy of the Physical Settings Report for the Airport Property is attached in Appendix E - C, *Regulatory Records Documentation*.

4.5.1.7 Record of Water Wells

A review of the ERIS[®] Physical Setting Source Summary addendum identified the presence of a total of forty-four (44) water wells within the designated search radius. There were six (6) wells located onsite with designations 1-6.

- Well 1: This well is located northeast of airplane Hanger 1. This was not a suitable well at the end of construction and was abandoned using grout to a depth of 47 feet with a diameter of 6 inches.
- Well 2: This well is located just northeast of the airport entrance gate. It has a 4inch diameter with a total depth of 335 feet. It is used for aquaculture.
- Well 3: This well is located just northeast of the airport entrance gate. It has a 6inch diameter with a total depth of 47 feet. It is used for aquaculture.
- Well 4: This well is located just northwest of the eastern pond. It has a total depth of 360 feet with a diameter of 8 inches and is used for public water supply.
- Well 5: This well is located just northeast of the fire station. It has a total depth of 160 feet with a diameter of 4 inches and is used for public water supply.
- Well 6: This well is located just north of the eastern pond and has a depth to 360 feet. A copy of the Physical Setting Report is attached in Appendix E C, *Regulatory Documentation*.

4.5.2 Environmental Record Sources

ERIS[®] of Ontario, Canada conducted a commercial database search of regulatory databases. This is a review of published governmental records from federal and state environmental regulatory agencies. It was conducted to identify use, generation, storage, treatment or disposal of hazardous substances and petroleum products, and/or release incidents of such materials that may have the potential to impact the Airport Property or nearby sites.

The federal and state/tribal environmental databases obtained from ERIS[®] were generated in general accordance with the ASTM E1527-13 guidelines for standard environmental record sources for this assessment. Such reports are typically used to review the potential environmental impact of activities at the Airport Property or nearby sites. The full ERIS[®] database search report for this project is included in Appendix E - C.

Federal Database	Search Distances
Federal NPL site list	1.0 mile
Federal Delisted NPL site list	0.5 mile
Federal CERCLIS list	0.5 mile
Federal NFRAP site list	0.5 mile
Federal RCRA CORRACTS facilities list	1.0 mile
Federal RCRA non-CORRACTS TSD facilities list	0.5 mile
Federal RCRA generators list	Property and adjoining properties
Federal Institutional control/engineering control	Property only
Federal ERNS List	Property only
State/Tribal Database	Search Distances
State and tribal equivalent NPL	1.0 mile
State and tribal equivalent CERLIS	0.5 mile
State and tribal landfill and/or solid waste disposal	0.5 mile
State and tribal equivalent leaking storage tank	0.5 mile
State and tribal registered storage tank lists	Property and adjoining properties
State and tribal institutional control/engineering control registries	Property only
State and tribal voluntary cleanup sites	0.5 mile
State and tribal Drownfield sites	0.5

 Table 4-2

 STANDARD ENVIRONMENTAL RECORDS

In addition to the above standard databases, several non-standard/supplemental databases were reported by ERIS[®] and reviewed as part of this investigation. Further details regarding database names, search radii, and responsible agencies are included in the ERIS[®] report attached in Appendix E - C, *Regulatory Records Documentation*.

4.5.2.1 Airport Property

The Airport Property is listed in the regulatory review. The site is listed in the AST, FINDS/FRS, and STCS. This site has one (1) single-walled aviation gas above ground storage tank (AST) installed in December of 2003 and one (1) double-walled jet fuel AST installed in January of 2010. Both tanks are 10,000 gallons in size. This site appears to be following the FDEP requirements as of November of 2019.

4.5.2.2 Adjoining Sites

No adjoining sites were identified relative to the Airport Property in the ERIS[®] Report.

4.5.2.3 Surrounding Area

There were no sites identified in the ERIS[®] Report within the specified search distances relative to the Airport Property.

4.5.2.4 Orphan Sites

Several "unmappable" or "orphan" sites were identified in the ERIS[®] database report. The listings do not include exact addresses and as such locations are ambiguous. These incidents are not considered to be RECs at this time, based on the available information and supplemental research.

4.5.3 <u>Historical Use Information</u>

A review was attempted of previous reasonably ascertainable environmental reports, historical maps, and aerial photographs to gain an understanding of the development history of the Airport Property. Available historical records were used to review the potential environmental impact of activities on the integrity of the Airport Property.

4.5.3.1 <u>Topographical Maps</u>

An historical 7.5-minute topographic maps of the Bayhead, Florida Quadrangle for the years 1945, 1990, and 2015 as provided by ERIS[®] was reviewed.

The historical topographic map generalizes the Airport Property and all parcels in the immediate area as undeveloped wooded land in the 1945 map. Only dirt paths are present onsite and there are several generally low-lying and swampy areas depicted. Highway 71 is present to the east and Magnolia Church Road is present to the south of the Airport Property.

The 1990 map shows significant fill materials and a change in topography from the previous map along the center of the Airport Property. A few more dirt roads are present in the area. This signifies sitework for the Airport Property.

The 2015 topographic map generally shows the site generally as it is today with high points on the north and south of the Airport Property. Also, the large eastern pond can be seen in this photo.

The maps reviewed did not reveal any nearby pipelines, underground mines, landfills, or other features of potential environmental concern. Copies of the topographical maps are included in Appendix E - D.

4.5.3.2 Sanborn® Maps

Copies of historical Sanborn[®] Maps are not available for the Airport Property. No information was available for the Airport Property, or for adjacent sites. A copy of the report is included in Appendix E - D.

4.5.3.3 <u>Historical Aerial Photographs</u>

Copies of historical aerial photographs taken in the years 1949, 1957, 1964, 1975, 1983, 1994, 1999, 2005, 2006, 2007, 2010, 2013, 2015, 2017 were obtained from ERIS[®]. These aerial photographs were reviewed to identify changes in land use and areas of potential environmental concern. Copies of the aerial photographs are included in Appendix E - D. The following are descriptions and interpretations from the aerial photograph reviews:

- 1949 Aerial Photograph: This aerial photograph indicates the Airport Property as undeveloped land with multiple dirt roads; however, Highway 71 is present along with Magnolia Church Road.
- 1957 Aerial Photograph: This photo shows clearing of land and organization suggesting agricultural activities were present currently.
- 1964 Aerial Photograph: This photo shows structures in the center and SW corner of the Airport Property.
- 1975 Aerial Photograph: This photo shows vegetation allowed to grow in the northeastern corner of the Airport Property.
- 1983 Aerial Photograph: This photo does not change much from the previous 1975 photo.
- 1994 Aerial Photograph: This photo shows the development of roads within the Airport Property as well as early indications of a runway and formation of pond in the eastern portion of the Airport Property. There also appears to be a cull-de-sac formed in the center of the Airport Property.
- 1999 Aerial Photograph: This photo shows the formation of a building near the center of the Airport Property. It also shows a facility on the western boundary of the Airport Property and another on the southeastern corner.
- 2005 Aerial Photograph: This photo shows much more detail and is in color. There is a water tower on the eastern side of the Airport Property just north of the pond. There appears to be multiple buildings in the center of the Airport Property presumably used for aviation.
- 2006 Aerial Photograph: This photo does not change much from the previous 2005 photo.
- 2007 Aerial Photograph: This photo shows the development of the agricultural structure to the south of the Airport Property. It is a metal roof structure with dirt roads.
- 2010 Aerial Photograph: This photo shows further development of the airport with the paving of the runway from north to south. It also shows the formation of

hangers 2 and 3 used for holding private planes. This photo also shows the installation of the fire station on the eastern side of the Airport Property.

- 2013 Aerial Photograph: This photo does not change much from the previous 2010 photo.
- 2015 Aerial Photograph: This photo shows more development associated with the large metal roof building. It also shows the start of development of the taxiway for the runway.
- 2017 Aerial Photograph: This photo does not change much from the previous 2015 photo.
- 2019 Aerial Photograph: This photo generally shows the current physical setting for the Airport Property except for the damage from Hurricane Michael (October 2018) and a few buildings have been demolished near the airport gate.

4.5.3.4 <u>Historical City Directories</u>

Copies of historical city directories were obtained for select years spanning 1998 to 2019. The Agri Park Street does not appear to be listed in the directories.

No other notable properties in the directory search were found that either have not been discussed elsewhere in this report or otherwise found to be innocuous based on the available information. Copies of the historical city directories provided by ERIS[®] are included in Appendix E - D.

4.5.3.5 <u>Previous Environmental Reports on Airport Property</u>

Previous environmental reports on the Airport Property were not provided for review. Available information was reviewed on the FDEP OCULUS database management system. Pertinent records and information have been attached in Appendix E - E.

4.5.3.6 Previous Environmental Reports on Surrounding Sites

Previous environmental reports on sites surrounding the Airport Property were not provided for review. Available information was reviewed on the FDEP OCULUS database management system. Pertinent records and information have been attached in Appendix E - E.

4.6 Airport Property Reconnaissance

4.6.1 <u>Methodology and Limiting Conditions</u>

Mr. Daniel McGimsey, an environmental professional with the AVCON Team, conducted a site visit on October 20, 2020. The site visit consisted of an initial site reconnaissance, a walk along the perimeter of the site, and a walk along the immediate site area. Additionally, an area reconnaissance was conducted as a driving tour to identify facilities within specified regulatory search distances listed within the previously referenced ERIS[®] report.

The site reconnaissance was performed to identify observed obvious indications of present or past activities that may have caused a significant environmental impact(s) to the site. Select photographs of the site taken during the site reconnaissance are included in Appendix E - B.

4.6.2 General Airport Setting

The Airport located at 16701 State Road 71 in Altha, Calhoun County, Florida, consists of nine parcels designated with Calhoun County Parcel ID:

- 14-1N-09-0000-0008-0100
- 14-1N-09-0000-0008-0400
- 14-1N-09-0000-0008-0401
- 14-1N-09-0000-0008-0402
- 14-1N-09-0000-0008-0403
- 15-1N-09-0000-0002-0100
- 14-1N-09-0000-0008-0102
- 14-1N-09-0000-0008-0101
- 11-1N-09-0000-0013-0200

The Airport consists of approximately 350-acres of developed land.

4.6.3 Observations

Site observations and conditions identified during the site reconnaissance are summarized as follows:

4.6.3.1 Interior and Exterior Observations

- Hazardous Substances and Petroleum Products in Connection with Identified Uses: Aviation and Jet fuel were observed on the Airport Property.
- **Storage Tanks**: Two (2) above ground 10,000-gallon tanks for aviation and jet fuel are just northwest of Hanger 1 near the security gate for the airport. One 400-gallon diesel tank for small engines is located just north of the security gate.
- Odors: None noted.
- Pools of Liquid: None noted.
- **Drums**: One plastic barrel was noted inside the northern hanger.
- Hazardous Substances and Petroleum Products Containers (Not Necessarily in Connection with Identified Uses): None noted.
- Unidentified Substance Containers: Eight (8) small containers were noted in the northern hanger associated with cleaning, small engine refueling, and pesticides.
- **PCBs (Electrical Transformers):** PCBs were noted across the property. No PCBs had any indication of corrosion.

4.6.3.2 Interior Observations

- Heating and Cooling No heating or cooling noted on the airport structures. There was air conditioning in the fire station, and the construction trailer. There appears to have been heating and cooling in the abandoned building north of the gate, but power has been disconnected from the building.
- Stains or Corrosion None noted.

• Drains and Sumps – None noted.

4.6.3.3 <u>Exterior Observations</u>

- **Pits, Ponds, and Lagoons**: There is three (3) ponds on the Airport Property. There is a large pond in the eastern portion of the Property that most the airport runoff goes into. There is also a pond south of the large metal frame building in the southern portion of the Airport Property. There is also a pond south of the Sheriff's office building towards the western portion of the Airport Property across from the security gate to the airfield.
- **Stained Soil or Pavement**: General staining noted on asphalt parking lots. None noted on the taxiway or in front of any hangers.
- Stressed Vegetation: None noted.
- **Solid Waste**: There is a recycling facility generating solid waste to be processed and recycled west of the forestry management facility near the southern boundary of the Airport Property.
- Wastewater (including Storm Water): There is one (1) primary storm water pond in the eastern portion of the Airport Property fed by ditches throughout the airfield and along the road to the security gate. There are also two smaller ponds on the western end and southern ends of the Airport Property as described above.
- Wells: Six (6) wells were identified in the ERIS® provided documentation, as discussed above.
- Septic Systems: No evidence of a septic tank was observed.
- Surface Water: None noted.

4.7 Non-ASTM Considerations/Observations

4.7.1 Asbestos-Containing Materials

Asbestos is the name given to several naturally occurring, fibrous silicate minerals mined for their useful properties such as thermal insulation, chemical and thermal stability, and high tensile strength. Asbestos is commonly used as an acoustic insulator, thermal insulation, fireproofing, and in other building materials. Exposure to airborne friable asbestos may result in a potential health risk because persons breathing the air may breathe in asbestos fibers. Continued exposure can increase the number of fibers that remain in the lungs. Fibers embedded in lung tissue over time may cause serious lung diseases, including asbestosis, lung cancer, or mesothelioma. An asbestos assessment is beyond the scope of this study.

Buildings are present onsite but are not scheduled for renovation or demolition at this time. If buildings are to be renovated or demolished, an ACM survey will be required.

4.7.2 Lead-Based Paint

Lead-Based Paint was widely used in paint prior to ~1980 due to its ability to keep paint vibrant and more durable. There appears to have been no buildings built before 1980 on the Airport Property, therefore lead based paint is not of environmental concern at this time.

4.7.3 Lead in Drinking Water

The Airport property is connected to the municipal water supply and based on a review of the 2019 Calhoun County drinking water report, lead in drinking water is not considered to be of concern at this time.

4.7.4 <u>Mold</u>

Molds are microscopic organisms found virtually everywhere, indoors, and outdoors. Mold will grow and multiply under the right conditions, needing only sufficient moisture (e.g., in the form of very high humidity, condensation, or water from a leaking pipe, etc.) and organic material (e.g., ceiling tile, drywall, paper, or natural fiber carpet padding). Mold growths often appear as discoloration, staining, or fuzzy growth on building materials or furnishings and are varied colors of white, gray, brown, black, yellow, and green. In large quantities, molds can cause allergic symptoms when inhaled or through the toxins the molds.

Structures are present onsite that have the possibility of mold growth such as the abandoned structure north of the security gate, which is a closed structure with practically no ventilation and ample food source for spores. No other structures on the site presented any indication of substantial mold growth, however the possibility of mold is likely given the right conditions and food source.

4.7.5 <u>Radon</u>

Radon is a colorless, odorless, naturally occurring, radioactive, inert, gaseous element formed by radioactive decay of radium (Ra) atoms. The EPA has prepared a map to assist national, state, and local organizations to target their resources and to implement radon-resistant building codes. The map divides the country into three (3) Radon Zones, with Zone 1 being those areas with the average predicted indoor radon concentration in residential dwellings exceeding the EPA Action Limit of 4 picoCuries per Liter (pCi/L).

It is important to note that the EPA has found homes with elevated levels of radon in all three (3) zones, and the EPA recommends property-specific testing to determine radon levels at a specific location. However, the map does give a valuable indication of the propensity of radon gas accumulation in structures.

Radon sampling was not conducted as part of this assessment. Review of the USEPA Map of Radon Zones for Calhoun County places the Airport Property in Zone 3, where average predicted radon levels are below 2 pCi/L, and, therefore, radon is not expected to be a significant environmental concern.

4.8 Threatened and Endangered Species

There are many threatened and endangered species that have habitat in Calhoun County, both on the federal and state lists. These are shown in Table 4-3.

Common Name	Scientific Name	U.S. Fish and Wildlife Status	Florida Status		
Amphibians:					
Gopher Frog	Rana Capito	Petition	се		
One-toed amphiuma	Amphiuma pholeter	Petition			
Reticulated flatwoods salamander	Ambystoma bishop	E (CH)			
Birds:					
Bald Eagle	Haliaeetus leucocephalus	BGEPA			
Southeastern kestral	Falco sparverius paulus	се	Т		
Wood stork	Mycteria americana	E (CH)	Е		
Crustaceans			-		
Dougherty plain cave crayfish	Cambarus cryptodytes	Petition			
Fish					
Bluestripe shiner	Cyprinella callitaenia	Petition			
Broadstripe shiner	Pteronotropis euryzonus	Petition			
Gulf sturgeon	Acipenser oxyrinchus desotoi	T (CH)	Т		
Insects					
Yellow-sided clubtail	Stylurus potulentus	Petition			
Mammals					
Southeastern big-eared bat	Plecotus rafinesquii	се			
Mussels					
Apalacicola floater	Anodonta eardi	Petition			

 Table 4-3

 THREATENED AND ENDANGERED SPECIES

Table 4-3 Continued from Previous Page					
Common Name	Scientific Name	U.S. Fish and Wildlife Status	Florida Status		
Chipola slabshell	Elliptio chipolaensis	T (CH)	Т		
Delicate spike	Elliptio arcata	Petition			
Fat threeridge	Amblema neislerii	E (CH)	E		
Gulf moccasinshelll	Medionidus penicillatus	E (CH)	E		
Inflated spike	Elliptio purpurella	Petition			
Oval pigtoe	Pleurobema pyriforme	E (CH)	E		
Purple bankclimber	Elliptoideus sloatianus	T (CH)	Т		
Rayed creekshell	Anodontoides radiates	Petition			
Shinyrayed pocketbook	Hammiota (=Lampsilis)	E (CH)	E		
Southern elktoe	Aasmidonta triangulate	Petition			
Reptiles		-			
Alligator snapping turtle	Macroclemys temminckii	Petition	SSC		
Barbour's map turtle	Graptemys barbouri	Petition	SSC		
Eastern Indigo snake	Drymarchon couperi	Т	Т		
Florida pine snake	Pituophis melanoleucus mugitus	Petition	SSC		
Florida red-bellied turtle	Pseudemys nelsoni	Petition			
Gopher tortoise	Gopherus polyphemus	С	Т		
Plants					
Alternate-leaf or pagoda dogwood	Cornus alternifolia		E		
Apalachicola wild indigo	Baptisia megacarpa	Petition	E		
Baltzell's sedge	Carex baltzellii	се	Т		
Buckthorn	Bumelia lyciodes		E		
Chapman's crownbeard	Verbesina chapmanii	SSC	Т		
Ciliate-leaf tickweed	Coreopsis integrifolia	Petition	Е		
Curtiss' loosestrife	Lythrum curtissii	Petition	Е		
Dark-headed hatpin	Eriocaulon nigrobracteatum	Petition	E		
Decumbant pitcher plant	Sarracenia purpurea		Т		
Eastern ninebark	Physocrpus opulifolius		Е		
Gentian pinkroot	Spigelia gentianoides	E	Е		

Table 4-3 Continued from Previous Page					
Common Name	Scientific Name	U.S. Fish and Wildlife Status	Florida Status		
Giant water-dropwort	Oxypolis greenmanii		E		
Godfrey's (violet) butterwort	Pinguicula ionanthus	Т	Е		
Hairy fever tree	Pinckneya bracteata		Т		
Meadowbeauty	Rhexia parviflora	Petition	E		
Mountain laurel	Kalmia latfolia		Т		
Orange azalea	Rhododendron austrinum		E		
Panhandle meadowbeauty	Rhexia salicifolia	Petition			
Parrot pitcher plant	Sarracenia psittacina		Т		
Primrose-flower butterwort	Pinguicula primulifolia		E		
Pyramid magnolia	Magnolia pyramidata		E		
Sicklepod	Arabis canadensis		E		
Silky camellia	Stewartia malacodendron		Е		
Snowy orchid	Platanthera nivea		Т		
Southern red lily	Lilium catesbaei		Т		
Spoon-leaved sundew	Drosera intermedia		Т		
Sweet shrub	Calycanthus floridus		E		
Thorne's beakrush	Tynchospora thornei	Petition			
Trailing arbutus	Epigaea repens		E		
Tropical waxweed	Cuphea aspera	SSC	E		
Variable-leaved indian plantain	Arnoglossum diversifolium	Petition	Т		
West's flax	Linum westii	Petition	E		
White-top pitcher plant	Sarracenia leucophylia	SSC	Е		
Wiregrass gentian	Gentiana pennelliana	SSC	E		
Yellow butterwort	Pinguicula lutea		Т		
Yellow fringed orchid	Platanther ciliaris		Т		
Yellow fringeless orchid	Platanther integra	се	E		

Note: E = endangered, T = threatened, CH = critical habitat, ce = consideration encouraged, BGEPA = Bald and Golden Eagle Protection Act, Petition = has been petitioned for listing.

This is not an exhaustive list of where species occur, but a guide to indicate areas that might require surveys if appropriate habitat exists prior to the commencement of a construction project.

4.9 FAA Wildlife Strike Database

The Airport does not have Wildlife Hazard Management Plan. Technically, it is not required to unless it is a Part 139 operation, which means that it receives regularly scheduled commercial passenger service, or unless it has a significant number of wildlife strikes. A check of the FAA Wildlife Strike Database shows that no wildlife strikes have ever been reported to the FAA. This

does not necessarily mean that there have not been any strikes, only that none have been reported.

4.10 Wetlands

According to the U.S. Fish and Wildlife Service's Wetlands Mapper, there are four types of wetlands on and near the Calhoun County Airport. These are shown in Figure 4-1.



Source: U.S. Fish and Wildlife Service

The U.S. Fish and Wildlife Service defines the various wetlands shown as follows:

PEM1A: Freshwater Emergent Wetland, specifically

- System **Palustrine (P)**: The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergent, emergent mosses, or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 parts per thousand (ppt). It also includes wetlands lacking such vegetation, but with all the following four characteristics: (1) area less than 8 hectares (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 meters (8.2 feet) at low water; and (4) salinity due to ocean-derived salts less than 0.5 ppt.
- Class **Emergent (EM)**: Characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. These wetlands are usually dominated by perennial plants.
- Subclass **Persistent (1)**: Dominated by species that normally remain standing at least until the beginning of the next growing season. This subclass is found only in the Estuarine and Palustrine systems.
- Water Regime **Temporary Flooded (A)**: Surface water is present for brief periods (from a few days to a few weeks) during the growing season, but the water table usually lies well below the ground surface for most of the season.

PEM1C: Freshwater Emergent Wetland very similar to PEM1A except that the Water Regime is **Seasonally Flooded (C)**: Surface waters are present for extended periods especially early in the growing season but is absent by the end of the growing season in most years. The water table after flooding ceases is variable, extending from saturated to the surface to a water table well below the ground surface.

PFO1A: Freshwater Forested/Shrub Wetland, specifically,

- System **Palustrine (P)**: The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergent, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 ppt. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 hectares (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 meters (8.2 feet) at low water; and (4) salinity due to ocean-derived salts less than 0.5 ppt.
- Class Forested (FO): Characterized by woody vegetation that is 6 meters tall or taller.

- Subclass **Broad-Leaved Deciduous (1)**: Woody angiosperms (trees or shrubs) with relatively wide, flat leaves that are shed during the cold or dry season, e.g., black ash (Fraxinus nigra).
- Water Regime **Temporary Flooded (A)**: Surface water is present for brief periods (from a few days to a few weeks) during the growing season, but the water table usually lies well below the ground surface for most of the season.

PFO4/SS3C: This is also a Freshwater Forested/Shrub Wetland, specifically:

- System **Palustrine (P)**: The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergent, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 ppt. It also includes wetlands lacking such vegetation, but with all the following four characteristics: (1) area less than 8 hectares (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 meters (8.2 feet) at low water; and (4) salinity due to ocean-derived salts less than 0.5 ppt.
- Class Forested (FO): Characterized by woody vegetation that is 6 meters tall or taller.
- Subclass **Needle-Leaved Evergreen (4)**: The dominant species in Needle-leaved Evergreen wetlands are young or stunted trees such as black spruce or pond pine.
- Split Class **Scrub-Shrub (SS)**: Includes areas dominated by woody vegetation less than 6 meters (20 feet) tall. The species include true shrubs, young trees (saplings), and trees or shrubs that are small or stunted because of environmental conditions.
- Split Subclass **Broad-Leaved Evergreen (3)**: Woody angiosperms (trees or shrubs) with relatively wide, flat leaves that generally remain green and are usually persistent for a year or more, e.g., red mangrove (Rhizophora mangle).
- Water Regime **Seasonally Flooded (C)**: Surface water is present for extended periods especially early in the growing season but is absent by the end of the growing season in most years. The water table after flooding ceases is variable, extending from saturated to the surface to a water table well below the ground surface.

PFO6/SS3C: This is also a Freshwater Forested/Shrub Wetland and very similar to PFO4/SS3C above, with the exception that the Subclass is **Deciduous (6)**: A plant community where deciduous trees or shrubs represent more than 50 percent of the areal coverage of trees and shrubs. The canopy is normally leafless sometime during the year.

PFO6F: Again, this is also a Freshwater Forested/Shrub Wetland. It is like the PFO6/SS3C except that it does not have the two Split Subclasses, or the Water Regime.

PSS6C: This is also a Freshwater Forested/Shrub Wetland, specifically:

- System **Palustrine (P)**: The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergent, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 ppt. It also includes wetlands lacking such vegetation, but with all the following four characteristics: (1) area less than 8 hectares (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 meters (8.2 feet) at low water; and (4) salinity due to ocean-derived salts less than 0.5 ppt.
- Class **Scrub Shrub (SS)**: Includes areas dominated by woody vegetation less than 6 meters (20 feet tall). The species include true shrubs, young trees (saplings), and trees or shrubs that are small or stunted because of environmental conditions.
- Subclass **Deciduous (6)**: A plant community where deciduous trees or shrubs represent more than 50 percent of the areal coverage of trees and shrubs. The canopy is normally leafless sometime during the year.
- Water Regime Seasonally Flooded (C): Surface water is present for extended periods, especially early in the growing season but is absent by the end of the growing season in most years. The water table after flooding ceases is variable, extending from saturated to the surface to a water tale well below the ground surface.

4.11 Floodplains

The Federal Emergency Management Agency (FEMA) is the source for information on mapping of flood zones. The flood information for the Calhoun County Airport is presented in Figure 4-2.

Those areas that are highlighted in blue are areas of Special Flood Hazard subject to inundation by the one percent annual chance of flood. The one percent annual flood (100-year flood), also known as the base flood, is the flood that has a one percent chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the one percent annual chance of flood. Zone A is where no base flood elevations have been officially determined. The Base Flood Elevation is the water surface elevation of the one percent annual chance flood.



Figure 4-2 CALHOUN COUNTY AIRPORT FEMA FLOOD MAP
4.12 Findings, Opinions and Conclusions

An ESA was performed in general conformance with the scope and limitations of ASTM Practice E1527-13 for the 350-acre property located at 16701 State Road 71 in Altha, Calhoun County, Florida. Findings, opinions, conclusions, and recommendations reported herein are based on information obtained during our studies and upon our experience. Information provided in this report is relevant to the dates of the site work and should not be relied on to represent conditions at substantially later dates or locations not investigated. This assessment has revealed no evidence of RECs in connection with the Airport Property, except as follows:

4.12.1 <u>Recognized Environmental Conditions</u>

No on-site or off-site issues or conditions were observed during the site reconnaissance or in the review of regulatory databases that resulted in *Recognized Environmental Conditions (RECs)* in connection with the Airport Property at this time.

4.12.2 Controlled Recognized Environmental Conditions

No on-site or off-site issues or conditions were identified during the site reconnaissance performed or in the review of regulatory databases that resulted in *CRECs* in connection with the Airport Property at this time.

4.12.3 Historical Recognized Environmental Conditions

No on-site or off-site issues or conditions were identified during the site reconnaissance or in the review of regulatory databases that resulted in H*RECs* in connection with the Airport Property at this time.

4.12.4 Business Environmental Risks

No business environmental risks exist for the Airport Property currently.

4.12.5 Vapor Migration

Impacted soil/groundwater that may potentially result in vapor migration conditions that require further assessment have not been identified near the Airport Property at this time through the non-intrusive reconnaissance and records research activities discussed herein.

4.12.6 De Minimis Conditions

De minimis conditions were not observed on the parcel at the time of this investigation.

4.13 Recommendations

Based on the findings, opinions, and conclusions of this ESA, the AVCON Team recommends no further assessment at this time.

4.14 Deviations

Deletions or substantial deviations from the ASTM E1527-13 standard practice were not noted. Specific limitations, exceptions, and/or data gaps/failures related to this ESA are as follows:

• Historical information was available from 1940 to present. The ASTM standard

requires verification of property history to at least 1940 or first developed use and requires indicates no more than an approximate 5-year gap between resources. Although the requirement for research to first developed use was achieved, the requisite 5-year interval was not met between 1940-1949, 1949-1957, 1957-1964, 1964-1975, 1975-1983, and 1983-1994. Although there is data failure, the available data indicate apparent undeveloped usage this period.

- Apparent usage of the property between 1999 and 2005 for the main airport area on the Airport Property is unknown.
- Could not access Hangers 1-3
- Could not access recycling facility, forestry office, and Sheriff's facility.
- Other former property owners, tenants, and/or onsite managers were not available for interviews regarding the Airport Property's history and use.
- Chain-of-title, which is optional per the ASTM standard, was not provided for review.

However, it is our professional opinion that these data gaps are not significant, and do not impact the ability to identify RECs, or impact the findings or conclusions of this report.

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 are two commercial service airports located within 50 nautical miles of the Calhoun County Airport, Northwest Florida Beaches International, which is 36.1 nautical miles from the Airport, and Tallahassee International Airport, which is located 39.8 nautical miles away. There are eight public-use general aviation airports located within 50 nautical miles. The Calhoun County Airport does not have an air traffic control tower, nor does it have published instrument approach procedures for either of the two runway ends. 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, there is other controlled airspace near the Airport, including Tyndall Air Force Base (PAM) to the southwest, Tri-County (1J0) to the northeast, Marianna (MAI) to the north, Quincy (2J9) and Tallahassee International to the northeast. 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.

Calhoun County Airport does not have any IFR approaches, although the Airport management has expressed the desire to have non-precision approaches instituted. Specifically, they are

interested in GPS based non-precision approaches for at least one of the two runway ends, but preferably both ends. 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.

Calhoun County is a rural, economically depressed county. The Airport management has been working diligently to bring jobs to the county by attracting businesses to the Airport that would produce local jobs. When talking to prospective industries, the Airport's efforts are hindered by the lack of:

- A functioning AWOS since Hurricane Michael. There is a project in the Capital Improvement Program to replace the AWOS during the short-term funding cycle
- A non-precision approach to the Airport.
- A runway length of length of at least 5,000 feet. Section 5.3.4 of this report, the Runway Length Analysis, indicates that a 5,000-foot length is not yet justified.

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 Calhoun County Airport are given in Table 5-1 and the surfaces themselves are depicted in Figure 5-1.

Surface	Runway 18/36 Visual Runway (feet)
Width of Primary Approach Surface and Approach Surface Width at Inner End	500
Radius of Horizontal Surface	5,000
Approach Surface Width at End	1,500
Approach Surface Length	5,000
Approach Slope	20:1

Table 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 Calhoun 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 one runway of 3,729 feet in length, Runway 18/36. Runway 18/36 is situated in a north/south direction on the airfield, and it has a full-length, parallel taxiway, Taxiway A, with three connector taxiways.

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 that was used for this report.

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 98 operations as shown in Table 5-2.

Table 5-2 AIRFIELD CAPACITY

	Theoretical Capacity	FY 2020 Operations	Percent of Capacity	2040 Operations	Percent of Capacity
Operations Per Hour During VFR Weather	98	1	1.02%	2	2.04%
Operations Per Hour During IFR Weather	59	0	0.0%	1	1.69%
Operations Per Year	230,000	3,000	1.304%	3,621	1.57%

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

While the theoretical capacity of the Airport indicates as many as 98 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 2020 was 1 and that the peak hour operations are expected to rise to 2 in the year 2040. The ASV of the Airport is calculated at 230,000 annual operations. However, it is reported that only 3,000 annual operations occurred at the Airport in 2020, although the Airport questions this count. This is approximately 1.3 percent of the ASV. The forecasts of aviation activity indicate that the annual operations will increase to 3,621 by the year 2040. This would equate to approximately 1.57 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 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 (Calhoun County) acquire or control the land in the RPZ. Currently, the County wholly owns the land beneath the RPZs for both Runway 18 and Runway 36, except where a road travels through each RPZ. Currently, NW Magnolia Church Road travels east/west through the RPZ for Runway 36 and Silas Whitfield Road travels east/west through the RPZ for Runway 18. In both cases, the County owns the land on either side of the road.

The FAA Memorandum *Guidance on Land Uses Within A Runway Protection Zone* found in Appendix G indicates that no public roads are allowed in an RPZ. 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 unapproved 2014 ALP shows a runway extension for Runway 18. However, the County has purchased land off the end of Runway 36 in preparation for a future runway extension. This chapter of this Airport Master Plan Update will address the justification of extending the runway. If it is justified, the next chapter, The Development and Evaluation of Alternatives, will address where the potential lengthening of the runway might occur.

5.3.4 Runway Length Analysis

A runway length analysis was performed for Runway 18/36 based on Existing and Future Critical Aircraft. The FAA Advisory Circular (AC) 150/5328-4B, *Runway Length Requirements for Airport Design*, was used in the preparation of this analysis.

Most of the aircraft group A-I, which represents the Existing Critical Aircraft, have a Maximum Take Off Weight (MTOW) of less than 12,500 pounds. It was determined to use those aircraft with approach speeds of 50 knots or more and less than 10 passengers, which corresponds with Figure 2-1 of the AC. Using the specific Airport information shown in Table 5-3 and 100 percent of the fleet, the result would be 3,750 lineal feet for the Existing Critical Aircraft.

Category	Information
Hottest Month	July
Mean Maximum Temperature for the Hottest Month	92° Fahrenheit
Airport Elevation Above Mean Sea Level	122 Feet

 Table 5-3

 CALHOUN COUNTY AIRPORT SPECIFIC INFORMATION

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 4,313 feet. However, as the majority of the Existing and Future Critical Aircraft Group A-I are piston aircraft, not turbine, therefore, these calculations are not valid, in this case.

For takeoff only, the effective runway gradient is also considered. The 3,750-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 18/36, the difference in elevation between the runway ends is 2.8 feet. This would equate to one foot or a total runway length of 3,778 lineal feet. As the take-off requirements are longer, in this case, the 3,778-foot length is recommended; an extension of 48 feet. The recommended length and current runway length are shown in Table 5-4.

 Table 5-4

 RUNWAY LENGTH ANALYSIS RESULTS

Runway	Recommended Length	Current Length
18/36 Existing and Future Runway Length	3,778 feet	3,729 feet

As the number of operations at the Airport grow with larger and faster aircraft, the runway length analysis should be revisited. As the fleet mix grows, so will the necessity for a longer runway.

5.3.5 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:

- <u>Takeoff Run Available (TORA)</u> the runway length declared available and suitable for the ground run of an aircraft taking off
- <u>Takeoff Distance Available (TODA)</u> the TORA plus the length of any remaining runway or clearway beyond the end of the TORA
- <u>Accelerate-Stop Distance Available (ASDA)</u> the Runway plus stopway length declared available and suitable for the acceleration and deceleration of an aircraft aborting a takeoff
- <u>Landing Distance Available (LDA)</u> 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 Calhoun County Airport has established a declared distance of 130 feet on Runway 36. This is not a published declared distance; however, it is painted on the Runway. Table 5-5 summarizes the TORA, TOAD, ASDA, and LDA for both runways.

Declared Distance	Runway 18 (feet)	Runway 36 (feet)
Take Off Run Available (TORA)	3,599	3,729
Take Off Distance Available (TODA)	3,729	3,729
Accelerated Stop Distance Available (ASDA)	3,729	3,729
Landing Distance Available (LDA)	3,729	3,599

Table 5-5 EXISTING DECLARED DISTANCES

5.3.6 Runway Width Analysis

For runways, such as Runway 18/36, that have a current AAC of A, an ADG of I, and which are visual only runways, the FAA approved runway width would be 60 feet with 10-foot-wide shoulders. Runway 18/36 is currently 75 feet in width with no shoulders and meets/exceeds FAA runway width standards. The addition of non-precision approach procedures on Runway 18/36, will likely not affect the width of the runway, unless the visibility minimum is less than $\frac{3}{4}$ of a mile. Should the critical aircraft ARC be raised to an A-II, a 75-foot-wide runway would be justified, even if the runway remains a visual runway only.

The FAA requires certain dimensional standards be met for a runway based on the identified Runway Design Code. Table 5-6 compares the dimensions associated with Runway 18/36 and various safety areas with the FAA standards for A-I runways. The runway currently meets or exceeds these standards.

Table 5-7 compares the existing runway protection zone dimensions with those recommended by the FAA. All runway protection zone dimensions currently meet or exceed the FAA standards.

	A-I Standards	Runway	
Runway Design Parameter	(feet)	18/36 (feet)	
Width	60	75	
Paved Shoulder Width	10 ¹	0 ¹	
Crosswind Component in Knots	10.5	10.5	
Runway Safety A	Area (RSA)		
Length Beyond Departure End	240	240	
Length Prior to Threshold	240	240	
Width	120	120	
Runway Object Free	e Area (ROFA)		
Length Beyond Runway End	240	240	
Length Prior to Threshold	240	240	
Width	250	250	
Runway Obstacle Free Zone (ROFZ)			
Length Beyond Each Runway End	200	200	
Width	250	250	

Table 5-6 RUNWAY DESIGN STANDARDS

Note: 1) Turf, aggregate-turf, soil cement, lime, or bituminous stabilized soil are recommended for shoulders adjacent to runways designed for ADG-I and ADG-II aircraft but are not required.

Runway	A-I	Runway	
Protection	Standards		
Zone	Visual		
Dimension	(feet)	18	36
Approa	ch Runway Pro	otection Zon	ie
Length	1,000	1,000	1,000
Inner Width	500	500	500
Outer Width	700	700	700
Departure Runway Protection Zone			
Length	1,000	1,000	1,000
Inner Width	500	500	500
Outer Width	700	700	700

Table 5-7 RUNWAY PROTECTION ZONE DIMENSIONS

Table 5-8 shows runway separation distances to a holding position, a parallel taxiway/taxilane centerline, and an aircraft parking area with the Runway Design Standards for A-I runways, which are representative of Runway 18/36. Currently, the runway separation distances exceed the FAA recommendations in all cases.

Design Parameter	A-I Visual Standards	Current Runway 18/36
Holding Position	200	250
Parallel Taxiway/Taxilane Centerline	225	300
Aircraft Parking Areas	200	600

Table 5-8 RUNWAY SEPARATION DISTANCES IN FEET

5.3.7 Runway Designations

Runway designation markings are provided on each end of a runway and are used by pilots to properly identify each 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 Calhoun County Airport is 04° 24' 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 the runway are shown in Table 5-9.

Category	Measure
Airport Declination	4° 24' 00" West ±
Rate of Declination Change Per Year	0° 5' West
Runway 36	
True Bearing	359.69°
Compass Bearing	4.09°
Correct Runway Designation	36
Approximate Years to Next Designation Change	11
Runway 18	
True Bearing	179.69°
Compass Bearing	184.09°
Correct Runway Designation	18
Approximate Years to Next Designation Change	11

Table 5-9 RUNWAY DESIGNATIONS

Source: National Oceanic and Atmospheric Administration National Geophysical Data Center accessed 26 October 2020

Table 5-9 shows that each runway end has the proper designation and that this is not likely to change until the long-term planning period covered by this Master Plan Update.

5.3.8 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.

There are two sections of pavement that make up Runway 18/36 one is asphalt concrete, has a PCI of 100, or good. It was last constructed in June 2016. The second pavement is made of asphalt concrete overlaid on asphalt concrete. It has a PCI of 85 or satisfactory and was last constructed in January of 2012. 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.

Airports have varying pavement strengths based on the aircraft types they expect to serve. Runway 18/36 has pavement strength of 22,000 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 18/36 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.

A more specific measurement of the strength of runway pavement is shown in the Pavement Classification Number (PCN), which is based on the most damaging aircraft that uses the runway on a regular basis. The PCN for Runway 18/36 is 13/F/A/Y/T. At its most basic, this means that the first number is the PCN value on a scale of 1 to 130, with 1 representing weak pavement and 130 a very strong pavement. The F means that the pavement is a flexible type. The A means that the subgrade has a high strength category. The Y means that the tire pressure of the aircraft is medium limited to 1.25 MPa. The T means that the method of determining the PCN was done technically as opposed to using aircraft.

5.3.9 Runway Markings and Lighting

The current non-precision markings at both ends of Runway 18/36 are in good condition. The markings follow the FAA required non-precision markings for GPS non-precision approaches. Runway 18/36 has Medium Intensity Runway Lighting (MIRL) along its edges.

5.3.10 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 the critical 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 Beechcraft Queen Air A65, the Existing Critical Aircraft is an ADG-I aircraft, and the FAA has characterized the Beechcraft Queen Air A65 as a (TDG) 1A aircraft.

Runway 18/36 is served by a full-length, 35-foot wide, parallel taxiway, Taxiway A. The centerline of Taxiway A is 240 feet from the centerline of Runway 18/36. There are three taxiway connectors between Taxiway A and Runway 18/36. Each has a width of 35 feet. As Taxiway A and its connectors are 35-feet wide, it is a TDG 2 taxiway.

Table 5-10
TAXIWAY DESIGN STANDARDS BASED ON AIRPLANE DESIGN GROUP

	ADG I	Taxiway A	
ltem	(feet)	(feet)	
Taxiway Protection			
Taxiway Safety Area (TSA) Width	49	79	
Taxiway Object Free Area (TOFA) Width	89	131	
Taxiway Separation			
Taxiway Centerline to Parallel Taxiway/Taxilane Centerline	70	n/a	
Taxiway Centerline to Fixed or Movable Object	39.5	65.5	
Wingtip Clearance			
Taxiway Wingtip Clearance	20	26	

Note: n/a = Not applicable

Table 5-11 TAXIWAY DESIGN STANDARDS BASED ON TAXIWAY DESIGN GROUPS

ltem	TDG 1A (feet)	Taxiway A
Taxiway Width	25	35
Taxiway Edge Safety Margin	5	7.5
Taxiway Shoulder Width	10	n/a

Note: n/a = Not applicable

5.3.10.1 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 runway.

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. There are no such intersections at Calhoun County Airport.

5.3.10.2 Taxiway Conditions Assessment

Taxiway A is constructed of asphalt concrete and has Pavement Condition Indexes (PCI) of 100 or good condition. Taxiway A2 is also constructed of asphalt concrete and has a PCI of 100, 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, neither the Runway, nor Taxiways A or A2, will require rehabilitation in the short-term planning period. The pavement that will require the first rehabilitation appears to be the pavement between T-hangar building No. 1 and T-hangar Building No. 2. It had a PCI of 54 or poor in 2019. The 2019 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 2019 FDOT *Airfield Management Report* for the Airport is shown as Figure 5-2. Table 5-12 shows the synopsis of the airfield pavement conditions inventory. The pavement areas on Table 5-12 where the grid is heavy indicates those pavement areas that require rehabilitation within the short-term planning period.

Figure 5-2 AIRFIELD PAVEMENT CONDITIONS MAP



Source: Statewide Airfield Pavement Management Program, November 2019.





Facility Requirements

				True		Estimated	FDOT
				Area in		Last	Projected
Section		2019	PCI	Square		Construction	Year for
ID	Branch Name	PCI	Category	Feet	Material	Date	Rehabilitation
110	Taxiway A2	100	Good	18,034	AC	6/1/2016	Note 1
120	Taxiway A	100	Good	93,205	AC	6/1/2016	Note 1
125	Taxiway A	100	Good	60,539	AC	6/1/2019	Note 1
805	T-Hanger Apron	76	Satisfactory	2,520	AC	1/1/2006	2025
806	T-Hangar Apron	76	Satisfactory	2,820	AC	1/1/2003	2025
810	T-Hangar Apron	54	Poor	5.700	AC	1/1/2003	2018
905	T-Hangar Apron	57	Fair	6.468	AC	1/1/2007	2018
910	T-Hangar Apron	82	Satisfactory	6.140	AC	1/1/2007	2029
4105	GA Apron	76	Satisfactory	78,381	PCC	1/1/2012	2027
4110	GA Apron	57	Fair	39.362	AC	1/1/2003	2018
4115	GA Apron	70	Fair	40.207	AC	1/1/2007	2025
4120	GA Apron	86	Good	27,973	PCC	1/1/2015	Note 1
4150	GA Apron	100	Good	9,900	AC	6/1/2019	Note 1
4160	GA Apron	100	Good	9,969	AC	6/1/2016	Note 1
4205	GA Apron	65	Fair	10.930	PCC	1/1/2003	2022
4305	Helipad Apron	89	Good	4.850	PCC	1/1/2003	Note 1
6105	Runwav 18/36	85	Satisfactorv	269.775	AAC	1/1/2012	2023
6110	Runway 18/36	100	Good	9.975	AC	6/1/2016	Note 1

Table 5-12 AIRFIELD PAVEMENT CONDITION INVENTORY

Note: PCI = Pavement Condition Index, AC = Asphalt Concrete, AAC = Asphalt Overlay Note 1: Pavement report only forecasts for ten years out, so after 2029. Source: *Statewide Airfield Pavement Management Program, November 2019.*

5.3.11 Runup Pads

Engine runups are a series of last-minute checks performed by pilots on an aircraft prior to takeoff. They involve temporarily advancing the throttles to ensure that engines can produce takeoff 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.

5.3.12 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 have Medium Intensity Taxiway Lights (MITL).

5.3.13 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 18/36.

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.

5.3.14 Helipads

There is one helipad at the Airport, marked on the edge of the apron. This is essentially a marked helicopter parking area. It should not be considered a heliport, as it has not been licensed with the state and has not been activated by the FAA. A heliport is a location from which a rotorcraft can take-off and land directly; specific approach and departure surfaces have been developed and approved. This is not the case at this Airport. Helicopters approaching and departing from Calhoun County Airport are encouraged to use the approach and departure surfaces of Runway 18/36 and hover over the taxiways on their way to the helicopter parking position. The TFMSC indicates that there were at least two helicopter operations in FY 2018 and 2019.

5.3.15 Apron Pavement

The seven areas of GA apron pavement PCIs on the Airport ranged from 57 to 100 and were rated as fair to satisfactory. There are five T-hangar aprons on the Airport with PCIs ranging from 54 to 82 or poor to satisfactory.

The FDOT recommends that apron pavements be rehabilitated when the pavement PCI reaches 60 or lower. Of the five pavements on the Airport that will likely require re-habilitation in the short-term planning period, four of them are aprons. Two in front of T-hangars and two in the GA Apron area.

5.3.16 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. Both runways at the Airport have 2-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. Neither ends of Runway 18/36 has 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. The windsock and the segmented circle are located adjacent to and north of the intersection of Taxiways A and A2.

5.3.17 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. An AWOS A/V is a fully automated aviation weather observing and reporting system designed to support airborne and ground users. Specifically, the AWOS at the Airport is a basic system that consists of barometric pressure sensors and a visibility sensor. Unfortunately, the AWOS was damaged during Hurricane Michael in October of 2018 and requires fixing and/or replacement.

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.

5.4.1 Based Aircraft Storage

The FAA and FDOT approved forecasts for based aircraft indicate that there were 33 aircraft based on the Airport in 2020. In October of 2018, the database website <u>www.basedaircraft.com</u>, validated a total of 33 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 are currently three T-hangar buildings with a total of 12 units per T-hangar building for a total of 36 T-hangar units. Table 5-13 shows the number of based aircraft storage areas currently located on the Airport and how many additional spaces will be required in the future.

FAA Approved Based Aircraft Forecast								
	2020	2025	2030	2035	2040			
Based Aircraft	33	35	38	40	43			
Based Aircraft in T-Hangars	30	32	35	36	39			
Based Aircraft in Box Hangars	0	0	0	0	0			
Based Aircraft in Conventional Hangars	3	3	3	4	4			
Based Aircraft at Tie-downs	0	0	0	0	0			
Deficit of Based Aircraft Storage	0	0	0	1	4			

Table 5-13 BASED AIRCRAFT STORAGE

As the number of based aircraft grows over the planning period, it is anticipated that some aircraft may be stored at tie-down areas until additional hangar space can be programmed designed and constructed. The approved Forecasts calculate that one additional based aircraft will require storage in the year 2035. By the year 2040, the approved Forecasts indicate that an additional four based aircraft will require storage.

There are currently approximately 39 units of hangar space at the Airport. These are distributed between the T-hangars, and the conventional hangars.

FAA Approved Based Aircraft Forecast								
	2020	2025	2030	2035	2040			
Number of Required Hangar Spaces for Based Aircraft	33	35	38	40	43			
T-Hangars								
Number of T-Hangars Required for Based Aircraft	30	32	35	36	39			
Number of Existing T-hangar Units		36	36	36	36			
Surplus/(Deficit)		4	1	0	(3)			
Conventional Hangars								
Number of Required Spaces		3	3	4	4			
Number of Existing Conventional Hangar Spaces		3	3	3	3			
Surplus/(Deficit)	0	0	0	(1)	(1)			

 Table 5-14

 BASED AIRCRAFT HANGAR SPACE AVAILABLE VERSUS REQUIRED

Table 5-14 shows the number of aircraft 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 hangars based loosely on the current distribution of stored aircraft at the Airport in 2020.

The facilities are forecast based on the approved Based Aircraft Forecast shown in Table 5-14 indicated that there will be a deficit of three T-hangar units in 2040. Based on the approved Forecasts, it is anticipated that there will also need to be one additional aircraft storage unit in a conventional hangar beginning in 2035.

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 5-15 shows the comparison of the amount of hangar space available to the amount that will be required throughout the planning period.

BASED AIRCRAFT HANGAR AREA AVAILABLE VERSUS REQUIRED									
	2020	2025	2030	2035	2040				
T-hangars									
Current Number	36	36	36	36	36				
Number Required	30	32	35	36	39				
Surplus/(Deficit)	6	4	1	0	(3)				
Current Area	40,500	40,500	40,500	40,500	40,500				
Area Required	33,750	36,000	39,375	40,500	43,875				
Surplus/Deficit	6,750	4,500	1,125	0	(3,375)				
Conventional Hangars									
Current Number of									
Spaces	3	3	3	3	3				
Number Required	3	3	3	4	4				
Surplus/(Deficit)	0	0	0	(1)	(1)				
Current Area*	3,600	3,600	3,600	3,600	3,600				
Area Required	3,600	3,600	3,600	4,800	4,800				
Surplus/(Deficit)	0	0	0	(1200)	(1200)				

Table 5-15

Note: There are additional hangars on the Airport, but only one 60' by 60' hangar contains aircraft

currently.

Currently, there are approximately 50,100 square feet of aircraft hangar space on the Airport. 40,500 square feet of that are T-hangars and 9,600 square feet are conventional hangars. However, of the conventional hangars, only one 60-foot by 60-foot hangar contains three aircraft. Only 37,350 square feet were required in 2020 and based on the approved Forecast of Based Aircraft, it is anticipated that 45,300 square feet will be required in 2035. It is anticipated that 40,500 square feet will be made up of T-hangar storage and 3,600 square feet will be made up of conventional hangar storage. The remaining 1,200 square feet could either be taken up with T-hangars, conventional hangars or with apron tie-down space.

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 and maintenance shops. The calculations in Table 5-15 do not consider these activities within the conventional hangars.

In addition to the currently existing hangars, two additional hangars are being constructed to replace the hangar that was adjacent to the terminal when both were destroyed by Hurricane Michael. Each of the two new hangars will measure approximately 60 feet by 60 feet.

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 Calhoun County Airport throughout the planning period.

There are currently at least 15 aircraft tie-down positions on the Airport apron. Calhoun County, as the Fixed Base Operator manages, all the tie-down positions. The apron is comprised of

approximately 1,485 square yards of pavement. While there is a dedicated helicopter parking area and the fuel tanks are located on the apron, as well as aircraft taxiing areas, there is certainly enough area for additional aircraft tie-down positions for either itinerant or based aircraft should the Airport desire additional tie-down spaces. There are currently no designated 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 extended 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. This analysis assumes that most if not all itinerant aircraft will be parked on the apron as currently occurs. It also uses the FAA and FDOT approved forecasts of aviation activity developed for this Master Plan Update to calculate the itinerant aircraft apron parking requirements.

The Airport Cooperative Research Program (ACRP) Report No. 113, *Guidebook on General Aviation Facility Planning*, recommends the following equation to calculate the number of transient aircraft parking positions that will be needed for the Airport.

(X/2 * T) / 365 * P = Number of Itinerant Aircraft Parking Positions

X = number of annual operations

T = percent of annual operations that are transient

P = percent of transient operations that are parked on the apron at the same time

	2018	2023	2028	2033	2038
Forecast of Annual Operations	2,000	2,146	2,302	2,469	2,649
Percent of Itinerant Operations	50%	50%	50%	50%	50%
Percent of Aircraft on the Apron at the Same					
Time	40%	40%	40%	40%	40%
Number of Itinerant Aircraft Parking Positions	1	1	1	1	1

Table 5-16 ITINERANT AIRCRAFT STORED IN APRON

Using the methodology shown in Table 5-16, it is anticipated that at least one itinerant aircraft will be on the ground at the Airport at the same time during busy days in 2021. This tie-down area is expected to require at least 1,680 square feet, to be able to accommodate a wide range of aircraft.

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. 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.

While this size of apron is recommended, the Airport must be aware that in most cases, the FAA will not pay for these aprons if they are to be used solely for the tenant of the hangar. If this is the case, the apron and the hangar are typically built at the same time with either FDOT or local funds. The apron then becomes part of the ground lease for the hangar and the maintenance of the apron becomes either the responsibility of the tenant or the Airport depending upon the terms of the lease.

Table 5-17 shows the existing conventional hangars and their associated apron sizes and compares that apron to the typically sized apron for a conventional hangar.

 Table 5-17

 EXISTING CONVENTIONAL HANGAR APRON AREA

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
3,000	111.11	333.34	500	(222.23)
6,000	66.67	666.67	1,000	(600)

Note: The location of all buildings is shown in Figure 5-3.

Table 5-17 shows that none of the conventional hangars on the Airport have the recommended apron area in front of the respective hangars. This likely reflects the cost saving programs of those that originally developed the respective hangars, and to use as little land as possible. However, it limits the use of the hangar by future prospective tenants. It is recommended that as additional hangars are constructed that consideration be given to providing at least the minimum recommended apron size and encouraged to meet the optimum apron size.

The two hangars that are under construction each have an apron of approximately 189 square yards. While this is not the 400 to 600 square yards recommended for a hangar of approximately 3,600 square feet, it is an improvement over the aprons on other hangars on the Airport.

Figure 5-3 AIRPORT BUILDINGS



5.4.3 Support Facilities

In addition to the primary facilities located on the airside and landside of the Calhoun 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 previous Airport terminal was destroyed by Hurricane Michael in October of 2018. A new terminal is currently being constructed. The exterior will be constructed of metal panels and roof

with brick knee wall, columns, and trim. The terminal will have approximately 4,188 gross square feet containing a pilots' lounge, flight prep area, offices, a conference room, toilets and showers, reception, and a lobby.

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 for the last 10 years, it is anticipated that additional capacity for fuel storage will not be required within the planning period, as shown in Table 5-18.

	2018	2023	2028	2033	2038
Annual Operations	2,000	2,146	2,302	2,469	2,649
Annual Fuel Sales	19,123	20,519	22,011	23,607	25,328
Peak Month Fuel Sales	2,257	2,422	2,598	2,786	2,989
ADPM Fuel Sales	75	81	87	93	100
Five-day Fuel Reserve	376	404	433	464	498
Settlement (11% of Storage)	41	44	48	51	55
Five Day Fuel Storage	418	448	481	515	553
Current Fuel Capacity	20,000	20,000	20,000	20,000	20,000
Average Days of Supply at Current					
Capacity	48	45	42	39	36

Table 5-18 FUEL FACILITY REQUIREMENTS

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. The Airport fuel records do not differentiate between Jet A fuel sales and the 100 LL fuel sales. Table 5-18 indicates that the Airport, on the average, only needs a full delivery of fuel for both formulas on a 48-day schedule. This is anticipated to drop to a 36-day schedule by 2038. Together, the two fuel formulas are not anticipated to require weekly delivery within the planning period.

The existing two fuel tanks are in the middle of aircraft apron near the former terminal and where the new terminal is being constructed. The Airport would like to move the fueling area to one side of the apron as it is felt that the fueling facility is in the way of a logical aircraft parking and movement pattern. Further, by moving the fuel tanks off the apron, the off-loading of fuel could become more efficient.

5.4.3.3 Access Road and Entrance to the Airport

The Calhoun County Airport is accessed via Northwest Agri Park Road, which enters the property from the east. Northwest Agri Park Road meets State Road 71 at the entrance to the Airport. State Road 71 travels northwest from the Airport to Altha, Florida and on to the Florida/Georgia border, just northwest of Malone, Florida. State Road 71 travels southeast from

the Airport through Blountstown, Florida to the Gulf of Mexico at Saint Joseph Bay and Port St. Joe, Florida.

Northwest Agri Park Road is owned and maintained by Calhoun 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 12 marked public parking spaces located across Northwest Agri Park Road from the former Airport terminal. None of the conventional hangars or the T-hangars have paved parking specific to the hangars.

For airports, it is typical to allow approximately 1.0 parking space per 1,000 square feet of gross floor area. This is not, however, a requirement by the FAA or FDOT. With the 50,100 square feet of conventional and T- hangars, this would equate to 50 parking spaces.

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 vehicle 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 current utilities 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 Calhoun 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.

5.5 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 5-19 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.

6 DEVELOPMENT AND EVALUATION OF ALTERNATIVES

6.1 Introduction

This chapter takes into consideration the Facility Requirements developed in Chapter 5, which addressed the requirements of the Airport based on the Forecasts of Aviation Activity. The potential location of new, rehabilitated, or replacement facilities is considered in this chapter. 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 environmental conflicts.

6.2 Development of Alternatives

The Facility Requirements were generated based on the Forecasts of Aviation Activity and 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. The Airport should be developed so that the facilities meet the identified demand as it materializes and minimize the resulting operational constraints. Facilities should not be implemented if the demand has not materialized as forecast.

6.2.1 Airfield Development

FAA Advisory Circular 150/5300-13A, *Airport Design*, advises on the configuration of runways and taxiways, among other airport elements. In the latest edition, there are new stipulations against certain configurations of runways, taxiways, and aprons and how these pavements meet. None of those issues currently exist on the Calhoun County airfield.

6.2.1.1 Runway 18/36

The Airport currently has one runway, Runway 18/36, which is 3,729 feet long by 75 feet wide asphalt runway. The wind coverage for the runway provides the recommended 95 percent wind coverage recommended by FAA AC 150/5300-13A, *Airport Design*. The Runway Length Analysis, provided in the Facility Requirements chapter, indicates that a runway length of 3,778 feet is justified, or a difference of 48 feet longer than that currently provided.

As the Calhoun County Airport Authority has purchased land to the south of the Airport for the express purpose of extending the Runway, it is presumed that the Runway extension would occur on the southern end of Runway 36, as shown in Figure 6-1.

Runway 18/36 is currently a visual runway; no instrument approach procedures have been designed for this runway. The Airport Management would like to see instrument approaches implemented on both ends of the Runway. When this happens, a departure surface will also be added to both ends of the Runway. Several of the alternatives in this chapter could potentially be influenced by the departure surfaces, and when this occurs, the future departure surface is depicted on the alternative.



CALHOUN COUNTY AIRPORT Master Plan Update Blountstown, Florida

Figure 6-1 RUNWAY 36 EXTENSION OF 48 FEET

Development and Evaluation of Alternatives

6.2.1.2 Roads and Runway Protection Zones

The FAA does not consider public roads to be compatible land uses within a Runway Protection Zone (RPZ). A memorandum from the FAA discussing this issue can be found as Appendix F to this report. This memorandum advises that the FAA Airports District Offices (ADO) should work with airport sponsors to remove or mitigate the risk of existing incompatible land uses in the RPZ as practicable. However, currently, the FAA is only enforcing this memorandum for existing land uses when one of three conditions are planned to occur:

- The extension of the associated runway
- The changing of size of the RPZ
- The changing of the critical aircraft to a larger aircraft

Currently, Runway 36 is physically marked with a displaced threshold, which would place both a departure and an approach RPZ on this end of the Runway. However, the displaced threshold has not been published and is not, therefore, official. Regardless, the RPZ for Runway 18 and the RPZ(s) for Runway 36 each have roads traversing through them. Silas Whitfield Road travels through the RPZ for Runway 18 and NW Magnolia Church Road travels through the RPZ(s) of Runway 36. The County intends to close both roads when Runway 36 is extended and reroute Silas Whitfield Road and NW Magnolia Road around the respective RPZs, at that time.

It is currently unlikely that the Runway will be extended more than 48 feet within the 20-year planning period. However, now is the time to consider what to do when the lengthening the Runway or when the requirement to keep public roads out of the Runway Protection Zones is enforced. The County could consider closing portions of both Silas Whitfield and NW Magnolia Church roads as they traverse through the RPZs, as shown in Figure 6-1. This would mean that additional land would have to be purchased north of Silas Whitfield Road. The land already owned by the Airport could be used for the re-routing of NW Magnolia Church Road.

Alternatively, there is also the possibility of moving the entire runway south by 330 feet, which would move the Runway 18 RPZ south of Silas Whitfield Road, negating the necessity of closing the road or purchasing additional property north of the Airport and Silas Whitfield Road. The Runway would be extended south on the Runway 36 end the same distance as the displacement, 330 feet, plus the additionally justified 48 feet. The NW Magnolia Church Road would be re-routed and thus the RPZ(s) for Runway 36 would no longer have the road traveling through it, as shown in Figure 6-2. As Silas Whitfield Road is the likely cause of the unofficial displaced threshold on Runway 36, the re-routing of this road would also negate the necessity for the displaced threshold.

When the Runway 36 threshold is moved south, it is likely that the Airport will have obtained a non-precision approach for both runways. Certainly, when the non-precision approach is implemented, but certainly when the runway is relocated south, a Runway Protection Zone Analysis will be needed to identify and mitigate potential impacts.
It is calculated that with the 48-foot extension and the 330-foot shift south, there would still be additional room on the southern parcel to allow a further runway extension of at least 306 feet in the future, while keeping the resulting Runway Protection Zone away from the re-routed NW Magnolia Church Road and while remaining on currently owned Airport property. This would result in a 4,084-foot-long runway in the future, when it is justified.



Figure 6-2 MOVE RUNWAY SOUTH AND RE-ROUTE NW MAGNOLIA CHURCH ROAD

CALHOUN COUNTY AIRPORT Master Plan Update Blountstown, Florida

6.2.2 Projects Currently Under Construction

The 2018 Hurricane Michael left several buildings on the Airport destroyed and many others damaged. The Airport is currently re-building three of those buildings: the terminal and two 60-foot by 60-foot hangars. These structures are currently under construction. Their location and relative sizes are shown in Figure 6-3.

6.2.3 <u>T-Hangars</u>

The Facility Requirements indicate that at least three additional T-hangar buildings and perhaps as many as 20 additional T-hangar units will be needed by the year 2040. Each of the existing T-hangar buildings has 12 units. Figure 6-4 shows two additional T-hangar buildings of 11 units each and a third building of 11 units. This is more than the Facility Requirements indicate will be required but allows for the location of additional T-hangars should demand outpace the forecasts. It is understood that these buildings would not be built until the need for the T-hangars is recognized. Recent Florida Building Code requirements dictate that no more than 10 to eleven T-hangar units can be located within one building depending upon the size of each individual T-hangar.

6.2.4 Conventional Hangars

As with the T-hangars, indications are that at least one additional aircraft parking space will be needed within a conventional hangar by the year 2040. It is also recognized that hangars are not always used for the storage of aircraft. Therefore, additional conventional hangars are shown in Figures 6-5 through 6-11.

Figure 6-5 shows the addition of six 80-foot by 80-foot conventional hangars and associated apron and vehicular parking. This is shown east of Runway 18.

A double row of conventional hangars is shown in Figure 6-6 along with associated apron and vehicular parking. This would provide for four conventional hangars measuring 120-feet by 80-feet and five conventional hangars measuring 80-feet by 80-feet, as well as associated aprons and vehicular parking.

The next two figures, Figures 6-7 and 6-8, show the previous two alternatives when associated with the runway alternative whereby the entire runway is shifted south by 330 feet. The parallel lines and the spot elevations represent a future Departure Surface over these alternatives and indicate that the hangars can be fitted beneath the future Departure Surface.

Figure 6-9 shows nine 60-foot by 60-foot conventional hangars that could be built south of the existing NW Magnolia Church Road if that road were relocated around the Runway Protection Zone (RPZ). As depicted in this figure, the Runway is not shifted, but it would be extended by the 48 feet that was justified in the runway length analysis. Again, the parallel lines and spot elevations indicate the surface of a future Departure Surface.



Figure 6-3 NEW TERMINAL AND HANGARS CURRENTLY UNDER CONSTRUCTION

CALHOUN COUNTY AIRPORT Master Plan Update Blountstown, Florida



Figure 6-4 NEW T-HANGARS



Figure 6-5 CONVENTIONAL HANGARS EAST OF RUNWAY 18



Figure 6-6 DOUBLE ROW OF HANGARS EAST OF RUNWAY 18



Figure 6-7 HANGARS EAST OF RUNWAY 18 WITH RUNWAY SHIFTED SOUTH

CALHOUN COUNTY AIRPORT Master Plan Update Blountstown, Florida



Figure 6-8 DOUBLE ROW OF HANGARS EAST OF RUNWAY SHIFTED SOUTH

CALHOUN COUNTY AIRPORT Master Plan Update Blountstown, Florida



Figure 6-9 HANGARS SOUTH OF RUNWAY 36

When Runway 36 shifts south or is extended further south than the currently justified 48 feet, the resulting influence on the hangars shown in Figure 6-9 are depicted in Figure 6-10. This alternative shows that there is the possibility for at least nine 60-foot by 60-foot conventional hangars and associated apron and vehicular parking areas. Again, a future Departure Surface is shown on the alternative through parallel lines and spot elevations of the Departure Surface over the hangars.

Figure 6-11 shows five conventional hangars located west of Runway 36. As shown, there are three 80-foot by 80-foot hangars and two 60-foot by 60-foot conventional hangars. There is associated apron and vehicular parking shown as well.

6.2.5 Vehicular Parking

The Facility Requirements chapter indicated that there are currently about 30 vehicular parking spaces on the Airport. It is recommended that an additional 20 parking spaces be built to accommodate the hangar spaces currently existing on the Airport today. As additional hangars are built, additional vehicular parking spaces should also be built. These are shown on Figure 6-12, as well as adjacent to all proposed conventional hangars.

6.2.6 Restaurant

As the Airport is at least five miles from either the town of Altha or Blountstown, the Airport would like to provide a restaurant on the Airport that is convenient to pilots and employees. Th restaurant is proposed to be located adjacent to the new vehicular parking so that the parking spaces can be cross utilized. The proposed location of the restaurant is shown on Figure 6-12.

6.2.7 Fuel Facilities

As previously mentioned, the existing fueling facility is in the middle of the aircraft parking apron. Airport Management would like to move it to a location adjacent to the apron and near to the terminal with good access for fuel deliveries. After discussion with Airport management, the fuel facilities are proposed to be moved to the south side of the south apron. This location will allow pilots to access the fuel while keeping the fueling facilities off the Apron. This is shown in Figures 6-14 and 6-15.

6.2.8 Automated Weather Observing System

The existing Automated Weather Observing System (AWOS) was damaged in the 2018 Hurricane Michael. It is recommended that a new AWOS be built on a parcel south of the existing AWOS site. The AWOS should be located 500 feet from all other structures. The existing site is too close to the existing Calhoun County Sheriff's Office Aviation facilities. This is shown on Figure 6-13.

6.2.9 Runway End Identification Lights

Currently, there are no Runway Identification Lights (REILs) on either end of Runway 18/36. REILs provide pilots with rapid and positive visual identification of the approach end of a runway during night, instrument, and marginal weather conditions. It is recommended that these lights be placed as shown in Figure 6-13 for both ends of the Runway.

6.2.10 Run-up Pads

A run-up pad is a location on an airport where pilots can perform run-up checks of their aircraft engines. Air blast from engine verification may cause problems for other aircraft or structures, so a specific area where such checks will do no harm is set aside for them. These are usually located at an area just prior to take-off. There are currently no run-up pads on either end of the Runway. These are recommended and we have shown one on each end of the runway, as shown on Figure 6-13. However, the one on the northern end near Runway 18 may have to be reconfigured depending on the final choice of apron for hangars in the area.



Figure 6-10 HANGARS SOUTH OF RUNWAY 36 SHIFTED SOUTH AND EXTENDED 48 FEET

CALHOUN COUNTY AIRPORT Master Plan Update Blountstown, Florida



Figure 6-11 HANGARS WEST OF RUNWAY 36



Figure 6-12 RESTAURANT AND NEW PARKING



Figure 6-13 REPLACEMENT AUTOMATED WEATHER OBSERVING SYSTEM, REILS AND RUN-UP PAD

CALHOUN COUNTY AIRPORT Master Plan Update Blountstown, Florida

6.3 Airport Development Composite Alternatives

The alternatives that have been presented in this chapter have been combined into two composite alternatives. These two composite alternatives were then evaluated to determine which might provide the best alternative for the Airport and the community.

6.3.1 Airport Development Composite Alternative One

Airport Development Composite One consists of the runway alternative that keeps Runway 18/36 in its current position. This composite alternative, as shown in Figure 6-14, also shows the following changes to the Airport:

- The southern extension of the Runway by 48 feet
- The addition of run-up pads off Taxiway A
- Closure of portions of Silas Whitfield and NW Magnolia Church Roads with road detours around each Runway Protection Zone
- The placement of REILs on each end of the Runway
- The relocation of the fuel farm
- The addition of three T-hangar buildings with a total of 48 new T-hangars
- The addition of 23 new conventional hangars
- The two new hangars and the new terminal currently under construction
- Additional vehicular parking
- Replacement/relocation of the Automated Weather Observing Station

6.3.2 Airport Development Composite Alternative Two

Airport Development Composite Two consists of the runway alternative that shows 330 feet of existing length of Runway 18/36 sliding south, as well as the extension of Runway 36 by 48 feet. This composite alternative, as shown in Figure 6-15, also shows the following changes to the Airport:

- The closure of a portion of NW Magnolia Church Road with that road being detoured around the Runway Protection Zone of the extended Runway 36.
- The addition of run-up pads off Taxiway A
- The placement of REILs on each end of the Runway
- The relocation of the fuel farm
- The addition of three T-hangar buildings with a total of 48 new T-hangars

- The addition of 23 new conventional hangars
- The two new hangars and the new terminal currently under construction
- Additional vehicular parking
- Replacement/relocation of the Automated Weather Observing Station



Figure 6-14
AIRPORT DEVELOPMENT COMPOSITE ALTERNATIVE ONE



Figure 6-15
AIRPORT DEVELOPMENT COMPOSITE ALTERNATIVE TWO

6.4 Evaluation of Airport Development Composite Alternatives

Composite Alternative One would require the closing of portions of both Silas Whitfield Road and NW Magnolia Church Road and the re-routing of these roads around the Runway Protection Zones (RPZ) for both Runway 18 and Runway 36. The re-routing of Silas Whitfield Road would require the purchase of additional property directly north of Silas Whitfield Road.

Composite Two would keep Silas Whitfield Road in its current configuration. It would require that a portion of NW Magnolia Church Road be closed and re-routed around the RPZ for Runway 36, but the entire proposed expansion would occur on property currently owned by the Airport. It is calculated that with the 48-foot extension and the 330-foot shift south, there would still be additional room on the southern parcel to allow a further runway extension of at least 306 feet, while keeping the resulting Runway Protection Zone away from the re-routed NW Magnolia Church Road and while remaining on currently owned Airport property. This would result in a 4,084-foot-long runway in the future, when it is justified.

The major difference between the two composite alternatives is the potential shifting of the Runway south by 330 feet to avoid the re-routing of Silas Whitfield Road around the Runway 18 RPZ and the potential of encroachment onto the property of others located north of Silas Whitfield Road. While this is not an issue right now, any future changes would trigger the FAA to require the roads be moved out of the RPZ(s). These changes include:

- Changes to either or both Runway Protection Zones
- Changing to a larger Critical Aircraft
- The lengthening of the Runway by even as few as 48 feet

The two composite alternatives are proposed to have the same number of hangars and other amenities.

A concern that might arise with Composite Alternative Two is the fact that the existing Runway 18 pavement was built in 2012. In 2019 it had a Pavement Condition Index (PCI) rating of 85. The FDOT anticipated, at that time, that the Runway pavement will require rehabilitation in 2028. The northern portion of Taxiway A was last constructed in 2019 and had a PCI rating of 100 at that time. It is not anticipated to require rehabilitation until at least 2029. These are the portions of the existing pavement that Airport Development Composite Alternative Two proposes to demolish with the shifting of the Runway south by 330 feet. As the shifting of the Runway is not an immediate need, it is anticipated that the shifting does not need to be accomplished until 2029 or 2030. This would allow the Airport to get significant and substantive use of the northern 330 feet of runway and associated Taxiway A prior to their demolition or abandonment.

A presentation of all the alternatives and of the two Airport Development Composites was made to the Calhoun County Industrial Park and Airport Board of Commissioners in a noticed public meeting on July 6, 2021. The PowerPoint presentation used during that meeting is contained in Appendix H of this report. At the end of that meeting, the Commissioners selected the Preferred Composite Alternative. The Preferred Composite Alternative is Composite Alternative Two. It will keep the RPZs on existing Airport Property without the purchase of additional property. It
will keep Silas Whitfield Road in its current location and will require only the re-routing of NW Magnolia Church Road around an extended Runway 36 RPZ on property currently owned by the Airport.

6.5 Development and Evaluation of Alternatives Summary

This chapter takes into consideration the Facility Requirements Forecasts developed in Chapter 5, which are based on the Aviation Activity Forecasts. In the Facility Requirements Chapter, several items were identified as needing to be addressed. These facilities have been addressed within this chapter as has the introduction of a few additional hangars. The overall development, as shown in Figure 6-16, results in the recommended Preferred Alternative for the Airport during the planning period. The Preferred Alternative meets all the facility requirements and addresses some airfield deficiencies.



Figure 6-16 PREFERRED ALTERNATIVE

7 AIRPORT LAYOUT PLAN SET

7.1 INTRODUCTION

This chapter describes the Airport Layout Plan (ALP) set for the development of the Calhoun County Airport from 2020 through 2040, 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 is 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 Calhoun 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 AIRPORT LAYOUT PLAN SET

The complete Calhoun County ALP set, and the Exhibit "A" consists of 17 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 to Calhoun County; the 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 Calhoun County 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.

1.1.1 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.

1.1.2 Existing Airport Layout Plan Drawing

The Existing ALP drawing is a graphic representation of existing Airport facilities. The ALP is the key document that shows the existing facilities as they exist today, and which have been constructed or demolished since the last ALP update. The drawing includes dimensional information for safety areas 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*.

1.1.3 Future Airport Layout Plan Drawing

The Future ALP drawing is a graphic representation of existing and future Airport facilities. The Future 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 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.

1.1.4 <u>Terminal Area Plan</u>

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

1.1.5 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.

1.1.6 Inner Portion of the Approach Surfaces for Runway 18/36

Sheets eight and nine show the plan and profile views of the inner portion of the approach surfaces to the runway ends of Runways 18 and 36 respectively at the Calhoun County Airport. In addition to the approach surfaces contained in FAR Part 77, the drawing also depicts the threshold siting surfaces.

1.1.7 Obstacle Action and Disposition Plans

Sheets 10 through 12 show the Obstacle Action and Disposition Plans (OAP). 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. Because of the large number of obstacles on and in the vicinity of the Airport, the obstacles were grouped into 300-foot by 300-foot grids and only the tallest obstacle within each grid was filed through the FAA OE/AAA.

1.1.8 Future Departure Surfaces Plan

The future Departure Surfaces Plan shows the applicable departure surfaces for instrument departures for the Airport. The surfaces shown are three-dimensionally shaped surfaces 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.

7.2.2 Land Use Plan

Sheet 14 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.

7.2.3 Airport Exhibit 'A' Property Inventory Map

The Airport Exhibit 'A' Property Inventory Map consists of two sheets and depicts the Airport's boundary and the various tracts of land. There is an additional sheet that shows the Airport boundary survey and parcel descriptions. 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 Calhoun County Airport. These changes include:

- Extending Runway 36 by 48 feet
- Relocating Runway 18/36 south by 330 feet to bring both RPZs onto Airport property
- Relocation of the damaged AWOS
- Showing new Terminal location
- Showing location and size of new Hangars 4 and 5
- Showing the closure of a portion of NW Magnolia Church Road
- Showing the relocation of a portion of NW Magnolia Church Road to traverse around the relocated Runway 36 RPZ
- Showing a proposed restaurant location
- Showing additional vehicular parking
- Adding three T-hangar buildings
- Adding corporate hangars
- Adding run-up pads
- Adding REILS
- Relocating the fuel farm

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.



Figure 7-1 COVER SHEET

DESCRIPTION	RUNWA	AY 18	RUNWAY 36				
BEGGRAFHER	EVISTING	FUTURE	EXISTING	FUTURE			
NINWAY DESIGN CODE (PDC)	A_1	CAME	4-1	SAME	CAME		
		B /II /5000	A-1 B/IIA/IS	D /II /5000	SAME		
AFFROACH REFERENCE CODE (AFRO)	B/11/VI3	B/ 1/ 3000	B/11/VIS	B/11/5000	SAME		
NINNAY DAVENENT MATERIAL	B/II	SAME	6/11 ASDH_C	SAME	SAME		
DAVEMENT STRENGTH BY WHEEL LOADING	60.000 DC	SAME	60.000 DG	SAME	SAME		
	BEECHCRAFT QUEEN AIR	SAME	BEECHCRAFT QUEEN AIR	SAME	GUNE		
CRITICAL AIRCRAFT	65A	SAME	65A	SAME	SAME		
PAVEMENT STRENGTH BY PCN	13 /F/A/Y/T	SAME	13 /F/A/Y/T	SAME	SAME		
PAVEMENT SURFACE TREATMENT	NONE	SAME	NONE	SAME	SAME		
EFFECTIVE RUNWAY GRADIENT	0.075%	SAME	0.075%	SAME	SAME		
PERCENT WIND COVERAGE IFR (10.5 KNOTS/13 KNOTS)	95.51% / 97.37%	SAME	95.51% / 97.37%	SAME	SAME		
PERCENT WIND COVERAGE VFR (10.5 KNOTS/13 KNOTS)	96.42% / 98.31%	SAME	96.42% / 98.31%	SAME	SAME		
PERCENT WIND COVERAGE ALL WEATHER (10.5 KNOTS/13 KNOTS)	96.26% / 98.16%	SAME	96.26% / 98.16%	SAME	SAME		
RUNWAY DIMENSIONS (LENGTH X WIDTH)	3,729' X 75'	3,778' X 75'	3,729' X 75'	3,778' X 75'	5,000' X 75		
RUNWAY SAFETY AREA WIDTH	120'	SAME	120'	SAME	SAME		
RUNWAY SAFETY AREA LENGTH BEYOND DEPARTURE END	240'	SAME	240'	SAME	SAME		
RUNWAY SAFETY AREA LENGTH PRIOR TO THRESHOLD	240'	SAME	240'	SAME	SAME		
RUNWAY END LATITUDE - (NAD83)	N30" 29' 31.7671"	N30' 29' 28.50"	N30" 28' 54.862"	N30" 28' 51.10"	N30" 28' 39.0		
RUNWAY END LONGITUDE - (NADB3)	W85' 06' 49.6579"	W85' 06' 49.68"	W85' 06' 49.5993"	W85' 06' 49.58"	W85 06 49.		
RUNWAY END ELEVATION - (NAVD88)	120.9'	SAME	118.1'	SAME	SAME		
RUE BEARING	S0'10'39"W	S0'09'22"W	S0'10'39"W	50'09'22"W	S0"07"05"W		
SPLACED THRESHOLD	NONE	NONE	130'	N/A	N/A		
NSPLACED THRESHOLD END LATITUDE (NADB3)	NONE	NONE	N30" 28' 56 17"	NONE	NONE		
DISPLACED THRESHOLD END LONGITUDE (NAD83)	NONE	NONE	W85' 06' 49.66"	NONE	NONE		
DISPLACED THRESHOLD FLEVATION (MSL)	N/A	N/A	114'	N/A	N/A		
RUNWAY LIGHTING TYPE	MIRL	SAME	MIRL	SAME	SAME		
RPZ INNER WIDTH DIMENSION	500'	SAME	500'	SAME	SAME		
RPZ OUTER WIDTH DIMENSION	700'	SAME	700'	SAME	SAME		
RPZ LENGTH	1,000'	SAME	1,000'	SAME	SAME		
RUNWAY MARKING TYPE	NPI-F	SAME	NPI-F	SAME	SAME		
4 CFR FAR PART 77 APPROACH CATEGORY	20:1	34:1	20:1	34:1	SAME		
4 CFR FAR PART 77 APPROACH TYPE	VISUAL	NON-PRECISION	VISUAL	NON-PRECISION	SAME		
4 CFR FAR PART 77 APPROACH DIMENSIONS (IWXOWXL)	250'X1,500'X5,000'	500'X3,500'X10,000'	250'X1,500'X5,000'	500'X3,500'X10,000'	SAME		
4 CFR FAR PART 77 APPROACH VISIBILITY MINIMUMS	VISUAL	≥3/4 MILE	VISUAL	≥3/4 MILE	SAME		
/ISIBILITY MINIMUMS (RVR)	N/A	≥1 MILE	N/A	≥1 MILE	SAME		
TYPE OF AERONAUTICAL SURVEY REQUIRED	NOT VERTICALLY GUIDED	SAME	NOT VERTICALLY GUIDED	SAME	SAME		
RUNWAY DEPARTURE SURFACE	NONE	YES	NONE	YES	SAME		
RUNWAY OBJECT FREE AREA LENGTH (ROFA) BEYOND RUNWAY	240'	SAME	240'	SAME	SAME		
RUNWAY OBJECT FREE AREA (ROFA) LENGTH PRIOR TO THRESHOLD	240'	SAME	240'	SAME	SAME		
RUNWAY OBJECT FREE AREA (ROFA) WIDTH	400'	SAME	400'	SAME	SAME		
RUNWAY OBSTACLE FREE ZONE (ROFZ) LENGTH	200'	SAME	200'	SAME	SAME		
RUNWAY OBSTACLE FREE ZONE (ROFZ) WIDTH	250'	SAME	250'	SAME	SAME		
THRESHOLD SITTING SURFACE (TSS)	20:1	34:1	20:1	34:1	SAME		
DEPARTURE SITING SURFACE (DSS)	NONE	40:1	NONE	40:1	SAME		
TYPES OF INSTRUMENT APPROACH	VISUAL	GPS	VISUAL	GPS	SAME		
VAVIGATIONAL AIDS	ROTATING BEACON	SAME	ROTATING BEACON	SAME	SAME		
VISUAL AND INSTRUMENT NAVAIDS	LIGHTED WINDCONE & SEGMENTED CIRCLE	REIL/4-LIGHT PAPI	LIGHTED WINDCONE & SEGMENTED CIRCLE	REIL/4-LIGHT PAPI	SAME		
OUCHDOWN ZONE ELEVATION	120'	SAME	119'	SAME	TBD		
AXIWAY DESIGN GROUP	1	SAME	11	SAME	SAME		
AXIWAY WIDTH	35'	SAME	35'	SAME	SAME		
AXIWAY SAFETY AREA DIMENSIONS	79'	SAME	79'	SAME	SAME		
'AXIWAY AND TAXILANE OBJECT FREE AREA WIDTH - (TOFA) AND TLOFA)	131'/115'	SAME	131'/115'	SAME	SAME		
AXIWAY/TAXILANE SEPARATION TO FIXED OR MOVABLE OBJECT	57.5'	SAME	57.5'	SAME	SAME		
AXIWAY/TAXILANE LIGHTING	MITL	SAME	MITL	SAME	SAME		

	ABBREVIATI
AMSL	ABOVE MEAN SEA LEVE
ARC	AIRPORT REFERENCE CO
ARP	AIRPORT REFERENCE PO
AS	APPROACH SLOPE
ASDA	ACCELERATED STOP DIS
AWOS	AUTOMATIC WEATHER OF
BRL	BUILDING RESTRICTION I
DG	DUAL GEAR
DS	DEPARTURE SLOPE
EL	ELEVATION
F	FAHRENHEIT
GA	GENERAL AVIATION
GPS	GLOBAL POSITIONING SY
IFR	INSTRUMENT FLIGHT RUI
LAT	LATITUDE
LDA	LANDING DISTANCE AVAIL
LONG	LONGITUDE
LBS	POUNDS
MIRL	MEDIUM INTENSITY RUN
MN	MAGNETIC NORTH
MPH	MILES PER HOUR
NAD83	NORTH AMERICAN DATUM
NAVAIDS	NAVIGATIONAL AIDS
NAVD B8	NORTH AMERICAN VERTI
NGDC	NATIONAL GEOPHYSICAL
NOAA	ADMINISTRATION
NPIAS	NATIONAL PLAN OF INTE
PAPI	PRECISION APPROACH F
PCN	PAVEMENT CONDITION N
RDC	RUNWAY DESIGN CODE
REIL	RUNWAY END IDENTIFIER
ROFA	RUNWAY OBJECT FREE
ROFZ	RUNWAY OBJECT FREE
RPZ	RUNWAY PROTECTION ZO
RRC	RUNWAY REFERENCE CO
RSA	RUNWAY SAFETY AREA
RW	RUNWAY
SG	SINGLE GEAR
SW	SINGLE WHEEL
1BD	TO BE DETERMINED
ID/LE	TOUCHDOWN ZONE ELEV
IN	TAKE OFF DISTANCE AN
TOEA	TAKE OFF DISTANCE AV
TOPA	TAKE OFF DUN AVAILAD
TCA	TAXE OFF KUN AVAILAB
TSS	THRESHOLD SITING SUP
100	TAXIWAY
TAXIW	AY DESIGN GR
TAXI	WAY
TAXIN	AY A

AIRPORT DATA TABLE										
DESCRIPTION	EXISTING	FUTURE	ULTIMATE							
AIRPORT IDENTIFIER	F95	SAME	SAME							
AIRPORT REFERENCE CODE (ARC) FOR THE AIRPORT	A-1	SAME	SAME							
MEAN MAXIMUM TEMPERATURE OF THE HOTTEST (MO.)	92" F (JULY)	SAME	SAME							
AIRPORT ELEVATION - (NAVD88)(MSL)	122'	SAME	SAME							
AIRPORT NAVIGATIONAL AIDS	ROTATING BEACON	ROTATING BEACON, REILS AND 2 PAPI	SAME							
AIRPORT REFERENCE POINT LATITUDE - (NAD83)	N30' 29' 13.31"	N30" 29' 9.96"	N30° 29' 3.84"							
AIRPORT REFERENCE POINT LONGITUDE - (NAD83)	W85' 06' 49.63"	W85 06 49.6794"	W85 06 49.6794							
MISCELLANEOUS FACILITIES	MIRL, MITL, LIGHTED WIND INDICATOR, SEGMENTED CIRCLE, WINDSOCK,	AWOS 3, 4 REIL, 2-LIGHT PAPI	твр							
AIRPORT CRITICAL AIRCRAFT	BEECHCRAFT QUEEN AIR 65A	BEECHCRAFT QUEEN AIR 65A	TBD							
AIRPORT MAGNETIC VARIATION	4.48° 36' ± 0.35° W CHANGING BY 0.08' W PER YEAR	твр	TBD							
AIRPORT MAGNETIC VARIATION DATE	04 OCT 2021	TBD	TBD							
AIRPORT MAGNETIC VARIATION SOURCE	NATIONAL GEOPHYSICAL DATA CENTER	SAME	SAME							
NPIAS SERVICE LEVEL	GENERAL AVIATION- LOCAL	SAME	SAME							
STATE SERVICE LEVEL	GENERAL AVIATION	SAME	SAME							

MODIFICATIONS TO STANDARDS APPROVAL TABLE										
DESCRIPTION OF MODIFICATION	REQUIRED STANDARD	DATE OF MODIFICATION APPROVAL								

GENERAL NOTES

 ALL LATITUDE AND LONGITUDE COORDINATES ARE NORTH AMERICAN DATUM OF 1983 (NAD83). ALL ELEVATIONS ARE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
 PROPERTY BOUNDARY INFORMATION OBTINED FROM SURVEY BY SOUTHEASTERN SURVEYING AND MAPPING CORPORATION, DATE JUNE 21, 2004. PROPERTY ACQUISITIONS SINCE 2004 DEPICTED BY DEED DESCRIPTIONS.
 RUNMAY MEETS RUNWAY VISIBILITY REQUIREMENTS. FUTURE AND ULTIMATE RUNWAY LENGTHS MAY VARY BASED ON SPECIFIC AIRCRAFT PERFORMANCE REQUIREMENTS. AND OTHER CONSIDERATIONS.
 PER FRA JO 6560.20C, ALL OBSTRUCTIONS WITHIN THE AMOS CRITICAL AREA MUST BE 15 FEET LOWER THAN THE HEIGHT OF THE WIND SENSOR. SHELTERING OBSTRUCTIONS SHOULD BE AVOIDED BY LOCATION CHOICE OR REMOVED WHERE FOSSIBLE.

CALHOUN COUNTY AIRPORT Master Plan Update Blountstown, Florida

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

ALL WEATHER WIND COVERAGE CROSSWIND COMPONENT 10.5 KNOTS (12 MPH) 13.0 KNOTS (15 MPH) RUNWAY 18-36 96.26% 98.16%

WIND DATA SOURCE: FAA AGIS YEARS 2010-2019 STATION:

VFR WIND COVERAGE									
RUNWAY	CROSSWIND COMPONENT								
	10.5 KNOTS (12 MPH)	13.0 KNOTS (15 MPH)							
18-36	96.42%	98.31%							
WIND DATA SOURCE	: FAA AGIS YEARS 2010-2019 STATIO	N: KMAI							

	IFR WIND COVERAGE										
RU	CROSSWIND COMPONENT										
		10.5 KNOTS (12 MPH)	13.0 KNOTS (15 MPH)								
	18-36	95.51%	97.37%								
WIND D		- EAA ACIS YEARS 2010-2010 STATIO	N- KMAI								





18 (ULTIMATE)

36 (ULTIMATE)

DECLARED DISTANCES TABLE

5,000'

5,000'

5,000' RUNWAY 18-36 EXISTING, FUTURE, AND ULTIN

5,000'

	R₩	18	TORA	=	3,599'	(3,778'	FUTURE)	(5,000'	ULTIMATE)	
	R₩	18	TODA	-	3,729'	(3,778'	FUTURE)	(5,000'	ULTIMATE)	
	RW	18	ASDA	=	3,729'	(3,778'	FUTURE)	(5,000'	ULTIMATE)	
	R₩	18	LDA	=	3,729'	(3,778'	FUTURE)	(5,000'	ULTIMATE)	
	R₩	36	TORA	=	3,729'	(3,778'	FUTURE)	(5,000'	ULTIMATE)	
	R₩	36	TODA	=	3,729'	(3,778'	FUTURE)	(5,000'	ULTIMATE)	
	R₩	36	ASDA	=	3,729	(3,778'	FUTURE)	(5,000'	ULTIMATE)	
•	pw	36	LDA	_	3 500'	(3 778'	ELITURE)	(5 000'	ULTIMATE)	

18





36

VFR 18/36 WIND COVERAGE 13 KNOTS (15 MPH)





ALL WEATHER 18/36 WIND COVERAGE 10.5 KNOTS (12 MPH)



CALHOUN COUNTY AIRPORT Master Plan Update Blountstown, Florida

			_
A 9 9 8' 0' 0' 0' 0'	LDA 3,729 3,600 3,778' 3,778' 5,000' 5,000' E 130' gg	CALHOUN COUNTY AIRPORT	907
		CALHOUN COUNTY AIRPORT AIRPORT LAYOUT PLAN SET	
		AIRPORT DATA SHEI (2 OF 2)	
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Figure 7-3 AIRPORT DATA SHEET (2 OF 2)



Figure 7-4 EXISTING AIRPORT LAYOUT PLAN



Figure 7-5 FUTURE AIRPORT LAYOUT PLAN

M.S

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Figure 7-6 AIRPORT AIRSPACE





Figure 7-7



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CALHOUN COUNTY AIRPORT Master Plan Update Blountstown, Florida



Airport Layout Plan Set

Figure 7-8



SURFACI	(40:1	
RE SURFA	E (40	
8,000		10,000



Figure 7-9 FUTURE DEPARTURE SURFACES

		RUN	WAY 18 OBS	TACLE A	CTION PLAN	(1 OF 8)					RUNV	VAY 18 OBS	TACLE A	CTION PLAN	(2 OF 8)		
OBS	DESCRIPTION	LATITUDE	LONGITUDE	TOP EL (MSL)	APPR. SURFACE (20:1)	DEP. SURFACE (40:1)	TSS (20:1)	DISPOSITION	OBS NO.	DESCRIPTION	LATITUDE	LONGITUDE	TOP EL (MSL)	APPR. SURFACE (20:1)	DEP. SURFACE (40:1)	TSS (20:1)) DISPOSITI
5021	TREE	N30°29'36.8352"	85°06'53.6072"W	188.63	58.8266216	49.62	35.48920852	REMOVE	402439	TREE	N30°29'35.7462"	85°06'52.0230''W	141.13	14.57168032	11.93579553	#N/A	REMOVE
5022	TREE	N30°29'41.5643"	85°06'52.4541"W	192.53	48.68108726	48.64070267	15.54384635	REMOVE	402440	TREE	N30°29'35.8070"	85°06'51.9822"W	138.99	12.25164734	9.642582739	#N/A	REMOVE
5023	TREE	N30°29'47.1760"	85°06'48.4342"W	194.6	34.10002663	36.53908726	#N/A	REMOVE	402441	TREE	N30"29'35.8346"	85"06'51.6996''W	135.08	8.260864494	5.662639215	#N/A	REMOVE
5024	TREE	N30°29'42.3221"	85°06'48.5441"W	170.86	24.78254402	25.05875547	#N/A	REMOVE	402442	TREE	N30"29'35.9743"	85°06'51.6619"W	130.73	3.49614771	0.959958781	#N/A	REMOVE
400149	TREE	N30°29'46.9846"	85°06'52 2984"W	185.64	26.85134801	29.23031519	#N/A #N/A	REMOVE	402443	TREE	N30"29'35.6208" N30"29'35.4944"	85°06'52.1887''W	128.02	4 559473474	#N/A	#N/A #N/A	REMOVE
400152	TREE	N30°29'46.0287"	85°06'53.0649"W	184.19	27.07197441	29.02468953	#N/A	REMOVE	402445	TREE	N30"29'35.5748"	85"06'52.1965"W	136.64	10.59012781	7.878761437	#N/A	REMOVE
400167	TREE	N30°29'47.0323"	85"06'49.1657"W	185.81	25.73292114	28.1118565	#N/A	REMOVE	402446	TREE	N30°29'35.5197"	85°06'52.3036"W	138.5	12.61304311	9.877724613	#N/A	REMOVE
400168	TREE	N30°29'47.0471"	85°06'47.7133"W	183.03	22.91722662	25.29494828	#N/A	REMOVE	402448	TREE	N30°29'35.7344"	85°06'52.3708"W	139.21	12.68474738	10.04547558	#N/A	REMOVE
400169	TREE	N30°29'46.6210"	85°06'46.7760"W	192.25	33.40918301	35.59187568	#N/A	REMOVE	402449	TREE	N30°29'35.7863"	85°06'52.2814''W	134.36	7.681091802	5.064463729	#N/A	REMOVE
400173	TREE	N30°29'45.5141"	85°06'50.9464"W	173.74	18.16363738	19.87552703	#N/A	REMOVE	402450	TREE	N30"29'35.3030"	85"06'52.0850"W	151.32	26.07836611	23.24526143	5.975169	REMOVE
400176	TREE	N30"29'45.1931"	85"06'53.0618"W	192.11	37.47492008	39.05518462	#N/A	REMOVE	402451	TREE	N30°29'37.0289"	85°06'51.9373"W	150.68	20.31095249	18.24628124	#N/A	REMOVE
400177	TREE	N30'29'43.0689"	85°06'51 2222"W	103.32	13.22806288	13 69628741	#N/A	REMOVE	402452	TREE	N30"29'37.0607" N20"29'37.1763"	85"06'51.7956"W	138.92	8.45/1/4415	2 9/201/029	#N/A	REIVIOVE
400189	TREE	N30°29'42.7768"	85°06'50.4235"W	163.75	16.31044769	16.79946862	#N/A	REMOVE	402454	TREE	N30°29'37.1765	85°06'51.6498"W	135.05	7.324832302	5.315277793	#N/A	REMOVE
400190	TREE	N30°29'41.3060"	85°06'51.0470"W	158.37	15.29694065	15.13381722	#N/A	REMOVE	402455	TREE	N30°29'36.9495"	85°06'51.7235"W	133.86	3.728074038	1.626867871	#N/A	REMOVE
400191	TREE	N30°29'41.7874"	85°06'50.1998"W	166.56	22.06164111	22.10847811	#N/A	REMOVE	402456	TREE	N30°29'36.9810"	85°06'51.6268"W	134.79	4.565243128	2.477523982	#N/A	REMOVE
400192	TREE	N30°29'41.3610"	85°06'49.1299"W	165.42	22.19489457	22.04590899	#N/A	REMOVE	402457	TREE	N30"29'37.0330"	85"06'51.5160"W	135.08	4.701123988	2.63602197	#N/A	REMOVE
400193	TREE	N30°29'43.1235"	85°06'49.2480"W	169.69	21.22694887	21.86417694	#N/A	REMOVE	402458	TREE	N30"29'37.0100"	85"06'51.4342"W	135.72	5.409884055	3.334097979	#N/A	REMOVE
400194	TREE	N30°29'43.9703"	85"06'49.4984"W	166.26	15.27950329	16.29547512	#N/A	REMOVE	402459	TREE	N30°29'36.8139"	85°06'51.3506"W	139.42	9.693342069	7.529660406	#N/A	REMOVE
400190	TREE	N30°29'45.0425"	85°06'47.1363"\/	175.99	21.83740447	23.31850345	#N/A #N/A	REMOVE	402460	TREE	N30*29'37.0264"	85"06'51 2183"\w	149.83	10.68227817	8.636656083	#N/A	REMOVE
400202	TREE	N30°29'43.8926"	85"06'46.9517"W	171.65	20.91538504	21.88295946	#N/A	REMOVE	402462	TREE	N30"29'37.1689"	85°06'51.1540"W	139.71	8.929409947	6.92292695	#N/A	REMOVE
400203	TREE	N30°29'43.4832"	85°06'47.9470"W	172.54	23.01568525	23.80621795	#N/A	REMOVE	402463	TREE	N30°29'37.2350"	85°06'51.2198"W	139.56	8.582579044	6.60591775	#N/A	REMOVE
400204	TREE	N30°29'42.3453"	85°06'49.3816"W	165.56	19.40863015	19.69971567	#N/A	REMOVE	402464	TREE	N30°29'37.1506"	85°06'51.2746"W	135	4.273312885	2.259289851	#N/A	REMOVE
400205	TREE	N30°29'41.3836"	85°06'48.0102"W	164.96	21.67420414	21.52925846	#N/A	REMOVE	402465	TREE	N30°29'37.0836"	85°06'51.3307''W	135.22	4.691998173	2.648426744	#N/A	REMOVE
400206	TREE	N30*29'42.3665"	85°06'47.5224"₩	169.65	23.44645816	23.73696224	#N/A	REMOVE	402466	TREE	N30"29'37.1303"	85"06'51.3809"W	138.35	7.682690157	5.660241289	#N/A	REMOVE
400207	TREE	N30°29'42.9476"	85"06'46.4605"W	108.23	20.30620932	20.84994514	#N/A	REMOVE	402467	TREE	N30"29'37.1627"	85'06'51.4380'W	138.85	8.086085477	1.526011691	#N/A	REMOVE
400203	TREE	N30°29'41.5110"	85°06'46.8590"W	162.06	18.40267097	18.30824862	#N/A	REMOVE	402468	TREE	N30*29'37.2112	85°06'51 5231''W	134.43	5.914701428	3 955593247	#N/A	REMOVE
400254	TREE	N30°29'40.6402"	85°06'52.1341"W	153.49	12.38915796	11.93512199	#N/A	REMOVE	402470	TREE	N30"29'37.2692"	85°06'51.4580"W	139.35	8.269770366	6.309607203	#N/A	REMOVE
400255	TREE	N30°29'40.0531"	85°06'50.8275"W	148.72	9.371412073	8.648633686	#N/A	REMOVE	402471	TREE	N30"29'37.3229"	85°06'51.4017"W	139.64	8.400496653	6.463969863	#N/A	REMOVE
400256	TREE	N30°29'39.3079"	85"06'52.1015"W	147.86	10.71806257	9.670052082	#N/A	REMOVE	402472	TREE	N30°29'37.3399"	85°06'51.4539"W	138.35	7.059441728	5.130809231	#N/A	REMOVE
400258	TREE	N30°29'41.2536"	85°06'53.7678"W	179.1	36.16686264	35.99505405	3.635012859	REMOVE	402473	TREE	N30°29'37.3732"	85°06'51.5205"W	140.21	8.820265615	6.906810545	#N/A	REMOVE
400272	TREE	N30°29'39.0450"	85°06'53.8568"W	169.37	32.99882663	28.44	5.057567024	REMOVE	402474	TREE	N30"29'37.4922"	85°06'51.5063''W	139.64	7.896618558	6.036145407	#N/A	REMOVE
400274	TREE	N30°29'38.1654"	85"06'54.8841"W	176.56	#N/A	27.19	#N/A	REMOVE	402475	TREE	N30°29'37.4282"	85°06'51.4335"W	142.34	10.78751065	5.646494074	#N/A #N/A	REMOVE
400292	TREE	N30°29'37.8100"	85"06'53.9120"W	179.3	#N/A	37.85	21.22368529	REMOVE	402478	TREE	N30*29'37.2159"	85"06'51.3072"W	138.28	7.358863928	5.374154884	#N/A	REMOVE
400295	TREE	N30°29'38.1965"	85°06'51.7193"W	142.33	8.49270295	6.947275593	#N/A	REMOVE	402478	TREE	N30"29'37.3130"	85"06'51.2146"W	139.64	8.431064016	6.489105815	#N/A	REMOVE
400296	TREE	N30°29'39.0970"	85°06'50.9541"W	143.57	7.06157195	5.913347994	#N/A	REMOVE	402479	TREE	N30°29'37.4261"	85°06'51.1648"W	138	6.455369756	4.5635402	#N/A	REMOVE
400297	TREE	N30°29'38.0051"	85°06'50.6982"W	146.35	13.08751248	11.45124766	#N/A	REMOVE	402480	TREE	N30°29'37.3608"	85°06'51.2541"W	136.5	5.148436909	3.228051606	#N/A	REMOVE
400298	TREE	N30°29'37.2594"	85"06'51.3783"W	144.5	13.44942937	11.4844569	#N/A	REMOVE	402481	TREE	N30°29'37.4117"	85°06'51.3091"W	140.42	8.91710839	7.019670517	ffN/A	REMOVE
400299	TREE	N30°29'37.0711"	85°06'52.4536"W	140.87	10.37241923	8.329362482	#N/A	REMOVE	402482	TREE	N30"29'37.4512"	85"06'51.2349"W	140.21	8.590338504	6.710079976	#N/A	REMOVE
400300	TREE	N30'29'35.9575'	85'06'52.1760'W	143.37	57 26121846	15.64226738	#N/A	REMOVE	402483	TREE	N30"29'37.4868"	85"06'51.2/19"W	139.14	7.414161769	5.549996948	#N/A #N/A	REMOVE
400303	TREE	N30°29'34.8520"	85°06'53.7553"W	155.29	#N/A	14.97	#N/A	REMOVE	402484	TREE	N30°29'37.6193"	85°06'51.2283"W	143.77	11.6508681	9.845499128	#N/A	REMOVE
400304	TREE	N30*29'34.9020"	85"06'52.3790"W	156.64	32.5880774	27.57	13.30964023	REMOVE	402486	TREE	N30*29'37.5722"	85°06'51.3674''W	141.42	9.439920033	7.614322821	#N/A	REMOVE
400306	TREE	N30°29'36.5410"	85°06'51.5136"W	148.63	19.71318035	17.42876185	#N/A	REMOVE	402487	TREE	N30"29'37.4889"	85"06'51.3998"W	144.69	12.95724004	11.09469188	#N/A	REMOVE
400307	TREE	N30°29'39.1093"	85°06'50.1360"W	154.09	17.54975702	16.40260591	#N/A	REMOVE	402488	TREE	N30"29'37.5718"	85°06'51.1296"W	140.85	8.872435985	7.045385796	#N/A	REMOVE
402405	TREE	N30°29'36.7085"	85°06'51.5098"W	145.26	15.84549742	13.63571326	#N/A	REMOVE	402489	TREE	N30°29'37.4837"	85°06'51.1240"W	139.49	7.774159352	5.907826016	#N/A	REMOVE
402406	TREE	N30°29'36.7645"	85"06'51.5403"W	144.41	14.82897402	12.64430603	#N/A	REMOVE	402490	TREE	N30"29'37.4468"	85"06'51.1272"W	133.72	2.113892038	0.231113508	#N/A	REMOVE
402407	TREE	N30 29 36.7829 N30°29'36 8117"	85°06'51.0270 W	143.7	11 90763311	9 7//907926	#N/A #N/A	REMOVE	402491	TREE	N30 29 37.4236	85'06'51.0749 W	132.8	1.262888054	#N/A	#N/A #N/A	REMOVE
402409	TREE	N30°29'36.7784"	85°06'51.7418"W	139.85	10.22616765	8.048831615	#N/A	REMOVE	402493	TREE	N30"29'37.5210"	85"06'51.0711"W	133.44	1.613736264	#N/A	#N/A	REMOVE
402410	TREE	N30°29'36.7215"	85°06'51.7042"W	140.99	11.53557482	9.332657471	#N/A	REMOVE	402494	TREE	N30"29'37.5613"	85"06'51.0324''W	132.51	0.564309449	#N/A	#N/A	REMOVE
402414	TREE	N30°29'36.2750"	85°06'51.7525"W	135.08	6.952153056	4.550470891	#N/A	REMOVE	402497	TREE	N30°29'36.8994"	85°06'51.0141"W	131.44	1.461245872	#N/A	#N/A	REMOVE
402415	TREE	N30°29'36.3201"	85°06'51.8314"W	133.37	5.107485444	2.726359475	#N/A	REMOVE	402523	TREE	N30°29'38.5771"	85°06'52.2383"W	144.2	9.228590836	7.855624694	#N/A	REMOVE
402416	TREE	N30°29'36.2556"	85°06'51.9120"W	142.91	14.83871866	12.42927277	#N/A	REMOVE	402530	TREE	N30°29'38.3625"	85°06'51.7297"W	138.42	4.089250608	2.617887066	#N/A	REMOVE
402417	TREE	N30"29'36.1591"	85"06'51.9246"W	141.63	13.84558767	11.3931693	#N/A	REMOVE	402534	TREE	N30"29'38.2725"	85"06'51.9927"W	141.7	7.635467754	6.125361565	#N/A	REMOVE
402418	TREE	N30°29'36 6852"	85°06'51.3567"\\/	140.42	3,373984049	1.153234854	#N/A #N/A	REMOVE	402535	TREE	N30°29'38.1966"	63"06'52.0003"W 85°06'51 9844"W	143.2/	9.430824561	4.463771065	#N/A #N/A	REMOVE
402420	TREE	N30°29'36.7904"	85°06'51.4330"W	136.64	6.982529805	4.808843162	#N/A	REMOVE	402540	TREE	N30"29'38.0929"	85"06'51.7366"W	137.21	3.680196533	2.088723535	#N/A	REMOVE
402421	TREE	N30°29'36.7949"	85"06'51.4840"W	134.72	5.04881762	2.877417904	#N/A	REMOVE	402541	TREE	N30"29'37.9654"	85"06'51.6667"W	138.64	5.489938583	3.841189342	#N/A	REMOVE
402422	TREE	N30°29'36.4474"	85°06'51.3978"W	129.38	0.741672489	#N/A	#N/A	REMOVE	402542	TREE	N30°29'38.1051"	85°06'51.6183"W	139.92	6.354842048	4.768137539	#N/A	REMOVE
402423	TREE	N30°29'36.3500"	85°06'51.4010"W	128.66	0.311407045	#N/A	#N/A	REMOVE	402543	TREE	N30°29'38.0305"	85°06'51.5821"W	138.35	5.006614664	3.386480878	#N/A	REMOV
402424	TREE	N30°29'36.6699"	85°06'52.2348"W	141.27	11.96598309	9.742904701	#N/A	REMOVE	402544	TREE	N30°29'38.0205"	85°06'51.4151''W	136.22	2.90763739	1.282095368	#N/A	REMOVE
402425	TREE	N30°29'36.7671"	85°06'52.2447"W	145.48	15.88694063	13.70726257	#N/A	REMOVE	402545	TREE	N30"29'38.1139"	85°06'51.3959"W	143.2	9.610128176	8.026125136	#N/A	REMOVE
402426	TREE	N30"29'36.8655"	85"06'52.2498"W	148.26	18.3/462553	10.23881753	#N/A	REMOVE	402546	TRÉE	N30"29'38.1451"	85"06'51.4720"W	139.21	5.526910001	3.957233552	#N/A	REMOVE
402428	TREE	N30°29'36.9488"	85°06'52.3909"W	142.84	12.70604046	10.60815724	#N/A	REMOVE	402547	TREE	N30"29'38.2118" N30"29'38.2327"	85°06'51 5450''W	139 99	6.04601824224	4,515805134	#N/A #N/A	REMOVE
402430	TREE	N30°29'37.0417"	85°06'52.1734"W	136.79	6.381363317	4.323698023	#N/A	REMOVE	402549	TREE	N30°29'38.3338"	85°06'51.5910"W	141.92	7.675498087	6.190569857	#N/A	REMOVE
402433	TREE	N30°29'36.0770"	85°06'52.1967"W	140.28	12.73775834	10.25024478	#N/A	REMOVE	402550	TREE	N30"29'38.3775"	85°06'51.6482"W	140.49	6.115365067	4.650215644	#N/A	REMOVE
	TREE	N30°29'36.0414"	85°06'52.0093"W	144.05	16.61450272	14.11013116	#N/A	REMOVE	402551	TREE	N30"29'38.2635"	85"06'51.6779"W	137.36	3.323841065	1.808055267	#N/A	REMOVE
402434		N30°20'35 2072"	85"06'52.0911"W	143.84	17.10016169	14.49181198	#N/A	REMOVE	402552	TREE	N30"29'38,2669"	85"06'51.4933"W	140.35	6.304721867	4.789468784	#N/A	REMOVE
402434 402435	TREE	1130 23 33.0072															
402434 402435 402436	TREE	N30°29'35.8578"	85°06'52.1815"W	144.91	18.0194106	15.43408245	#N/A	REMOVE	402553	TREE	N30°29'38.3053"	85°06'51.4250''W	147.05	12.89094143	11.39244664	#N/A	REMOVE
402434 402435 402436 402437	TREE TREE TREE	N30°29'35.8578" N30°29'35.8578" N30°29'35.8094"	85°06'52.1815"W 85°06'52.2047"W	144.91 143.27	18.0194106 16.52283196	15.43408245 13.91609552	#N/A #N/A	REMOVE REMOVE	402553 402554	TREE	N30°29'38.3053" N30°29'38.4093"	85°06'51.4250"W 85°06'51.4994"W	147.05	12.89094143 6.801530509	11.39244664 5.349782977	#N/A #N/A	REMOV

AIRPORT
AVCON
AVCON, INC.
121 3A YSBOAL DR. VA SUITTA - MCCOLLE, FL 22378 OF DE 0837 278-079 - FAX: 88-0078-0110
COMPURA JE CEST JEL ATE DE ALTE DRIZATION NUMERIC 907 9990-090000000000
AIRPORT
AIRPORT LAYOUT PLAN
SET
OBSTACLE ACTION &
DISPOSITION PLANS
(1 OF 4)
ATTENTION:
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JUALE.
NO. DATE BY DESCRIPTION
DESIGNED BY: M.S
DRAWN BY: A.W
CHECKED BY: M.S
APPROVED BY: M.S
DATE: DEC 2021
FAA AIP NO. 3-12-0158-008-2020
FDOT FM NO 409727-3-94-01
AVCON PROJECT NO. 2020.0241.02
SHEET NUMBER
10

igure 7-10 NS (1 of 4) **OBSTACLE ACTION A**

<u> 10 </u>	
	Figur
ND DISPOSITIC	N PLANS (

DC I		RUNV	VAY 18 OBS	TOD 5	LADDR SUBSACS		TCC	
BS IO.	DESCRIPTION	LATITUDE	LONGITUDE	TOP EL (MSL)	APPR. SURFACE (20:1)	DEP. SURFACE (40:1)	TSS (20:1)	DISPOSITION
402557	TREE	N30°29'38.3740"	85"06'51.4221"W	143.63	9.267092456	7.799161509	#N/A	REMOVE
402558	TREE	N30°29'38.4242"	85°06'51.2830"W	138.42	3.908628802	2.462337922	#N/A	REMOVE
402559	TREE	N30°29'38.4933"	85°06'51.2268"W	140.78	6.063767073	4.647951099	#N/A	REMOVE
102560	TREE	N30°29'38.2729"	85*06'51.3750"W	142.63	8.567602589	7.054382582	#N/A	REMOVE
102561	TREE	N30°29'38.2487"	85*06'51.3144"W	140.78	6.789768291	5.265450008	ffN/A	REMOVE
402562	TREE	N30°29'38.2164"	85*06'51.2502"W	138.5	4.606315578	3.067224547	ffN/A	REMOVE
402563	TREE	N30"29'38.0985"	85"06'51.2620"W	147.26	13.71670914	12.1251139	#N/A	REMOVE
402564	TREE	N30°29'38.0630"	85"06'51.3434"W	141.99	8.551475827	6.94453334	#N/A	REMOVE
402565	TREE	N30"29'38.0625"	85'06'51.1315'W	145.97	13.53419949	11.92589071	#IN/A	REMOVE
402566	TOFF	N30-29-37.9600"	85'06'51.1317'W	142.84	9.708910285	8.054896291	#IN/A	REMOVE
402567	TREE	N30*29*38.0134*	85*06*50.9807*W	142.56	9.270940167	7.639938527	#N/A	REMOVE
402506	TREE	N20°20'22 075 3"	85 06 50.9021 W	120.07	5 449626611	2 944175034	#N/A	REMOVE
402509	TREE	N30 23 38.0732 N30 29 37 7015	85"06'50 9653"W	144.98	12 25052082	10 6205 2223	ffN/A	REMOVE
402570	TREE	N30°29'37 7298"	85"06'51.0050"W	137.43	4 983789981	3 226472075	<u>μη/Α</u>	REMOVE
402572	TREE	N30°29'37 7415"	85"06'51.0784"W	136.79	4 308493573	2 55680272	#N/A	REMOVE
402573	TREE	N30°29'37.6228"	85"06'51.0501"W	136.36	4.231212595	2.42648625	#N/A	REMOVE
402574	TREE	N30°29'37.8536"	85"06'50.8926"W	136	3.186713377	1.483947945	#N/A	REMOVE
402575	TREE	N30°29'37.7210"	85"06'50.8001"W	133.86	1.440981771	#N/A	#N/A	REMOVE
402579	TREE	N30°29'38.1081"	85°06'50,7033"W	133.58	0.011373005	#N/A	#N/A	REMOVE
402582	TREE	N30°29'38.3581"	85°06'50.7093"W	137.21	2.898470921	1,419510267	#N/A	REMOVE
402583	TREE	N30°29'38.4201"	85*06'50.6424"W	137.28	2.784699927	1.333101831	ffN/A	REMOVE
402584	TREE	N30"29'38.3424"	85*06'50.6204"W	135.57	1.30570402	#N/A	ffN/A	REMOVE
402586	TREE	N30"29'38.2046"	85"06'50.6806"W	134.08	0.224717946	#N/A	#N/A	REMOVE
402587	TREE	N30°29'38.4652"	85"06'50.3589"W	148.04	13.41214442	11.97914727	#N/A	REMOVE
402588	TREE	N30°29'38.4906"	85"06'50.5260"W	144.2	9.495827795	8.075033297	#N/A	REMOVE
402589	TREE	N30°29'38.4909"	85*06'50.6289"W	144.05	9.344295676	7.924196689	#N/A	REMOVE
402590	TREE	N30°29'38.5747"	85*06'50.6593"W	144.77	9.81512379	8.43253781	#N/A	REMOVE
402591	TREE	N30°29'38.6072"	85°06'50.8478"W	148.76	13.70750704	12.34041553	#N/A	REMOVE
402592	TREE	N30°29'38.4993"	85°06'50.7426"W	140.21	5.478730749	4.062980436	#N/A	REMOVE
402594	TREE	N30°29'38.5815"	85°06'50.9931"W	136.43	1.453078146	0.075308376	#N/A	REMOVE
402595	TREE	N30°29'38.6344"	85°06'51.0422"W	136.86	1.725525813	0.371610216	#N/A	REMOVE
402597	TREE	N30°29'38.7604"	85*06'51.0588"W	144.2	8.691241562	7.393542645	ffN/A	REMOVE
402598	TREE	N30°29'38.7781"	85*06'51.1536"W	144.34	8.777879394	7.488613659	ffN/A	REMOVE
402599	TREE	N30°29'38.8059"	85*06'50.9989"W	141.13	5.48605714	4.208365004	ffN/A	REMOVE
402600	TREE	N30°29'38.6585"	85"06'50.5560"W	144.55	9.346943936	8.001116919	#N/A	REMOVE
402601	TREE	N30"29'38.6096"	85"06'50,5094"W	143.41	8.352162518	6.984342335	#N/A	REMOVE
402602	TREE	N30°29'38.6847"	85*06'50.4817"W	141.27	5.989586537	4.655027222	#N/A	REMOVE
402606	TREE	N30°29'38.8023"	85"06'50.4324"W	143.48	7.850365663	6.567965633	#N/A	REMOVE
402607	TREE	N30'29'38.8592"	85'06'50.4981'W	141.7	5.900887571	4.644206124	#IN/A	REMOVE
402609	TREE	N30 29 38.8997	85 06 50.8464 W	129.64	3.138368049	1.4200EE04E	HIN/A HNI/A	REMOVE
402610	TREE	N20°20'22 55.9166	92 00 50.9100 W	140.00	5.000696222	2 77/757976	#N/A	REMOVE
402612	TREE	N30°29'38 9401"	85*06'51.0681"W	138.28	2 237192059	1.019641666	#N/A	REMOVE
402612	TREE	N30"29'39 0269"	85"06'51 1021"W	140.13	3.828930821	2 650272917	ffN/A	REMOVE
402615	TREE	N30°29'38 8148"	85"06'51 2432"W	138.42	2 748298207	1 475874623	ffN/A	REMOVE
402618	TREE	N30°29'39 1509"	85"06'50 9684"W	139.92	3 251095627	2 12700734	#N/A	REMOVE
402623	TREE	N30"29'39 2984"	85*06'50 8349"W	140.13	3.023556708	1 964495135	#N/Δ	REMOVE
402624	TREE	N30°29'39.4415"	85"06'50.7476"W	141.06	3.529031008	2.533251847	#N/A	REMOVE
402625	TREE	N30°29'39.3568"	85"06'50.6994"W	143.63	6.351003763	5.317211849	#N/A	REMOVE
402626	TREE	N30°29'39.4035"	85"06'50.6217"W	147.9	10.48273606	9.469332815	#N/A	REMOVE
402627	TREE	N30°29'39.2120"	85°06'50.6033"W	150.18	13.33200753	12.23313139	#N/A	REMOVE
402628	TREE	N30°29'39.1807"	85*06'50.6776"W	145.76	9.004364861	7.891970917	ffN/A	REMOVE
402629	TREE	N30"29'39.1483"	85*06'50.6204"W	146.76	10.10096954	8.973826802	#N/A	REMOVE
402630	TREE	N30°29'39.0444''	85*06'50.5307"W	145.48	9.130257474	7.956316156	#N/A	REMOVE
402631	TREE	N30°29'38.9783"	85"06'50.6046"W	143.2	7.046143716	5.843154509	#N/A	REMOVE
402632	TREE	N30°29'39.0378"	85"06'50.4537"W	147.9	11.57023251	10.39294695	#N/A	REMOVE
402633	TREE	N30°29'38.9712"	85"06'50.4578"W	144.69	8.558208264	7.351245062	#N/A	REMOVE
402634	TREE	N30°29'38.9635"	85°06'50.3820"W	144.77	8.661428597	7.450640021	#N/A	REMOVE
402635	TREE	N30°29'38.9866"	85*06'50.3064"W	142.84	6.663178781	5.462286017	#N/A	REMOVE
402636	TREE	N30°29'38.8459"	85*06'50.3548"W	141.35	5.591215566	4.327836496	ffN/A	REMOVE
402637	TREE	N30°29'39.2011"	85°06'50.4020"W	153.81	16.99510898	15.8903572	ffN/A	REMOVE
402638	TREE	N30°29'39.3026"	85°06'50.4018"W	140.85	3.73363346	2.674101583	#N/A	REMOVE
402640	TREE	N30°29'39.5140"	85"06'50.5092"W	140.35	2.605070123	1.640306947	#N/A	REMOVE
402645	TREE	N30°29'39.7189"	85"06'50.8012"W	151.82	13.46444856	12.5925974	#N/A	REMOVE
402646	TREE	N30°29'40.1636"	85°06'50.2469"W	151.89	12.21619203	11.53957031	#N/A	REMOVE
	TREE	N30°29'40.6490"	85°06'50.7177"W	152.96	11.84110326	11.3833703	#N/A	REMOVE
402661	TREE	N30°29'40.4678"	85°06'50.9763"W	147.26	6.678170488	6.141047827	#N/A	REMOVE
402661 402662	TREE	N30°29'40.7104"	85*06'51.1573"W	154.46	13.15636984	12.72833449	ffN/A	REMOVE
402661 402662 402664	TOFF	N30"29'40.6574"	85*06'51.2456"W	153.1	11.95295747	11.5018334	#N/A	REMOVE
402661 402662 402664 402665	TREE	N30°29'40.6605"	85*06'51.3947"W	151.32	10.16326403	9.714268532	#N/A	REMOVE
402661 402662 402664 402665 402666	TREE		95"06'51 2916"W	150.75	9.988751978	9.480374598	#N/A	REMOVE
402661 402662 402664 402665 402666 402667	TREE	N30°29'40.5273"	03 00 31.3810 W			40.04004.050	#N/Δ	REMOVE
402661 402662 402664 402665 402666 402667 402668	TREE	N30°29'40.5273" N30°29'40.4206"	85"06'51.2610"W	151.04	10.59661834	10.04001652	11.17.1	ILLIVIOVE
402661 402662 402665 402665 402666 402667 402668 402669	TREE TREE TREE TREE TREE	N30°29'40.5273" N30°29'40.4206" N30°29'40.3609"	85"06'51.2610"W 85"06'51.2995"W	151.04 147.76	10.59661834 7.493986053	6.91095352	#N/A	REMOVE
402661 402662 402665 402665 402667 402667 402668 402669 402681	TREE TREE TREE TREE TREE TREE	N30°29'40.5273" N30°29'40.4206" N30°29'40.3609" N30°29'40.2676"	85*06'51.2610"W 85*06'51.2995"W 85*06'51.7270"W	151.04 147.76 147.33	10.59661834 7.493986053 7.338572918	6.91095352 6.716285967	#N/A #N/A	REMOVE
402661 402662 402665 402666 402667 402668 402669 402681 402683	TREE TREE TREE TREE TREE TREE TREE	N30°29'40.5273" N30°29'40.4206" N30°29'40.3609" N30°29'40.2676" N30°29'40.1780"	85*06'51.2610"W 85*06'51.2995"W 85*06'51.7270"W 85*06'51.7758"W	151.04 147.76 147.33 146.55	10.59661834 7.493986053 7.338572918 6.824259315	6.91095352 6.716285967 6.162340755	#N/A #N/A #N/A	REMOVE REMOVE REMOVE
402661 402662 402665 402666 402667 402668 402669 402681 402683 402683 402710	TREE TREE TREE TREE TREE TREE TREE	N30°29'40.5273" N30°29'40.4206" N30°29'40.3609" N30°29'40.2676" N30°29'40.2676" N30°29'40.1780" N30°29'40.0027"	85°06'51.2610"W 85°06'51.2995"W 85°06'51.7270"W 85°06'51.7758"W 85°06'51.9055"W	151.04 147.76 147.33 146.55 145.83	10.59661834 7.493986053 7.338572918 6.824259315 6.624710772	6.91095352 6.716285967 6.162340755 5.885311993	#N/A #N/A #N/A #N/A	REMOVE REMOVE REMOVE REMOVE

Figure 7-11 OBSTACLE ACTION AND DISPOSITION PLANS (2 OF 4)

CALHOUN COUNTY AIRPORT Master Plan Update Blountstown, Florida

SITION	
	CALHOUN COUNTY
	AIRPORT
	AVCON
	AVCON, INC.
	720 BAYSLORI DRIVE, SUTLA - NOL VILLA, EL 32378 GEFU'S (90) 676-200 - FAST 6800 (8106)
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	CALHOUN COUNTY
	AIRPORT
	AIRPORT LAYOUT PLAN
	SET
	OBSTACLE ACTION &
	DISPOSITION PLANS
	(2 OF 4)
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	REVISIONS:
	NO. DATE BY DESCRIPTION
	DEGIGNED BT. M.S
	APPROVED BY: M.S
	APPROVED BT: M.S
	DATE: DEC 2021
	FAA AIP NO. 3-12-0158-008-2020
	FDOT FM NO 409727-3-94-01
	AVCON PROJECT NO. 2020.0241.02
	AVCON PROJECT NO. 2020.0241.02
	AVCON PROJECT NO. 2020.0241.02 SHEET NUMBER
	AVCON PROJECT NO. 2020.0241.02 SHEET NUMBER
	AVCON PROJECT NO. 2020.0241.02 SHEET NUMBER
	AVCON PROJECT NO. 2020.0241.02 SHEET NUMBER 11

		RUNV	VAY 18 OBS	ACLE A	CHON PLAN ((5 OF 8)		
	DESCRIPTION	LATITUDE	LONGITUDE	TOP EL (MSL)	APPR. SURFACE	DEP. SURFACE	TSS (20:1)	DISPOSITION
5	TREE	N30°29'42.9236"	85°06'49.7076"W	159.54	11.66826717	12,21887767	(20.1) #N/A	REMOVE
16	TREE	N30°29'42.9686"	85°06'49.8536"W	161.11	13.103547	13.67502548	#N/A	REMOVE
02847	TREE	N30"29'43.0601"	85°06'49.8238"W	164.96	16.68212859	17.2941838	#N/A	REMOVE
102852	TREE	N30°29'43.0535"	85°06'50.1551"W	158.12	9.859475392	10.47042681	#N/A	REMOVE
02853	TREE	N30°29'42.9469"	85°06'50.4428"W	161.75	13.80471352	14.36968094	#N/A	REMOVE
02854	TREE	N30"29'43.1854"	85°06'50.6191"W	169.87	21.21493429	21.88716453	#N/A #N/A	REMOVE
02856	TREE	N30"29'43.1024"	85°06'50.7579"W	162.11	13.70074951	14.33673572	#N/A	REMOVE
102860	TREE	N30°29'42.9701"	85°06'51.1945"W	159.76	11.74129287	12.32067274	#N/A	REMOVE
02863	TREE	N30°29'41.8925"	85°06'49.9982"W	152.7	7.890325157	7.982947499	#N/A	REMOVE
02864	TREE	N30"29'41.6074"	85°06'49.8889"W	151.14	7.178287364	7.143222863	#N/A	REMOVE
102803	TREE	N30°29'43.6247"	85°06'49.8340"W	157.85	17.85424921	18,71802901	#N/A #N/A	REMOVE
02872	TREE	N30"29'43.4339"	85°06'49.7173"W	166.67	17.2821499	18.06021845	#N/A	REMOVE
02873	TREE	N30°29'43.3122"	85°06'49.6795"W	161.04	12.01391092	12.73754471	#N/A	REMOVE
402874	TREE	N30°29'43.5929"	85°06'49.6952"W	161.89	12.02961521	12.87846299	#N/A	REMOVE
102875	TREE	N30°29'43.7302"	85°06'49.6954"W	166.95	16.68167052	17.59170986	#N/A	REMOVE
102870	TREE	N30"29'43.7905"	85°06'49.5883"W	165.88	15.43316706	16.36949686	#N/A #N/A	REMOVE
02878	TREE	N30°29'43.6748"	85°06'49.5658"W	165.74	15.63710997	16.52174764	#N/A	REMOVE
402879	TREE	N30°29'43.4828"	85°06'49.6089"W	162.54	13.00716659	13.80649216	#N/A	REMOVE
402880	TREE	N30"29'43.3926"	85°06'49.4767"W	167.38	18.11611582	18.87450164	#N/A	REMOVE
402881	TREE	N30"29'43.1447" N30"29'44.2135"	85°06'49.6045"W	168.31	19.78214263	20.43070365	#N/A #N/A	REMOVE
402887	TREE	N30°29'44.3271"	85°06'50.4205"W	170.44	18.39360487	19.57362881	ffN/A	REMOVE
402888	TREE	N30°29'44.4033"	85°06'50.3798"W	169.66	17.38768976	18.60141654	#N/A	REMOVE
102 9 00	TREE	N30"29'43.4459"	85°06'51.1596"W	164.39	14.95776191	15.74901008	#N/A	REMOVE
402910	TREE	N30°29'43.6928"	85°06'52.1550"W	164.67	14.49833369	15.40499548	#N/A	REMOVE
402916	TREE	N30°29'44.5116" N30°29'44.9705"	85°06'52.1634"W	1/1.51	18.90543061	20.17/06051	#N/A #N/A	REMOVE
402930	TREE	N30"29'45.9212"	85°06'52.9429"W	181.27	24.47218186	26.37631464	#N/A	REMOVE
402945	TREE	N30"29'47.4207"	85°06'52.6148"W	182.77	21.51833747	24.0890535	#N/A	REMOVE
402964	TREE	N30°29'47.2399"	85°06'49.7301"W	186.55	25.85270493	28.32722271	#N/A	REMOVE
403023	TREE	N30°29'45.2365"	85°06'50.5461"W	172.7	17.95074995	19.53676393	#N/A	REMOVE
403043	TREE	N30°29'45.5546"	85°06'48.4203"W	176.06	20.37820784	22.09448873	#N/A #N/A	REMOVE
403045	TREE	N30°29'45.6280"	85°06'48.1938"W	171.07	15.17140054	16.91917815	#N/A	REMOVE
403064	TREE	N30°29'45.7413"	85°06'49.2014"W	173.07	16.82854396	18.63230496	#N/A	REMOVE
403067	TREE	N30"29'47.1184"	85°06'49.0273"W	179.65	19.31799106	21.73453928	#N/A	REMOVE
403069	TREE	N30°29'47.0733"	85°06'48.4671"W	186.77	26.57529209	28.96871212	#N/A	REMOVE
403074	TREE	N30*29'46.8031" N30*29'46.6701"	85°06'47.0088"W	176.37	17.69661954	19.96174781	#N/A	REMOVE
403076	TREE	N30"29'46.4758"	85*06'46.9192"W	182.14	23.72974148	25.84849901	#N/A	REMOVE
403077	TREE	N30"29'46.3846"	85°06'46.7846"W	188.91	30.77161275	32.84898134	#N/A	REMOVE
403079	TREE	N30°29'44.3595"	85°06'48.7453"W	164.83	12.6973106	13.88270332	#N/A	REMOVE
403087	TREE	N30°29'43.9092"	85°06'49.0782"W	167.54	16.74350923	17.72998044	#N/A	REMOVE
403095	TREE	N30"29'43.5635 N30"29'43.5909"	85"06'48.8810"W	162.01	13.7004781	14.54401432	#N/A #N/A	REMOVE
403097	TREE	N30°29'43.4540"	85°06'48.9589"W	164.76	15.31669298	16.09965065	#N/A	REMOVE
403098	TREE	N30°29'43.4822"	85°06'49.1699"W	161.62	12.09190269	12.88853259	#N/A	REMOVE
103099	TREE	N30°29'43.5490"	85°06'49.1386"W	161.98	12.25341509	13.07967589	#N/A	REMOVE
13100	TREE	N30"29'43.6406"	85"06'49.2306"W	165.76	13.76061579	16.62821194	#N/A #N/A	REMOVE
403102	TREE	N30°29'43.4038"	85°06'49.2354"W	162.12	12.82419193	13.58627498	#N/A	REMOVE
403103	TREE	N30"29'43.2698"	85°06'49.3370"W	164.62	15.7217719	16.42467868	#N/A	REMOVE
403104	TREE	N30°29'43.6827"	85°06'49.3612"W	161.55	11.42489023	12.31193534	#N/A	REMOVE
403105	TREE	N30°29'43.7835"	85°06'49.3101"W	166.75	16.32565636	17.25735511	#N/A	REMOVE
403108	TREE	N30"29'43.7587	85"06'49.4431"W	170.46	19.88230301	20.83760594	#N/A #N/A	REMOVE
403109	TREE	N30°29'43.2071"	85°06'48.9435"W	161.62	12.91040185	13.5832348	#N/A	REMOVE
403110	TREE	N30°29'43.1968"	85°06'48.8109"W	160.27	11.59169787	12.25923665	#N/A	REMOVE
403111	TREE	N30°29'42.9816"	85°06'48.8088"W	158.06	10.02139522	10.59297165	#N/A	REMOVE
403112	TREE	N30"29'43.1341"	85"06'48.6990"W	161.62	13.12874992	13.76772561	#N/A	REMOVE
403113	TREE	N30°29'42.8233"	85°06'48.4557"W	162.98	15.41388118	15.91298939	#N/A	REMOVE
403115	TREE	N30°29'42.9203"	85°06'48.3656"W	161.77	13.91609949	14.45796614	#N/A	REMOVE
403118	TREE	N30°29'43.0705"	85°06'48.2771"W	161.48	13.1800951	13.78846148	#N/A	REMOVE
403119	TREE	N30°29'42.9339"	85°06'48.1858"W	171.53	23.63672549	24.18368552	#N/A	REMOVE
403120	TREE	N30"29'42.7088	85°06'48.0820"W	172.81	23.32031714	23.77477036	#N/A #N/A	REMOVE
403122	TREE	N30°29'43.3693"	85°06'48.6197"W	165.11	15.92016802	16.66357065	#N/A	REMOVE
403125	TREE	N30°29'43.8358"	85°06'48.3177"W	163.55	12.9759803	13.9256427	#N/A	REMOVE
403128	TREE	N30"29'43.4115"	85°06'48.4662"W	169.46	20.14600214	20.90733538	#N/A	REMOVE
	TREE	N30"29'43.5459"	85"06'48.3078"W	168.11	18.39767619	19.21804125	#N/A	REMOVE
03129	TPCC	NOCOLO 1000		a secolar diffe	A CONTRACTOR OF A CONTRACTOR OFTA CONT		#DV/A	I DEWOYE
03129 03130	TREE	N30°29'43.3381" N30°29'43.2851"	85°06'48.4110"W 85°06'47.9419"W	180.01	31.07447498	31.77666738	ffN/A	REMOVE
)3129)3130)3133)3134	TREE TREE TREE	N30°29'43.3381" N30°29'43.2851" N30°29'43.6673"	85°06'48.4110"W 85°06'47.9419"W 85°06'47.8107"W	180.01 169.18	31.07447498 19.10959193	31.77666738 19.98142082	#N/A #N/A	REMOVE

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	APPROVED	BY:	M.S
	DATE:		DEC 2021
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	FDOT FM N	0	409727-3-94-01
	AVCON PR	OJECT I	NO. 2020.0241.02
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Figure 7-12 OBSTACLE ACTION AND DISPOSITION PLANS (3 OF 4)

0.00		RUNW	AY 18 OBST	ACLE AG	CTION PLAN (7	/ 0⊦ 8)		
OBS	DESCRIPTION	LATITUDE	LONGITUDE	TOP EL	APPR. SURFACE	DEP. SURFACE	TSS (20.1)	DISPOSITION
VU.	TOFF		05205147 00078V/	(IVI3L)	(20.1)	(40.1)	(20.1)	DEMON/E
239	TREE	N30 29 42.0899	85°06'47 7230"W	165.65	20 15365634	21.4434684	HN/A	REMOVE
11	TREE	N30*29'41 9836"	85"06'47.7637"W	158.75	13 68280673	13 80395221	#N/A	REMOVE
2	TREE	N30"29'41 8928"	85°06'47.8539"W	166.88	22 0823523	22 16347437	#N/Δ	REMOVE
42	TREE	N30°29'41.0520	85°06'47.7867"W	161.53	17.01740806	17.055/6837	#N/A	REMOVE
43	TREE	N30 29 41.7909	85°06'47.9698"W	167.9	17.01740800	22 59591006	#N/A	REMOVE
244	TREE	N30 29 41.0938	85 00 47.8098 W	165.17	23.39336/36	21.0010000	#N/A	PEMOVE
2	TREE	N30 29 41.0079	85 06 48.0329 W	165.00	21.03924021	20.40359604	HN/A	REMOVE
240	TREE	N30 29 41.0173	85 00 48.0027 W	163.02	20.44450104	17 20303522	#N/A	REMOVE
0247	TREE	NS0 29 42.0595	63 06 46.2636 W	102.59	17.13430282	17.50507525	#19/25	REMOVE
248	TREE	N30 29 42.1984	85 U6 48.3836 W	104.1	18.39097455	18.61119619	#N/A	REMOVE
249	TREE	N30 29 42.4311	85 06 48.3740 W	100.38	19.97941982	20.30333008	#N/A	REMOVE
250	TREE	N30 29 42.5333	85 U6 48.5608 W	171.22	24.51502295	24.8854309	#N/A	REMOVE
51	TREE	N30 29 42.2036	85 06 48.5209 W	1/0.87	25.1447158	25.36/99/11	#N/A	REMOVE
5252	TREE	N30"29'42.1158	85'06'48.6100'W	169.73	24.26513557	24.44975776	#N/A	REMOVE
3253	TREE	N30"29'42.2176"	85°06'48.7045"W	162.39	16.62206143	16.85257127	#N/A	REMOVE
254	TREE	N30°29'42.1499"	85°06'48.8517"W	163.31	17.74235514	17.94348724	#N/A	REMOVE
255	TREE	N30°29'41.9999"	85°06'48.7591"W	160.75	15.62838708	15.76219663	#N/A	REMOVE
256	TREE	N30*29'42.2992"	85°06'48.9017"W	159.61	13.59863044	13.86654619	#N/A	REMOVE
3257	TREE	N30"29'42.3841"	85°06'49.0659"W	163.39	17.12522942	17.43189678	#N/A	REMOVE
3258	TREE	N30"29'42.4929"	85°06'49.0361"W	156.97	10.38204747	10.73705698	#N/A	REMOVE
3259	TREE	N30*29'42.6093"	85°06'48.8172"W	162.67	15.73765111	16.14332919	#N/A	REMOVE
3260	TREE	N30°29'42.6535"	85°06'48.6614"W	160.89	13.82699645	14.25156818	#N/A	REMOVE
3261	TREE	N30"29'42.5461"	85°06'48.7692"W	155.98	9.235506523	9.612789922	#N/A	REMOVE
3262	TREE	N30°29'42.6983"	85°06'48.6938"W	156.9	9.703723669	10.14843252	#N/A	REMOVE
3263	TREE	N30*29'41.7665"	85°06'48.5841"W	166.38	21.9531764	21.98197742	#N/A	REMOVE
03264	TREE	N30"29'41.7672"	85°06'48.7711"W	159.89	15.45996093	15.49008986	#N/A	REMOVE
03265	TREE	N30"29'41.6803"	85°06'48.3217"W	160.32	16.15079393	16.13976635	#N/A	REMOVE
03266	TREE	N30°29'41.5819"	85°06'48.3196"W	162.89	19.01313363	18.95824625	#N/A	REMOVE
03267	TREE	N30°29'41.5173"	85°06'48.1876"W	158.75	15.06590676	14.98150659	#N/A	REMOVE
03268	TREE	N30"29'41.4565"	85"06'48.2355"W	163 24	19 73629125	19.62505073	#N/A	REMOVE
3269	TREE	N30"29'41 4691"	85°06'48 0557"W	158.97	15.43015253	15 32352007	HN/Δ	REMOVE
3270	TREE	N30*29'41 3290"	85°06'48 1467"W	162.53	19.40558795	10.2270522	#N/A	REMOVE
2271	TREE	N30*29'41.3230	85°06'48.2650"W	155.60	12.92692961	12 70464254	#N/A	PEMOVE
271	TREE	N30 29 41.2072	85 06 48.2630 W	153.09	10.772082501	10.55122961	#19/2	REMOVE
272	TREE	NSU 29 41.2125	85 06 48.1055 W	155.55	10.77202666	10.55155601	#19/8	REMOVE
2/3	TREE	N30°29'41.2341"	85"06'47.9469"W	158.55	15.48870551	15.27679971	#N/A	REMOVE
/4	TREE	N30"29'41.2/12"	85"06'47.7863"W	161.18	18.229///19	18.03348422	#N/A	REMOVE
75	TREE	N30°29'41.1926"	85°06'47.7418"W	165.02	22.30354207	22.07198317	#N/A	REMOVE
276	TREE	N30*29'41.2323"	85°06'47.6404"W	163.03	20.19596804	19.98158662	#N/A	REMOVE
77	TREE	N30*29'41.4182"	85"06'47.7227"W	165.1	21.7130881	21.58200964	#N/A	REMOVE
78	TREE	N30°29'41.3263"	85°06'47.6792"W	163.96	20.84656778	20.67427105	#N/A	REMOVE
279	TREE	N30°29'41.2781"	85°06'48.2385"W	156.83	13.8563215	13.6655912	#N/A	REMOVE
80	TREE	N30*29'41.1377"	85°06'48.3862"W	159.47	16.91279793	16.66026505	#N/A	REMOVE
81	TREE	N30*29'41.2021"	85°06'48.4023"W	158.26	15.51115895	15.28744412	#N/A	REMOVE
282	TREE	N30"29'41.2704"	85°06'48.4538"W	159.75	16.79803773	16.60502359	#N/A	REMOVE
283	TREE	N30°29'41.3379"	85°06'48.4722"W	156.97	13.81730028	13.65447987	#N/A	REMOVE
84	TREE	N30*29'41.4094"	85°06'48.5013"W	159.4	16.03458787	15.90380509	#N/A	REMOVE
85	TREE	N30"29'41.3776"	85°06'48.3720"W	159.54	16.27002948	16.12434623	#N/A	REMOVE
86	TREE	N30°29'41.5257"	85°06'48.4433"W	156.12	12.40970951	12.33039532	#N/A	REMOVE
87	TREE	N30°29'41.5593"	85°06'48.6164"W	158.97	15.1587354	15.09535005	#N/A	REMOVE
3288	TREE	N30"29'41.3224"	85°06'48.6354"W	161.11	18.0024245	17.8335732	#N/A	REMOVE
3289	TREE	N30"29'41.2521"	85"06'48.5720"W	156.26	13.36162742	13.16110938	#N/A	REMOVE
3290	TREE	N30"29'41.4056"	85°06'48.7498"W	161.32	17.96450952	17.83336205	#N/A	REMOVE
3291	TREE	N30°29'41 7752"	85°06'48 7327"W	162.03	19.21026177	18,99867521	#N/Δ	REMOVE
3202	TREE	N30*29'41 2027"	85"06'48 9041"W	160 11	17 33862772	17 12061276	#M/A	REMOVE
3293	TREF	N30"29'41 2992"	85"06'48 9546"1	161.19	18 1720292	17.9896797	<u>µN/A</u>	BEMOVE
2294	TPEE	N30"70'41 3570"	85°06'48 9227"\Ar	164.24	21 02507515	20 87203911	#N/A	REMOVE
2224	TREE	NO0 23 41.33/9"	00 00 40.0227 W	170 51	21.0233/313	20.0/333011	#18/M	BEMOVE
3295	TREE	N30 29'41.41/9"	65 U0 46.8872"W	170.51	27.11/36944	20.9924145	#N/A	REIVIUVE BEMOVE
3230	TREE	NOU 29 41.5255"	65 UE 48.8918"W	100.10	20.88740195	20.81046203	#IN/A	REIVIUVE
13297	IREE	N30 29'41.4692"	65"06"49.0203"W	160.46	16.91401608	10.81266533	#N/A	REMOVE
3298	TREE	N30"29'41.4693"	85"06'49.1469"W	155.19	11.64296666	11.54234599	#N/A	REMOVE
\$299	TREE	N30"29'41.2208"	85"06'49.0735"W	158.9	16.09180186	15.88002545	#N/A	REMOVE
3300	TREE	N30"29'41.1971"	85°06'49.2271"W	154.76	12.02126212	11.79976133	#N/A	REMOVE
301	TREE	N30*29'41.3875"	85°06'49.4076"W	158.47	15.16475394	15.02904494	#N/A	REMOVE
302	TREE	N30°29'41.3255"	85°06'49.1893"W	160.54	17.42007459	17.25558052	#N/A	REMOVE
303	TREE	N30*29'41.7741"	85°06'49.2280"W	160.54	16.08683762	16.12250107	#N/A	REMOVE
304	TREE	N30"29'41.8897"	85"06'49.1143"W	168.59	23.79386853	23.88046246	#N/A	REMOVE
3305	TREE	N30"29'41.7480"	85°06'49.0182"W	162.32	17.9457547	17.96863211	#N/A	REMOVE
306	TREE	N30°29'41.8895"	85°06'48.8622"W	159.4	14.6059774	14.69111533	#N/A	REMOVE
07	TREE	N30"29'41.9738"	85°06'48.9660"W	164.38	19.33474242	19.45803414	#N/A	REMOVE
)8	TREE	N30*29'42.1248"	85°06'49.0633"W	168.59	23.09580667	23.28687771	#N/A	REMOVE
29	TREF	N30°29'42 0487"	85°06'49.1040"W	164.53	19,26172178	19,41908999	#N/A	REMOVE
-	TREF	N30*29'42 0405"	85°06'49 2365"W	171 29	26.04513138	26 19958752	#N/A	REMOVE
	TREE	N30*29'42 1326"	85°06'49.2670"W	169.27	23,84860577	24 04467766	#N/A	REMOVE
' +	THEL	N30"20'42 0967"	85°06'48 9446''W	152.07	13 52056911	13 76203974	HN/A	REMOVE
+	TOFF	1100 23 42.000/	00 00 40.3440 W	10.37	12:30230051	10.703038/4	#IN/A	NEWICVE
-	TREE	N30*29'42 4502"	85°06'49 2734"\4	160.72	22 76746305	23 10/23925	±M/A	REMOVE
-	TREE	N30°29'42,4502"	85°06'49.2724"W	169.23	22.76746205	23.10472835	#N/A	REMOVE
	TREE TREE TREE	N30*29'42.4502" N30*29'42.5898"	85°06'49.2724"W 85"06'49.2359"W	169.23 163.03	22.76746205 16.15275438	23.10472835 16.55206083	#N/A #N/A	REMOVE REMOVE

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	Figure 7-13
STACLE ACTION AND DISPOSITION P	LANS (4 OF 4)

			Master Plan Update Blountstown, Florida
OF 8)			
DEP. SURFACE (40:1)	TSS (20:1)	DISPOSITION	
15.74549464	#N/A	REMOVE	CALHOUN COUNTY
18.48586852	#N/A	REMOVE	AIRPORT
17.98586495	#N/A	REMOVE	
14.48951631	#N/A	REMOVE	
15.19717313	#N/A	REMOVE	

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CHECKED BY	A.W M.S
APPROVED BY:	M.S
DATE:	DEC 2021
	3-12-0158-008-2020
FDOT FM NO	409727-3-94-01
AVCON PROJEC	T NO. 2020.0241.02
SHEET	NUMBER
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	TRANSITIONAL SURFACE PENETRATIONS									
OBS NO.	DESCRIPTION	LATITUDE	LONGITUDE	TOP EL (MSL)	TRANSITIONAL (7:1)	DISPOSITION				
5002	ANTENNA	N30"29'17.3464"	85°06'42.6106"W	177.27	4.93	LIGHT				
5012	BROKEN AWOS	N30°29'29.4176"	85°06'53.2797"W	149.05	19.03	REMOVE				
5013	ANTENNA	N30°29'29.4172"	85°06'53.2844"W	152.39	22.32	LIGHT				
5020	TREE	N30*29'33.8641"	85°06'56.2175"W	195.23	25.1	REMOVE				
5037	TREE	N30"29'13.3033"	85°06'56.8702"W	197.21	22.86	REMOVE				
5038	TREE	N30°29'00.0663"	85°06'57.3003"W	191.68	12.41	REMOVE				
5040	TREE	N30°29'00.2896"	85°06'43.7702"W	194.07	37.94	REMOVE				
400274	TREE	N30*29'38.1654"	85°06'54.8841"W	176.56	20.27	REMOVE				
400292	TREE	N30"29'36.1412"	85°06'54.3885"W	171.16	22.67	REMOVE				
400293	TREE	N30°29'37.8100"	85°06'53.9120"W	179.3	35.66	REMOVE				
400303	TREE	N30°29'34.8520"	85°06'53.7553"W	155.29	15.81	REMOVE				
401731	TREE	N30"29'00.2757"	85°06'42.8356"W	177.75	9.94	REMOVE				
401745	TREE	N30°28'55.0412"	85°06'43.3475"W	180.52	19.64	REMOVE				
401927	TREE	N30°29'27.2170"	85°06'55.4722"W	166.39	9.04	REMOVE				
402130	TREE	N30*28'53.4303"	85°06'56.0786"W	182.76	18.98	REMOVE				
402268	TREE	N30"29'32.5908"	85°06'56.7375"W	190.25	14.43	REMOVE				
402269	TREE	N30"29'32.0387"	85°06'56.4611"W	191.11	19.21	REMOVE				
403567	TREE	N30°28'58.1413"	85°06'52.7578"W	135.29	12.86	REMOVE				
403568	TREE	N30"28'58.2922"	85°06'52.7833"W	129.81	7.06	REMOVE				
403839	TREE	N30*28'53.4896"	85"06'56.0483"W	185.59	22.19	REMOVE				
500001	TOWER	N30"29'29.5000"	85°06'53.3000"W	146.65	16.38	NONE				

OE-AAA FILED CASES					
POINT NUMBER	ON/OFF AIRPORT	ASN			
5023	OFF	2021-ASO-39387-CE			
400149	OFF	2021-ASO-39389-CE			
400176	OFF	2021-ASO-39390-CE			
400209	OFF	2021-ASD-39391-OE			
400258	OFF	2021-ASO-39392-CE			
402768	OFF	2021 ASO 39394 OE			
403133	OFF	2021-ASO-39395-OE			
403151	OFF	2021-ASO-39395-CE			
5013	ON	2021-ASO-5677-NRA			
5020	ON	2021-ASO-5678-NRA			
5021	ON	2021-ASO-5678-NRA			
400307	ON	2021-ASO-5680-NRA			
400340	ON	2021-ASO-5681-NRA			
400372	ON	2021-ASO-5682-NRA			
400642	ON	2021-ASO-5683-NRA			
400894	ON	2021-ASO-5694-NRA			
400968	ON	2021-ASO-5695-NRA			
401257	ON	2021-ASO-5686-NRA			
401425	ON	2021-ASO-6697-NRA			
402268	ON	2021-ASO-5698-NRA			
403602	ON	2021-ASO-5688-NRA			
403779	ON	2021 ASO 5690 NRA			
403783	ON	2021-ASO-5691-NRA			

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Figure 7-14 TRANSITIONAL SURFACE PENETRATIONS/OE AAA FILINGS



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96"N 1149.63"W	AIRPORT LAYOUT SET
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TERMINAL AREA PLAN					
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VCON PROJECT NO. 2020.0241.02					
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Figure 7-15 **TERMINAL AREA PLAN**


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FDC	OT FM NO		409727-3-94-01								
AVG	CON PROJ	ECT N	NO. 2020.0241.02								

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Figure 7-16 LAND USE MAP



Figure 7-17 EXHIBIT "A" PROPERTY INVENTORY MAP (1 OF 2)

CALHOUN COUNTY AIRPORT Master Plan Update Blountstown, Florida

NUMBER	PROPERTY APPRAISER ID	FAA / AIP GRANT	S-T-R	BOOK	PAGE	DATE	GRANTOR	GRANTEE	ACRES	INTEREST	INSTRUMENT OF CONVEYANCE	PURPOSE OF ACQUISITION	
1A	14-1N-09-0030-0008-0102	N/A	14-1N-9W	158	539	1/11/1989	Grayson C&F Synder	Board of County Commissioners	46.42	FEE SIMPLE	Warranty Deed	Airport Development	
18	14-1N-09-0030-0308-0100	N/A	14-1N-9W	138	517	1/12/1989	Grayson C&F Synder	Board of County Commissioners	125.55	FEE SIMPLE	Warranty Deed	Airoort Development	
10	14-1N-09-0000-0008-0101	N/A	14-1N-9W	312	65	3/2/2006	Chromalloy Compressor Technologies Corp	Board of County Commissioners	6.34	FEE SIMPLE	Warranty Deed	Airport Development	
1D	15-1N-09-0000-0002-0100	N/A	15-1N-9W	138	515	1/12/1989	Grayson C&F Synder	Board of County Commissioners AG Park	10	FEE SIMPLE	Warranty Deed	Airport Development	
2	11-1N-09-0000-0013-0200	N/A	11-1N-9N	274	157	6/23/2003	Gary H Shuler	Calibour County	45	FEE SIMPLE	Warranty Deed	Airport Development	
34	14-1N-09-0030-0008-0400	N/A	14-1N-9W	252	144	11/1/2001	William Terry and Jacqueline Terry	Caliboun County	9.74	FEE SIMPLE	Warranty Deed	Airport Development	
38	14-1N-09-0000-0008-0402	N/A	14-1N-9W	258	770	5/2/2002	Charles D & Lavone Kimbrel	Calhoun County	0.96	FEE SIMPLE	Warrranty Deed	Airport Development	
3C	14-1N-09-0030-0008-0401	N/A	14-1N-9W	259	598	5/23/2002	Charles D & Glenn H Kimbre	Calhoun County	1	FEE SIMPLE	Warranty Deed - Corrective	Airport Development	
3D	14-1N-09-0030-0008-0403	N/A	14-1N-9W	258	768	5/2/2002	Joseph Kimbrel	Caliboun County	1.08 FEE SIMPLE		Warranty Deed	Airport Development	
4	14-1N-09-0030-0008-0500	N/A	14-1N-9W	408	704	1/15/2015	GFS Enterprises Inc.	Board of County Commissioners	3.41	FEE SIMPLE	Warranty Deed - Corrective	Airport Development	
5	14-1N-39-0030-0001-0101	N/A	14-1N-9W	467	597	2/26/2021	LYNNIAM FARMS LLC	Board of County Commissioners	8.15	FEE SIMPLE	Quick Claim Deed	Airport Development	
6	14-1N-09-0030-0007-0300	N/A	14-1N-9W	362	453	9/18/2039	Plum Creek Timberlands LP	Board of County Commissioners of Calhoun County	47.55	FEE SIMPLE	Warranty Deed	Airport Development	
							TO BE ACQUI	RED					
7	7 23-1N-09-0000-0002-0100 N/A 23-1N-9W 362 453 9/18/2009 Plum Creek Timberlands LP							Board of County Commissioners of Calhoun County	14	FEE SIMPLE	Warranty Deed	Airport Development	

Airport Layout Plan Set

			Figure 7-18
EXHIBIT	"A" PROPE	RTY INVENTORY	MAP (2 OF 2)

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CALHOUN COUNTY AIRPORT Master Plan Update Blountstown, Florida



Airport Layout Plan Set

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8 CAPITAL IMPROVEMENT PROGRAM

8.1 INTRODUCTION

The Capital Improvement Program (CIP) for Calhoun 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:

- 1. Provide a list of projects that will fulfill CIP requirements
- 2. Give a brief description of each project
- 3. Provide a general cost estimate of each project
- 4. Give general financial guidance to Airport management concerning potential funding sources
- 5. 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:

- 6. Short-term (2020-2025) five years
- 7. Mid-term (2026-2030) five years
- 8. Long-term (2031-2040) 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 2021 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 and the County, when available. Calhoun County is a Rural Economic Development Initiative (REDI) approved community. The Florida

statutes established the REDI to better serve Florida's economically distressed rural communities by providing a more focused and coordinated effort among state and regional agencies that provide programs and services for rural areas. As the Florida Department of Transportation Aviation Office supports the REDI, the FDOT typically will fund up to 100 percent on projects in which there is no FAA participation and up to 10 percent of the project where there is FAA participation. Thus, the local share is most often reduced to zero.

It is possible that the Airport may identify additional funding resources that may allow projects to be moved forward sooner than anticipated. 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 (2020-2025)

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 \$ 8.4 million in 2021 dollars. 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.

20-01 Design and Construct New Terminal – Phase 2

Project Cost: \$646,000

This project is the second and final phase of a project to replace the terminal building destroyed by Hurricane Michael in 2019. This project designed and constructed a new terminal building with associated site, utility, and security improvements. The terminal consists of a conference room, offices, restrooms, lobby, and storage room and is equipped with furnishings.

21-01 Design and Construct Hangar Development Project Cost: \$900,000

Demand for light corporate aircraft storage continues to grow and this project will provide additional aircraft storage space to meet this demand. Additionally, these two 60-foot by 60-foot hangars will replace a hangar that was destroyed by Hurricane Michael in 2019. This project will construct the new hangar developments near the new terminal. The professional services are anticipated to include design, bid, and construction phase services for this new preengineered metal building with electrically operated door and site improvements to include utilities, drainage, taxiway, and apron improvements.

22-01 Design, Construct, and Relocate Damaged AWOS Project Cost: \$250,000

The existing AWOS was damaged by Hurricane Michael, is non-operational, and needs replacement. The Airport would like to install a new 3PT system to provide weather data to pilots. This project will include relocating the AWOS system approximately 500 feet to the south of the current location to maintain the FAA required 500-foot clear space.

22-02 Design and Construct Hangar Development

Project Cost: \$800,000

There continues to be a waiting list for hangar rentals. This project will help meet demand. The project consists of the design and construction of a new 80-foot by 80-foot hangar development and a paved access apron. The project included site engineering, design, bid and construction phase services, stormwater permitting, and extension of electrical service to the hangar.

23-01 Design Rehab and Extension of North Apron

Project Cost: \$67,500

The extension of the north apron is required to provide access to a new hangar to be constructed north of the existing hangars. This project will design the extension of the north apron by approximately 250-feet by 170-feet. This concrete apron will include aircraft tie-downs, pavement markings, and drainage and utility improvements. The Airport intends to use entitlement funds to meet local project costs.

24-01 Construct Rehab and Extension of North Apron Project Cost: \$539,700

The extension of the north apron is required to provide access to a new hangar to be constructed north of the existing hangars. This project will construct the extension of the north apron by approximately 200-feet by 170-feet. This concrete apron will include aircraft tie-downs, pavement markings, and drainage and utility improvements. The Airport intends to use entitlement funds to meet local project costs.

24-02 Design and Construct 10-unit T-hangar Building and Taxilane Project Cost: \$2,500,000

The t-hangar buildings are 100 percent occupied and additional t-hangar units are required to accommodate current and future demand. This project will design and construct a new 10-unit t-hangar building with associated taxilane and utility improvements.

25-01 Design and Construct Airport Fence Relocation Project Cost: \$400,000

This project will design and construct the relocation of a portion of the Airport perimeter fence to coincide with the airport boundary. The proposed relocation is approximately 8,000 lineal feet

and would include developable property within the fence and will allow the property to be developed for aviation uses.

25-02 Design and Construct North Apron Expansion

Project Cost: \$2,000,000

This project will design and construct a further expansion of the North Apron from that done in Project 24-01. The 10,350 square yard apron will accommodate future aircraft parking and hangar developments. The professional services are anticipated to include design, bid, and construction phase services. The expansion is anticipated to include utility relocation, drainage improvements, aircraft tie-downs, and security fence relocation.

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 2021 dollars is also provided. Figure 8-1 shows the location and extent of each project.

Year	Project Number	Project Description	Estimated Project Cost
2020	20-01	Design and Construct New Terminal – Phase 2	\$ 646,000
2021	21-01	Design and Construct Two 60' x 60' Hangars	\$ 900,000
2022	22-01	Design, Construct, and Relocate Damaged AWOS	\$ 250,000
	22-02	Design and Construct Hangar (80' x 80') Development	\$ 800,000
2023	23-01	Design Rehab and Extension of North Apron	\$ 67,500
2024	24-01	Construct Rehab and Extension of North Apron	\$ 877,500
	24-02	Design and Construct T-hangar Building and Taxilane	\$ 2,500,000
2025	25-01	Design and Construct Airport Fence Relocation	\$ 400,000
	25-02	Design and Construct North Apron Expansion	\$ 2,000,000
		TOTALS:	\$ 8,441,000

Table 8-1 SHORT-TERM CAPITAL IMPROVEMENT PROGRAM PROJECTS

Note: All dollar amounts on this table are in 2021 dollars



Figure 8-1 SHORT-TERM PROJECTS

Capital Improvement Program

8.3 MID-TERM PROJECTS (2026-2030)

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 \$19.1 million in 2021 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:

26-01 Replace the Fuel Farm

Project Cost: \$350,000

The existing fuel farm is old and located in the middle of the existing apron, which could be better used for other purposes. This project would replace the existing fuel farm with a new one on the southern edge of the south apron. It is anticipated that the replacement fuel farm would have two 10,000-gallon tanks, one for 100LL and the other for Jet A fuel. A new credit card system would also be installed, as well as the appropriate hoses and reels. The projected cost includes the removal and disposal of the existing fuel farm.

26-02 Design and Construction of Rehabilitation of the South Apron and Existing Taxilanes

Project Cost: \$2,270,000

This project is the design and construction of the new mill, overlay and strengthening of the South Apron pavement, as well as the taxilanes to the existing t-hangars. This project will also include the upgrade of the drainage and utilities to the t-hangars. The professional services are anticipated to include design, bid, and construction phase services.

26-03 Design and Construct New 10-Unit T-hangar and Taxilane

Project Cost: \$3,220,100

Additional T-hangar space is needed on the airport and is in constant demand with a strong waiting list. This project would include on 10-unit t-hangar in a pre-engineered building with an associated taxilane, site drainage, and utilities. The professional services are anticipated to include design, bid, and construction phase services.

27-01 Design and Construct Vehicular Parking

Project Cost: \$440,000

There is currently a deficit of vehicular parking on the airport. There is minimal parking adjacent to the new terminal. But except for one hangar, there is no other vehicular parking on the airport. This project would add approximately 32 vehicular parking spaces and adjacent maneuvering lanes. The professional services are anticipated to include design, bid, and construction phase services.

28-01 Design and Construct NW Magnolia Church Road Relocation Project Cost: \$4,243,100

It is anticipated that a future project will extend/relocate the existing Runway 18/36 south impeding the existing alignment of NW Magnolia Church Road. This project would relocate the road to go around the runway extension and the relocated Runway Protection Zone. The project would also include the required drainage and relocation of utilities. The professional services are anticipated to include design, bid, and construction phase services.

28-02 Design and Construct Corporate Hangar Project Cost: \$1,655,700

The Airport needs hangar space to store based and itinerant aircraft and to attract aviation related businesses to the Airport. This project would design and construct a 120-foot by 80-foot corporate hangar including site drainage, utilities, and vehicular parking. The apron will have been constructed as part of Project 23-01. The professional services are anticipated to include design, bid, and construction phase services.

29-01 Design the Relocation of Runway 18/36 South

Project Cost: \$1,097,000

Runway 18/36 needs to be relocated south by 330 feet to keep the Runway Protection Zone for Runway 18 on existing Airport Property. This project would include the lengthening of Runway 36 by 48 feet, the addition of Runway Identification Lights (REILs), and the addition of run-up pads to the newly relocated ends of Runway 18/36. The project would also include the relocation and extension of Taxiway A and the addition of Medium Intensity Runway Lights (MIRLs) and Medium Intensity Taxiway Lights (MITLs). The professional services are anticipated to include design and bidding of each of these pieces including drainage and the relocation of utilities.

29-02 Construct the Relocation of Runway 18/36 South Phase 1

Project Cost: \$5,485,000

This project includes the construction and professional construction phase services for the project designed as a part of Project 29-01.

30-01 Master Plan Update

Project Cost: \$360,000

This project would be the Master Plan Update to this report. It is proposed to occur five to seven years after the completion of this current project.

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 2021 dollars is also provided. Figure 8-2 shows the location and extent of each project.

Year	Project Number	Project Description	E Pre	stimated oject Cost		
2026	26-01	Relocate the Fuel Farm	\$	350,000		
	26-02	Design and Rehab South Apron and Existing Taxilanes	\$	2,270,000		
	26-03	Design and Construct New 10-unit T-hangar and Taxilane	\$	3,220,100		
2027	27-01	Design and Construct Vehicular Parking	\$	440,000		
2028	28-01	Design and Construct NW Magnolia Church Road Relocation	\$	4,243,100		
	28-02	Design and Construct Corporate Hangar	\$	1,655,700		
2029	29-01	Design the Relocation of Runway 18/36 South	\$	1,097,000		
	29-02	Construct the Relocation of Runway 18/36 South Phase 1	\$	5,485,000		
2030	30-01	Master Plan Update	\$	360,000		
		TOTAL	\$	19,120,900		

 Table 8-2

 MID-TERM CAPITAL IMPROVEMENT PROGRAM PROJECTS

Note: All dollar amounts in this Table are in 2021 dollars.



Figure 8-2 MID-TERM CAPITAL IMPROVEMENT PROJECTS

Capital Improvement Program

8.4 LONG-TERM PROJECTS (2030-2040)

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 2021 dollars at approximately \$19.6 million in 2021 dollars. The projects included in the long-term are:

31-01 Design and Construct Restaurant

Project Cost: \$1,136,100

The Airport is in a rural area and is five nautical miles from Blountstown and 5.7 nautical miles from Altha, Florida. Not only would having a restaurant on the Airport provide a service to the Airport employees, but it would also provide a draw for pilots and locals alike. This 5,400 square foot facility would be designed and constructed in this project and would include site drainage, and utilities. Professional services would include design, bid, and construction phase services.

32-01 Design and Construct New 10-unit Hangar and Taxilane

Project Cost: \$3,020,100

Additional T-hangar space is needed on the airport and is in constant demand with a strong waiting list. This project would include on 10-unit t-hangar in a pre-engineered building with an associated taxilane, site drainage, and utilities. The professional services are anticipated to include design, bid, and construction phase services

33-01 Design and Construct Landside Road in Northeast Quadrant to FL 71 *Project Cost:* \$680,000

The hangar development in the northeast quadrant of the Airport is not currently accessible from the landside. This project would design and construct a landside road from the hangar development area to state road FL-71. It is anticipated that this project would also provide drainage to the area as well as utilities. Professional services would include design, bid, and construction phase services.

34-01 Design and Construct the Taxilane to the Northeast Quadrant of the Airport *Project Cost:* \$1,540,000

The eastern side of the northern hangar development area is not currently accessible to the airfield. This project would provide a taxilane to that area. This project would also provide drainage to the area. Professional services are anticipated to include design, bid, and construction phase services.

35-01 Construct the Relocation of Runway 18/36 South Phase 2 *Project Cost: \$5,485,000*

This project includes the construction and professional construction phase services for the project designed as a part of Project 29-01. Phase 1 was constructed as Project 29-01.

36-01 Design and Construct Corporate Hangar and Apron

Project Cost: \$1,353,400

The Airport needs hangar space to store based and Itinerant aircraft and to attract aviation related businesses to the Airport. This project would design and construct an 80-foot by 80-foot corporate hangar including site drainage, utilities, and vehicular parking. This project will also include the associated apron, which will be 110-feet by 80-feet. The professional services are anticipated to include design, bid, and construction phase services.

37-01 Design and Construct Corporate Hangar

Project Cost: \$1,655,700

The Airport needs hangar space to store based and Itinerant aircraft and to attract aviation related businesses to the Airport. This project would design and construct a 120-foot by 80-foot corporate hangar including site drainage, utilities, and vehicular parking. The apron will have been constructed as part of Project 23-01. The professional services are anticipated to include design, bid, and construction phase services.

38-01 Design and Construct Corporate Hangar and Apron

Project Cost: \$1,353,400

The Airport needs hangar space to store based and Itinerant aircraft and to attract aviation related businesses to the Airport. This project would design and construct an 80-foot by 80-foot corporate hangar including site drainage, utilities, and vehicular parking. This project will also include the associated apron, which will be 140-feet by 80-feet. The professional services are anticipated to include design, bid, and construction phase services.

38-02 Master Plan Update

Project Cost: \$360,000

This Master Plan Update would update the master plan update proposed for 2030.

39-01 Design and Construct Corporate Hangar

Project Cost: \$1,655,700

The Airport needs hangar space to store based and Itinerant aircraft and to attract aviation related businesses to the Airport. This project would design and construct a 120-foot by 80-foot corporate hangar including site drainage, utilities, and vehicular parking. The apron will have been constructed as part of Project 23-01. The professional services are anticipated to include design, bid, and construction phase services.

40-01 Design and Construct Corporate Hangar and Apron

Project Cost: \$1,353,400

The Airport needs hangar space to store based and Itinerant aircraft and to attract aviation related businesses to the Airport. This project would design and construct an 80-foot by 80-foot corporate hangar including site drainage, utilities, and vehicular parking. This project will also include the associated apron, which will be 140-feet by 80-feet. The professional services are anticipated to include design, bid, and construction phase services.

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 2021 dollars is also provided.

Year	Project Number	Project Description	Estimated Project Cost
2031	31-01	Design and Construct Restaurant	\$ 1,136,100
2032	32-01	Design and Construct New 10-unit T-hangar and Taxilane	\$ 3,020,100
2033	33-01	Design and Construct Landside Road in Northeast Quadrant to FL -71	\$ 680,000
2034	34-01	Design and Construct Taxilane to the Northeast Quadrant	\$ 1,540,000
2035	35-01	Construct the Relocation of Runway 18/36 South – Phase 2	\$ 5,485,000
2036	36-01	Design and Construct Corporate Hangar and Apron (80' x 80')	\$ 1,353,400
2037	37-01	Design and Construct Corporate Hangar (120' x 80')	\$ 1,655,700
2038	38-01	Design and Construct Corporate Hangar and Apron (80' x 80')	\$ 1,353,400
	38-02	Master Plan Update	\$ 360,000
2039	39-01	Design and Construct Corporate Hangar (120' x 80')	\$ 1,655,700
2040	40-01	Design and Construct Corporate Hangar and Apron (80' x 80')	\$ 1,353,400
		TOTAL	\$ 19,592,800

 Table 8-3

 LONG-TERM CAPITAL IMPROVEMENT PROGRAM PROJECTS

Note: All dollar amounts on this Table are in 2021 dollars.



Figure 8-3 LONG-TERM CAPITAL IMPROVEMENT PROJECTS

Capital Improvement Program

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 any or all the funding will be received. The following sections describe several funding programs and general eligibility requirements associated with each.

1.1.1 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 Calhoun 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. Calhoun County Airport is one of 3,328 airports in the nation that is eligible for federal funding.

For General Aviation (GA) airports such as Calhoun County Airport, the AIP will fund up to 90 percent of the eligible costs of the project. The remaining percentage 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, 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. 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. The Non-Primary Entitlement funds can be rolled over from year to year for a maximum of three years.

When entitlement funds are not sufficient to cover the costs of AIP eligible projects, airports can also apply for FAA discretionary funds. 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.

1.1.2 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:

- 8 Airport Planning: master plans, master drainage plans, and environmental assessments
- 9 Airport Improvements: terminal building improvements and runway/taxiway construction
- 10 Land Acquisition: acquisition of land, aviation easements, and mitigation land
- 11 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, Calhoun County. However, if the airport is in a Rural Economic Development Initiative (REDI) area, The state may also pay the share typically allocated to the Airport Sponsor. The REDI program provides financial assistance to certain rural counties and communities. The FDOT is a member of REDI. Counties and communities that meet certain statutory criteria may request a waiver or reduction of the local match requirements. Calhoun County is a REDI approved 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 help 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:

- 12 Qualified Target Industry Tax Refund: Available for companies that create high wage jobs in targeted high value-added industries.
- 13 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.
- 14 Capital Investment Tax Credit: is used to attract and grow capital-intensive industries in Florida.
- 15 The High Impact Performance Incentive: A negotiated grant used to attract and grow major high impact facilities in Florida.
- 16 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, like 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. Calhoun County would be responsible for funding the local share of the improvement projects at the Calhoun County Airport, except that Calhoun County is a REDI approved county and FDOT <u>may</u> also fund all or part of the local match. Other projects throughout the Airport that may receive additional funding from the County could include development areas that would increase the number of revenues producing tenants on Airport property. For those local matching funds that the state does not cover, 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 2021 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.

8.6.1 Capital Improvement Program Funding Availability

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 and the FDOT is vital in facilitating project formulation and coordinating project implementation in a timely manner.

 Table 8-4

 POTENTIAL ALLOCATION OF SHORT-TERM (2020-2025) CIP PROJECT FUNDING

Voar	Project	Project	т	otal			ΕΛΛ			ED	от	Local			
Tear	Number	Toject	- · ·	otai	Enti	tlomonts	Discretionary	Percentage	Amount		Percentage	Amount		Percentage	
						tiemento	Discretionary	rereentage		Anount	Tercentage		anount	Tercentage	
2020	20-01	Design and Construct New Terminal Phase 2	\$ 6	646,000	\$	-	\$-	0%	\$	646,000	100%	\$	-	0%	
2021	21-01	Design and Construct Hangar Development	\$ 9	900,000	\$	-	\$-	0%	\$	900,000	100%	\$	-	0%	
2022	22-01	Design, Construct, and Relocate Damaged AWOS	\$ 2	258,750	\$	-	\$-	0%	\$	258,750	100%	\$	-	0%	
2022	22-02	Design and Construct Hangar Development	\$ 8	828,000	\$	-	\$-	0%	\$	828,000	100%	\$	-	0%	
2023	23-01	Design Rehab and Extension of North Apron	\$ ^	104,444	\$	60,000	\$-	57%	\$	44,444	43%	\$	-	0%	
0004	04.04	Debelaithete and Estend North Annen		070.000	¢	20 700	<u> </u>	550/	¢	400.000	450/	¢		00/	
2024	24-01	Renabilitate and Extend North Apron	\$ 5	972,900	>	39,700	<u> </u>	55%	5	433,200	45%	3	-	0%	
2024	24-01	Design and Construct T-Hangars and Taxilane	\$ 2,7	771,795	\$	-	\$-	0%	\$	2,500,000	90%	\$	271,795	10%	
2025	25.01	Design and Construct Airport Fonce Poleostion	¢ /	450.000	¢		¢	0%	¢	450.000	100%	¢		0%	
2025	25-01		3 4	459,009	<u>р</u>	-		0%	Ъ Ф	459,009	100%	م	-	0%	
2025	20-02	Design and Construct North Apron Expansion	\$ 2,2	295,046	\$	-	\$ -	0%	\$	2,000,000	87%	\$	295,046	13%	
		TOTALS	\$92	235 944	\$	599 700	\$ -	6%	\$	8 069 404	87%	\$	566 841	6%	

Note: The Dollars shown for years 2019 through 2021 are shown in 2021 dollars. Dollars for years 2022 and 2023 have been escalated to the respective year in this table.

CALHOUN COUNTY AIRPORT Master Plan Update Blountstown, Florida

 Table 8-5

 POTENTIAL ALLOCATION OF MID-TERM (2026-2030) CIP PROJECT FUNDING

Year	Project Number	Project		Total			FAA			FDO	т	Loc	cal	Third Party	
					Entitlements	D	iscretionary	Percentage		Amount	Percentage	Amount	Percentage	Amount	Percentage
2026	26-01	Relocate the Fuel Farm	\$	415,690	\$	-	\$-	0%	\$	415,690	100%	\$.	- 0%	\$-	- 0%
	26-02	Design and Rehab South Apron and Existing Taxilane	\$	2,696,048	\$ 300,000	0 9	\$ 2,126,443	90%	\$	269,605	10%	\$.	- 0%	\$-	- 0%
	26-03	Design and Construct New 10-Unit T-Hangar and Taxilane	\$	3,824,469	\$	-	\$-	0%	\$	3,824,469	100%	\$.	- 0%	\$-	· 0%
2027	27-01	Design and Construct Vehicular Parking	\$	540,872	\$	-	\$-	0%	\$	540,872	100%	\$.	- 0%	\$-	0%
2028	28-01	Design and Construct NW Magnolia Church Road Relocation	\$	5,398,408	\$	-	\$-	0%	\$	5,398,408	100%	\$.	- 0%	\$-	0%
	28-02	Design and Construct Corporate Hangar (120' x 80')	\$	2,106,513	\$	-	\$-	0%	\$; -	0%	\$.	- 0%	\$ 2,106,513	100%
2029	29-01	Design the Relocation of Runway 18/36 South	\$	1,444,540	\$	-	\$-	0%	\$	1,444,540	100%	\$.	- 0%	\$-	- 0%
	29-02	Construct the Relocation of Runway 18/36 South - Phase 1	\$ 1	17,948,107	\$ 450,000	0 9	\$ 6,050,428	90%		\$ 722,270	10%	\$.	- 0%	\$-	0%
2030	30-01	Master Plan Update	\$	490,643	\$	-	\$-	0%	\$	490,643	100%	\$.	- 0%	\$-	0%
		TOTALS	\$ 2	24,139,880	\$ 750,000	0	\$ 8,176,871	37%	\$	13,106,871	54%	\$.	- 0%	\$ 2,106,513	9%

Note: All dollar amounts shown this page are escalated from 2021 dollars to the year in which they are currently shown.

CALHOUN COUNTY AIRPORT Master Plan Update Blountstown, Florida
Table 8-6 POTENTIAL FUNDING OF LONG-TERM (2031-2040) CIP PROJECT FUNDING

Year	Project Number	Project		Total			FAA			FDC	т	Lo	cal	Third	Party
															-
					Enti	itlements	Discretionary	Percentage		Amount	Percentage	Amount	Percentage	Amount	Percentage
2031	31-01	Design and Construct Restaurant	\$	1,602,581	\$	-	\$ -	0%		\$ 1,602,581	100%	\$	- 0%	\$	- 0%
2032	32-01	Design and Construct New 10-unit T-hangar and Taxilane	\$	4,409,255	\$	300,000	\$-	7%		\$ 4,109,255	93%	\$	- 0%	\$	- 0%
2033	33-01	Design Landside Road in Northeast Quadrant to FL-71	\$	1,027,527	\$	-	\$-	0%	0,	\$ 1,027,527	100%	\$	- 0%	\$	- 0%
2034	34-01	Design and Construct Taxilane to the Northeast Quadrant	\$	2,408,492	\$	-	\$-	0%		\$ 2,408,492	100%	\$	- 0%	\$	- 0%
2035	35-01	Construct the Relocation of Runway 18/36 South - Phase 2	\$	8,878,539	\$	450,000	\$ 7,540,686	90%	ç	\$ 887,854	10%	\$	- 0%	\$	- 0%
2036	36-01	Design and Construct Corporate Hangar and Apron (80'x 80')	\$	2,267,417	\$	-	\$-	0%	7	\$ -	0%	Ş -	- 0%	\$ 2,267,41	7 100%
2027	27.04			0.070.004	<u> </u>		<u>^</u>			<u>.</u>	00/			<u> </u>	4000/
2037	37-01	Design and Construct Corporate Hangar (120'x80')	Ş	2,870,961	Ş	-	Ş -	0%	7	- ¢	0%	\$	- 0%	\$ 2,870,962	100%
2028	20.01	Design and Construct Corporate Hangar and Apron (80' x 80')	ć	2 122 011	ć		<u>د</u>	0%	4	ć	0%	ć	0%	¢ 2,429,01,	1 100%
2038	28.01	Macter Plan Lindate	ې د	6/6 002	ې د	450.000	ې - د	70%			20%	<u>ې</u> د	- 0%	\$ 2,420,914	+ 100%
	30-02		Ş	040,085	Ş	430,000	Ş -	7076	Ŷ	\$ 190,065	50%	· د	- 0%	Ş	- 0%
2039	39-01	Design and Construct Corporate Hangar (120'x80')	Ś	3.075.445	Ś	-	Ś -	0%		\$ -	0%	\$	- 0%	\$ 3.075.44	5 100%
	00 01		Ŷ	0,070,110	Ŷ		Υ 	0,0	7	ť	0,0	Ŧ	0,0	<i>\(\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</i>	100/0
2040	40-01	Design and Construct Corporate Hangar (80'x80') and Apron	\$	2,601,913	\$	-	\$ -	0%	Ś	\$-	0%	\$	- 0%	\$ 2,601,913	3 100%
<u> </u>					· ·							-			
		TOTALS	\$	32,217,127	\$	1,200,000	\$ 7,540,686	27%	1	\$ 10,231,792	32%	\$	- 0%	\$ 13,244,650) 41%

Note: All dollar amounts shown this page are escalated from 2021 dollars to the year in which they are currently shown.

CALHOUN COUNTY AIRPORT Master Plan Update Blountstown, Florida

8.7 SUMMARY

Table 8-7 shows the estimated cost of the Short-term CIP Projects over a five-year period beginning in 2020 and ending in 2025.

Year	Project	202	21 Dollars	Es D	calated ollars
2020	Design and Construct New Terminal – Phase 2	\$	646,000	\$	646,000
2021	Design and Construct Hangar Development	\$	900,000	\$	900,000
2022	Design, Construct, and Relocate Damaged AWOS	\$	250,000	\$	258,750
	Design and Construct Hangar Development	\$	800,000	\$	828,000
2023	Design and Rehab of Extension of North Apron	\$	67,500	\$	104,444
2024	Construct Rehab and Extension of North Apron	\$	877,500	\$	972,900
	Design and Construct T-Hangars and Taxilane	\$	2,500,000	\$	2,771,795
2025	Design and Construct Airport Fence Relocation	\$	400,000	\$	459,009
	Design and Construct North Apron Expansion	\$	2,000,000	\$	2,295,046
	TOTAL	\$	8,441,000	\$	9,235,944

Table 8-7 SHORT-TERM PROJECTS AND COSTS

The potential funding of the proposed Short-term Projects is shown in Table 8-8 with both 2021 dollars and escalated costs to the appropriate year.

Table 8-8 POTENTIAL FUNDING SOURCES OF SHORT-TERM PROJECTS

Project	202	21 Dollars	Es	calated ollars
FAA Entitlement Funds	\$	599,700	\$	599,700
FAA Discretionary Funds		\$ 0	\$	0
FDOT	\$	7,841,300	\$	8,069,404
Calhoun County	\$	-	\$	566,841
TOTAL	\$	8,441,711	\$	9,235,944

The projects and their respective costs for the Mid-term Period are shown in Table 8-9.

Year	Project	20	21 Dollars	E	scalated Dollars
2026	Relocate the Fuel Farm	\$	350,000	\$	415,690
	Design and Rehab South Apron and Existing Taxilanes	\$	2,270,000	\$	2,696,048
	Design and Construct New 10-Unit T-hangar and Taxilane	\$	3,220,100	\$	3,824,469
2027	Design and Construct Vehicular Parking	\$	440,000	\$	540,872
2028	Design and Construct NW Magnolia Church Road Relocation	\$	4,243,100	\$	5,398,408
	Design and Construct Corporate Hangar (120'x80')	\$	1,655,700	\$	2,106,513
2029	Design the Relocation of Runway 18/36/South	\$	1,097,000	\$	1,444,540
	Construct the Relocation of Runway 18/36 South – Phase 1	\$	5,485,000	\$	7,222,698
2030	Master Plan Update	\$	360 000	\$	1,843,883
	TOTAL	\$	19,120,900	\$	24,139,880

Table 8-9 MID-TERM PROJECTS AND COSTS

The potential funding of the proposed Mid-term Projects is as shown in Table 8-10.

Table 8-10 POTENTIAL FUNDING SOURCES OF MID-TERM PROJECTS

Project)21 Dollars	Escalated Dollars		
FAA Entitlement Funds	\$	300,000	\$	750,000	
FAA Discretionary Funds	\$	6,679,500	\$	8,176,871	
FDOT	\$	10,485,700	\$	13,106,496	
Calhoun County	\$	0	\$	0	
Third-Party Funding	\$	1,655,700	\$	2,106,513	
TOTAL	\$	19,120,900	\$	24,139,880	

The list of Long-term Projects and the estimated cost of each is found in Table 8-11.

			Escalated
Year	Project	2021 Dollars	Dollars
2031	Design and Construct Restaurant	\$ 1,136,100	\$ 1,602,581
2032	Design and Construct New 10-Unit T-Hangar and Taxilane	\$ 3,020,100	\$ 4,409,255
2033	Design Landside Road in Northeast Quadrant to FL-71	\$ 680,000	\$ 1,027,527
2034	Design and Construct Taxilane to the Northeast Quadrant	\$ 1,540,000	\$ 2,408,492
2035	Construct the Relocation of Runway 18/36 South - 2	\$ 5,485,000	\$ 8,878,539
2036	Design and Construct Corporate Hangar and Apron (80'x80")	\$ 1,353,400	\$ 2,267,417
2037	Design and Construct Corporate Hangar (120'x80')	\$ 1,655,700	\$ 2,870,961
2038	Design and Construct Corporate Hangar and Apron (80'x80')	\$ 1,353,400	\$ 2,428,914
	Master Plan Update	\$ 360,000	\$ 646,083
2039	Design and Construct Corporate Hangar (120'x80")	\$ 1,655,700	\$ 3,075,445
2040	Design and Construct Corporate Hangar and Apron (80'x80')	\$ 1,353,400	\$ 2,601,913
	TOTAL	\$ 19,592,800	\$ 32,217,127

Table 8-11 LONG-TERM PROJECTS AND COSTS

The potential funding of the proposed Long-term Projects is shown in Table 8-12.

Table 8-12 POTENTIAL FUNDING OF LONG-TERM PROJECTS

Project	2021 Dollars	Escalated Dollars
FAA Entitlement Funds	\$ 1,200,000	\$ 1,200,000
FAA Discretionary Funds	\$ 4,936,500	\$ 7,540,686
FDOT	\$ 6,174,700	\$ 10,231,792
Calhoun County	\$ 0	\$ 0
Third Party Funding	\$ 7,281,600	\$ 13,244,650
TOTAL	\$ 19,592,800	\$ 32,217,127