



DESTIN FORT-WALTON
BEACH AIRPORT

Terminal Area Study / Terminal Area Plan Update

FINAL REPORT

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FINAL REPORT
Destin-Fort Walton Beach Airport

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CHAPTER ONE

INTRODUCTION

Destin-Fort Walton Beach Airport

Introduction

Development of the Terminal Area Study/Terminal Area Plan Update for Destin-Fort Walton Beach Airport (VPS) was undertaken by the Okaloosa County Airports for the purpose of examining the Airport's existing and future facilities and to provide direction for long term development of the Airport. Financial assistance for the preparation of the Terminal Area Study/Terminal Area Plan Update was provided by the Okaloosa County Airports and the Federal Aviation Administration.

Purpose of Study

The purpose of this study is to determine the aviation needs of Destin-Fort Walton Beach Airport and its service area for the next 20 years. The study is part of the continuing planning process necessary to identify adequate and compatible airport improvements as required to meet the growing aviation demands associated with the Airport.

Goals and Objectives

The overall goal of this study is to provide Okaloosa County with an effective planning tool to guide the future development of VPS. The Terminal Area Study/Terminal Area Plan Update provides staff and local officials with such guidance while ensuring that the development of the airport is accomplished in a manner that respects the local environment, identifies the timing and sequencing of development activities and is consistent with the financial policies of Okaloosa County. Accomplishment of this goal requires the evaluation of existing airport activity and facilities from a capacity-demand standpoint, and determination of actions needed to maintain an adequate, safe and reliable airport facility to meet the needs of Okaloosa County and the surrounding area.

Specific goals and objectives of the Terminal Area Study/Terminal Area Plan Update include:

- Meet the aviation needs of the community and passengers;
- Ensure any short-term actions and recommendations do not preclude or prevent long-term planning objectives;
- Establish the framework for a continuous planning process;
- Optimize the operational efficiency, effectiveness, and safety of VPS
- Update historical aviation data and develop new forecasts based on historical trends and major changes anticipated for the future;
- Propose a viable, phased 5, 10, and 20-year capital improvement plan for achieving the planned airport development and implementation schedule;
- Propose relative timing / sequencing of major development activities

Organization

The Terminal Area Study/Terminal Area Plan Update for Destin-Fort Walton Beach Airport is organized into functional chapters on the following plan elements:

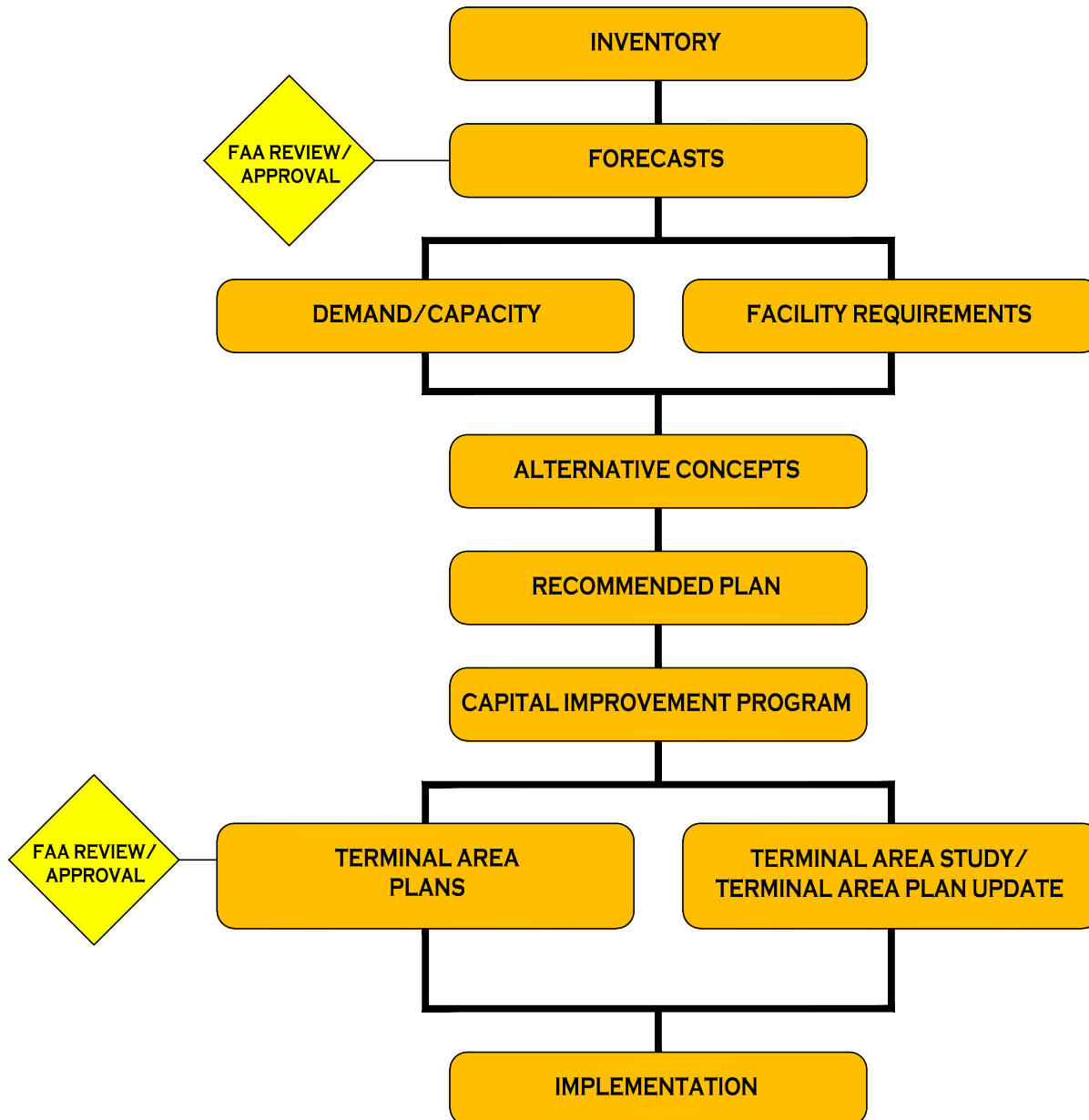
- Introduction – Purpose of study and overall goals and objectives;
- Airport Inventory – Inventory of existing airport facilities and services including both Terminal Landside and Airside facilities;
- Aviation Demand Forecasts – Forecasts of aeronautical demand for the short-term (5 years), medium-range (10 years) and long-range (20 year) periods;
- Demand-Capacity/Facilities Requirements – Determination of existing airport facilities' ability to accommodate the forecasted aeronautical demands and identify needed improvements;
- Alternatives Analysis - Development of future terminal facility alternatives and associated graphics;
- Terminal Area Plans – Recommendation for airport development, including the Terminal Area Plan, Terminal Building Plan, and Property Map;
- Recommended Capital Improvement Program – Schedule and cost estimates of the proposed development, as well as recommended funding sources

The organization and format of this study is designed to provide an easily readable, and comprehensive plan which identifies the planning and development process. A graphic representation of this process is depicted in **Exhibit 1-1**.

Related Studies

During the early part of the study, several sources of background information were assembled and referenced for this study. These publications have been acquired from various Federal, State, and local agencies.

1. Terminal Area Forecast Fiscal Years 2008-2025, U.S. Department of Transportation, Federal Aviation Administration, December 2008.
2. National Plan of Integrated Airport Systems (NPIAS) 2005-2009, U.S. Department of Transportation, Federal Aviation Administration, September 2004.
3. Florida Aviation System Plan 2025, Florida Department of Transportation.
4. FAA AC 150/5360-9, Planning and Design of Airport Terminal Facilities at Non-Hub Airports, U.S. Department of Transportation, Federal Aviation Administration.
5. 2016 Complete Economic and Demographic Data Source (CEDDS), Woods & Poole Economics.
6. U. S. Bureau of Labor Statistics, January 2018.
7. Destin-Fort Walton Beach Airport Master Plan, PBS&J, March 2010.
8. Demographic and Economic Data, University of West Florida.



**TERMINAL AREA STUDY/
TERMINAL AREA PLAN UPDATE**
STEPS IN PLANNING PROCESS

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EXHIBIT 1-1

CHAPTER TWO

INVENTORY AND EXISTING CONDITIONS

Destin-Fort Walton Beach Airport

Introduction

The Inventory phase is the foundation of the planning study. This effort includes the collection of information relating to the airport's facilities and includes interviews with the staff and tenants of those facilities. The inventory of facilities is a result of on-site observation, communications with airport administration and archive document review, for assessing the adequacy of the existing airport facilities under current operating conditions. This information is also used in subsequent phases of the study to evaluate the effectiveness of the facilities and to evaluate the effects of airport development.

In this chapter the terminal area facilities are divided into logical groupings based on evaluation criteria: Landside (terminal facilities, roadways, parking), Airside (apron, taxiways).

Airport Setting

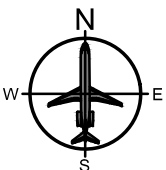
Destin-Fort Walton Beach Airport (VPS) is a joint-use airport located on Eglin Air Force Base, in Okaloosa County, Florida. Eglin Air Force Base is approximately 60 miles East of Pensacola and 65 miles West of Panama City in the Northwest Area (called the Panhandle) of Florida. VPS is situated on the north side of the airfield on approximately 131 acres of land leased from the U.S. Department of Defense (DOD). The facility is owned and operated by Okaloosa County and is located approximately three (3) mile southwest of Valparaiso and midway between the cities of Niceville and Fort Walton Beach. Ground access to the airport is provided by State Highway 85. **Exhibits 2-1 and 2-2** illustrate the location and vicinity map.

Eglin Air Force Base is the home of the 96 Test Wing and is one of the centers in the Air Force Material Command (AFMC). The expanse of the Eglin range, managed by the 96th Test Wing, makes Eglin the largest Air Force base in the free world. Its 724 square miles of land range occupies a large portion of the Northwest Florida panhandle and the 101,000 square miles of airspace extends over the eastern third of the Gulf of Mexico, an area extending from the panhandle to the Florida Keys.

The Test Wing applies advanced technology, engineering, and programming across the entire product lifecycle to provide superior combat capability. The Wing plans, directs, and conducts test and evaluation of U.S. and allied air armament, navigation/guidance systems, and command and control (C2) systems and supports the largest single base mobility commitment in the Air Force.

Major tenants on Eglin AFB include:

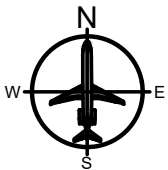
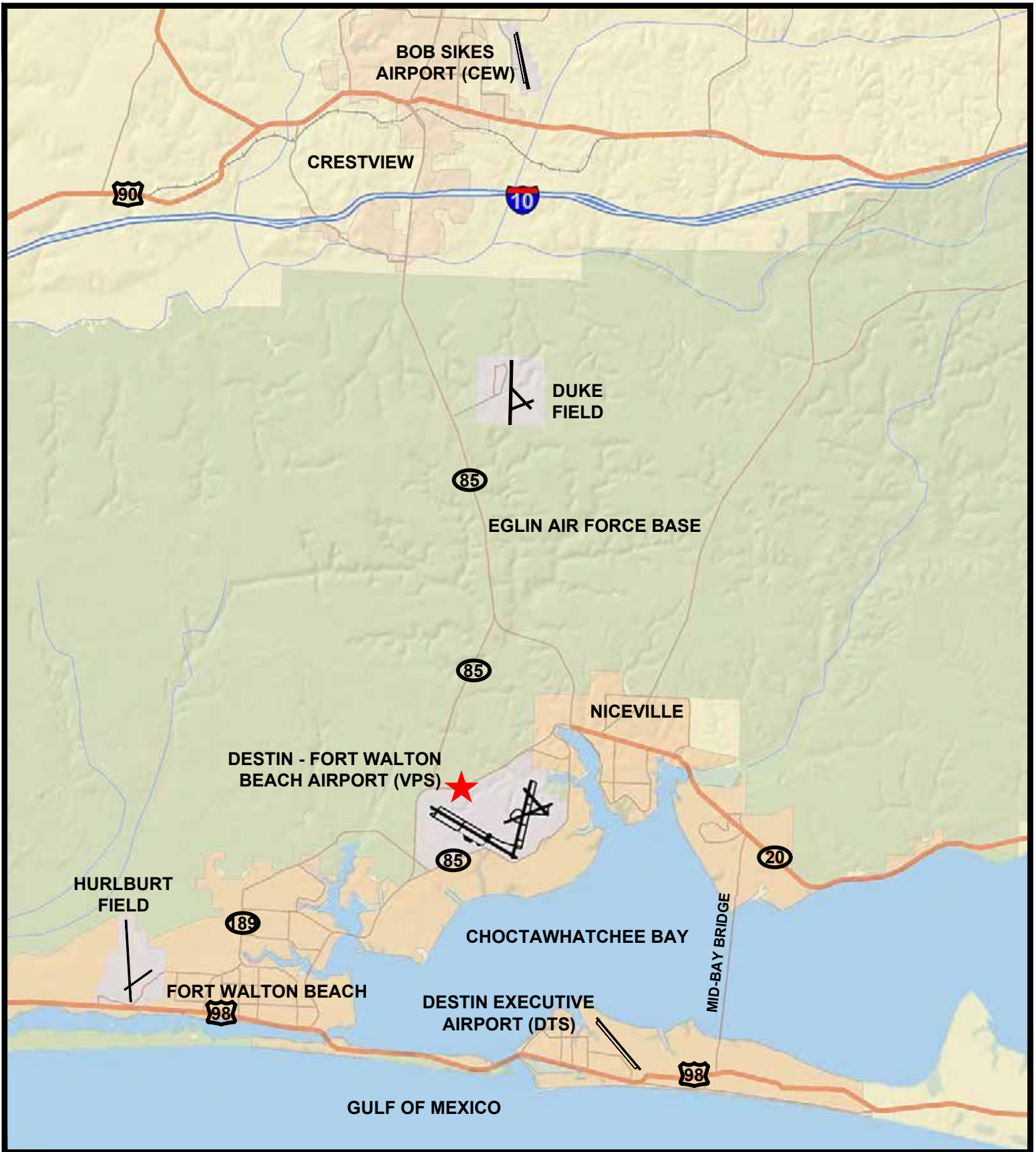
- The 53rd Wing - The 53 WG is headquartered at Eglin and serves as the Air Force's focal point for operational test and evaluation of armament and avionics, aircrew training devices, chemical defense, aerial reconnaissance improvements, electronic warfare systems, and is responsible for the QF-4 Phantom II



**TERMINAL AREA STUDY/
TERMINAL AREA PLAN UPDATE**
LOCATION MAP

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**TERMINAL AREA STUDY/
TERMINAL AREA PLAN UPDATE**
VICINITY MAP

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EXHIBIT 2-2

- The 33rd Fighter Wing - The 33d FW “Nomads” is the largest tenant unit at Eglin. The 33 FW is a joint graduate flying and maintenance training wing for the F-35 Lightning II, organized under Air Education and Training Command's 19th Air Force.
- The 20th Space Control Squadron - The mission of the 20 SCS is to detect, track, identify, and report near earth and deep space objects in earth’s orbit, and provide space object identification data in support of United States Strategic Command’s space control mission. A unit of the Air Force Space Command (AFSPC), the men and women of the 20th SCS operate and maintain the AN/FPS-85 radar, the Air Force’s only phased-array radar dedicated to tracking earth-orbiting objects.
- The 96th Test Wing - The 96 TW is the test and evaluation wing for Air Force air-delivered weapons, navigation and guidance systems, Command and Control (C2) systems, and Air Force Special Operations Command systems.
- The Armament Directorate (AD) - The Armament Directorate is responsible for cradle-to-grave management of air and ground dominance weapon system programs equipping warfighters with strike weapons.
- Joint Deployable Analysis Team (JDAT) - JDAT conducts field analysis of command and control (C2) information systems and procedures producing decision-quality data to improve Joint C2 integration and interoperability. JDAT is made up of members from all four Services, Department of Defense civilian employees and contractor support.[1] JDAT employs scientific methods to research, investigate, test, assess, and evaluate current and emergent Joint C2 information systems and associated procedures.

Eglin is also a hub for Special Operations training to include the Rangers, Special Forces, and Explosive Ordnance Disposal Teams (all branches).

FAR Part 139

The Federal Aviation Administration (FAA) certifies airports based on types of commercial operations under Federal Aviation Regulation (FAR) Part 139, *Certification of Airports*. This certification specifies the safety, security, construction, and operating standards an airport must meet, for certain commercial aircraft to operate at that airport. FAR Part 139 categorizes airports as shown in **Table 2-1**, based on the type of air carrier operations at the facility. VPS is categorized as a Class I airport and

Table 2-1 FAR Part 139 Airport Classification System				
Type of Air Carrier Operations	Class I	Class II	Class III	Class IV
Scheduled Large Air Carrier Aircraft (30+ seats)	Yes	No	No	No
Unscheduled Large Air Carrier Aircraft (30+ seats)	Yes	Yes	No	Yes
Scheduled Small Air Carrier Aircraft (10-30 seats)	Yes	Yes	Yes	No
Source: FAR Part 139, 2018.				

is required to undergo annual FAA inspections, to retain their FAR Part 139 Airport Operating Certificate (AOC).

Airport Service Levels

In the US, there are over 19,500 airports, of which 5,280 are open to the public. Of those airports, VPS and 3,339 others have been determined by the FAA to be of interest to the nation's air transportation system, known as the National Airspace System, and are included in the FAA's National Plan of Integrated Airport System (NPIAS), a national plan for airport classification and programming of five-year capital improvements. Airports listed in the NPIAS are eligible for federal funding under the FAA's Airport Improvement Program (AIP). Additionally, the NPIAS defines the role of each airport by one of four basic service levels. These levels, listed in **Table 2-2**, describe the type of service that the airport currently serves and is expected to serve at the end of the NPIAS five-year planning period. It also represents the funding categories set up by Congress to guide airport development. Based on current and projected short-term passenger enplanements, VPS is designated as a primary commercial service airport for the FAA's 2017-2021 planning period.

Table 2-2 FAA-NPIAS Airport Service Level Classification	
Classification	Definition
Commercial Service - Primary	Public-use commercial airports enplaning at least 10,000 annual passengers
Commercial Service - Non-primary	Public-use commercial airports enplaning between 2,500 and 10,000 annual passengers
General Aviation- Reliever	A general aviation airport that serves to relieve operational congestion at a nearby commercial service airport. Must have at least 100 based aircraft or 25,000 itinerant operations
General Aviation	Other airports with fewer than 2,500 annual enplanements or that does not receive scheduled service
<i>Source: FAA, Report to Congress - NPIAS, 2009.</i>	

The FAA further classifies primary commercial service airports into categories that compare each airport's annual passenger enplanements to the nation's total annual passenger enplanements. Based on the criteria listed in **Table 2-3**, the FAA designates a facility as a large, medium, small, or non-hub facility. The FAA's use of the term 'hub' is used to describe service levels, as opposed to the airline usage of the term, which typically refers to the 'hub and spoke' network routing system. In 2017, VPS's enplanements were less than 0.05% of national enplanements; hence, VPS is currently designated as a Small Hub facility.

Table 2-3 Classification of Primary Commercial Service Airports	
Term	Definition
Large Hub	At least 1.0% of total US passenger enplanements
Medium Hub	Between 0.25% and 1.0% of total US. passenger enplanements
Small Hub	From 0.05% to 0.25% of total US. passenger enplanements
Non-Hub	Less than 0.05% of US passenger enplanements but more than 10,000 enplanements
<i>Source: FAA, Report to Congress - NPIAS, 2009.</i>	

Airport Development History

The Destin-Fort Walton Beach Airport has undergone many changes in its 60-year history. The following provides a chronological order of major events that have shaped the Destin-Fort Walton Beach Airport:

1957 - Inception of VPS

The Northwest Florida Air Terminal opened on Eglin Air Force Base in building 89 with three personnel (Airport Manager, Security and Admin Support). Southern Airways was the lone air carrier flying 2 flights per day. Passengers would enter the base through the TAC gate on the east side of the base in Valparaiso, FL, thus the airport code of VPS was born.



1968 - Increase in Commercial Service

Southern Airways began flying four DC-9 aircraft daily out of VPS and Air New Orleans began flying 2 daily operations with service to New Orleans.

1975 - New Air Terminal

The Okaloosa County Air Terminal located on State Road 85 opened its doors. The 32,000-square foot facility was constructed at a cost of \$1.7 million. Financing for the entire facility was through federal, state, and local monies. First year passengers totaled 185,000 with Southern Airways as the sole airline with 12 departing flights daily.

2004 - Terminal Expansion

The Okaloosa Regional Airport completed a major expansion program including additional public parking and aircraft parking apron, a second parallel taxiway, landscaping and a new 110,000 square foot passenger terminal. The airport changed its name to the Northwest Florida Regional Airport.

2005 - Increase in Commercial Service

American Eagle began service with five (5) flights daily to Dallas/Fort Worth, TX. using 50-seat ERJ-145 aircraft. US Airways began service with three (3) flights daily to Charlotte, NC. using CRJ 200 aircraft.

2009 - Rental Car Improvements

The Consolidated Rental Car Service Facility was completed on a new 22-acre leasehold just east of the main terminal. This facility has offices for 5 rental car companies as well as rental car service facilities with hydraulic lifts, automated car washes, gas pumps and vacuum islands and a consolidated fuel farm for both aviation and unleaded gasoline.

2009 - Military History

An F-15 fighter display located in front of the terminal was dedicated during a ceremony for the signing of the Okaloosa County Military Community Covenant, expressing support for the relocation of the 7th Special Forces Group to Okaloosa County from Fort Bragg, NC.

2010 - Military History

The UH-1 "Huey" Helicopter was dedicated in honor of the late Michael J. Novosel Sr., who earned a Congressional Medal of Honor for his heroics.

2010 – Development to Support Military Passengers

The USO Center "Freedom Lounge" opened its doors. The center serves more than 30,000 troops and their families in Escambia, Santa Rosa, Okaloosa and Walton counties.

2010 - Increase in Commercial Service

Vision Airlines began non-stop service to Niagara Falls and Miami, FL. This new service gave leisure travelers from Western New York and Canada a low-cost way to escape to the sunny beaches of Florida and delivered Okaloosa County residents fantastic vacation destinations only a short flight away.

2011 – Increase in Commercial Service

Vision Airlines launches the largest airline expansion in over a decade as they began non-stop service to 15 cities from VPS. The cities include: Atlanta, GA - Asheville, NC Baton Rouge, LA - Chattanooga, TN - Columbia, SC - Greenville-Spartanburg, SC - Knoxville, TN Huntsville, AL - Little Rock, AR - Louisville, KY - Orlando - Sanford, FL - Ft Myers/Punta Gorda, FL Savannah,

GA/Hilton Head, SC - Shreveport, LA - St Petersburg/Clearwater, FL. All service was on B-737-400 and Dornier 328 aircraft.

2012 – Increase in Commercial Service

US Airways launched inaugural, non-stop flights to Reagan National Airport (DCA) in Washington DC with CRJ200 aircraft. This much anticipated service began with one daily flight, but due to advanced sales a second daily flight was added.

2012 - Military History

The USS Okaloosa ship's bell was unveiled at the Destin - Fort Walton Beach Airport on Apr 26, 2012, sixty-seven years to the date since she arrived off the beaches of Okinawa during the bloodiest battle of the Pacific.

2014 – Cell Phone Parking

Motorists coming to pick up arriving passengers can now wait in their vehicles in the free Cell Phone Parking Area. Once the arriving party reaches the terminal sidewalk with luggage in hand, he or she calls the driver and the waiting motorist can be curbside within minutes to quickly pick up the traveler and be on their way. The free Cell Phone Parking Area can accommodate up to 40 vehicles.

2015 – Airport Name Changed

The Airport changed names from Northwest Florida Regional Airport to Destin-Ft. Walton Beach Airport.

2016 - Increase in Commercial Service

GLO began seasonal service from VPS to Little Rock (LIT) and New Orleans (MSY) using the 30-seat Saab 340B Aircraft.

2016 - Increase in Commercial Service

Allegiant Air began scheduled service to VPS from Cincinnati (CVG), Ft. Lauderdale (FLL), Oklahoma City (OKC), Knoxville (TYS), Memphis (MEM), Las Vegas (LAS) and St Louis/Belleville (BLV) on A319, A320, and MD80 aircraft.

2017 – Law Enforcement

The establishment of the Okaloosa County Sheriff's Department – Airport Security Unit was approved by the Okaloosa County Board of County Commissioners to provide law enforcement for the three Okaloosa County Airports.

2017 - Increase in Commercial Service

Allegiant Air announced that VPS would be the next hub of operation. The Las Vegas-based company is investing more than \$49 million to establish a year-round base of operations, which will house two Airbus aircraft. Allegiant set the stage for this expansion by utilizing Destin-Fort Walton Beach Airport as a seasonal base during the summer of 2017. Allegiant also announced new service to five

cities-routes made possible only by establishing the Destin base. Allegiant Air added scheduled service to VPS from Cleveland (CLE), Columbus, OH (LCK), Indianapolis (IND), Kansas City (MCI), Springfield, MO (SGF), Baltimore (BWI), New York/Newark (EWR), Peoria (PIA), Austin (AUS), Pittsburgh (PIT), Louisville (SDF), Lexington, KY (LEX), Evansville (EVV), NW Arkansas (XNA), Concord, NC (JQF), Raleigh/Durham (RDU) and Nashville (BNA).

2018 - Increase in Commercial Service

In 2018, the Destin-Fort Walton Beach Airport experienced a 20% increase in passengers over 2017 and an 86% increase over the last three years, which is the largest increase in passenger traffic of any commercial service airport in the country. American Airlines increased by 13%, started daily direct service to Washington, D.C. (DCA) and announced new service to Chicago (ORD) for 2019. Delta Air Lines increased by 13% and United Airlines remained relatively flat, but has announced new service to Denver (DEN) and Chicago (ORD) for 2019. Allegiant Air added 6 new routes in 2018 and saw an increase in passenger traffic of 56%. Allegiant Air also announced they will base four Airbus A320 aircraft at VPS in 2019.

Terminal Area Landside Facilities

The terminal area landside at Destin-Fort Walton Beach Airport (VPS) consists of facilities related to commercial air service and passenger facilities. It includes the terminal roadway system, terminal arrival and departure curbside, public parking lots, rental car ready/return parking areas, and other miscellaneous parking lots. This section discusses each of these areas and identifies constraints and opportunities that will be considered during the alternatives evaluations later in this study. Other facilities that are within or adjacent to the landside terminal area that could impact terminal improvement options include the terminal building, support buildings, law enforcement, and operations and maintenance. **Exhibit 2-3** illustrates the key facilities of the terminal area complex and their immediate surroundings.



Access Roadway

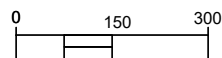
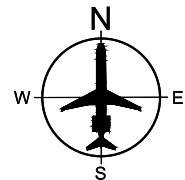
The ideal layout for a terminal roadway is to have one-way, continuous, counterclockwise loop that is dedicated for terminal traffic only. The loop should have its driver decision points (lane change, turns, merge, exits, etc.) spread out over its length so that drivers do not need to concentrate on more than one issue at a time. In addition, decision points should not occur at curves in the road, which require a drivers' full attention. The airport's current terminal access road meets many of the goals for efficient traffic flow, however there is one area of concern related to decision points.

Ground access to the airport's commercial service facilities is from State Highway 85. Exit access is provided by off ramps for both east and west bound traffic. Access from State Highway 85 East provides a one-way circulation system to the terminal area via the loop road or a separate access that parallels State Highway 85 used for cargo and deliveries to the airport. The loop road provides access to the commercial terminal and its associated parking areas. The public has four options when entering the airport: short and long-term parking, credit-card parking, rental car return, and terminal curbside.

Short and Long-Term parking areas are located to the left and the Long Term Parking (credit card only) is located to the right. Drivers may merge to the left past the short and long term parking and continue on the loop road to the Rental Car Ready/Return area, or continue straight to the terminal curb-front for passenger loading and unloading. A Cell Phone Parking area is located past the Long Term Parking (credit card only) entrance. The terminal curb-frontage road merges back into the loop road immediately past the Baldwin Building. Once on the loop road, drivers have the option to exit the airport via State Highway 85 or return to the terminal facilities. Secondary roads off the loop road connects to other facilities in the terminal area, such as the rental car service area, air cargo facilities, and fuel farm.

A dedicated lane for queuing of taxis is located north of the terminal building and provides access from the loop road to the terminal curb-front. A new taxi stand enclosure was constructed in 2015. This 816-square foot enclosure provides taxi cab operators vending, restrooms, and an open-air break area.

Delivery operations are typically a back-of-house activity that is not appropriate for a high-visibility location at the entrance to the terminal curb front area. The current delivery/cargo is provided by a separate access road which is runs parallel to State Road 85. **Exhibit 2-4** illustrates the traffic flow and decision points within the terminal area.



TERMINAL AREA STUDY / TERMINAL AREA PLAN UPDATE

EXISTING TERMINAL AREA LAYOUT

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EXHIBIT 2-3

Terminal Curb-Front

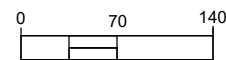
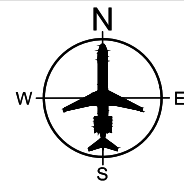
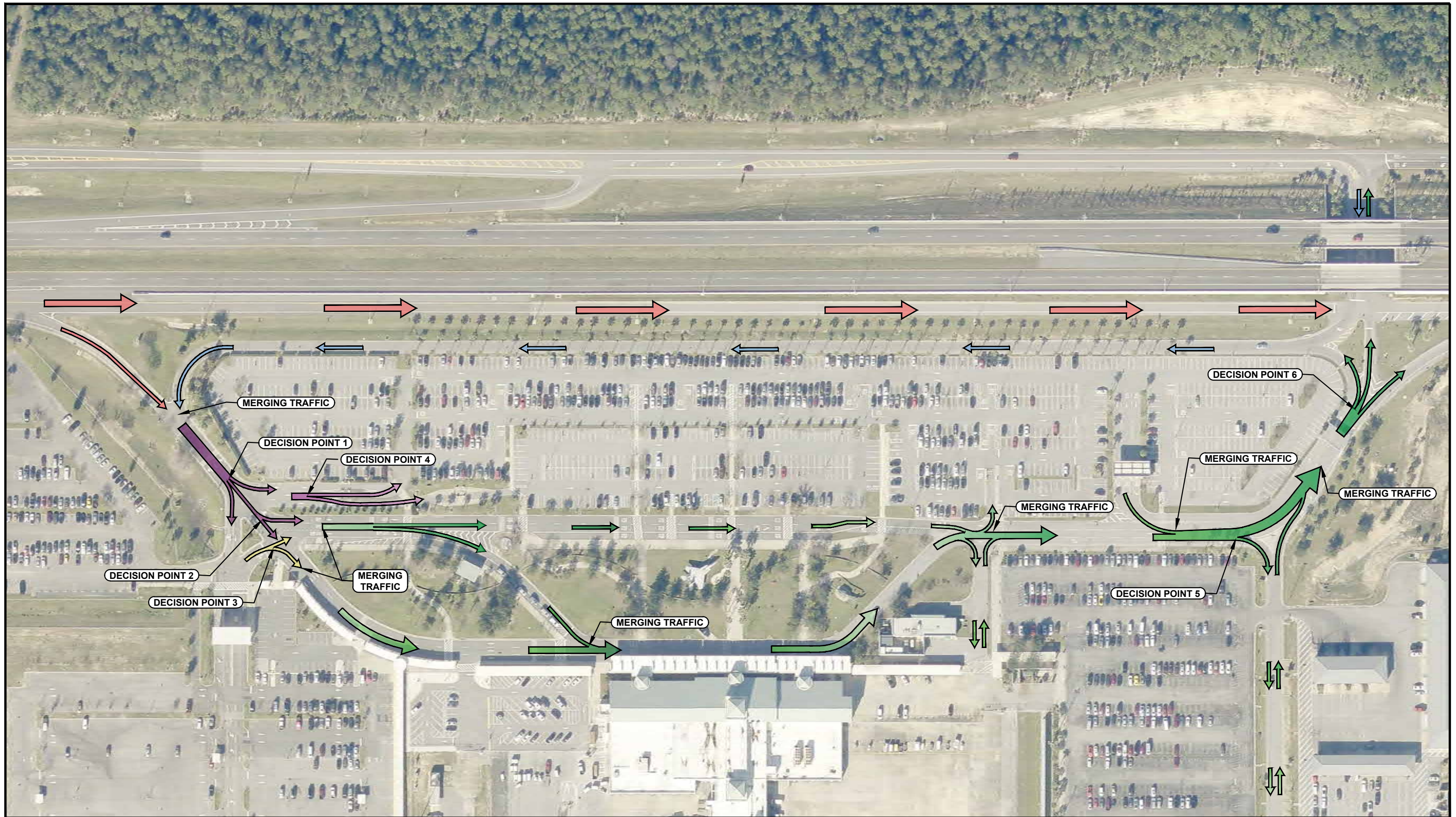
The terminal curb-front is the junction where the terminal road meets the terminal building. Passenger loading and unloading occurs in this area. Typically, the curb-front area provides space immediately off the road for attended vehicle parking or waiting spaces for private cars and ground transportation services such as buses, taxicabs, and shuttles. Ideally, areas for departing passenger activities and arriving passenger activities are separated for efficient flow through the terminal curb-front, as well as separate areas for commercial vehicles.

The terminal road and curb-front area at VPS are at ground level, with the majority of departing passenger unloading from their vehicles and entering the terminal near the west entry vestibules and terminal ticketing. Arriving passengers typically exit the terminal building and load into vehicles near the east and center vestibules and baggage claim. The arrival and departure curb is ± 600 feet. A canopy attached to the front of the terminal building provides partial weather protection for active unloading and loading at the curb.



Personal vehicles approach these spaces from the public vehicle lanes at the terminal curb-front. Once the traveler has unloaded or loaded the vehicle, the driver pulls forward into the adjacent lane to exit the terminal. Speed bumps and signage are provided in this area along the terminal road to control vehicular speed. Three raised pedestrian crosswalks are provided to allow pedestrians to move between the terminal curb-front and the short and long vehicle parking area: one at the west entry vestibule near ticketing, one at the east entry vestibule near baggage claim and one at the center vestibule. Passengers can access several walkways through the green-space area and cross the airport loop road to the short and long-term parking areas.

Currently, there is one porter/wheelchair stand at VPS that is operated by Crown Aviation Service. Porters assist passengers, as needed, with wheelchairs and in transporting baggage to the ticketing counter. The stand is located near the western vestibule, under the canopy and close to the building front. The curb-front currently does not have any marked designated spaces for ADA Requirements.



TERMINAL AREA STUDY / TERMINAL AREA PLAN UPDATE **EXISTING TRAFFIC FLOW DIAGRAM**

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EXHIBIT 2-4

The commercial vehicle holding area at the eastern end of the terminal provides dedicated spaces for two taxicabs and parking shuttle services. In addition, expanded areas for ground transportation parking, such as limousine, and shuttle bus parking have also been provided in front of the green-space area along the Airport Loop Road. Attended vehicle parking is limited and is controlled by the Okaloosa County Sheriff's Department – Airport Security Unit.

Parking Facilities

Public parking is provided adjacent to the airport loop road across from (north of) the Terminal Building. Additional public and employee parking is also located west of the terminal building. The existing parking facility locations are depicted in **Exhibit 2-5**.

There is one primary entrance for the short and long public parking along the loop road that consists of three entry lanes – one for hourly (short-term) parking and two for long-term parking. A secondary entry into the long-term parking is located near the toll plaza, along the loop road. Vehicles exit the parking lot through a central tollbooth plaza. The exit toll plaza has three exit lanes, two of which are attended and one self-service which allows credit card check-out only. Republic Parking currently manages the parking operations and offers shuttle service for passenger pick-up and drop-off at each of the public parking areas.

Short Term Parking

Short-term parking is in the parking lot across the airport access road from the terminal building. Access is through metered gates off the loop road as described previously. Vehicles exit the parking lot and merge with traffic from the long-term parking lot before passing through the toll plaza; and enter the access loop road. Currently, this lot consists of 205 spaces with the following rate schedule (effective April 1, 2019):

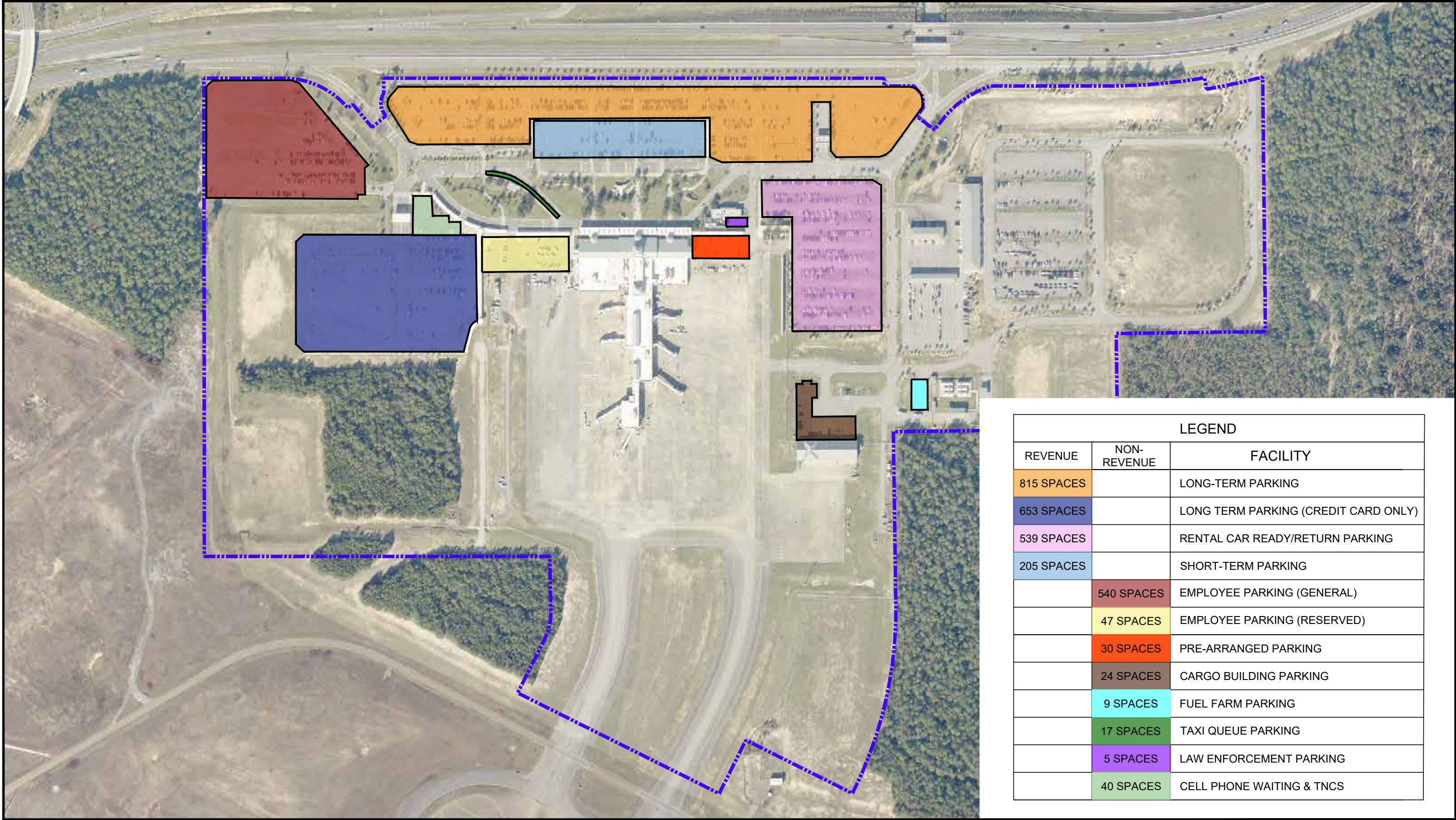
0-10 Minutes	Free
11-60 Minutes	\$1.50
<i>Each Additional Hour</i>	\$1.50
Maximum 24 Hour	\$8.50

Disabled American Veterans	Free
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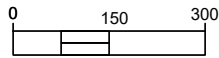
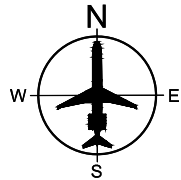
Long Term Parking

Long-term parking is located across the entrance loop road from the terminal building. Vehicles enter the lot through two lanes dedicated for long-term. Currently, this area consists of 815 spaces and utilizes the same rates as for Short Term Parking above.

Both the Short and Long-Term Parking underwent a rehabilitation project in 2012. Pavement and markings are in excellent condition.



LEGEND		
REVENUE	NON-REVENUE	FACILITY
815 SPACES		LONG-TERM PARKING
653 SPACES		LONG TERM PARKING (CREDIT CARD ONLY)
539 SPACES		RENTAL CAR READY/RETURN PARKING
205 SPACES		SHORT-TERM PARKING
	540 SPACES	EMPLOYEE PARKING (GENERAL)
	47 SPACES	EMPLOYEE PARKING (RESERVED)
	30 SPACES	PRE-ARRANGED PARKING
	24 SPACES	CARGO BUILDING PARKING
	9 SPACES	FUEL FARM PARKING
	17 SPACES	TAXI QUEUE PARKING
	5 SPACES	LAW ENFORCEMENT PARKING
	40 SPACES	CELL PHONE WAITING & TNCS



TERMINAL AREA STUDY / TERMINAL AREA PLAN UPDATE
EXISTING TERMINAL AREA PARKING INVENTORY

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EXHIBIT 2-5

Long Term Parking (Credit Card Only)

Long-Term Parking (credit card only) parking is provided in a surface lot west of the terminal building. Access to the Long-Term Parking (credit card only) lot is through the right lane of the terminal curb-frontage road. The rate for the Long Term Parking (credit card only) is the same as the Short Term Parking listed above. The self-serve exit gates only accept credit cards.



Employee Parking

Airport employees park in several lots within the terminal area. Most employees park in a surface lot located northwest of the terminal. The lot provides 540 spaces. The lot adjacent to the west side of the terminal building provides 47 spaces and is reserved for Airport Administrative personnel and other reserved parking. Both lots are secured with gates with card reader access. There is an additional parking lot located immediately east of the terminal building. The lot has 27 spaces and is reserved for airport vehicles, rental cars, and USO Employees. This lot is not secured. Additional parking for employees and service vehicles are located at several areas around the airport terminal area. The Cargo Building has 24 spaces, 5 spaces are located at the Baldwin Building for Law Enforcement and 9 spaces are located for the Fuel Farm.

Cell Phone Parking

The Cell Phone Parking Area is located along the Terminal Curb-front road, west of the terminal. Vehicles may park in the 40-space lot for no charge, while waiting on arriving passengers. TNC companies such as Uber and Lyft also have dedicated que spots in the Cell Phone Waiting Lot.

Taxi and Pre-Arranged Ground Transportation

Currently, two curbside taxiway spaces are located on the curb-front outside of baggage claim. Taxi's que along the dedicated taxi lane until the curbside spaces are vacated. The dedicated taxi lane has 17 spaces. Spaces along the airport loop road, are used for larger pre-arranged transportation vehicles.

Rental Car Ready and Return

The rental car agencies offer customer rental car ready/return parking in a surface lot east of the terminal. The 539 spaces are divided for use by agency market share and leases. Passengers may access the Ready and Return lot from the east side of the terminal along a partially covered walkway.

Handicap Parking

According to information obtained from the Airport as well as inspections by the consultant, VPS has a total of 43 handicap-designated parking spaces. The breakdown of handicap spaces per lot is outlined in **Table 2-4**.

Table 2-4 Handicap Designated Parking Spaces	
Location	Number of Available Parking Spaces
Rental Car	0
Short Term Parking	6
Long Term Parking	16
Long Term Parking (Credit Card Only)	15
Employee Parking	6
Total	43
Source: Michael Baker International, 2018	

Summary of Parking Facilities

Table 2-5 summarizes the existing terminal area parking inventory.

Table 2-5 Parking Summary	
PARKING	# Spaces
Short Term Parking	205
Long Term Parking	815
Long Term Parking (Credit Card Only)	653
Employee Parking (General)	540
Employee Parking (Reserved - Administration)	47
Rental Car Ready / Return	539
Cell Phone Parking	40
Pre-Arranged Parking	30
Cargo Building Parking	24
Fuel Farm Parking	9
Law Enforcement Parking	5
Total	2,907
Source: Okaloosa County Airports & Michael Baker International, Inc.	

Public Parking Activity

Historical public parking data by day for 2017 was obtained to determine typical parking characteristics at VPS. Table 2-6 summarizes the average parking utilization as a percent of total available spaces.

Table 2-6 2017 Public Parking Utilization		
PARKING LOTS	# Spaces	Average Utilization
Short Term Parking	205	35%
Long Term Parking	815	74%
Long Term Parking (Credit Card Only)	653	25%
Total	1,673	45%

Overall public parking has available capacity mainly due to the quantity of spaces available in the Short-Term and Long Term Parking (credit card only). Due to the dynamic aspects of individuals in parking, the preferred parking for most visitors and travelers is typically the closest space to the terminal building. At VPS, this is the short-term and long-term parking lot located along the loop road. Additionally, these parking lots are located once a traveler enters the airport terminal area.

The demand for the long-term parking exceeds 80 percent capacity during the peak tourist season (March-Aug), as well as, during the major holidays throughout the year. **Table 2-7** compares the public parking utilization for the peak season months and holidays for 2017.

Table 2-7 2017 Public Parking Utilization – Peak Months/Holidays		
PARKING LOT	# Spaces	Utilization
Short Term Hourly Parking	205	38%
Long Term Hourly Parking	815	86%
Long Term Parking (Credit Card Only)	653	52%
Total	1,673	59%

Note: Peaks Months (April-August); Holidays (Thanksgiving, Christmas)

Additional analysis indicates that Long Term Parking exceeded 80 percent 134 days and exceeded 90 percent 18 days. Further analysis of expected parking needs will be covered in the Demand/Capacity and Facility Requirements chapter of the study.

Baldwin Building

The Baldwin Building, located to the east of the Terminal Building, has approximately 1,566 square feet of office/storage space and 1,344 square feet of equipment space. Built in 1966, the concrete block construction has been used for several different purposes. Currently, the Okaloosa County Sheriff's Department – Airport Security Unit occupies the building. The Mechanical/Electrical vault is housed in the building.

Cargo/Maintenance Facility

A Cargo/Maintenance Facility was constructed in 2009 as part of the East Side Development Program. The facility consists of a 12,500-square foot building, loading docks, and a 900 (22 spaces) square yard parking area. The building is equipped with office space, restrooms, training and break rooms. A stand-alone generator is located adjacent to the building to provide emergency power. There are four separate cargo bays with 12-foot roll up doors on each side of the secured and non-secured side of the building. Parking and loading docks are provided on the non-secured side. Airport Maintenance currently occupies the office space area and part of the building for equipment storage. Allegiant Air leases one bay for aircraft service supplies. In addition, Fuel FX and Hudson News lease dedicated areas. Currently, the building is not being utilized for dedicated air cargo.

Fuel Facilities

A new fuel farm was constructed in 2011 as part of the East Side Development. The fuel farm is located behind the Rental Car Service Area. The above ground tanks are double wall steel and equipped with containment areas.

Two 25,000-gal AST Jet-A Aviation Fuel
Four 20,000-gal AST Jet-A Aviation Fuel
Two 25,000 gal AST MOGAS Fuel
One – 1,500-gal AST Diesel Fuel
One – 1,500-gal AST AVGAS

Rental Car Service Area

The Rental Car Service Area, located east of the Terminal Building was completed in 2013 as part of the East Side Development Project. The rental car service area consists of a covered five bay structure used for fueling and interior detailing and a five-bay car wash. A separate 16,500 square foot building provides each of the rental car agencies a separate office space along with a maintenance bay that is used for minor repairs on the fleet. A 14,000 SY paved parking area is used for receiving and overflow parking for the fleet of vehicles. Overall, the facility is in fair condition with major rehab/overhaul required for the mechanical components including vacuums, fuel pumps, and wash equipment.



Aircraft Rescue and Firefighting Facilities (ARFF)

FAR Part 139 provides guidelines for Aircraft Rescue and Firefighting requirements as they pertain to air carrier aircraft. These guidelines require an Index determination for each certificate holder. For the purposes of the Index determination, air carrier aircraft are grouped as follows:

- Index A – Aircraft less than 90 feet in length;
- Index B – Aircraft less than 126 feet in length;
- Index C – Aircraft less than 159 feet in length;
- Index D – Aircraft less than 200 feet in length; and
- Index E – Aircraft 200 feet in length or greater.

To satisfy FAR Part 139 requirements, VPS currently has in place an ARFF Operating Agreement with Eglin Air Force Base for direct emergency response support, but also contributed an additional ARFF facility. closer to the airport terminal. Construction was completed, and operations began in

September 2017 from Eglin AFB Fire Station No. 4. The 8,058-square foot building was constructed by Okaloosa County on 3.7 acres adjacent to Taxiway H.

Utilities

The availability and capacity of the utilities serving the Destin-Fort Walton Beach Airport is a crucial factor in determining the development potential of airport property, as well as the land immediately adjacent to the facility. Utilities include underground electrical, water, sanitary sewer, natural gas, and telecommunications. Airport archive information was used to determine locations. The locations of the existing utilities are depicted in **Exhibit 2-6**.

Water

The Destin-Fort Walton Beach Airport is served with potable water from the Okaloosa County Water & Sewer (OCWS). The water is transported via a 16-inch water main that runs adjacent to State Highway 85. A 12-inch water main enters the airport and runs along the western side of the apron area. This 12-inch main serves the terminal area facilities. There is no elevated storage tank on the Airport property.

Sanitary Sewer

Sanitary sewer lines are available to the airport on the eastern and western side and southern side. Wastewater is collected in an existing lift station and pumped to the Plew Heights Treatment Facility which is located on Eglin AFB.

Electricity

Gulf Power provides the electrical needs at VPS. Service is provided from a primary line located along Highway 85.

Natural Gas

Natural gas is supplied by Okaloosa Gas by a high-pressure transmission line located south of the terminal.

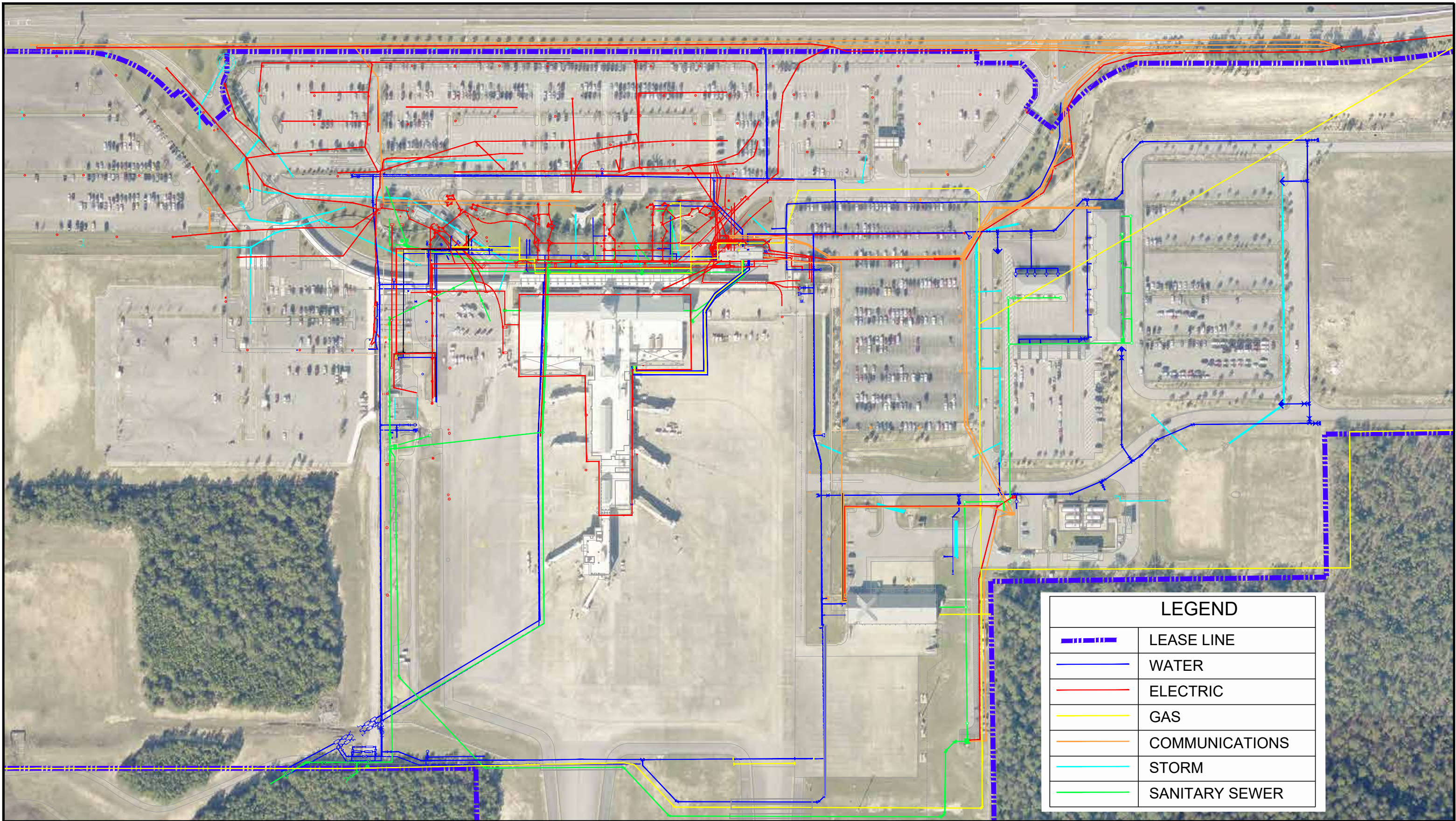
Telephone/Internet








Telephone and internet service is provided to the Airport by Cox Communications by underground lines that run along State Highway 85.

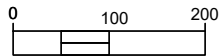
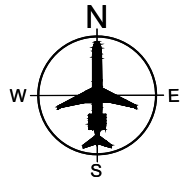
Storm-Water Retention Ponds

The airport maintains three permitted storm-water retention ponds within its lease boundary. The locations of these ponds are: south west corner of the lease line, between the loop road and the northeastern employee parking area, and north of the rental car overflow area. Airport drainage is provided by a system of inlets, storm sewers, culverts, and ditches. Overall, the Airport drainage system is adequate for removing excess storm water.

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LEGEND	
	LEASE LINE
	WATER
	ELECTRIC
	GAS
	COMMUNICATIONS
	STORM
	SANITARY SEWER



TERMINAL AREA STUDY / TERMINAL AREA PLAN UPDATE
UTILITIES LAYOUT PLAN

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EXHIBIT 2-6

Terminal Area Airside Facilities

The airside facilities of the terminal area consist of the commercial service aircraft parking apron, its associated apron taxi lanes, and the connecting taxiways tying into the overall airfield system. These airside facilities provide the aircraft infrastructure to interface with the passenger facilities of the terminal building.

Aircraft Parking Apron

The commercial service apron at VPS is located south of the Terminal, surrounding the Concourse. **Exhibit 2-7** depicts VPS's terminal airside facilities. The original apron consisted of 61,227 square yards of concrete pavement and was expanded to the west in 2003 with 12,500 square yards of asphalt pavement. An additional 9,200 square yards of concrete pavement was constructed in 2007 as part of the South Apron Expansion. Currently the apron consists of approximately 82,927 square



yards of concrete and asphalt pavement, with an average thickness of 12-14" for the parking and maneuvering of commercial aircraft utilizing the terminal for passenger activities. An additional 5,694 square yards of paved shoulders is located around the apron. Due to its configuration and relationship with the Concourse, only about a third of the apron area is available for active terminal parking. The pavement area immediately around the Concourse is active terminal parking, behind that on the south, east and west sides are the service lanes and apron taxi lanes. The bearing capacities by wheel gear types are 110,000 SW, 200,000 DW, and 350,000 DTW. High Mast Lighting Poles are located on each side of the concourse and around the west apron area.

Beyond the taxi lanes on the east side is a Remote Overnight (RON) parking area for use by diverted aircraft, or other aircraft requiring extended parking. The RON apron comprises approximately 9,498 square yards of concrete pavement and is in excellent condition. The apron was constructed in

2013 and the current configuration provides parking for two aircraft (727-100/757-200). Three 56' High Mast Lighting Poles are located around the apron.

Taxiways

Parallel Taxiways "D1" and "D2" connect the commercial service apron with the rest of the airfield. These taxiways can serve aircraft up to Airplane Design Groups (ADG) IV. Taxiway "D1" is 940'x 75' and taxiway "D2" is 1130'x 75'. Both taxiways are constructed of asphalt. Taxiway "D1" is the western asphalt connector taxiway between Taxiway "H" and the commercial terminal apron. Taxiway "D2" is the eastern asphalt connector taxiway between Taxiway "H" and the commercial terminal apron.

Both taxiways are equipped with Medium Intensity Taxiway Lights (MITL) and directional signage. Taxiway lights were upgraded to LED's in 2012.

Each taxiway and taxi lane has a restricted area referred to as an Object Free Area (OFA), as defined by the FAA in Advisory Circular 150/5300-13, *Airport Design*, based on the wingspan of the ADG category expected to use the facility.

An Intrusion Detection System is located along the width of both taxiways. The system informs the Airport Operations Center (AOC) when the sensor beam has been interrupted.



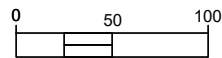
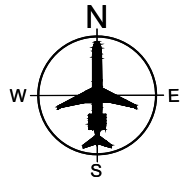
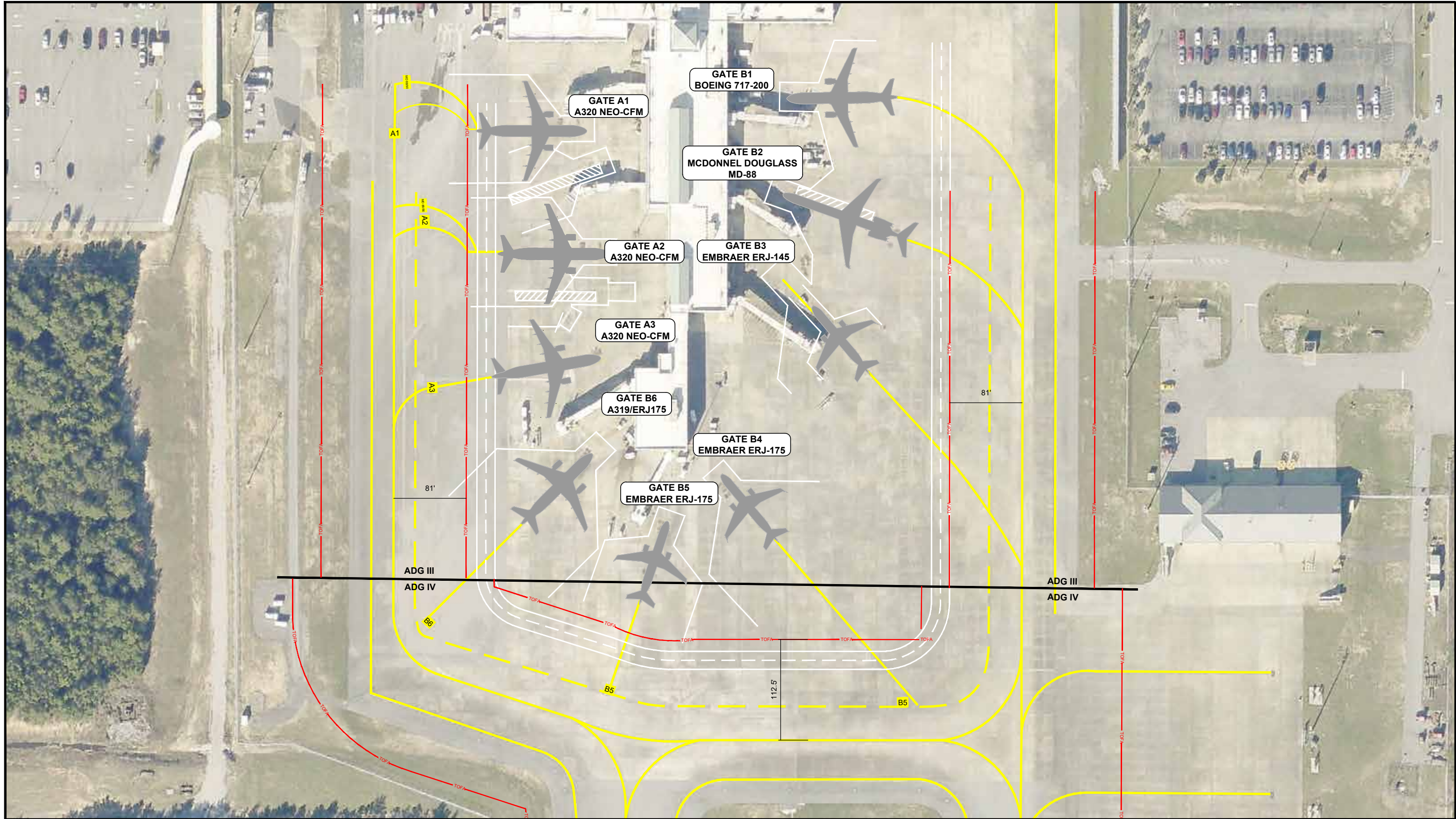
A taxiway rehabilitation project has been completed for both Taxiways D1 and D2. Taxiway D1 was completely reconstructed while Taxiway D2 was resurfaced. Both Taxiways are now in excellent condition. Included with the project were new LED taxiway guidance signs not previously upgraded as part of the 2012 lighting project along with the installation of a new regulator.

An existing perimeter road used by Eglin AFB personnel crosses both Taxiways D1 and D2 at the southern end of the taxiways, near Taxiway H. The section of road from the west shoulder of Taxiway D1 to the east shoulder of Taxiway D2 was resurfaced during the rehabilitation project of the taxiways.

The Airport has been served by many aircraft types over its 60-year history. **Table 2-8** indicates the current commercial fleet and aircraft types used at VPS. Current schedules indicate aircraft such as the ERJ-145, ERJ-175, CRJ-700/900, MD-88, A319 and A320 in operation.

Commercial Aircraft	Design Group	Wing Span	Overall Length	Tail Height	Typ. Seats
ERJ-145	II	65'-9"	98'-0"	22'-2"	50
ERJ-175	II	85'-4"	103'-11"	31'-9"	78
ERJ-195	II	94'-3"	126'-10"	34'-7"	116
CRJ-700	II	76'-3"	106'-8"	24'-10"	70
CRJ-900	II	76'-3"	119'-4"	24'-7"	86
MD-82	III	107'-10"	147'-10"	29'-7"	148
717	III	93'-3"	93'-4"	29'-8"	106
Airbus A319	III	117'-5"	111'-0"	38'-7"	125
Airbus A320	III	111'-10"	123'-3"	38'-7"	170-180

Source: Airport and Airline websites (12/17) and schedules



TERMINAL AREA STUDY / TERMINAL AREA PLAN UPDATE

TERMINAL APRON LAYOUT

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EXHIBIT 2-7

Loading Bridges

Loading bridges provide a protected environment for passengers to move between the Concourse and aircraft. They provide important safety and comfort improvements over ground boarding. To effectively work, a bridge must be able to align itself with the passenger cabin door of an aircraft, adjust for the sill height of the aircraft, have a canopy to fit over the doorway and seal out precipitation and high winds, and it must not create an unsafe floor slope while transitioning from the aircraft sill height to the Concourse floor height.

Currently, there are five passenger boarding bridges located on the second-level designed to accommodate, narrow-body and commuter jets. Gates B1, B2, and B3 bridges were installed as part of the original terminal/concourse construction. Bridges at Gates B5 and B6 were installed along with the concourse expansion project. Two ground level boarding bridges are located on the first level at Gates A1 and A2. These bridges were installed in 2016 and serve the Airbus 320's used by Allegiant Air.



Airside Conclusions

The analysis revealed that the airport's apron is relatively free from restrictions. The two parallel taxiways are separated adequately to the east and west to avoid any restrictions. The recent Taxiway "D1" and "D2" rehabilitation project corrected the pavement issues on Taxiway D1 resulting from a lack of proper sub-base material and provide for additional improvements to Taxiway D2. In addition, taxiway guidance signage was replaced to meet FAA criteria.

The apron pavement is in good condition. Although adequate for the current fleet mix, additional apron area should be planned for in the short term to account for any additional aircraft expected to use the facility.

Although the airport is not experiencing any unusual maintenance problems with the passenger boarding bridges at this time, the boarding bridges for Gates B1, B2, and B3 are the original bridges and approaching fifteen years in service. New bridges with greater range capabilities, similar to the FMC Teleradial Bridge, are recommended when the older bridges are replaced. These bridges could bring the slope of the bridges within the recommended ADA guidelines for ramps, and provide greater flexibility for a wider range of aircraft sizes without major adjustment of the bridge.

Terminal Building

The existing terminal building at VPS consists of two major structures: a mostly one-story, high bay space, Main Terminal and a two-story pier-style concourse. An original structure of the Main Terminal was built in 1975. In 2004, a major replacement project expanded the facility to an almost 107,000 square foot passenger terminal that included a 6-gate concourse. In 2010, 2 more gates were added at the end of the Concourse Building.



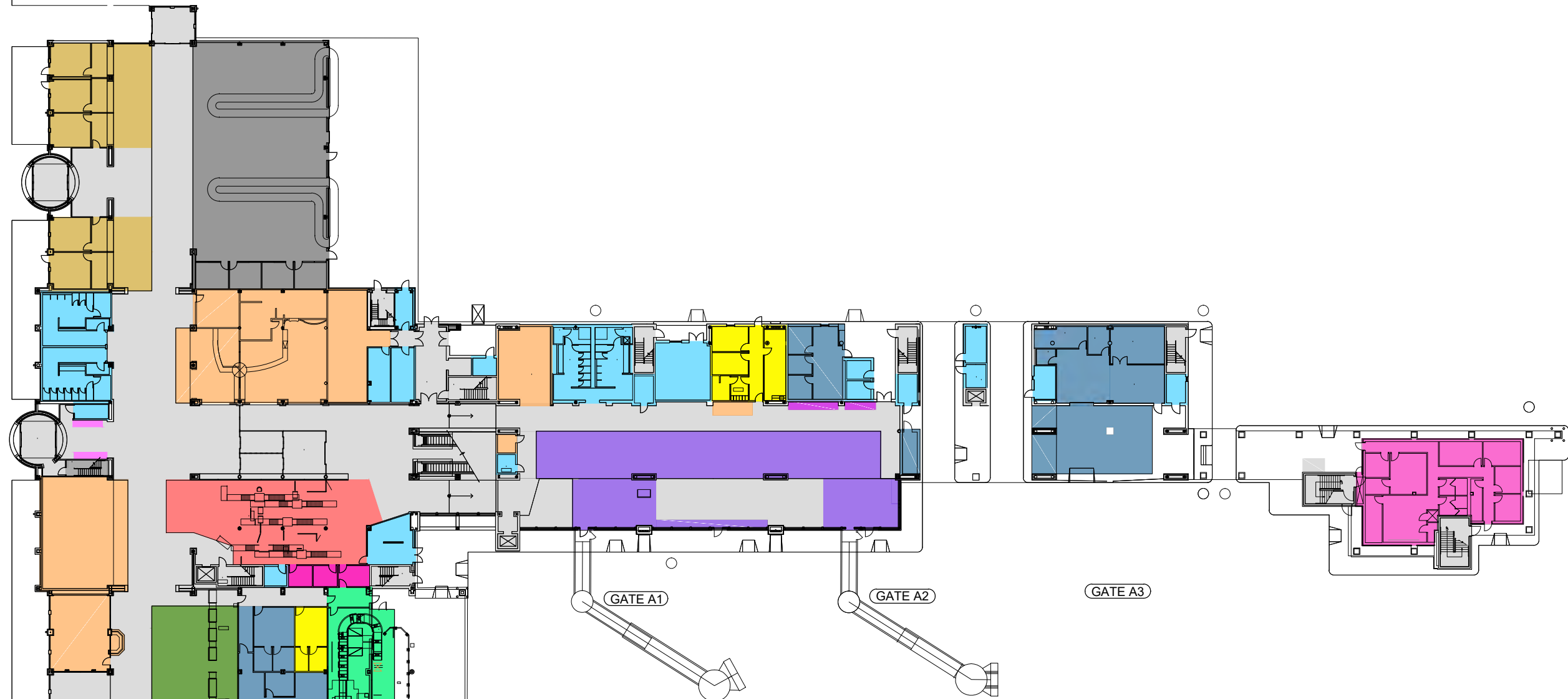
The Main Terminal provides the ticketing and baggage claim spaces while the Concourse provides the passenger waiting spaces. Cars and other vehicles approach the Main Terminal along the terminal roadway, while aircraft approach the Concourse from the runways and taxiways. The Main Terminal is often referred to as the “landside” half, while the Concourse is sometimes referred to as the “airside” half. The two major structures are connected at grade for the first floor and by escalator and elevator to the second level Concourse. Passenger security screening functions are at the junction of the first floor Terminal area prior to the Concourse building. As a result, the areas of the Main Terminal are generally “non-secure” and the areas of the Concourse are “secure”. **Exhibits 2-8 and 2-9** illustrate the Terminal Building layout.













Terminal Layout

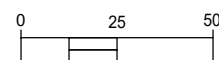
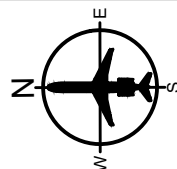
VPS airport spaces within the first floor of the Main Terminal house passenger check-in and airline offices, Transportation Security Administration’s checked baggage screening, baggage claim and rental car offices, operations space for outbound and inbound baggage handling, a few miscellaneous concessionaires (USO, Restaurant, and a Hudson News Store), and a portion of airport administration for badging operations. A small amount of seating is positioned at the center entryway. This allows for meeters/greeters to be in direct line of sight with arriving passengers who are moving through the ground floor exit Lane/doors at the Lower Hall. The airport spaces within the second floor of the Main Terminal include the majority of airport administration and large mechanical spaces. Access to the second floor Administration Offices from the first floor is by way of an elevator and a stair at the non-secure side prior to the passenger screening area. Access to Administration from the second floor is by way of a small balcony on the secure side that overlooks the Main Terminal.

The Lower Hall connector at the first floor of the Main Terminal moving toward the Concourse is the location of the security passenger screening facilities which is lateral to the security doors for arriving passengers leaving the secure side.

The first floor Concourse is a grade level area serving 3 gates with an open hold room space at the West side of the Concourse. One large concession space, one set of Public Restrooms, a Family Restroom, an Airport Maintenance Suite, and an airline ground operations area are at the East side of the Concourse and are accessed from the Public Corridor. Additional airline ground operations rooms,



LEGEND			
	SECURITY BAGGAGE SCREENING		ADMINISTRATION AIRPORT
	SECURITY TSA OFFICES		CONCESSIONAIRES
	SECURITY - PASSENGER SCREENING		RENTAL CAR
	COMMERCIAL AIRLINE OPERATIONS - TICKETING		CIRCULATION
	COMMERCIAL AIRLINE OPERATIONS - OFFICES		SUPPORT
	COMMERCIAL AIRLINE OPERATIONS - GATE		BAGGAGE CLAIM



TERMINAL AREA STUDY / TERMINAL AREA PLAN UPDATE

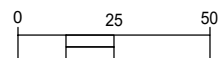
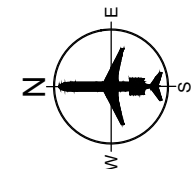
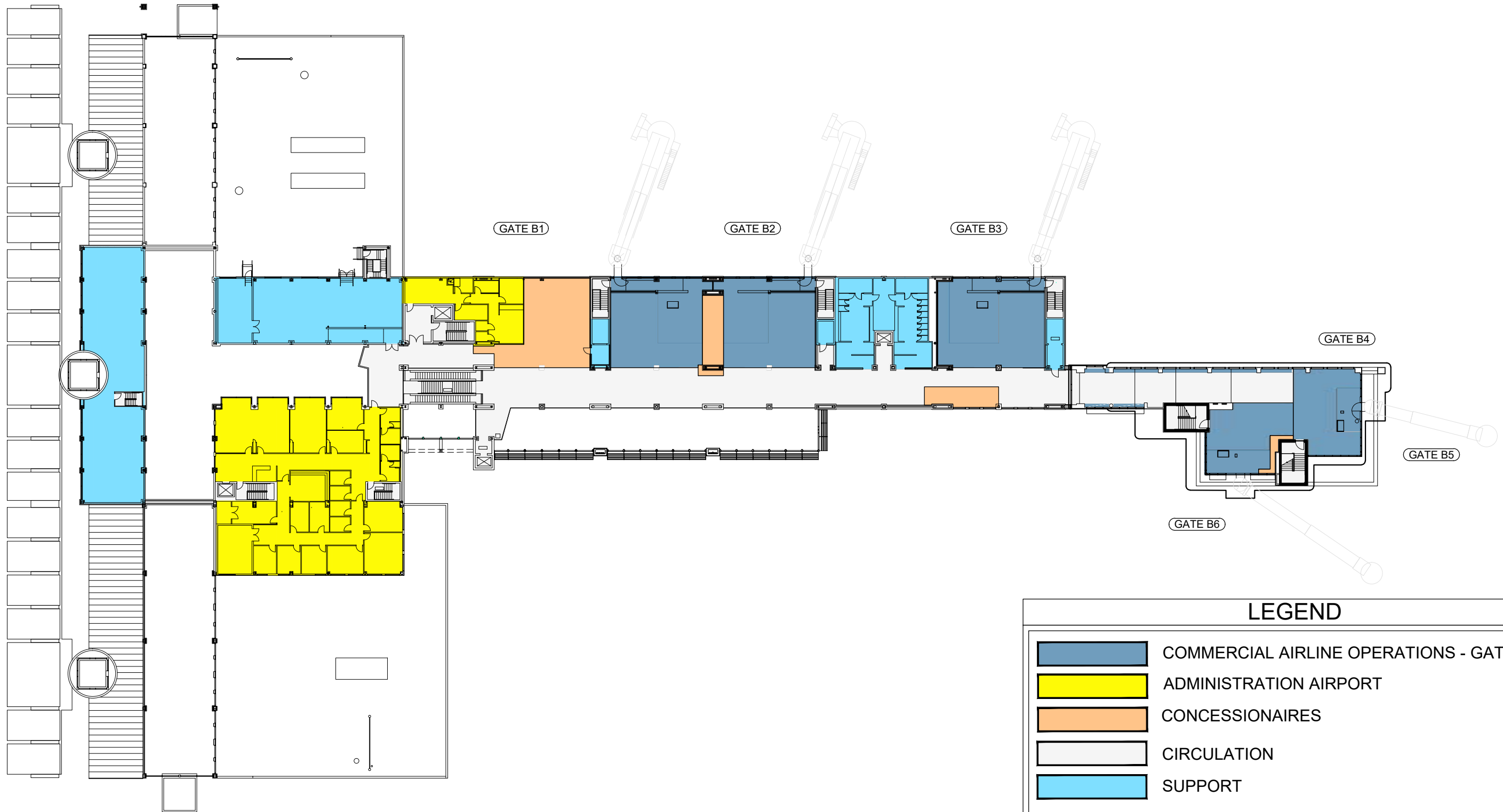
SPACE UTILIZATION - FIRST FLOOR

Michael Baker

INTERNATIONAL
MICHAEL BAKER INTERNATIONAL, INC.
495 GRAND BOULEVARD, SUITE 206
MIRAMAR BEACH, FLORIDA 32550 (850) 269-6883
CERTIFICATE OF AUTHORIZATION NUMBER 28861

EXHIBIT 2-8

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TERMINAL AREA STUDY / TERMINAL AREA PLAN UPDATE

SPACE UTILIZATION - SECOND FLOOR

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CERTIFICATE OF AUTHORIZATION NUMBER 28861

EXHIBIT 2-9

storage rooms used by Concessionaires, utility rooms, fenced storage areas utilized by airlines, and a TSA Suite are “outside” beyond the public, conditioned space, and below the South half of the second floor Concourse.

The second floor Concourse is a long, single-sided pier with a central corridor, 3 boarding gates and waiting areas are along the East side of a Public Corridor. At the North half of the Concourse, at the West side, is a balcony overlooking the first-floor public gate area. Large and small concession spaces, Public Restrooms and a Family Restroom dot the area between the airline gates. The floor plate ramps down twice with a Public toilet room entrance at the landing between ramps. The most recent addition to the facility extends the second-floor concourse to the South for two more gates, one to the West and one at the end of the pier. Seating is placed along the edges of the corridor prior to the gates. The floor ramps a couple more times prior to the Hold Room areas.

The Main Terminal has three primary curbside sliding door entrances on the ground floor. These entrances face Short and Long Term Public Parking to the North. Side Vestibule entrances lead West from the Ticketing Lobby to the Long Term Parking (credit card only) and East from Rental Car Counters and Baggage Claim Lobby out to the Rental Car Ready/Return. Signage is present at the entries to direct visitors to other parts of the terminal. Ticketed passengers without baggage to check may proceed to the security checkpoint.

Functional Areas

The Main Terminal and concourse is subdivided into function areas – spaces where specific activities occur. These areas must provide adequate space and in appropriate configurations for the terminal to operate in an efficient fashion.

Ticketing

The ticketing functional areas include the Ticket Lobby, Airline Ticketing workspace, Airline Ticket Offices (ATO), and outbound Baggage Make-up. Check-in counters for airlines are located parallel to the terminal front facing visitors as they enter the building. Behind the ticketing area are ATO and baggage make-up areas, where baggage is stored and loaded onto carts for delivery to outbound aircraft. Each airline including Allegiant, Delta, United, and American has a dedicated ATO area and baggage make-up space for its specific activities and operations. Conveyors carry checked baggage from the ticket counter area to the Baggage Make-up area where TSA evaluates checked baggage and performs security screening as required. Baggage flow rates are strained due to the current configuration of the TSA checked bag operations.



Baggage Handling System

In 2016/2017 VPS underwent a Baggage Handling System (BHS) recapitalization project to replace their legacy screening systems with two new L3 machines and minor conveyance system modifications. Since the system became operational, several inefficiencies have surfaced.

The two EDS machines should have the capacity to process 500 bags per hour each, but the current system cannot process over 250 bags per hour because of the entire system's capacity deficiencies.

With the current system, the 90-degree turn from ticketing to the back- screening area causes bags to not be presented to the L3 machines in-line and causes frequent jams. Bump-outs and turning posts were installed, but this has not corrected the issue. The lack of belt space both before and after the L3 machines would still severely limit the production of the new machines' capabilities, even if there were no alignment issues. In addition, the current bag make-up carousel is located both inside and outside the building, which effectively blocks airline representatives from visual checks to clear jams as they occur.

Baggage Claim

The Baggage Claim functional area includes the baggage claim lobby and claim carousels, inbound baggage handling areas, rental car offices and customer counters, lost bag offices for airlines, and other miscellaneous space. The baggage claim area is located on the ground floor East of the ticket lobby. Access from or egress to the arrival curb is through the North entry vestibule near the eastern end of the Main Terminal.



The airport currently uses two L-shaped flat plate conveyors that display baggage for arriving passengers to claim. Inbound Baggage is transported from the aircraft by tugs and carts to a common, covered outside operations area in a secured area directly behind baggage claim.

Rental Car

Rental car agencies, 4 lost luggage offices, and traveler information displays are located adjacent to the baggage claim area. Currently 4 rental car agencies (Avis/ Budget, National/ Alamo, Dollar/ Hertz, Enterprise) occupy 4 of the 5 available tenant spaces on the North side of the Lobby. Rental car lease areas are about 625 SF with one 691 SF space that is occupied by the Tourist Development Department as a Visitor Welcome Center. Rental car customers queue at each counter where agency workers greet customers from the other side of the counter. Private offices, each about 250 SF, serve each agency area. Customers conveniently exit from the Lobby to the East Vestibule and out to the Rental Car Ready/Return lot.

Public Waiting

A small public waiting area, flanking the central Entry Corridor, consists of seating for 6 travelers and meeters/greeters (non-ticketed passengers) to wait. Since 9/11, only ticketed passengers are allowed through the passenger screening checkpoint. Therefore, all public waiting must occur on the non-secure side of the terminal.

TSA/Security

The passenger screening functional area consists of the screening checkpoint, passenger queuing space, private search area, and TSA offices. There are currently three passenger screening lanes at this checkpoint with three TSA offices convenient to the screening area. During peak usage, the passenger screening area is challenged and solutions will be explored as this study moves forward. Arriving passengers follow an exit lane between the TSA checkpoint and secure side restaurant on the first floor to exit the secure side. In addition, Okaloosa County Sheriff's Department operates from a small stand within the Main Terminal Lobby near the main, central, building entry.

Concessions

Concessions exist on both the non-secure and the secure side of the facility. In the Main Terminal, Hudson News occupies approximately 1,750 SF convenient to the curb-side entries. Patrons can also access the only Restaurant (approximately 3,000 SF) in the facility from the Main Terminal Lobby; additionally, the restaurant space can serve customers on the secure side as well. In the first-level Concourse, one vacant concession space is located near the Public Restrooms. At the second-level Concourse, one large retail sized concession space is located prior to the gates and three small concession spaces are located along the corridor – between Gates B1 and B2, in the Corridor in front of B3, and between Gates B5 and B6. The lower level of the Main Terminal includes storage space for concession tenants. Additionally, concession storage is provided on the lower level of the Concourse and within the space outside.

Public Restroom Facilities

Arriving passengers enter the terminal at either the first or the second level of the Concourse and proceed North into the Main Terminal. From the first level, passengers can proceed directly through the exit vestibules into the Main Terminal Lobby and to Baggage Claim, Rental Car counters or out to the curbside. Second floor arriving passengers traverse to the first floor by way of Escalator or Elevator then follow the same route as first level passengers. Both levels of arriving passengers have two opportunities to access Public Restrooms, one set within the Concourse and the other on the non-secure side as one approaches the central exit vestibule, or the Baggage Claim and Rental Car Lobby area. The Concourse Restrooms at both level also have one single-use Family Restroom.

Restroom plumbing fixture count is satisfied per Florida Building Code derived occupancy and square footage numbers. Main Terminal Area water closets are at the code required number of fixtures. First and Second Floor Concourse water closets exceed the required number of fixtures. At the first floor, approximately 7,000 SF can be added to the building without expanding restrooms. At the second floor, approximately 10,500 SF can be added to the building without expanding restrooms. Additional private / tenant use restrooms are included in the first and second floor administration spaces, the TSA

Suite under Gates B5 and B6, and in some of the airlines operations or office spaces. Existing fixture counts in the public locations is summarized in **Table 2-9**.

Table 2-9 Existing Concourse and Terminal Public Restrooms				
Description	Units	Males	Females	Notes
Concourse –1st Floor Gates A1-A3 Area ²	Fixtures	3+4	7	4 lavatories, plus lavatory w/ HC toilet at ea. Sex, baby changing
Concourse, 2 nd Floor Gates B1-B6 Area ²	Fixtures	4+5	9	5 lavatories, plus lavatory w/ HC toilet at ea. Sex, baby changing
Concourse, Total Fixtures	Fixtures	16	16	+2 (Family)
Terminal -1st Floor Lobby ¹	Fixtures	4+4	8	3 lavatories, plus lavatory w/ HC toilet at ea. Sex, baby changing
Terminal - Total Fixtures		8	8	
<i>Source: Michael Baker International, 2018</i> <i>Notes: 1) Airline staff use Lobby area Public Restrooms. No Family or Unisex Restroom is provided. Includes two sets of high-low drinking fountains. 2) Adjacent Family Restroom adds 1 toilet and 1 lavatory.</i>				

Male fixture counts are expressed in water closets + urinals for clarity. Each Restroom includes one handicap stall with a lavatory per Florida code. All female fixtures are water closets. It is noted that one (1) 3 feet wide x 6 feet long “ambulatory” type stall is provided as required in each Restroom where six or more toilet compartments are provided per Florida Building Code 213.3.1.

More building type-specific demand/capacity of fixtures within the overall support space will be performed. The resource to be used is the Airport Cooperative Research Program (ACRP) Report 130, “Guidebook for Airport Terminal Restroom Planning and Design”, Section 2.4.1. Upon the known results for passenger data to be generated later in this study, the recommended methodology for calculating restroom requirements for the concourse (airside) will be calculated based on the number of peak hour passengers (based on forecasts or FAA equivalent aircraft factors), then using 50% of that number to represent the peak 20-minute period for an origination and destination (O&D) airport. The methodology is different for the terminal (landside) area. The fixtures required will be calculated based on the total number of O&D passengers in the total peak hour. Then a factor is included to allow for meeters/greeters for arrivals and well-wishers for departures. When the check-in and baggage claim is located on a single level, the recommended total is 150% of peak passengers (PHP).

Airport Administration

Airport Administration Offices are located on the second floor of the Main Terminal. Entrance to administration is by way of elevator or stair from the area prior to passenger screening to the second floor. Also, from the second floor Concourse, secure side, another doorway provides access. A badging office has been located on the Main Terminal lower-level in front of the Ticketing Counters.

More airport administration office space is located on the Concourse second- level on the East side of the corridor. This area houses the Airport Operations Center (AOC).

Support Spaces

In addition to the specific functional areas within the terminal building, other miscellaneous support spaces include public circulation not included as a specific function, mechanical and electrical rooms, janitor's closets, stairs, elevators, escalators, structural columns, walls, etc. These take up space and must be accounted for in terminal building planning. Circulation within the terminal building equals approximately 40 percent of the total programmed spaces at VPS. The amount of space for circulation should remain constant until a significant expansion occurs.

Restrooms, mechanical and electrical rooms, storage, walls, etc. and other support space at VPS account for approximately 12 percent of the total other terminal square footage and a similar ratio would be used for space planning of expansions for estimation purposes. Again, at VPS, the *total amount* of space for support should remain constant until a significant expansion occurs.

Two Automated Teller Machines (ATM) are available in the terminal. On the non-secure side, a recessed wall mounted ATM is in the main central entry corridor within the small waiting area. Within the secure side at the second level Concourse adjacent to the elevator, a free-standing ATM is located along the balcony area.

As in any other airport terminal building, VPS has many miscellaneous support spaces including mechanical and electrical rooms, storage rooms, janitorial closets, small operational rooms, and chases for equipment. These are found in various locations throughout the facility.

Terminal Capacity

For planning purposes, function areas are quantified to determine the existing capacity of the facility. Standard units of measure, such as square feet or lineal feet, are used in this process. These unit calculations do not necessarily correspond with walls or tenant lease lines, but with the use or purpose of the space. The terminal has been divided into function areas and sub-function areas to arrive at its existing capacity quantification. **Table 2-10** illustrates size of major function areas of the existing terminal building. The total area represents the volume of the building.

Terminal Building Analysis

Currently, four airlines operate out of the ticketing function area at VPS. Each airline occupies a portion of the ticket agent area and the related ATO space directly behind the ticket counters. As currently configured, since a majority of traveler's pre-purchase tickets, the ticket counter functions for ticketing and checked baggage operate smoothly. TSA's downstream checked baggage operation is strained due to the lack of time for alarmed baggage to be analyzed before it backs up. Additionally, mechanical diverters which are used to mitigate the alarmed baggage slowdowns have been known to jam.

Table 2-10
Terminal Capacity Summary

BUILDING TOTAL	UNIT	QUANTITY	% OF TERM.
Commercial Airline Operations - Ticketing			
Check-In Positions	Each	13	--
Ticketing Counter Length	L.F.	120	--
Curbside Check-In	Each		--
Ticket Agent Area ¹	S.F.	1,472	1.22%
Ticket Lobby	S.F.	2,842	2.35%
Airline Ticket Office ¹	S.F.	3,720	3.08%
Baggage Make-Up (covered exterior)	S.F.	4,373	3.62%
Security – Baggage Screening			
Baggage Screening	S.F.	3,288	2.72%
Baggage Claim			
Baggage Claim Devices	Each	2	--
Baggage Claim Device Frontage	L.F.	246	--
Baggage Claim Lobby	S.F.	5,872	4.87%
Inbound Baggage Operations (covered exterior)	S.F.	3,706	3.07%
Rental Car Areas	S.F.	3,188	2.64%
Public Waiting (non-secure)	S.F.	75	0.06%
Concessions			
Primary Concessions - Secure	S.F.	2,939	2.44%
Primary Concessions - Non-secure	S.F.	1,750	1.45%
Restaurant / Lounge	S.F.	3,773	3.13%
Miscellaneous Lease/ Storage	S.F.	1,264	1.05%
Security – Passenger Screening			
Security – Passenger Screening	S.F.	2,709	2.24%
Commercial Airline Operations - Gates			
Passenger Holding	S.F.	13,606	11.27%
Boarding Gates	Each	8	--
Airline Operations Area	S.F.	1,932	1.60%
Circulation	S.F.	35,764	29.63%
Support Spaces	S.F.	14,677	12.16%
Airport Administration	S.F.	10,880	9.01%
TSA Security Offices	S.F.	2,994	2.48%
Building Total		120,691	
Source: MICHAEL BAKER INCORPORATED, INC. 2018		80,373	1st Floor
		40,268	2nd Floor
Note: 1. Includes Vacant Airline Space 2. Baggage Claim Lobby includes lost bag offices/ queuing.			

The baggage claim function area is undersized and does not accommodate current activity without crowding and congestion during peak times. With anticipated growth trends, the airport anticipates the need to expand the number of baggage conveyors.

The rental car agencies are located between the center and east entry vestibules near baggage claim. Four rental car agencies currently have on-airport representation at VPS. Each agency leases an office and counter area of approximately the same size. The rental car customer counters are arranged in a very straight forward configuration to the flow of circulation. Queuing for rental car customers is convenient to the main circulation path in baggage claim.

Passenger screening at VPS occupies the West side of the Lower Hall leading toward the Concourse building. The screening function operates with 2 lanes. At peak passenger times, the capacity of the lanes is greatly challenged and queuing passengers back up out into the central corridor of the Main Terminal. Capacity studies may dictate the need for a third lane.

The escalator is located appropriately for departing passengers heading for second-level gates. The elevator serving travelers to the second-level is somewhat out of direct line of site but is appropriately signed.

Since only ticketed passengers are allowed through the security checkpoint, meters/greeters remain on the non-secure side of the terminal. Public waiting space is limited. The public is forced to stand in circulation corridors or sit in concession spaces. The only location for people awaiting arrivals is north of the security checkpoint, immediately at the central exit. The Concourse was constructed in 2004 and it was designed for somewhat larger aircraft than currently are operating at the airport. It has generously sized holding rooms and circulation for its activity.

Hold Rooms are adequate for departing passengers. The airport provides a small amount of supplemental seating along the walls of the Concourse Connector heading toward Gates B5 & B6 to offset the smaller size of the hold rooms for those gates.

Nationally, in the wake of current security regulations, most airports experienced a trending toward a decrease in the number of people waiting on the non-secure side of terminals and a decrease in the amount of time they spend there, and an increase on the secure side. In addition, waiting passengers spend more than non-travelers in airport concessions. Across the concessions industry, when provided in appropriate locations and sizes, food, beverage, retail, and services located on the secure side have performed better than the same services located on the non-secure side. The airport has gift, food, and beverage concessions located on both the non-secure and secure sides of the terminal. The concessions located on the non-secure side are close to the primary flow of inbound travelers. The wide corridor in the Concourse and the proximity of waiting areas to concessions is generally beneficial. The concessions need some improvements if they are to provide the airport with improved revenues and offer the traveling public the level of service that has become the standard at VPS's peer airports. Concessions serving travelers within the Concourse on the secure side may also need to be expanded as passenger demand increases. The configuration of the airside concessions should be reconsidered

for improved visibility. Concession storage is scattered about the terminal. Consolidation of these storage facilities could allow for other more appropriate functions.

Regulatory Analysis

This planning effort included cursory review of fire prevention (NFPA), and accessibility (ADA). This cursory review was meant to identify significant issues that could affect planning-level decision-making.

National Fire Protection Association (NFPA)

The following comments are based on the National Fire Protection Association *NFPA 415 – Standard on Airport Terminal Buildings, Fueling Ramp Drainage, and Loading Walkways (1997 Edition)*. This Standard is included in the Florida Fire Prevention Code, Sixth Edition (2017).

Types of construction are limited to require non-combustible or limited combustible materials.

In this section, “(w)here potential fuel spills are located less than 100 feet horizontally from glazing material covered openings in airport terminal building walls facing the airport ramp, they shall be provided with an automatically activated water spray system or an automatically activated, listed fire shutter...”

The terminal building has a sprinkler system throughout the building, as well as smoke and fire detection and alarm systems. Additions or expansions to the terminal should provide equivalent service.

The NFPA 415 Standard also requires that on an aircraft ramp where fueling occurs, aircraft ramps “shall slope away from terminal buildings, aircraft hangars, aircraft loading walkways, or other structures, with a minimum grade of 1 percent for the first 50 feet. Beyond this distance, the ramp slope to drainage inlets shall be permitted to be reduced to 0.5 percent.” In addition, “drainage inlets... shall be located a minimum of 50 feet from structures.” The NFPA standards require that any drainage collection systems be fully non-combustible and resistant to reaction to fueling compounds, and that the airport drainage system shall separate and collect combustible fuels for safe disposal. Loading walkways shall be constructed of fire resistant materials and in a manner to limit occupants’ exposure to smoke or fire. In addition, ramp access doors shall function as egress doors from the plane. The construction of the bridges is typical for their era and assembly, and no unusual flammable materials were observed on the occupiable portions. The Airport has stated that the current loading bridge canopy and floor bumper assemblies are not all UL and NFPA rated. It is recommended that any parts or materials that are scheduled for replacement should be upgraded to available fire-resistance rated products.

Pet Relief Area

A pet relief area is located in the park area between the short/ long term parking and terminal building.

Accessibility / Americans with Disabilities Act (ADA)

A general accessibility review of the VPS terminal area was performed using the 2014 Florida Accessibility Code. Since the building was originally constructed and expanded after the adoption of ADA, most components of the terminal conform to the current standard.

It is recommended that the Airport follow guidelines given in these studies, in addition to the supplemental recommendations listed below.

Accessible Information Systems

ADA also requires that federally funded and public Airport facilities that deliver information to the general public by a public-address system also provide the same information in an alternative format to persons with hearing impairments.

Some airports and their associated airlines have consolidated their passenger information systems as part of a multi-user flight information display system (MUFIDS). As part of planned improvements to the airport terminal building or communications systems, an integrated audible and visual messaging system has been considered to provide accessibility to the traveling public with vision or hearing impairments.

Signage within the terminal generally communicates well and is well placed. In some public areas, permanent room signage is missing where required or does not meet evolving accessibility guidelines. It is recommended that a more thorough inventory of room signage is made to bring this signage up to requirements. Overhead signage within the terminal communicates well and is compliant to current guidelines.

There is currently little dedicated public waiting space in the terminal, which has become especially critical since 9/11 when airports stopped allowing non-ticketed people through passenger screening and into the secure Concourse. The Connector Corridor has become the waiting space for meter/greeters, the volume of which at times creates almost complete breakdown as a circulation space.

Terminal Systems

The existing terminal systems were installed as part of the original construction. Due to the age, maintenance needs and inability to keep up with the demands on the system, programs are in place to begin replacing the terminal systems as needed.

- Gas Boilers.

Tenant Workshop

A tenant workshop was held in March 2018. The results of the workshop have been included in the study, particularly the various alternatives and proposed improvements that have been considered, including an upgraded/expanded Baggage Handling System Screening, covered parking in the rental car ready return lot, rehabilitation to the rental car facilities and a security inspection facility to name a few.

Summary

The Inventory component provides the foundation for the future phases of the study. The inventory process identified the existing terminal area facilities at VPS so that future recommendations for improvements can be evaluated. Below is a summary list of the items noted above, and throughout this report, of deficiencies and concerns with existing terminal area facilities. While not comprehensive, it provides a good starting point for improving the facilities at VPS.

Terminal Area Landside

Access Roadway

- The decision point time in the airport loop road immediately upon entering the airport presents operational concerns.
- An electronic signage system could be beneficial in informing customers of available spaces in all public parking lots.

Parking Facilities

- The existing public parking system overall has available spare capacity. Long Term Parking (credit card only) has been underutilized, based on the parking activity data. Options should address usage reallocation, additional surface parking, or a parking garage to meet both short and long-term needs.
- Shaded cover to provide protection from the weather elements for public, rental car, and employee parking.

Vehicle Security Screening

- Parking close to the terminal building was temporarily affected by security restrictions put into place immediately after the events of September 11, 2001 (9/11). The current DHS/ TSA policy is to provide specific and time-framed alerts through the National Terrorism Advisory System (NATS). It is possible that future security guidelines might require some limit on the size of vehicles parked within the terminal protection zone, or might require vehicles parked in this area to be searched and cleared. Provisions for a potential vehicle search area early in the ground vehicle approach sequence may be included as part of development plans for the Terminal Area. Under certain conditions, the Transportation Security Administration may require all vehicles approaching the terminal area be screened to identify and reduce potential threats. To incorporate screening and searching of vehicles into the Airport's security plan, queuing and inspection lanes and a means of access control would ideally be added relatively early in the vehicle access sequence. An area for the future location of such a vehicular security checkpoint should be incorporated into development plans of the terminal area.
- All vehicles undergo a security check at the east side access gate by the Okaloosa County Sheriff's Department prior to entry into the SIDA. One area of concern is the lack of an enclosed shelter to conduct inspections. An enclosed shelter would provide a safer

environment from the weather conditions. An inspection pit would provide for a more complete level of inspections.

Terminal Area Airside

Apron

- Additional apron area will be required for any concourse expansion.
- Additional Remote Parking will be required.
- Apron Markings should be updated.

Terminal Building

- Baggage Handling System (BHS) should be expanded to correct baggage jamming issues.
- Installation of Security Bollards around terminal building and under concourse drive-throughs.
- Transportation Security Administration (TSA) Checkpoint Expansion
- Replacement of Passenger Loading Bridges at Gates B1, B2, and B3.
- Construct Overhang at front of Terminal Building
- Installation of new roof for both terminal and concourse

Terminal Systems

- Replace Gas Boilers.

CHAPTER THREE

AVIATION ACTIVITY FORECASTS

Destin-Fort Walton Beach Airport

INTRODUCTION

This element of the Terminal Area Study/Terminal Area Plan Update presents the projections of aviation activity that will be used as a basis for terminal area facility planning at the Destin-Fort Walton Beach Airport (VPS). These forecasts only consider air carrier activity and do not consider the other types of aviation activity at the airport. Typically, new aviation activity forecasts are developed as part of a planning effort with a wide-ranging scope such as this one. The activity forecasts developed for this study are based on historical trends, forecasts developed by the Federal Aviation Administration (FAA), and specific assumptions about growth that may be realistic for VPS during the 20-year planning period that extends from 2018 to 2038. The forecasts were developed in July 2018 and were generated from estimated baseline 2018 values. The estimated baseline 2018 values accounted for the six new seasonal routes that were initiated by Allegiant at the beginning of June 2018, as well estimated activity for American, Delta, and United.

As discussed throughout this chapter, with the introduction of Allegiant service at VPS in May 2016, the number of commercial operations and passenger levels grew significantly in 2017 and 2018. American, Delta, and United have also grown in terms of total seating capacity between 2013 and 2018 and the trend is expected to continue. Allegiant continues to add new seasonal destinations to VPS and to many of their leisure destinations in Florida and throughout the country. At the beginning of 2018, Allegiant announced that it was investing more than \$49 million into establishing a year-round base for two Airbus aircraft at VPS and would be adding more than 65 new jobs (according to Allegiant's February 13, 2018 press release). Other Allegiant bases in Florida are located at the following airports:

- Orlando Sanford International Airport (SFB)
- St. Pete-Clearwater International Airport (PIE)
- Punta Gorda Airport (PGD)
- Fort Lauderdale/Hollywood International Airport (FLL)

VPS is currently the only airport along Florida's Panhandle with Allegiant service and the growing tourism industry in the Destin-Fort Walton Beach area has helped to continually sustain the growth in airline activity at VPS, particularly as Allegiant has added new seasonal destinations each year. A demographic study was conducted for VPS that indicated that the Allegiant service draws passengers from as far away as Tallahassee, Mobile, Gulfport, and Montgomery, which is a very wide area with several popular beaches and tourist attractions. Considering these and other factors, as well as the success of Allegiant at other airports in Florida, there is no foreseeable reason not to expect continued growth at VPS (especially in the short-term). The main limitation for VPS is twofold: 1) the cap of 84 commercial operations per day as agreed upon with the U.S. Air Force, and 2) the ability to provide facilities that can accommodate continuously-growing activity levels. This forecasting effort was conducted based on the assumption that the cap of 84 commercial operations could not be exceeded during the 20-year planning period (but it did not consider whether adequate facilities could be provided in a timely manner).

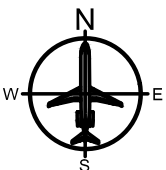
This chapter covers the following elements:

- Demographic/Economic Indicators
- Historical and Baseline Activity Analysis (Annual)
- Baseline Activity Analysis (Daily and Hourly)
- VPS Commercial Activity History (2013-2018)
- Review of Allegiant Activity in Florida
- Commercial Passenger and Operations Forecast (Daily and Hourly)
- Commercial Passenger and Operations Forecast (Annual)
- Forecast Summary

Demographic/Economic Indicators

Aircraft activity levels at public-use airports are a function of economic and demographic characteristics of the service area. Service areas for airports may be considered the location where most passengers are likely to be drawn, as well as the community that is most benefited by the presence of the airport. Since VPS is also a destination market, additional information was assembled regarding visitor impact to the region and aviation demand. Based on the information obtained for this Terminal Area Study/Terminal Area Plan Update, the service area includes six counties and is divided into a primary service area and a secondary service area. For the purposes of looking at economic indicators as part of this study, the primary airport service area was determined to be the counties of Okaloosa, Walton, and Santa Rosa. The secondary service area includes Escambia, Holmes, and Washington. The service area for VPS is illustrated in **Exhibit 3-1**. Socioeconomic trends that were reviewed as part of the forecast include tourism-related factors, population, and income. As part of a separate study, a detailed demographic study was conducted for VPS that analyzed numerous factors including drive times, area businesses, the impact of the military and military contractors, etc. The information in that study points out the viability of VPS to sustain continued growth in Allegiant and other airline service from a wide area and large and rapidly-growing population with high paying jobs. The demographic information presented in this section was primarily obtained from a single database of economic indicators for every jurisdiction in the United States. This allows for uniform comparisons to be made between the service areas of VPS and other jurisdictions using a single data source.

Northwest Florida and the Emerald Coast have become a premier destination for visitors. Because many visitors use the Destin-Fort Walton Beach Airport, the number of annual visitors to the area has a direct impact on aviation activity. Northwest Florida has shown a significant increase in visitors over the past few years. With over 16,000,000 visitors to Northwest Florida in 2017, the area will continue to attract visitors with the beaches, climate, and numerous recreational activities. One of the more telling indicators regarding recent tourism growth in the Destin-Fort Walton Beach area is the Okaloosa County Tourism Development Tax (TDT), which is a 5.00 percent lodging tax in the cities of Destin, Fort Walton Beach, Okaloosa Island, Mary Esther, and Cinco Bayou. **Table 3-1** illustrates the TDT collections in Okaloosa County between 2013 and 2017. The TDT collections have increased significantly every year since 2013. This money is used to conduct improvements that will then be beneficial for continuing to attract more tourism and to promote tourism for the area. The last column in the table is provided to show how the annual enplanements at VPS compare to a percentage of annual TDT collections, which appears to be in a similar range each year but was not employed as a forecasting methodology in this study. As tourism continues to grow, the detailed demographic study indicates that the population in the area has also grown at one of the fastest rates in the country, which can be seen in **Table 3-2** particularly when looking at recent growth rates for the population of the primary airport service area (i.e., an Average Annual Growth Rate [AAGR] of 1.93 percent between 2010 and 2015).



**TERMINAL AREA STUDY/
TERMINAL AREA PLAN UPDATE**
AIRPORT SERVICE AREAS

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CERTIFICATE OF AUTHORIZATION NUMBER 28861

EXHIBIT 3-1

Table 3-1
Okaloosa County Tourism Development Tax (TDT) Collections (2013-2017)

Year	TDT Collections	VPS Enplanements	VPS Enplanements ÷ TDT Collections
2013	\$8,112,010	358,718	4.42%
2014	\$14,780,313	356,891	2.41%
2015	\$16,713,548	369,853	2.21%
2016	\$18,078,187	417,858	2.31%
2017	\$19,534,276	556,332	2.85%
Average Annual Growth Rates (AAGR)			
2013-2014	82.20%	-0.51%	-45.40%
2014-2015	13.08%	3.63%	-8.36%
2015-2016	8.16%	12.98%	4.45%
2016-2017	8.05%	33.14%	23.21%
2013-2017	24.57%	11.60%	-10.42%

Source: Okaloosa County Comprehensive Annual Financial Reports.

Table 3-2
Historical and Forecast Population of VPS Service Areas, Florida and the U.S. (2000-2040)

Year	Primary Service Area	Secondary Service Area	Total Service Area	State of Florida	United States
2000	330,315	334,301	664,616	16,047,510	282,162,410
2010	388,876	342,731	731,607	18,852,220	309,347,060
2015	427,886	356,724	784,610	20,158,750	321,545,080
2020	463,217	367,785	831,002	21,620,610	336,690,450
2030	541,499	388,377	929,876	24,808,880	368,838,290
2040	624,243	402,456	1,026,699	28,095,870	399,638,130
Average Annual Growth Rates (AAGR)					
2000-2010	1.65%	0.25%	0.96%	1.62%	0.92%
2010-2015	1.93%	0.80%	1.41%	1.35%	0.78%
2015-2040	1.52%	0.48%	1.08%	1.34%	0.87%

Source: Woods and Poole, 2016 Complete Economic Data.

An area's personal income is the income that is received by persons from all sources. Per Capita Income (PCI) is calculated as the personal income of the residents of a given area divided by the population of the area. It is often used as a gauge to measure a community's standard of living. Income is also an important determinant of air travel demand. As income levels rise in a community, the tendency to travel increases. Since 2000, PCI has been lower in the secondary service area than in the primary service area. The total service area's PCI is about 0.53 percent below the PCI of the State of Florida. **Table 3-3** shows the historical PCI for the Destin-Fort Walton Beach Airport service areas, Florida, and the United States from 2000 to 2015.

Table 3-3
Historical Per Capita Income (PCI) of VPS Service Areas, Florida, and the U.S. (2000-2015)

Year	Primary Service Area	Secondary Service Area	Total Service Area	State of Florida	United States
2000	\$29,887	\$24,312	\$27,100	\$35,603	\$36,812
2010	\$38,313	\$27,551	\$32,932	\$38,089	\$39,622
2015	\$39,915	\$27,754	\$33,835	\$39,846	\$42,928
Average Annual Growth Rates (AAGR)					
2000-2010	2.51%	1.26%	1.97%	0.68%	0.74%
2010-2015	0.82%	0.15%	0.54%	0.91%	1.62%

Source: Woods and Poole, 2016 Complete Economic Data.

Historical and Baseline Activity Analysis (Annual)

The focus of this study is on the number of commercial passengers and operations that are processed through the terminal area at VPS. Therefore, it is important to review the historical growth trends in commercial passenger activity and commercial operations. As shown in **Table 3-4**, the number of passenger enplanements, or those passengers departing from VPS, remained relatively consistent until Allegiant began service in May 2016 and began to add new routes each year. The 2018 enplanements number was determined by multiplying the anticipated number of available airline seats through the end of the year by the average load factor in 2017 (i.e., 884,866 available passenger seats in 2018 multiplied by an average load factor of 80.21 percent equals 709,751 enplanements). Between 2016 and 2017, there was an increase of 138,474 passenger enplanements, and between 2017 and 2018, there was an increase of 151,170. **Table 3-5** illustrates the number of commercial operations that were conducted at VPS from 2007 to 2018. Between 2017 and 2018, the total number of commercial operations increased by 920.

Table 3-6 illustrates the historical average number of enplanements per departure and highlights that each flight today carries nearly two times as many passengers as it did nearly 10 years ago. This is not only occurring because Allegiant only flies narrow-body jets (mostly Airbus A320s), but also because American, Delta, and United have or are in the process of conducting fleet replacements that include retiring older and smaller aircraft and replacing them with larger aircraft. This trend is expected to continue moving forward and is addressed as part of this forecasting effort. As shown in **Table 3-7**, the average load factors of the commercial operations have also been increasing over the past 10 years and is calculated by dividing number of occupied seats by the number of available seats. In 2018, the average load factor was assumed to be 80.21 percent which was reported as the 2017 load factor for VPS by the United States Department of Transportation (USDOT) Bureau of Transportation Statistics (BTS). **Table 3-8** illustrates the 2018 commercial aircraft mix at VPS and illustrates how many seats would be occupied in each aircraft under an average load factor of 80.21 percent and under a peak hour load factor of 90.00 percent, which is utilized for planning purposes to calculate peak hour volumes and is approximately what Delta averages at VPS in several months throughout the year.

Table 3-4
Historical Airline Passengers at VPS (2007-2018)

Year	Enplanements	Deplanements	Total
2007	376,693	376,693	753,386
2008	377,443	377,443	754,886
2009	372,184	372,184	744,368
2010	348,437	348,437	696,874
2011	432,661	432,661	865,322
2012	370,755	370,755	741,510
2013	358,718	358,718	717,436
2014	356,891	356,891	713,782
2015	369,853	369,853	739,706
2016	417,858	417,858	835,716
2017	556,332	556,332	1,112,664
2018	709,751	709,751	1,419,502
Average Annual Growth Rates (AAGR)			
2007-2015	-0.23%	-0.23%	-0.23%
2015-2016	12.98%	12.98%	12.98%
2016-2017	33.14%	33.14%	33.14%
2017-2018	27.58%	27.58%	27.58%
2016-2018	30.33%	30.33%	30.33%

Sources: Airport records and FAA's 2017 Terminal Area Forecast (TAF).

Table 3-5
Historical Airline Operations at VPS (2007-2018)

Year	Departures	Arrivals	Total
2007	8,902	8,902	17,804
2008	9,090	9,090	18,180
2009	8,772	8,772	17,544
2010	8,970	8,970	17,940
2011	9,636	9,636	19,272
2012	7,981	7,981	15,962
2013	7,870	7,870	15,740
2014	6,428	6,428	12,856
2015	6,166	6,166	12,332
2016	6,682	6,682	13,364
2017	7,142	7,142	14,284
2018	8,019	8,019	16,038
Average Annual Growth Rates (AAGR)			
2007-2015	-4.49%	-4.49%	-4.49%
2015-2016	8.37%	8.37%	8.37%
2016-2017	6.88%	6.88%	6.88%
2017-2018	12.28%	12.28%	12.28%
2016-2018	9.55%	9.55%	9.55%

Sources: Airport records, FAA's 2017 Terminal Area Forecast (TAF).

Table 3-6
Average Enplanements per Departure (2007-2018)

Year	Enplanements (A)	Departures (B)	Enp per Dep (A) ÷ (B)
2007	376,693	8,902	42
2008	377,443	9,090	42
2009	372,184	8,772	42
2010	348,437	8,970	39
2011	432,661	9,636	45
2012	370,755	7,981	46
2013	358,718	7,870	46
2014	356,891	6,428	56
2015	369,853	6,166	60
2016	417,858	6,682	63
2017	556,332	7,142	78
2018	707,502	8,019	88
Average Annual Growth Rates (AAGR)			
2007-2015	-0.23%	-4.49%	4.46%
2015-2016	12.98%	8.37%	4.25%
2016-2017	33.14%	6.88%	24.56%
2017-2018	27.17%	12.28%	13.26%
2016-2018	30.12%	9.55%	18.78%

Sources: Airport records and FAA's 2017 Terminal Area Forecast (TAF).

Table 3-7
Historical Airline Load Factors (LF) at VPS (2007-2018)

Year	Departure LF from VPS
2007	72.65%
2008	66.62%
2009	74.25%
2010	70.97%
2011	76.31%
2012	77.66%
2013	76.37%
2014	81.73%
2015	82.17%
2016	81.49%
2017	80.21%
2018	80.21%
Average Annual Growth Rates (AAGR)	
2007-2015	1.55%
2015-2016	-0.83%
2016-2017	-1.57%
2017-2018	0.00%
2016-2018	-0.79%

Sources: Airport records, FAA's 2017 Terminal Area Forecast (TAF), and USDOT Bureau of Transportation Statistics (BTS).

Table 3-8
2018 Commercial Aircraft Mix at VPS (2007-2018)

Manufacturer	Model	Total Seats	80.21% LF	90.00% LF
Boeing	717-200	110	88	99
Boeing	737-700	124	99	112
Airbus	A320	177	142	159
Airbus	A319	149	120	134
Canadair	CRJ-700	65	52	59
Canadair	CRJ-900	76	61	68
Embraer	ERJ-145	50	40	45
Embraer	ERJ-175	75	60	68
McDonnell Douglas	MD-80	138	111	124

Sources: Airport records and Michael Baker International, Inc., 2018.

Historical and Baseline Activity Analysis (Daily and Hourly)

The daily and hourly numbers were determined by reviewing a flight schedule provided by the airport for the week beginning Sunday, June 3, 2018 and ending Saturday, June 9, 2018. This was the week when Allegiant introduced six new seasonal destinations to VPS that were conducted on a bi-weekly basis. The six new destinations included the following:

- Concord / Charlotte, NC (USA)
- Evansville, IN (EVV)
- Lexington, KY (LEX)
- Nashville, TN (BNA)
- Northwest Arkansas, AR (XNA)
- Raleigh / Durham, NC (RDU)

During the one-week period, the peak day was determined to be Saturday, January 9, 2018 and the full schedule for that day is shown in **Table 3-9**. There were 31 departures on that day, 32 arrivals, and an estimated 3,159 enplaned passengers. The peak hour for departures is highlighted in pink and included six departures and an estimated 746 passengers between the hours of 7:00 a.m. and 8:00 a.m. Flights to only one of the six new Allegiant destinations (XNA) occur on the peak day and during the peak hour. Flights to the other five destinations occur on other days throughout the week. A total of nine Remain Overnight (RON) aircraft stayed overnight at VPS at the end of the peak day including three Allegiant airplanes, three American airplanes, two Delta airplanes, and one United airplane. **Table 3-10** summarizes the daily and hourly activity information for each day of the week at VPS. The information shown for Saturday, June 9, 2018 was used as the baseline for daily and hourly peaks throughout the remainder of this forecasting effort.

Table 3-9
 Daily Schedule of Commercial Operations at VPS (Saturday, June 9, 2018)

Operation	Airline	Flight #	Aircraft Type	Scheduled Time	Destination/Origin	Seats	80.21% LF	90.00% LF
D1	DELTA	2028	717-200	0600	ATL	110	88	
D2	UNITED/PHD 1	4345	ERJ-145	0700	IAH	50		45
D3	ALLEGiant/PHD 2	1902	AIRBUS	0700	BLV	177		159
D4	AMERICAN/PHD 3	2250	MD-80	0713	DFW	138		124
D5	DELTA/PHD 4	2438	717-200	0730	ATL	110		99
D6	ALLEGiant/PHD 5	1932	AIRBUS	0730	XNA	177		159
D7	ALLEGiant/PHD 6	2914	AIRBUS	0800	MCI	177		159
D8	AMERICAN	5623	CRJ-900	0831	CLT	76	61	
A1	DELTA	2846	717-200	0845	VPS			
A2	ALLEGiant	2866	AIRBUS	0849	VPS			
A3	AMERICAN	2202	AIRBUS-319	0854	VPS			
D9	DELTA	2846	717-200	0921	ATL	110	88	
A4	AMERICAN	5564	CRJ-900	0933	VPS			
D10	AMERICAN	2202	AIRBUS-319	0934	DFW	149	120	
D11	ALLEGiant	2867	AIRBUS	0934	IND	177	142	
A5	ALLEGiant	1923	AIRBUS	0940	VPS			
D12	AMERICAN	5564	CRJ-900	1003	CLT	76	61	
A6	AMERICAN	4609	ERJ-175	1013	VPS			
D13	ALLEGiant	1922	AIRBUS	1025	PIT	177	142	
D14	AMERICAN	4609	ERJ-175	1045	DCA	75	60	
A7	ALLEGiant	1903	AIRBUS	1111	VPS			
A8	DELTA	2716	717-200	1111	VPS			
A9	ALLEGiant	1933	AIRBUS	1140	VPS			
D15	DELTA	2313	717-200	1148	ATL	110	88	
D16	ALLEGiant	1912	AIRBUS	1201	SGF	177	142	
D17	ALLEGiant	2932	AIRBUS	1231	XNA	177	142	
A10	AMERICAN	1047	MD-80	1255	VPS			
A11	ALLEGiant	2915	AIRBUS	1257	VPS			
D18	AMERICAN	1047	MD-80	1337	DFW	138	111	
D19	ALLEGiant	1900	AIRBUS	1346	CVG	177	142	
A12	UNITED	6278	ERJ-175	1348	VPS			
A13	DELTA	2031	717-200	1352	VPS			
A14	AMERICAN	5740	CRJ-900	1414	VPS			
D20	UNITED	6172	ERJ-175	1425	IAH	75	60	
D21	DELTA	2873	717-200	1429	ATL	110	88	
D22	AMERICAN	5740	CRJ-900	1444	DFW	76	61	
A15	ALLEGiant	2900	AIRBUS	1446	VPS			
A16	DELTA	1143	717-200	1523	VPS			
A17	AMERICAN	5258	CRJ-900	1524	VPS			
D23	ALLEGiant	2901	AIRBUS	1531	CVG	177	142	
D24	DELTA	1143	717-200	1600	ATL	110	88	
D25	AMERICAN	5258	CRJ-900	1600	CLT	76	61	
A18	ALLEGiant	1913	AIRBUS	1626	VPS			
A19	ALLEGiant	2933	AIRBUS	1641	VPS			
D26	ALLEGiant	1908	AIRBUS	1716	OKC	177	142	
A20	DELTA	0995	717-200	1736	VPS			
D27	ALLEGiant	1920	AIRBUS	1746	PIA	177	142	
D28	DELTA	2426	717-200	1812	ATL	110	88	
A21	UNITED	3998	ERJ-145	1815	VPS			
A22	AMERICAN	5709	CRJ-700	1823	VPS			
A23	ALLEGiant/RON 1	1901	AIRBUS	1823	VPS			
A24	AMERICAN	5035	CRJ-700	1827	VPS			
D29	UNITED	4260	ERJ-145	1845	IAH	40	40	
D30	AMERICAN	5709	CRJ-700	1855	CLT	52	52	
D31	AMERICAN	5906	CRJ-900	1857	DFW	61	61	
A25	AMERICAN/RON 2	5626	CRJ-900	1913	VPS			
A26	DELTA/RON 3	1856	717-200	1953	VPS			
A27	AMERICAN/RON 4	1445	MD-80	2043	VPS			
A28	UNITED/RON 5	6284	ERJ-175	2200	VPS			
A29	ALLEGiant/RON 6	1909	AIRBUS	2207	VPS			
A30	ALLEGiant/RON 7	1921	AIRBUS	2237	VPS			
A31	DELTA/RON 8	1234	717-200	2258	VPS			
A32	AMERICAN/RON 9	5696	CRJ-900	2313	VPS			
Departures (D) = 31		Peak Hour Enplanements = 746			Totals	3,799	2,413	746
Arrivals (A) = 32		Peak Hour Departures = 6			Daily Enplanements	3,159		
Total Operations = 63		Remain Overnight (RON) Aircraft = 9			Average Load Factor	83.15%		

Sources: Airport records and Michael Baker International, Inc., 2018.

Note: Numbers may not add due to rounding.

Legend: Departures Arrivals Peak Hour Remain Overnight

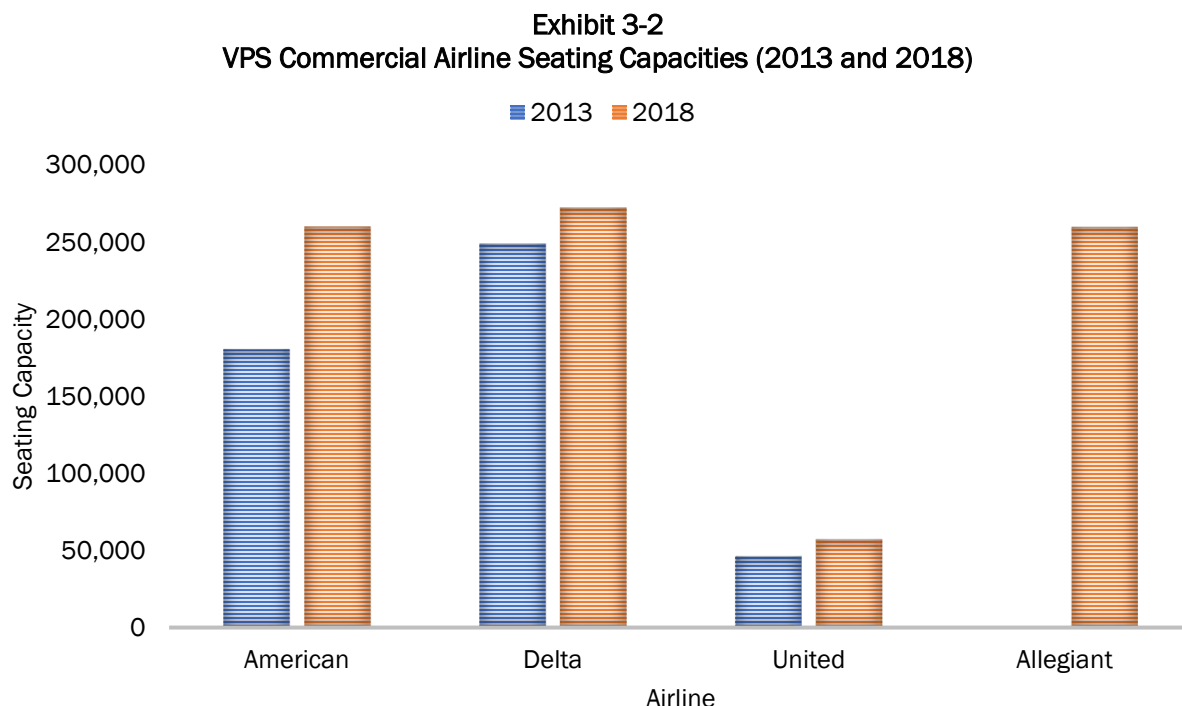
Table 3-10
Summary of Weekly Commercial Operations at VPS
Week of January 3, 2018 to January 9, 2018

Date	Peak Day (PD) Operations			Peak Hour (PH) Operations		PH PAX @ 90% LF (F)	Peak Day PAX (G)	PH Ops % (D) ÷ (C)	PH PAX % (F) ÷ (G)
	Dep (A)	Arr (B)	Total (C)	Dep (D)	Arr (E)				
Sun (6/3/2018)	26	26	52	6	4	655	2,635	23.08%	24.86%
Mon (6/4/2018)	27	27	54	6	4	680	2,794	22.22%	24.34%
Tue (6/5/2018)	24	25	49	6	5	680	2,192	25.00%	31.02%
Wed (6/6/2018)	25	26	51	6	4	680	2,280	24.00%	29.82%
Thu (6/7/2018)	29	30	59	6	5	726	2,926	20.69%	24.81%
Fri (6/8/2018)	31	33	64	6	6	701	3,103	19.35%	22.59%
Sat (6/9/2018)	31	32	63	6	5	746	3,159	19.35%	23.62%

Sources: Airport records and Michael Baker International, Inc., 2018.

VPS Commercial Activity History (2013-2018)

Table 3-11 illustrates a summary of the historical commercial activity at VPS between 2013 and 2018. All three legacy carriers (American, Delta, and United) have increased their seating capacity over the period shown. Although United has continued to utilize smaller regional jets, both American and Delta have transitioned to utilizing a combination of larger regional jets and higher capacity narrow-body jets which has increased the average number of seats per departure. For example, Delta averaged 77 seats per departure in 2013, but that number increased to 119 in 2018. Some of these trends are explained in later sections of this chapter as airlines have plans to retire aging aircraft and smaller regional jets and replace them with higher capacity models. Without considering the Allegiant service at VPS, the seating capacity of three legacy carriers has grown at an AAGR of 4.41 percent between 2013 and 2018. With Allegiant, the same number is 12.32 percent. Therefore, it is likely that growth will continue to occur for all four airlines that currently operate at VPS over the course of the 20-year planning period of this study. Although it is anticipated that much of the strong short-term growth will continue to occur with the Allegiant service, growth should be anticipated for the legacy carriers over the long-term as they adjust their fleet mixes, change frequencies of existing routes, and potentially add new routes. **Exhibit 3-2** illustrates a comparison of the seating capacities for the four airlines in 2013 versus 2018.



Airline	Destination	2013		2014		2015		2016		2017		2018		2013-2018 Average Annual Growth Rates (AAGR)	
		Departures	Seats	Departures	Seats	Departures	Seats	Departures	Seats	Departures	Seats	Departures	Seats	Departures	Seats
American	Charlotte (CLT)	1,196	60,050	1,233	59,770	1,100	51,450	1,285	68,254	1,393	96,898	1,414	92,565	3.41%	9.04%
	Washington D.C. (DCA)	373	18,600	169	8,550	46	2,300	52	2,600	75	4,125	268	14,580	-6.40%	-4.75%
	Dallas (DFW)	2,014	101,583	1,948	96,866	1,905	95,300	1,748	103,370	1,643	131,293	1,481	152,857	-5.96%	8.52%
	Total	3,583	180,233	3,350	165,186	3,051	149,050	3,085	174,224	3,111	232,316	3,163	260,002	-2.46%	7.60%
	Average Seats Per Departure	50		49		49		56		75		82		10.32%	
Delta	Atlanta (ATL)	3,225	248,727	2,182	246,776	2,415	266,494	2,424	274,717	2,241	270,905	2,280	272,452	-6.70%	1.84%
	Total	3,225	248,727	2,182	246,776	2,415	266,494	2,424	274,717	2,241	270,905	2,280	272,452	-6.70%	1.84%
	Average Seats Per Departure	77		113		110		113		121		119		9.15%	
United	Houston (IAH)	952	46,321	931	46,550	963	49,394	925	48,644	863	44,113	1,108	57,220	3.08%	4.32%
	Total	952	46,321	931	46,550	963	49,394	925	48,644	863	44,113	1,108	57,220	3.08%	4.32%
	Average Seats Per Departure	49		50		51		53		51		52		1.20%	
Allegiant	All Destinations	0	0	0	0	0	0	273	45,402	927	158,511	1,468	259,836	N/A	N/A
	Total	0	0	0	0	0	0	273	45,402	927	158,511	1,468	259,836	N/A	N/A
	Average Seats Per Departure	N/A		N/A		N/A		166		171		177		N/A	
Total (All)	Total	7,760	475,281	6,463	458,512	6,429	464,938	6,707	542,987	7,142	705,845	8,019	849,510	0.66%	12.32%
	Average Seats Per Departure	61		71		72		81		99		106		11.58%	
Total (Minus Allegiant)	Total	7,760	475,281	6,463	458,512	6,429	464,938	6,434	497,585	6,215	547,334	6,551	589,674	-3.33%	4.41%
	Average Seats Per Departure	61		71		72		77		88		90		8.00%	

Sources: Airport records and Michael Baker International, Inc., 2018.

Review of Allegiant Activity in Florida

The purpose of this analysis is to briefly look at where Allegiant is flying in Florida and to highlight some comparisons between Punta Gorda Airport (PGD) and VPS. As shown in **Table 3-12**, SFB had the most Allegiant destinations of any airport in Florida in July 2018, followed by PIE, PGD, and VPS. The Allegiant service at Sarasota/Bradenton International Airport (SRQ) began in 2018 and the airport is located 31.6 nautical miles from PIE and 41.5 nautical miles from PGD. Allegiant has been operating at PGD since as early as 2010 and the number of passengers and operations has continued to grow. A comparison of the Allegiant enplanements at both VPS and PGD is provided in **Table 3-13** and a comparison between the Allegiant destinations served at both airports in July 2018 is shown in **Table 3-14**. This is provided to illustrate that there has been a large amount of growth in the destinations served by Allegiant out of VPS since May 2016 and there is a potential to continue to add destinations like Allegiant has done at PGD since at least 2010. This does not make any inferences about the differences in economies, service areas, tourism opportunities, populations, or other factors, but is provided to illustrate the destinations served by Allegiant out of both airports. The peak hour in July 2018 at PGD included six departures by Allegiant between 6:30 a.m. and 7:30 a.m., which is twice the number of Allegiant departures during the peak hour at VPS.

Table 3-12
July 2018 Allegiant Destinations from FL Airports

Airport City	Code	Destinations
Orlando Sanford	SFB	70
St. Pete-Clearwater	PIE	66
Punta Gorda	PGD	39
Destin-Fort Walton Beach	VPS	22
Fort Lauderdale/Hollywood	FLL	18
Jacksonville	JAX	8
Sarasota/Bradenton	SRQ	3

Sources: *Allegiantair.com* and *Michael Baker International, Inc.*, 2018.

Table 3-13
Comparison of Allegiant Enplanements (VPS and PGD)

Year	VPS Allegiant Enplanements	PGD Allegiant Enplanements
2010	N/A	32,766
2011	N/A	56,211
2012	N/A	73,811
2013	N/A	166,062
2014	N/A	314,244
2015	N/A	418,017
2016	35,647	548,605
2017	122,224	616,318
2018	199,206 (Estimated)	842,230 (Estimated)
Average Annual Growth Rates (AAGR)		
2016-2017	242.87%	12.34%
2017-2018	62.98%	36.66%
2010-2018	N/A	50.06%

Sources: *Bureau of Transportation Statistics*, *VPS records*, *PGD online statistics*, and *Michael Baker International, Inc.*, 2018.

Table 3-14
July 2018 Allegiant Destinations from VPS and PGD

Destination	Destin-Fort Walton Beach (VPS)	Punta Gorda (PGD)
Allentown (Lehigh Valley), PA (ABE)	No	Yes
Asheville, NC (AVL)	No	Yes
Austin, TX (AUS)	Yes	No
Belleville, IL / St. Louis, MO (BLV)	Yes	Yes
Cedar Rapids, IA (CID)	No	Yes
Cincinnati, OH (CVG)	Yes	Yes
Cleveland, OH (CLE)	Yes	Yes
Columbus (Rickenbacker), OH (LCK)	Yes	Yes
Concord / Charlotte, NC (USA)	Yes	Yes
Dayton, OH (DAY)	No	Yes
Des Moines, IA (DSM)	No	Yes
Evansville, IN (EVV)	Yes	No
Flint, MI (FNT)	No	Yes
Fort Wayne, IN (FWA)	No	Yes
Grand Rapids, MI (GRR)	No	Yes
Harrisburg, PA (MDT)	No	Yes
Huntington (Tri-State), WV (HTS)	No	Yes
Indianapolis, IN (IND)	Yes	Yes
Kansas City, MO (MCI)	Yes	Yes
Knoxville, TN (TYS)	Yes	Yes
Lexington, KY (LEX)	Yes	Yes
Louisville, KY (SDF)	Yes	Yes
Memphis, TN (MEM)	Yes	No
Milwaukee, WI (MKE)	No	Yes
Moline (Quad Cities), IL (MLI)	No	Yes
Nashville, TN (BNA)	Yes	Yes
Newburgh (Stewart), NY (SWF)	No	Yes
New York City, NY / Newark, NJ (EWR)	Yes	No
Niagara Falls / Buffalo, NY (IAG)	No	Yes
Northwest Arkansas, AR (XNA)	Yes	No
Oklahoma City, OK (OKC)	Yes	No
Peoria, IL (PIA)	Yes	Yes
Pittsburgh, PA (PIT)	Yes	Yes
Plattsburgh, NY / Montreal, QC (PBG)	No	Yes
Portsmouth, NH (PSM)	No	Yes
Providence, RI (PVD)	No	Yes
Raleigh / Durham, NC (RDU)	Yes	Yes
Rochester, NY (ROC)	No	Yes
Rockford / Chicago, IL (RFD)	No	Yes
South Bend, IN (SBN)	No	Yes
Springfield / Branson, MO (SGF)	Yes	Yes
Springfield, IL (SPI)	No	Yes
St. Cloud, MN (STC)	No	Yes
Toledo, OH / Detroit, MI (TOL)	No	Yes
Trenton, NJ (TTN)	No	Yes
Washington D.C. / Baltimore, MD (BWI)	Yes	No
Total Destinations	22	39

Sources: Allegiantair.com and Michael Baker International, Inc., 2018.

Commercial Passenger and Operations Forecast (Daily and Hourly)

Because of the way in which Allegiant's activity has grown since beginning service at VPS in May 2016, it is difficult to predict how long that service will continue to grow in combination with the impact of other airlines adding new destinations, frequencies, and seating capacities on current routes. There is no reliable linear growth trend that can be extrapolated on to predict future values at VPS; rather, the introduction of a new airline providing a low-cost option that connects underserved markets to leisure destinations has tapped various new air travel opportunities. Allegiant added six new seasonal destinations to VPS in 2018 and it is anticipated that new destinations and frequencies will be added/adjusted in the future as can be seen with the PGD example. Consequently, factors like the population growth rate in the local area are less likely to affect the short-term growth in airline service at VPS. Although it is difficult to predict how many new destinations Allegiant will add each year at VPS, the airline has been successful in exponentially growing service at many airports in Florida including PGD, PIE, and SFB. Therefore, it was necessary to assume that Allegiant would continue to grow service at VPS throughout the remainder of the 20-year planning period.

It was also necessary to assume that changes could occur for the three other airlines at VPS including American, Delta, and United. Those changes could include changes in aircraft (e.g., fleet replacements), additional frequencies, and new destinations. Unlike Allegiant, the three other airlines primarily provide connections to hub airports and therefore provide key connection points to U.S. and global destinations. While many forecasting efforts start by determining annual numbers for airline passenger enplanements and departures, the forecasts for VPS started with daily and hourly numbers and then used those numbers to calculate annual values for the first five years and the last year of the forecast period (2019 through 2023 and 2038). A description of how the daily and hourly forecasts were developed is presented below and summarized in **Tables 3-15 through 3-20**. This forecast was developed based on recent and anticipated trends and is intended to illustrate a potential and realistic example that grows peak day departures to the maximum allowable number of 42 by 2038 (per the agreement with the U.S. Air Force).

2019 (Table 3-15 – Forecast Year 1) – **Table 3-15** illustrates the changes to the 2018 peak hour schedule that were assumed for the first year of the forecast. The 2019 forecast adds four new seasonal Allegiant destinations, which were all calculated as bi-weekly operations over the course of six months. The 2019 forecast also anticipates that American's planned retirement of MD-80 airplanes will occur and they will be replaced with A319s, and that United will replace their ERJ-145s with ERJ-175s based on the company's recent purchase of those aircraft. Therefore, the changes below were applied to the 2018 peak hour schedule to determine the 2019 peak day, hour, and ultimately annual forecasts. The changes are shown in the table where they apply to the peak hour, which includes one Allegiant departure and the American and United fleet upgrades. All values shown were calculated the same as the baseline values in **Table 3-9** and were carried through the entire day and were ultimately used to calculate annual values for the first five years of the forecast period (2019 through 2023). The peak hour in 2019 includes seven departures and 938 enplanements.

1. Allegiant New Dest 1 (Dep 1) – New seasonal destination that departs from VPS during the peak hour of the peak day and adds one RON aircraft (A320).
2. Allegiant New Dest 1 (Dep 2) – New seasonal destination that departs from VPS on a non-peak day.
3. Allegiant New Dest 2 (Dep 1) and 2 (Dep 2) – New seasonal destination that departs from VPS on non-peak days.
4. Allegiant New Dest 3 (Dep 1) and 3 (Dep 2) – New seasonal destination that departs from VPS on non-peak days.
5. Allegiant New Dest 4 (Dep 1) and 4 (Dep 2) – New seasonal destination that departs from VPS on non-peak days.
6. United fleet upgrade from the ERJ-145 to the ERJ-175 for all flights at VPS.
7. American fleet upgrade from the MD-80 to the A319 for all flights at VPS.

Table 3-15
2019 Forecast Peak Hour Schedule of Commercial Operations at VPS (Forecast Year 1)

Operation	Airline	Flight #	Aircraft Type	Scheduled Time	Destination	Seats	90.00% LF
PHD 1	UNITED	4345	ERJ-145 to ERJ-175	0700	IAH	75	68
PHD 2	ALLEGiant	1902	A320	0700	BLV	177	159
PHD 3	AMERICAN	2250	MD-80 to A319	0713	DFW	149	134
PHD 4	DELTA	2438	717-200	0730	ATL	110	99
PHD 5	ALLEGiant	1932	A320	0730	XNA	177	159
PHD 6	ALLEGiant	2914	A320	0800	MCI	177	159
PHD 7	ALLEGiant 1(D1)	TBD	A320	TBD	TBD	177	159
Totals						1,042	938
Total Daily Departures						32	
Peak Hour Departures						7	
Peak Hour Departures ÷ Total Daily Departures						21.88%	
Total Daily Enplanements						3,379	
Peak Hour Enplanements						938	
Peak Hour Enplanements ÷ Total Daily Enplanements						27.75%	
Remain Overnight (RON) Aircraft						10	
Summary of Changes:							
1. Allegiant 1(D1) – New seasonal destination that departs from VPS during the peak hour of the peak day and adds one RON aircraft (A320).							
2. Allegiant 1(D2) – New seasonal destination that departs from VPS on a non-peak day.							
3. Allegiant 2(D1) and 2(D2) – New seasonal destination that departs from VPS on non-peak days.							
4. Allegiant 3(D1) and 3(D2) – New seasonal destination that departs from VPS on non-peak days.							
5. Allegiant 4(D1) and 4(D2) – New seasonal destination that departs from VPS on non-peak days.							
6. United fleet upgrade from the ERJ-145 to the ERJ-175 for all flights at VPS.							
7. American fleet upgrade from the MD-80 to the A319 for all flights at VPS.							

Source: Michael Baker International, Inc., 2018.

Note: Highlighted cells in table represent actions taken in different years.

2020 (Table 3-16 – Forecast Year 2) – Table 3-16 illustrates the changes to the 2019 peak hour schedule that were assumed for the second year of the forecast. The major changes to the peak day include one additional Allegiant departure during a non-peak hour and the introduction of a new airline route using ERJ-145 airplanes, which will conduct one operation during the peak hour of the peak day and one during a non-peak hour of the peak day. While no airline route is shown, American currently provides service between Miami International Airport (MIA) and Pensacola International Airport (PNS) three times per day using ERJ-145s and between MIA and Tallahassee International Airport (TLH) four times per day. Therefore, it is reasonable to assume that a similar route/aircraft might be expected at least two times per day at VPS during the planning period. Both PNS and TLH also have daily intra-Florida routes that are conducted by Silver Airways in similar-sized aircraft. The peak hour in 2020 includes eight departures and 983 enplanements.

1. Allegiant New Dest 5 (Dep 1) – New seasonal destination that departs from VPS during a non-peak hour of the peak day.
2. Allegiant New Dest 5 (Dep 2) – New seasonal destination that departs from VPS on a non-peak day.
3. Allegiant New Dest 6 (Dep 1) and 6 (Dep 2) – New seasonal destination that departs from VPS on non-peak days.
4. Allegiant New Dest 7 (Dep 1) and 7 (Dep 2) – New seasonal destination that departs from VPS on non-peak days.
5. Allegiant New Dest 8 (Dep 1) and 8 (Dep 2) – New seasonal destination that departs from VPS on non-peak days.
6. TBD New Airline Route A (Dep 1) – New year-round destination that departs daily from VPS during the peak hour and adds one RON aircraft (ERJ-145).
7. TBD New Airline Route A (Dep 2) – New year-round destination that departs daily from VPS during a non-peak hour.

2021 (Table 3-17 – Forecast Year 3) – Table 3-17 illustrates the changes to the 2020 peak hour schedule that were assumed for the third year of the forecast. The major changes to the peak day include one additional Allegiant departure during a non-peak hour and the introduction of a new airline route, which will conduct two departures per day during a non-peak hour using ERJ-175s. While no airline route is shown, United currently provides service between Chicago O'Hare International Airport (ORD) and PNS two times per day using ERJ-175s. Frontier also provides seasonal service between ORD and PNS and Southwest provides seasonal service between Chicago Midway International Airport (MDW) and PNS. Therefore, it is reasonable to assume that a similar route/aircraft might be expected at least two times per day at VPS during the planning period. The peak hour in 2021 includes eight departures and 983 enplanements (i.e., the same as 2020 levels).

1. Allegiant New Dest 9 (Dep 1) – New seasonal destination that departs from VPS during a non-peak hour of the peak day.
2. Allegiant New Dest 9 (Dep 2) – New seasonal destination that departs from VPS on a non-peak day.
3. Allegiant New Dest 10 (Dep 1) and 10 (Dep 2) – New seasonal destination that departs from VPS on non-peak days.
4. Allegiant New Dest 11 (Dep 1) and 11 (Dep 2) – New seasonal destination that departs from VPS on non-peak days.
5. Allegiant New Dest 12 (Dep 1) and 12 (Dep 2) – New seasonal destination that departs from VPS on non-peak days.
6. TBD New Airline Route B (Dep 1) and B (Dep 2) – New year-round destination that departs two times daily from VPS during non-peak hours (ERJ-175).

Table 3-16
2020 Forecast Peak Hour Schedule of Commercial Operations at VPS (Forecast Year 2)

Operation	Airline	Flight #	Aircraft Type	Scheduled Time	Destination	Seats	90.00% LF
PHD 1	UNITED	4345	ERJ-175	0700	IAH	75	68
PHD 2	ALLEGiant	1902	A320	0700	BLV	177	159
PHD 3	AMERICAN	2250	A319	0713	DFW	149	134
PHD 4	DELTA	2438	717-200	0730	ATL	110	99
PHD 5	ALLEGiant	1932	A320	0730	XNA	177	159
PHD 6	ALLEGiant	2914	A320	0800	MCI	177	159
PHD 7	ALLEGiant 1(D1)	TBD	A320	TBD	TBD	177	159
PHD 8	TBD AIRLINE A(D1)	TBD	ERJ-145	TBD	TBD	50	45
Totals						1,092	983
Total Daily Departures						35	
Peak Hour Departures						8	
Peak Hour Departures ÷ Total Daily Departures						22.86%	
Total Daily Enplanements						3,606	
Peak Hour Enplanements						983	
Peak Hour Enplanements ÷ Total Daily Enplanements						27.25%	
Remain Overnight (RON) Aircraft						11	
Summary of Changes:							
1. Allegiant 5(D1) – New seasonal destination that departs from VPS during a non-peak hour of the peak day.							
2. Allegiant 5(D2) – New seasonal destination that departs from VPS on a non-peak day.							
3. Allegiant 6(D1) and 6(D2) – New seasonal destination that departs from VPS on non-peak days.							
4. Allegiant 7(D1) and 7(D2) – New seasonal destination that departs from VPS on non-peak days.							
5. Allegiant 8(D1) and 8(D2) – New seasonal destination that departs from VPS on non-peak days.							
6. TBD Airline A(D1) – New year-round destination that departs daily from VPS during the peak hour and adds one RON aircraft (ERJ-145).							
7. TBD Airline A(D2) – New year-round destination that departs daily from VPS during a non-peak hour.							

Source: Michael Baker International, Inc., 2018.

Note: Highlighted cells in table represent actions taken in different years.

Table 3-17
2021 Forecast Peak Hour Schedule of Commercial Operations at VPS (Forecast Year 3)

Operation	Airline	Flight #	Aircraft Type	Scheduled Time	Destination	Seats	90.00% LF	
PHD 1	UNITED	4345	ERJ-175	0700	IAH	75	68	
PHD 2	ALLEGiant	1902	A320	0700	BLV	177	159	
PHD 3	AMERICAN	2250	A319	0713	DFW	149	134	
PHD 4	DELTA	2438	717-200	0730	ATL	110	99	
PHD 5	ALLEGiant	1932	A320	0730	XNA	177	159	
PHD 6	ALLEGiant	2914	A320	0800	MCI	177	159	
PHD 7	ALLEGiant 1(D1)	TBD	A320	TBD	TBD	177	159	
PHD 8	TBD AIRLINE A(D1)	TBD	ERJ-145	TBD	TBD	50	45	
Totals							1,092	983
Total Daily Departures							38	
Peak Hour Departures							8	
Peak Hour Departures ÷ Total Daily Departures							21.05%	
Total Daily Enplanements							3,869	
Peak Hour Enplanements							983	
Peak Hour Enplanements ÷ Total Daily Enplanements							25.40%	
Remain Overnight (RON) Aircraft							11	
Summary of Changes:								
1. Allegiant 9(D1) – New seasonal destination that departs from VPS during a non-peak hour of the peak day.								
2. Allegiant 9(D2) – New seasonal destination that departs from VPS on a non-peak day.								
3. Allegiant 10(D1) and 10(D2) – New seasonal destination that departs from VPS on non-peak days.								
4. Allegiant 11(D1) and 11(D2) – New seasonal destination that departs from VPS on non-peak days.								
5. Allegiant 12(D1) and 12(D2) – New seasonal destination that departs from VPS on non-peak days.								
6. TBD Airline B(D1) and B(D2) – New year-round destination that departs two times daily from VPS during non-peak hours (ERJ-175).								

Source: Michael Baker International, Inc., 2018.

Note: Highlighted cells in table represent actions taken in different years.

2022 (Table 3-18 – Forecast Year 4) – Table 3-18 illustrates the changes to the 2021 peak hour schedule that were assumed for the fourth year of the forecast. The major changes to the peak day include one additional Allegiant departure during a non-peak hour. The peak hour in 2022 includes eight departures and 983 enplanements (i.e., the same as 2020 and 2021 levels).

1. Allegiant New Dest 13 (Dep 1) – New seasonal destination that departs from VPS during a non-peak hour of the peak day.
2. Allegiant New Dest 13 (Dep 2) – New seasonal destination that departs from VPS on a non-peak day.
3. Allegiant New Dest 14 (Dep 1) and 14 (Dep 2) – New seasonal destination that departs from VPS on non-peak days.
4. Allegiant New Dest 15 (Dep 1) and 15 (Dep 2) – New seasonal destination that departs from VPS on non-peak days.
5. Allegiant New Dest 16 (Dep 1) and 16 (Dep 2) – New seasonal destination that departs from VPS on non-peak days.

2023 (Table 3-19 – Forecast Year 5) – Table 3-19 illustrates the changes to the 2022 peak hour schedule that were assumed for the fifth year of the forecast. The major change to the peak day include one additional Allegiant departure during the peak hour. The peak hour in 2023 includes nine departures and 1,142 enplanements.

1. Allegiant New Dest 17 (Dep 1) – New seasonal destination that departs from VPS during the peak hour of the peak day and adds one RON aircraft (A320).
2. Allegiant New Dest 17 (Dep 2) – New seasonal destination that departs from VPS on a non-peak day.
3. Allegiant New Dest 18 (Dep 1) and 18 (Dep 2) – New seasonal destination that departs from VPS on non-peak days.
4. Allegiant New Dest 19 (Dep 1) and 19 (Dep 2) – New seasonal destination that departs from VPS on non-peak days.
5. Allegiant New Dest 20 (Dep 1) and 20 (Dep 2) – New seasonal destination that departs from VPS on non-peak days.

Table 3-18
2022 Forecast Peak Hour Schedule of Commercial Operations at VPS (Forecast Year 4)

Operation	Airline	Flight #	Aircraft Type	Scheduled Time	Destination	Seats	90.00% LF
PHD 1	UNITED	4345	ERJ-175	0700	IAH	75	68
PHD 2	ALLEGiant	1902	A320	0700	BLV	177	159
PHD 3	AMERICAN	2250	A319	0713	DFW	149	134
PHD 4	DELTA	2438	717-200	0730	ATL	110	99
PHD 5	ALLEGiant	1932	A320	0730	XNA	177	159
PHD 6	ALLEGiant	2914	A320	0800	MCI	177	159
PHD 7	ALLEGiant 1(D1)	TBD	A320	TBD	TBD	177	159
PHD 8	TBD AIRLINE A(D1)	TBD	ERJ-145	TBD	TBD	50	45
Totals						1,092	983
Total Daily Departures						39	
Peak Hour Departures						8	
Peak Hour Departures ÷ Total Daily Departures						20.51%	
Total Daily Enplanements						4,011	
Peak Hour Enplanements						983	
Peak Hour Enplanements ÷ Total Daily Enplanements						24.50%	
Remain Overnight (RON) Aircraft						11	
Summary of Changes:							
1. Allegiant 13(D1) – New seasonal destination that departs from VPS during a non-peak hour of the peak day.							
2. Allegiant 13(D2) – New seasonal destination that departs from VPS on a non-peak day.							
3. Allegiant 14(D1) and 14(D2) – New seasonal destination that departs from VPS on non-peak days.							
4. Allegiant 15(D1) and 15(D2) – New seasonal destination that departs from VPS on non-peak days.							
5. Allegiant 16(D1) and 16(D2) – New seasonal destination that departs from VPS on non-peak days.							

Source: Michael Baker International, Inc., 2018.

Note: Highlighted cells in table represent actions taken in different years.

Table 3-19
2023 Forecast Peak Hour Schedule of Commercial Operations at VP (Forecast Year 5)

Operation	Airline	Flight #	Aircraft Type	Scheduled Time	Destination	Seats	90.00% LF
PHD 1	UNITED	4345	ERJ-175	0700	IAH	75	68
PHD 2	ALLEGiant	1902	A320	0700	BLV	177	159
PHD 3	AMERICAN	2250	A320	0713	DFW	149	134
PHD 4	DELTA	2438	717-200	0730	ATL	110	99
PHD 5	ALLEGiant	1932	A320	0730	XNA	177	159
PHD 6	ALLEGiant	2914	A320	0800	MCI	177	159
PHD 7	ALLEGiant 1(D1)	TBD	A320	TBD	TBD	177	159
PHD 8	TBD AIRLINE A(D1)	TBD	ERJ-145	TBD	TBD	50	45
PHD 9	ALLEGiant 17(D1)	TBD	A320	TBD	TBD	177	159
Totals						1,269	1,142
Total Daily Departures						40	
Peak Hour Departures						9	
Peak Hour Departures ÷ Total Daily Departures						22.50%	
Total Daily Enplanements						4,170	
Peak Hour Enplanements						1,142	
Peak Hour Enplanements ÷ Total Daily Enplanements						27.39%	
Remain Overnight (RON) Aircraft						12	
Summary of Changes:							
1. Allegiant 17(D1) – New seasonal destination that departs from VPS during the peak hour of the peak day and adds one RON aircraft (A320).							
2. Allegiant 17(D2) – New seasonal destination that departs from VPS on a non-peak day.							
3. Allegiant 18(D1) and 18(D2) – New seasonal destination that departs from VPS on non-peak days.							
4. Allegiant 19(D1) and 19(D2) – New seasonal destination that departs from VPS on non-peak days.							
5. Allegiant 20(D1) and 20(D2) – New seasonal destination that departs from VPS on non-peak days.							

Source: Michael Baker International, Inc., 2018.

Note: Highlighted cells in table represent actions taken in different years.

2038 (Table 3-20 – Forecast Year 20) – Table 3-20 illustrates the changes to the 2023 peak hour schedule that were assumed for the 20th year of the forecast. The major changes to the peak day include one additional Allegiant departure during the peak hour, a fleet upgrade during the peak hour and day, and a new airline route during the peak hour and peak day using A319 aircraft. At this point the new Allegiant destinations are referred to as X1 through X4 because it is assumed that some new service would be added within the preceding years (2024 through 2037). The peak hour in 2038 includes 11 departures and 1,458 enplanements. By adding all the new service indicated in Tables 3-15 through 3-20, there would be a total of 42 departures on the peak day at VPS which reaches the maximum allowable per the agreement with the U.S. Air Force. There would be six departures by Allegiant during the peak hour, which equals the number of departures that are currently conducted during the peak hour at PGD (in July 2018). It is noted that the number of enplanements conducted during the peak hour compared to the entire day is at 32.36 percent in 2038. The same variable was 23.62 percent in 2018, but it is anticipated to increase because of what was observed in PGD as the airport continued to grow as a base and Allegiant concentrated a high number of operations during the 6:30 a.m. to 7:30 a.m. hour. The number of RON aircraft is forecast to increase to a peak of 14. It is anticipated that many days throughout the week would begin to reach peak levels because the activity will need to spread accordingly so that no single day exceeds the maximum allowable operations per the agreement with the U.S. Air Force, which is further discussed in the next section of this chapter.

1. Allegiant New Dest X1 (Dep 1) – New seasonal destination that departs from VPS during the peak hour of the peak day and adds one RON aircraft (A320).
2. Allegiant New Dest X1 (Dep 2) – New seasonal destination that departs from VPS on a non-peak day.
3. Allegiant New Dest X2 (Dep 1) and X2 (Dep 2) – New seasonal destination that departs from VPS on non-peak days.
4. Allegiant New Dest X3 (Dep 1) and X3 (Dep 2) – New seasonal destination that departs from VPS on non-peak days.
5. Allegiant New Dest X4 (Dep 1) and X4 (Dep 2) – New seasonal destination that departs from VPS on non-peak days.
6. Airline Route A fleet upgrade from the ERJ-145 to the ERJ-175 for all flights at VPS.
7. New Airline Route C (Dep 1) – New year-round destination that departs daily from VPS during the peak hour and adds one RON aircraft (A319).
8. New Airline Route C (Dep 2) – New year-round destination that departs daily from VPS during a non-peak hour.

Table 3-21 summarizes the peak day and peak hour activity during the 20-year planning period. The 2024 through 2037 numbers were determined by increasing the numbers proportionately until they reach 2038 levels. As can be seen, the number of peak hour passengers per operations is forecast to increase from 124 to 133, which is consistent with the addition of Allegiant flights using larger aircraft and fleet upgrades throughout the planning period.

Table 3-20
2038 Forecast Peak Hour Schedule of Commercial Operations at VPS (Forecast Year 20)

Operation	Airline	Flight #	Aircraft Type	Scheduled Time	Destination	Seats	90.00% LF
PHD 1	UNITED	4345	ERJ-175	0700	IAH	75	68
PHD 2	ALLEGiant	1902	A320	0700	BLV	177	159
PHD 3	AMERICAN	2250	A319	0713	DFW	149	134
PHD 4	DELTA	2438	717-200	0730	ATL	110	99
PHD 5	ALLEGiant	1932	A320	0730	XNA	177	159
PHD 6	ALLEGiant	2914	A320	0800	MCI	177	159
PHD 7	ALLEGiant 1(D1)	TBD	A320	TBD	TBD	177	159
PHD 8	TBD AIRLINE A(D1)	TBD	ERJ-145 to ERJ-175	TBD	TBD	75	68
PHD 9	ALLEGiant 17(D1)	TBD	A320	TBD	TBD	177	159
PHD 10	ALLEGiant 21(D1)	TBD	A320	TBD	TBD	177	159
PHD 11	TBD AIRLINE C(D1)	TBD	A319	TBD	TBD	75	68
Totals						1,620	1,458
Total Daily Departures						42	
Peak Hour Departures						11	
Peak Hour Departures ÷ Total Daily Departures						26.19%	
Total Daily Enplanements						4,505	
Peak Hour Enplanements						1,458	
Peak Hour Enplanements ÷ Total Daily Enplanements						32.36%	
Remain Overnight (RON) Aircraft						14	
Summary of Changes:							
1. Allegiant X1(D1) – New seasonal destination that departs from VPS during the peak hour of the peak day and adds one RON aircraft (A320).							
2. Allegiant X1(D2) – New seasonal destination that departs from VPS on a non-peak day.							
3. Allegiant X2(D1) and X2(D2) – New seasonal destination that departs from VPS on non-peak days.							
4. Allegiant X3(D1) and X3(D2) – New seasonal destination that departs from VPS on non-peak days.							
5. Allegiant X4(D1) and X4(D2) – New seasonal destination that departs from VPS on non-peak days.							
6. TBD Airline A fleet upgrade from the ERJ-145 to the ERJ-175 for all flights at VPS.							
7. TBD Airline C(D1) – New year-round destination that departs daily from VPS during the peak hour and adds one RON aircraft (A319).							
8. TBD Airline C(D2) – New year-round destination that departs daily from VPS during a non-peak hour.							

Source: Michael Baker International, Inc., 2018.

Note: Highlighted cells in table represent actions taken in different years.

Table 3-21
Forecast of Commercial Peak Day and Hour Activity at VPS (2018-2038)

Year	Peak Day			Peak Hour			PH PAX % (E) ÷ (D)	PH Ops % (F) ÷ (C)	RON Aircraft	PH PAX per Op (E) ÷ (F)
	Seats (A)	Passengers (B)	Departures (C)	Seats (D)	Passengers (E)	Departures (F)				
2018	3,799	3,159	31	829	746	6	23.62%	19.35%	9	124
2019	4,048	3,379	32	1,042	938	7	27.75%	21.88%	10	134
2020	4,310	3,606	35	1,092	983	8	27.25%	22.86%	11	123
2021	4,637	3,869	38	1,092	983	8	25.40%	21.05%	11	123
2022	4,814	4,011	39	1,092	983	8	24.50%	20.51%	11	123
2023	4,991	4,170	40	1,269	1,142	9	27.39%	22.50%	12	127
2024	5,015	4,191	40	1,290	1,161	9	27.69%	22.73%	12	127
2025	5,040	4,213	40	1,311	1,180	9	28.00%	22.96%	12	128
2026	5,064	4,235	40	1,333	1,199	9	28.32%	23.19%	12	128
2027	5,089	4,257	41	1,354	1,219	9	28.63%	23.43%	13	128
2028	5,113	4,279	41	1,377	1,239	10	28.95%	23.67%	13	129
2029	5,138	4,301	41	1,399	1,259	10	29.28%	23.91%	13	129
2030	5,163	4,323	41	1,422	1,280	10	29.61%	24.15%	13	129
2031	5,188	4,345	41	1,446	1,301	10	29.94%	24.40%	13	130
2032	5,213	4,368	41	1,469	1,322	10	30.27%	24.65%	13	130
2033	5,239	4,390	41	1,493	1,344	10	30.61%	24.90%	13	131
2034	5,264	4,413	41	1,518	1,366	10	30.95%	25.15%	13	131
2035	5,290	4,436	42	1,543	1,388	11	31.30%	25.41%	14	131
2036	5,315	4,459	42	1,568	1,411	11	31.65%	25.67%	14	132
2037	5,341	4,482	42	1,594	1,434	11	32.00%	25.93%	14	132
2038	5,367	4,505	42	1,620	1,458	11	32.36%	26.19%	14	133
Average Annual Growth Rates (AAGR)										
2018-2019	6.55%	6.97%	3.23%	25.69%	25.70%	16.67%	17.50%	13.02%	11.11%	7.74%
2019-2020	6.47%	6.72%	9.38%	4.80%	4.80%	14.29%	-1.80%	4.49%	10.00%	-8.30%
2020-2021	7.59%	7.27%	8.57%	0.00%	0.00%	0.00%	-6.78%	-7.89%	0.00%	0.00%
2021-2022	3.82%	3.67%	2.63%	0.00%	0.00%	0.00%	-3.54%	-2.56%	0.00%	0.00%
2022-2023	3.68%	3.96%	2.56%	16.21%	16.21%	12.50%	11.78%	9.69%	9.09%	3.30%
2023-2038	0.49%	0.52%	0.33%	1.64%	1.64%	1.35%	1.12%	1.02%	1.03%	0.29%
2018-2038	1.74%	1.79%	1.53%	3.41%	3.41%	3.08%	1.59%	1.52%	2.23%	0.32%

Source: Michael Baker International, Inc., 2018.

Note: Highlighted cells in table represent actions taken in different years.

Commercial Passenger and Operations Forecast (Annual)

Table 3-22 summarizes the forecast of annual passenger enplanements and departures numbers for VPS from 2018 to 2028. The forecast numbers from 2019 through 2023 were calculated exactly as described with the addition of annual and seasonal activity in **Tables 3-15** through **3-19**. However, in the years following 2023, it was not possible to calculate the annual numbers in the same way because the same types of assumptions were not made for the years 2024 through 2037. Following 2023, it is anticipated that a certain amount of seasonal Allegiant activity would be added, but the amount is unknown for any given year. The only constraint to the forecast is that daily departures are currently limited to 42 per the agreement with the U.S. Air Force, which is why the daily forecast is capped at 42 departures in 2038.

The FAA's 2017 Terminal Area Forecast (TAF) indicates that air carrier enplanements will increase at an AAGR of 2.15 percent between 2018 and 2038, which was applied to all enplanement values at VPS from 2024 through 2038 to determine the annual enplanements forecast. The annual departures forecast was determined by applying an AAGR of 1.53 percent, which represents the AAGR of peak day departures from 2018 to 2038 as previously shown in **Table 3-21**. The resulting forecasts are presented in **Table 3-22**. By 2038, the forecast number of annual passenger enplanements is 1,375,239 and the forecast number of annual departures is 13,210. Therefore, the average day throughout the year would include approximately 3,768 enplanements and 36 departures by the end of the planning period. Although the annual numbers are important, the hourly and daily numbers are primarily utilized in subsequent chapters of this report to determine the facility requirements for the terminal area at VPS.

Forecast Summary

Table 3-23 presents a summary of the forecasts of annual, peak day, and peak hour passenger enplanements and operations during the 20-year planning period at VPS. Based on the recent history of growth at VPS and by looking at growth trends at airports where similar growth has occurred in Florida, these forecasts should reflect a realistic growth scenario for VPS. According to the FAA's June 2008 Review and Approval of Aviation Forecasts guidance, total enplanements and operations are considered consistent with the FAA's TAF if they differ by less than 10 percent in the five-year forecast period and 15 percent in the 10-year forecast period. **Table 3-24** shows the comparison between the 2017 TAF and the recommended forecasts presented in this chapter. The table identifies the actual numbers identified in the TAF as well as adjusted numbers to reflect the same growth rate applied to the actual 2018 baseline numbers that occurred at VPS. The comparisons to the TAF are made to the recommended forecasts presented in this chapter as well as adjusted numbers that 'smooth' the recommended forecast by growing each year between 2018 and 2038 at the same growth rate as opposed to having sporadic growth rates in the first five years of the forecast. The 'smoothing' of the recommended forecast is what is evaluated against the adjusted TAF forecast and is consistent with the FAA's TAF evaluation thresholds in the five-year and 10-year forecast periods (refer to Comparison 2 for both enplanements and operations).

As previously shown in **Table 3-1**, the growth in the TDT collections has grown at strong rates each year since 2013. As tourism continues to grow in the Destin-Fort Walton Beach area, it is anticipated that the airport will continue to accommodate a similar ratio of the annual visitors. For example, during the Florida Economic Estimating Conference that was held on July 20, 2018, a forecast was released that estimated that tourism in Florida will increase at 5.60 percent in fiscal year 2018-2019, 3.90 percent in fiscal year 2019-2020, and at rates between 2.90 percent and 3.40 percent in the long-term. Therefore, the forecasts presented herein are not only considered consistent with the TAF, but also consistent with what is occurring at and around VPS and throughout Florida.

Table 3-22
Forecast of Commercial Passengers and Operations at VPS (2018-2038)

Year	Passengers				Operations				PAX per Op (A) ÷ (D)
	Enplanements (A)	Deplanements (B)	Total (C)	365 Av (A) ÷ 365	Departures (D)	Arrivals (E)	Total (F)	365 Av (D) ÷ 365	
2018	709,751	709,751	1,419,502	1,945	8,019	8,019	16,038	22	89
2019	762,089	762,089	1,524,179	2,088	8,227	8,227	16,454	23	93
2020	822,683	822,683	1,645,366	2,254	9,165	9,165	18,330	25	90
2021	940,043	940,043	1,880,086	2,575	10,103	10,103	20,206	28	93
2022	969,573	969,573	1,939,146	2,656	10,311	10,311	20,622	28	94
2023	999,546	999,546	1,999,092	2,738	10,519	10,519	21,038	29	95
2024	1,021,036	1,021,036	2,042,072	2,797	10,680	10,680	21,360	29	96
2025	1,042,988	1,042,988	2,085,977	2,858	10,843	10,843	21,687	30	96
2026	1,065,413	1,065,413	2,130,825	2,919	11,009	11,009	22,018	30	97
2027	1,088,319	1,088,319	2,176,638	2,982	11,178	11,178	22,355	31	97
2028	1,111,718	1,111,718	2,223,436	3,046	11,349	11,349	22,697	31	98
2029	1,135,620	1,135,620	2,271,240	3,111	11,522	11,522	23,045	32	99
2030	1,160,036	1,160,036	2,320,071	3,178	11,699	11,699	23,397	32	99
2031	1,184,976	1,184,976	2,369,953	3,247	11,878	11,878	23,755	33	100
2032	1,210,453	1,210,453	2,420,907	3,316	12,059	12,059	24,119	33	100
2033	1,236,478	1,236,478	2,472,956	3,388	12,244	12,244	24,488	34	101
2034	1,263,062	1,263,062	2,526,125	3,460	12,431	12,431	24,862	34	102
2035	1,290,218	1,290,218	2,580,437	3,535	12,621	12,621	25,243	35	102
2036	1,317,958	1,317,958	2,635,916	3,611	12,814	12,814	25,629	35	103
2037	1,346,294	1,346,294	2,692,588	3,688	13,011	13,011	26,021	36	103
2038	1,375,239	1,375,239	2,750,479	3,768	13,210	13,210	26,419	36	104
Average Annual Growth Rates (AAGR)									
2018-2019	7.37%	7.37%	7.37%	7.37%	2.59%	2.59%	2.59%	2.59%	4.66%
2019-2020	7.95%	7.95%	7.95%	7.95%	11.40%	11.40%	11.40%	11.40%	-3.10%
2020-2021	14.27%	14.27%	14.27%	14.27%	10.23%	10.23%	10.23%	10.23%	3.66%
2021-2022	3.14%	3.14%	3.14%	3.14%	2.06%	2.06%	2.06%	2.06%	1.06%
2022-2023	3.09%	3.09%	3.09%	3.09%	2.02%	2.02%	2.02%	2.02%	1.05%
2023-2038	2.15%	2.15%	2.15%	2.15%	1.53%	1.53%	1.53%	1.53%	0.61%
2018-2038	3.36%	3.36%	3.36%	3.36%	2.53%	2.53%	2.53%	2.53%	0.81%

Source: Michael Baker International, Inc., 2018.

Table 3-23
Forecast Summary (2018-2038)

Year	Enplanements			Departures			RON
	Annual	Peak Day	Peak Hour	Annual	Peak Day	Peak Hour	
2018	709,751	3,159	6	8,019	31	746	9
2019	762,089	3,379	7	8,227	32	938	10
2020	822,683	3,606	8	9,165	35	983	11
2021	940,043	3,869	8	10,103	38	983	11
2022	969,573	4,011	8	10,311	39	983	11
2023	999,546	4,170	9	10,519	40	1,142	12
2024	1,021,036	4,191	9	10,680	40	1,161	12
2025	1,042,988	4,213	9	10,843	40	1,180	12
2026	1,065,413	4,235	9	11,009	40	1,199	12
2027	1,088,319	4,257	9	11,178	41	1,219	13
2028	1,111,718	4,279	10	11,349	41	1,239	13
2029	1,135,620	4,301	10	11,522	41	1,259	13
2030	1,160,036	4,323	10	11,699	41	1,280	13
2031	1,184,976	4,345	10	11,878	41	1,301	13
2032	1,210,453	4,368	10	12,059	41	1,322	13
2033	1,236,478	4,390	10	12,244	41	1,344	13
2034	1,263,062	4,413	10	12,431	41	1,366	13
2035	1,290,218	4,436	11	12,621	42	1,388	14
2036	1,317,958	4,459	11	12,814	42	1,411	14
2037	1,346,294	4,482	11	13,011	42	1,434	14
2038	1,375,239	4,505	11	13,210	42	1,458	14
Average Annual Growth Rates (AAGR)							
2018-2019	7.37%	6.97%	16.67%	2.59%	3.23%	25.70%	11.11%
2019-2020	7.95%	6.72%	14.29%	11.40%	9.38%	4.80%	10.00%
2020-2021	14.27%	7.27%	0.00%	10.23%	8.57%	0.00%	0.00%
2021-2022	3.14%	3.67%	0.00%	2.06%	2.63%	0.00%	0.00%
2022-2023	3.09%	3.96%	12.50%	2.02%	2.56%	16.21%	9.09%
2023-2038	2.15%	0.52%	1.35%	1.53%	0.33%	1.64%	1.03%
2018-2038	3.36%	1.79%	3.08%	2.53%	1.53%	3.41%	2.23%

Source: Michael Baker International, Inc., 2018.

Note: Highlighted cells in table represent actions taken in different years.

Table 3-24
Comparison to Adjusted TAF (2018-2038)

Year	Forecast Year	Enplanements								Operations							
		Terminal Area Forecast (TAF)				Terminal Area Study/Terminal Area Plan Update				Terminal Area Forecast (TAF)				Terminal Area Study/Terminal Area Plan Update			
		Air Carrier	Commuter	Total	Adjusted	Actual	Comparison 1	Adjusted	Comparison 2	Air Carrier	Air Taxi	Total	Adjusted	Actual	Comparison 1	Adjusted	Comparison 2
2018		478,277	194,418	672,695	709,751	709,751	0.00%	709,751	0.00%	12,924	2,043	14,967	16,038	16,038	0.00%	16,038	0
2019	1	483,129	200,013	683,142	726,619	762,089	4.88%	733,617	0.96%	13,874	1,772	15,646	16,571	16,454	-0.70%	16,443	-0.77%
2020	2	489,812	205,984	695,796	743,888	822,683	10.59%	758,286	1.94%	14,991	1,441	16,432	17,121	18,330	7.06%	16,859	-1.53%
2021	3	497,868	212,230	710,098	761,568	940,043	23.44%	783,785	2.92%	16,441	963	17,404	17,689	20,206	14.23%	17,285	-2.29%
2022	4	507,070	218,721	725,791	779,668	969,573	24.36%	810,141	3.91%	18,029	432	18,461	18,277	20,622	12.83%	17,722	-3.04%
2023	5	517,171	225,401	742,572	798,198	999,546	25.23%	837,383	4.91%	19,115	156	19,271	18,884	21,038	11.41%	18,169	-3.78%
2024	6	528,005	232,234	760,239	817,168	1,021,036	24.95%	865,541	5.92%	19,736	112	19,848	19,511	21,360	9.48%	18,629	-4.52%
2025	7	539,448	239,200	778,648	836,589	1,042,988	24.67%	894,646	6.94%	20,277	113	20,390	20,159	21,687	7.58%	19,099	-5.25%
2026	8	551,459	246,301	797,760	856,472	1,065,413	24.40%	924,730	7.97%	20,832	114	20,946	20,828	22,018	5.72%	19,582	-5.98%
2027	9	564,043	253,556	817,599	876,827	1,088,319	24.12%	955,825	9.01%	21,403	115	21,518	21,520	22,355	3.88%	20,077	-6.70%
2028	10	577,161	260,969	838,130	897,666	1,111,718	23.85%	987,966	10.06%	21,989	116	22,105	22,234	22,697	2.08%	20,584	-7.42%
2029	11	590,813	268,558	859,371	919,001	1,135,620	23.57%	1,021,188	11.12%	22,592	117	22,709	22,973	23,045	0.31%	21,104	-8.13%
2030	12	604,920	276,300	881,220	940,842	1,160,036	23.30%	1,055,527	12.19%	23,209	118	23,327	23,735	23,397	-1.42%	21,638	-8.84%
2031	13	619,483	284,207	903,690	963,203	1,184,976	23.02%	1,091,021	13.27%	23,841	119	23,960	24,524	23,755	-3.13%	22,185	-9.54%
2032	14	634,474	292,272	926,746	986,094	1,210,453	22.75%	1,127,708	14.36%	24,487	120	24,607	25,338	24,119	-4.81%	22,745	-10.23%
2033	15	649,824	300,472	950,296	1,009,530	1,236,478	22.48%	1,165,629	15.46%	25,145	121	25,266	26,179	24,488	-6.46%	23,320	-10.92%
2034	16	665,543	308,821	974,364	1,033,523	1,263,062	22.21%	1,204,825	16.57%	25,816	122	25,938	27,049	24,862	-8.08%	23,909	-11.61%
2035	17	681,648	317,336	998,984	1,058,087	1,290,218	21.94%	1,245,339	17.70%	26,501	123	26,624	27,947	25,243	-9.68%	24,513	-12.29%
2036	18	698,155	326,028	1,024,183	1,083,234	1,317,958	21.67%	1,287,215	18.83%	27,201	124	27,325	28,875	25,629	-11.24%	25,133	-12.96%
2037	19	714,994	334,872	1,049,866	1,108,978	1,346,294	21.40%	1,330,499	19.98%	27,914	125	28,039	29,834	26,021	-12.78%	25,768	-13.63%
2038	20	732,185	343,874	1,076,059	1,135,335	1,375,239	21.13%	1,375,239	21.13%	28,640	126	28,766	30,824	26,419	-14.29%	26,419	-14.29%
AAGR 2018-2038		2.15%	2.89%	2.38%	2.38%	3.36%	N/A	3.36%	N/A	4.06%	-13.00%	3.32%	3.32%	2.53%	N/A	2.53%	#NUM!

Source: Michael Baker International, Inc., 2018.

Note: Highlighted cells illustrate the comparisons to the FAA's TAF to illustrate that the recommended forecasts fall within the allowable thresholds.

CHAPTER FOUR

DEMAND / CAPACITY ANALYSIS AND FACILITY REQUIREMENTS

Destin-Fort Walton Beach Airport

Introduction

This chapter identifies the existing capacity of the current commercial terminal facilities at the Airport, compares it to the projected demand, and evaluates the overall capacity and adequacy of various existing terminal facilities. Passenger traffic forecasts, aircraft fleet mix and peak hour operations were used as the basis for quantifying terminal airside and landside demand over the twenty-year planning period. A narrative and summary tables of anticipated demand and facility requirements are provided as follows:

Passenger Terminal Area Capacity Analysis

Terminal Landside Capacity

This section identifies the existing capacity and requirements associated with ground access to the Commercial Terminal Facilities, primarily access road demand, terminal curb frontage demand, public parking demand, employee parking demand and rental car parking demand for the planning years 2018, 2023, 2028 and 2038. Additionally, this analysis serves as a general overview of existing capacity in order to identify where any required facility improvements are necessary.

Ground Access and Terminal Roads

Ground access and terminal roadways serve passengers, employees, visitors, and anyone who travels to and from the Airport. Circulation systems within the Airport boundaries should minimize congestion and support efficient access to the passenger terminal. Additionally, it is important to ensure that the access and terminal roadway systems are well planned and provide adequate capacity to meet the projected demand imposed by vehicular traffic. The roadway system must be able to accommodate peak levels of activity without creating excessive or unwarranted delay.

Primary Access Road

Ground access to the airport's commercial service facilities is from State Highway 85. Exit access is provided by off ramps for both east and west bound traffic. Access from State Highway 85 east provides a one-way circulation system to the terminal area via the loop road or a separate access that parallels State Highway 85 used for cargo and deliveries to the airport. The terminal access road connects the primary airport access road with the terminal buildings and parking facilities. The terminal access road should be designed to allow smooth channeling of traffic into the appropriate lanes, for safe and unobstructed access to the terminal curbs, parking lots, and other public facilities. Traffic circulation should be one-way in a counterclockwise direction for convenience of right-side passenger loading and unloading. Recirculation of vehicles to the passenger terminal should be permitted, by providing a recirculation road that includes ingress and egress lanes for the primary access road. Additionally, traffic streams should be separated at an early stage, with appropriate signage, to avoid congestion and assure lower traffic volume on the terminal frontage roads.

The guidance provided in FAA AC 150/5360-13, recommends that terminal area access roads be planned to accommodate [900 to 1,200 vehicles per lane per hour] with a minimum of two 12-foot lanes. Additionally, recirculation roads should accommodate approximately 600 vehicles per hour per lane, with standard lane widths of 12 feet each. Based upon these criteria and anticipated peak hour demand, expansion of the terminal access roadway will not be required to accommodate anticipated commercial demand as shown in **Table 4-1**, Primary Airport Access Roadway Capacity Demand, but additional signage to separate traffic streams earlier, is recommended.

Table 4-1 Primary Airport Access Roadway Capacity Demand						
Year	Total Peak Hour Passengers	90% Automobile	10% Other	Peak Hour Vehicles	Existing Roadway Capacity (VPH)	VPH Surplus/ (Deficiency)
2018	746	448	50	497	1600	1,103
2023	1,142	685	76	761	1600	839
2028	1,239	743	83	826	1600	774
2038	1,458	875	97	972	1600	628

Notes: Capacity per at grade primary access road at or below 30 mph= 800 Vehicles per Hour. Estimate that 90 percent of users arrive by private vehicle. Remaining 10 percent arrive via high occupancy vehicles

Source: FAA 150/5360-13 and Michael Baker International, 2018

Terminal Curb Frontage Road

The terminal curb frontage road is that section of the terminal access road directly in front of the terminal building. This section of roadway directs vehicular traffic to the front of the terminal building. The number of traffic lanes typically increases in this section of the terminal access roadway to allow for vehicles stopping at the enplaning and deplaning terminal curbs, vehicular maneuvering, and sufficient travel lanes for through traffic. The terminal frontage road is a critical element of the overall terminal access roadway system by maintaining vehicular flow with minimum congestion.

The existing terminal curb frontage road serving the commercial terminal at VPS consists of three (3) lanes directly in front (curb frontage) of the terminal and an additional lane (secondary curb), located along the north loop. The curb frontage is primarily used for the delivery and picking up of passengers. The north loop is primarily used for flow through to access other facilities within the terminal area. Delivery/cargo is provided by a separate access road which runs parallel to State Road 85

The curb frontage is typically provided for private vehicles, taxis, limousines, and buses; however, the length is typically based upon the types of vehicles, and vehicle dwell times expected to occur at the terminal curb. The curb front provides access to ground transportation. The curb frontage road is approximately 600 feet long. [The passenger curb has one lane for pick up/drop off and two lanes for departure.]

In order to determine the (future curb-loading zone parking requirements), general constants must be assumed to take place. Since private automobiles are the predominant transportation mode, an average parking duration of five minutes per private vehicle, for each curb space, is allotted, allowing 12 vehicles per hour per space. Although generous, this parking duration is based on the assumption of strict enforcement of the loading zone overall parking usage, by Airport security personnel. Occupancy of private vehicles is estimated to be 1.5 persons per private vehicle, with 5 percent of the total peak hour passengers arriving and departing by automobile and utilizing the curb for the loading and unloading of baggage.

In addition to private automobile curbside requirements, space for taxis and limousine/buses must be calculated. [Based upon the forecast projections for VPS, it is likely that the remaining 5 percent of arriving and departing passengers will use commercial vehicles.] Typical vehicle slot rates are shown in **Table 4-2** for vehicle type. Based on the slot length, the existing and anticipated terminal curb frontage requirements associated with peak hour passenger and commercial demand is provided in **Table 4-3**.

Table 4-2 Vehicle Slot Lengths			
Vehicle	Slot Length (ft)	Enplaning	Deplaning
Private Auto	25	1 to 3	2 to 4
Rental Car	25	1 to 3	2 to 4
Taxi/Shuttle Van	20	1 to 2	1 to 3
Limousine/Shuttle Bus	35	2 to 4	2 to 5
Bus	50	2 to 5	5 to 10

Source: FAA 150/5360-13 and Michael Baker International, 2018

Table 4-3 Terminal Passenger Curb Frontage Requirements				
	2018	2023	2028	2038
Peak Hour Passengers	746	1,142	1,239	1,458
Private Vehicle (No.) Demand	37	57	62	73
Effective Existing Private Vehicle Standing Spaces	30	30	30	30
Surplus/(Deficiency) (No.)	(7)	(27)	(32)	(43)
Private Vehicle (Lin Ft) Demand	740	1,140	1,240	1,460
Existing Effective Curb (Lin Ft) Area ¹	600	600	600	600
Surplus/(Deficiency) (Lin Ft)	(140)	(540)	(640)	(860)
Taxi/Van (No.) Demand	12	17	19	21
Taxi/Van (Lin Ft)	240	340	380	420
Bus & Limousine (No.) Demand	1/2	2/4	2/4	2/6
Bus & Limousine (Lin Ft Each)	50/70	100/140	100/140	100/210
Bus & Limousine (Lin Ft Total)	120	240	240	310
Total Required Curb Front Demand	360	580	620	730
Existing Curb Frontage (Lin Ft)	300	300	300	300
Public Surplus/(Deficiency) (Lin Ft)	(60)	(280)	(320)	(430)

Source: FAA AC 150/5360-13 and Michael Baker International, 2018

Based on the information presented above, additional curb frontage should be provided to accommodate demand. Along with the expansion of the terminal building, relocation of the terminal curb front road to the north loop is planned. An expansion of the terminal curb frontage will be required to accommodate the length of the proposed canopy. Two additional lanes are recommended as part of the terminal expansion project to provide additional flow-through traffic and passenger drop off/pick up.

Automobile Parking

Due to limited public transportation and the high percentage of passengers, visitors, and employees using private and rental automobiles to travel to and from the Airport, adequate parking facilities are essential to an Airport terminal. Automobile parking facilities are not only intended to provide space for passengers, but also sufficient space must be provided for car rental agencies, visitors, employees, and long-term demand. [FAA AC 150/5360-13 suggests an average range of 1,000 to 1,400 spaces per one million total annual passengers.]

This resulted in an immediate overall demand of 1,984 parking spaces. The terminal parking areas at VPS currently accommodate approximately 1,673 parking spaces that are divided among three general users: public parking (short and long term), rental car parking, and employee parking. Based on the forecast, it was determined that 3,851 parking spaces would be needed during the planning period. Due to limited space available for any new surface lots, it is recommended that a parking structure be constructed on an existing surface lot. This would provide the needed space necessary to meet most of the projected demand for public, rental car, and employee parking.

Public Parking Requirements

Airport terminal public parking lots typically provide for short-term, long-term, and remote parking. Short-term lots are for parking durations of less than three hours, and are located nearest the terminal. Because of the convenience of shorter walking distances for passengers, afforded by the short-term lots, a premium fee may be charged. Short-term lots typically account for 15 to 30 percent of total parking lot capacity. Long-term lots are located further from the terminal building and are for parking durations more than three hours. A lesser fee is charged due to the reduced convenience to the passenger, associated with longer walking distances and longer parking duration. Long-term lots typically are 70 to 85 percent of parking capacity.

Currently VPS has a total of 205 short-term parking spaces and 815 long-term parking spaces in front of the terminal building and a long-term credit card parking lot consisting of 653 spaces. These spaces are in three parking lots that charge a fee for daily parking of \$8.50 per day. Based on these criteria, and a planning factor of 1,400 parking spaces per one million annual passengers at 44 square yards per vehicle, commercial public parking (short and long-term) requirements for the Airport were determined. Using these criteria, commercial public parking requirements at VPS are provided in **Table 4-4** for cardinal years 2018, 2023, 2028 and 2038.

Employee Parking Requirements

Employee parking is mainly located in two lots, the general lot located northwest of the terminal area and the lot adjacent to the west side of the terminal. The employee lots are paved, fenced, and equipped with access control devices to limit parking to only Airport employees. Employee parking space requirements are directly related to enplaned passengers. On a national basis, employee parking spaces per 100,000 enplanements, range from 25 to 40. Due to the unique circumstances at VPS, such as minimal public transportation, employees commuting to VPS from the various surrounding communities, and overlapping shift changes, it was determined that a higher ratio was justified. Asheville Regional Airport (AVL) shares many of the same unique characteristics as VPS. The Master Plan completed for AVL completed in 2013 used a demand ratio of 0.64 spaces per 1,000 enplanements. For the purposes of this study a ratio of 60 spaces per 100,000 enplanements was used for the short, medium and long term resulting in the employee parking demand at VPS as presented in **Table 4-5**.

Table 4-4 Public Parking Requirements				
	2018	2023	2028	2038
Total Annual Passengers	1,419,502	1,999,092	2,223,436	2,750,479
Existing Short-Term Capacity (No.)	205	205	205	205
Short-Term Demand (No.)	298	420	467	578
Surplus/(Deficiency)	(93)	(215)	(262)	(373)
Existing Short-Term Area (SY)	9,020	9,020	9,020	9,020
Short-Term Area Required (SY)	13,116	18,472	20,545	25,414
Surplus/(Deficiency)	(4,096)	(9,452)	(11,525)	(16,394)
Existing Long-Term Capacity (No.)	1,468	1,468	1,468	1,468
Long-Term Demand (No.)	1,689	2,379	2,646	3,273
Surplus/(Deficiency)	(221)	(911)	(1,178)	(1,805)
Existing Long-Term Area (SY)	64,592	64,592	64,592	64,592
Long-Term Demand (SY)	74,325	104,672	116,419	144,015
Surplus/(Deficiency)	(9,733)	(40,080)	(51,827)	(79,423)
Existing Total Public Parking Capacity (No.)	1,673	1,673	1,673	1,673
Public Parking Demand (No.)	1,987	2,799	3,113	3,851
Surplus/(Deficiency)	(314)	(1,126)	(1,440)	(2,178)
Existing Public Parking Area (SY)	73,612	73,612	73,612	73,612
Public Parking Demand (SY)	87,441	123,144	136,964	169,430
Surplus/(Deficiency)	(13,829)	(49,532)	(63,352)	(95,818)

Source: FAA 150-5360-13, Planning and Design Guidelines for Airport Terminals, 2001.

Notes:

Short term public parking based on 15% of total demand.

Long term public parking based on 85% of total demand.

Table 4-5 Employee Parking Requirements				
	2018	2023	2028	2038
Total Annual Enplanements	709,751	999,546	1,111,718	1,375,239
Existing Employee Parking Capacity (No.)	587	587	587	587
Employee Parking Required (No.)	430	600	670	830
Surplus/(Deficiency)	157	(13)	(83)	(243)
Existing Employee Parking Area (SY)	25,828	25,828	25,828	25,828
Employee Parking Demand (SY)	18,920	26,400	29,480	36,520
Surplus/(Deficiency)	6,908	(572)	(3,652)	(10,692)

Rental Car Parking Requirements

Since rental car parking demand is tied to passenger enplanements, fluctuations in demand are tied directly to fluctuations in commercial service demand. FAA AC 150/5360-13 suggests a planning standard of 750 enplaned passengers per rental car ready space. Of the total spaces required, 50-55% are needed for ready return and the remainder are for storage and maintenance lots. Based on the increase in the use of rental cars, in proportion to the increase of enplaned passengers, the requirements for ready/return and storage/maintenance spaces, and the required parking area, are shown in **Table 4-6**. Comparing the existing facilities and medium and long-term demand, an expansion of rental car facilities is warranted. The recommended parking structure could provide the additional spaces to meet this demand.

Table 4-6 Rental Car Requirements				
	2018	2023	2028	2038
Total Annual Enplanements	709,751	999,546	1,111,718	1,375,239
Existing Rental Car Ready/Return Capacity (No.)	587	587	587	587
Existing Rental Car Storage Capacity (No.)	300	300	300	300
Existing Rental Car Ready/Return & Storage Capacity (No.)	839	839	839	839
Car Rental Demand (No.)	946	1,333	1,482	1,834
Surplus/(Deficit)	(107)	(494)	(643)	(995)
Existing Rental Car Parking Area (SY)	36,916	36,916	36,916	36,916
Rental Car Area Demand (SY)	41,639	58,640	65,221	80,681
Surplus/(Deficiency)	(4,723)	(21,724)	(28,305)	(43,765)

Source: FAA 150/5360-13

Commercial Terminal Airside Requirements

The overall terminal apron area is based upon the number of aircraft gate positions and the size of aircraft that use these positions. VPS currently has a total of 9 aircraft gate positions located in the terminal apron area. Of the existing nine gates, three (gates A1, A2, and A3) are located on the first floor and serve Allegiant. Gates B1-B6 are located on the second floor. Gate B-4 is recommended to be completed during Phase 1 (0-5 years) of the planning period.

Aircraft Boarding Gates and Aircraft Parking Apron

The general terminal apron requirements are based upon the number of aircraft gate and parking positions required (including maneuvering space), and the size of aircraft that will be utilizing these positions. The number of required aircraft gate positions for commercial operations at VPS was based upon peak hour operations, peak hour passengers and anticipated aircraft fleet mix.

Key assumptions, obtained from FAA AC 150/5360-13, were used to determine boarding gate and apron requirements as follows:

- Maximum gate utilization for domestic aircraft is ten departure per gate per day for air carrier operations
- Average turnaround time for air carrier aircraft is 1.8 hours per aircraft for an 18-hour day.
- To determine apron parking space required, a width of 20 feet and 25 feet plus the aircraft wingspan was used to provide adequate clearance for concourse circulation.

Using the aircraft fleet mix forecast over the twenty-year planning period resulted in the following apron demand for the key years 2018, 2023, 2028 and 2038.

The total terminal apron area at VPS is approximately 82,927 square yards (746,343 SF). It is recommended that an additional 21,333 square yards (192,000 SF) of apron be constructed to accommodate the future aircraft demand and additional gate positions associated with the satellite concourse (C). Phase 1 should provide 12,800 square yards (115,200 SF) with an additional 8,533 SY (76,800 SF) for Phase 2 expansion.

Passenger Terminal Building Capacity Analysis

The terminal building is divided into functional areas to simplify its analysis and to understand the relationship between the parts. In general, the terminal is divided into two primary sides: the “unsecure” side, which includes the ticketing, security checkpoint que space, public circulation, and baggage claim activities, and the “secure” side, which includes passenger holding and gates. The dividing point between these two “sides” of the terminal is the passenger screening checkpoint(s), where the passengers and their carry-on baggage are checked for weapons and explosives. Each primary area can be further subdivided into specific components to gain a detailed understanding of the demand requirements of the terminal. By analyzing each component element of the terminal, future improvements can be implemented to create a balanced and efficient facility without activity bottlenecks. The main groupings are described and analyzed below.

Ticketing

The ticketing areas of a terminal comprise the check-in positions, the ticket agent area, the ticket lobby and circulation, the airline ticket offices (ATO), and outbound baggage make-up. Historically, at non-hub and small hub airports such as VPS, the layouts of these areas are stacked one behind the other. Airline ticket offices were located behind the ticket agent area and the baggage make-up area was typically located directly behind the ATO. However, with the new requirements for 100 percent checked baggage screening, these historical relationships may not always provide the optimum configuration. Depending on the type and location of the screening methods, the make-up area may be located in locations more remote from the ATO.

The current VPS terminal has ticket counters/ATO’s for five airlines. Ticket kiosks are located by the ticket counter. The ticketing facilities must accommodate the peak hour enplanements without unacceptable wait times. [As an industry standard, airline passengers consider it to be an unacceptable level of service to wait in line longer than 30 minutes.] To analyze the ticketing area demand, the peak hour forecasts are broken into peak 30-minute forecasts for scheduled activity. This peak represents 60 percent of the peak hour activity. As a result of changing technology and reduced airline staffing, the use of automated check-in stations, or kiosks, is increasing. According to representatives of major airlines, one goal of the airlines is to reduce the passenger processing time of a typical passenger to 90-120 seconds. Some passengers will, of course require more time and attention so an average processing time per passenger of two minutes with a maximum waiting time of 30 minutes is used. [To accommodate the peak 30-minute demand, one check-in (agent or kiosk) position must be provided for every fifteen peak period passengers.]

Although the automated check-in positions can be organized in various configurations, including single-sided, two-sided, three-sided and more, all configurations require approximately the same amount of space. Based on current airline planning concepts, the ideal configuration is a pair of side-by-side check-in positions with shared bag-wells between each pair in line with the other manned ticket agent counters. One airline employee can then be responsible for assisting passengers and checking baggage at four to six check-in kiosks.

Similar to the traditional ticket agent position, each check-in position is typically four and a quarter foot long: three feet in length for one-half of a shared counter and one and one-quarter feet for half of a shared bag-wells. This basic eight and one-half foot unit per pair of check-in positions remains consistent for rows of kiosks, including the bag-well for checked bags. Additional space is added for occasional openings for employee egress, oversize baggage access, and other miscellaneous airline requirements which adds one-half foot per position. The agent area behind the counter (including the counter) is typically 10 feet deep to allow space for a conveyor device and maneuvering. The newest generation of kiosk check-in positions requires the depth

behind each one to house baggage tag printers for checked bags. For planning purposes, each check-in position requires the same amount of space, whether traditional staffed counters or automated self-serve kiosks are used.

In addition to check-in positions located inside the terminal lobby, consideration must be given to check-in positions located outside the terminal building on the curb. Curb side check-in is perceived to be a passenger service upgrade and can relieve congestion in the ticket lobby. However, additional costs are required for manning these positions. Most airports use a “skycap” service for this function where the costs may be shared by the airlines offering the service. [For planning purposes, curbside check-in positions are recommended and are estimated to equal 15 percent of the terminal check in positions.]

The ticket lobby is a large open space for travelers to wait in line for services – check bags, obtain boarding passes and seat assignments – and to circulate. Space in front of the check-in positions should provide approximately three feet directly in front of the counter or kiosk for active passenger processing and five feet beyond that for two-way circulation before the defined passenger queuing area. The defined passenger queuing area should provide enough space to accommodate the peak 30-minute enplanements plus approximately one meter-greeter for every three passengers. IATA’s “Airport Development Reference Manual” recommends 15 square feet per person should be programmed in the queuing area to allow for standing room, luggage and circulation at the counter frontage. The main circulation depth beyond the queuing area for the ticket lobby should be no less than 20 feet deep.

The current ticket lobby at VPS is 34’ in depth from the counter front to the outer wall. Counters are located 10’ from the ATO back wall which is the minimum industry standard. One row of columns divides the ticket lobby. Circulation is provided through the lobby outside of the queuing lanes. Although advancing technology has provided opportunities for alternate functional layouts of the typical ticketing area, the preferred location of the ATOs is still directly behind the ticket agent area for convenience and efficiency. This space is different for every airline due to their unique operating procedures; however, typical depths of 25-30 feet are commonly used and are appropriate for VPS. This allows depth for several offices or work areas even for smaller airlines with limited needs.

Traditionally, prior to behind-the-scenes checked baggage screening, the baggage make-up area was programmed to be approximately 15 percent larger than the ATO. Working depths of 30-35 feet by the length of the airlines frontage are common in the industry and are adequate for the processing of outbound bags and storage of airline supplies and equipment.

As presented in **Table 4-7**, the ticketing area demand exceeds the current capacity in all areas. An additional 16,000 SF would be needed by the end of the long-term planning period to expand the ticket agent area, ticket lobby, circulation, baggage make-up area, and airline ticket offices.

Checked Baggage Screening

The current area for EDS screening at VPS requires 1,000 square feet per EDS device. Based on systems recently installed at airports similar in size to VPS, the average spatial requirements for baggage screening, including the EDS equipment, operators, supplemental ETD stations, and run-in and run-out conveyors is approximately 1,500 square feet per EDS station. In addition, depending on the proximity and relationship between the baggage screening area and the ticketing and baggage make-up areas, additional space is needed for the conveyors to transport the baggage from one area to another. Finally, additional space may be needed for conveyors to allow resorting of the bags by the airlines. For planning purposes, this space is estimated in addition to the previously estimated baggage make-up space at 2,500 square feet total per device. **Table 4-7**

identifies the square footage needed for the baggage screening area. An additional 4,212 SF and one additional screening unit would be needed by the end of the 20-year planning period.

Table 4-7 Ticketing Area Demand/Capacity						
AREA	UNIT	EXISTING	2018	2023	2028	2038
Peak Hour Passengers		650	746	1,142	1,239	1,458
Peak 30 Minute Passengers		390	448	685	774	875
Check-in Positions	(each)	24	30	46	52	58
Curbside Check-in (+15%)	(each)	0	5	7	8	9
Ticketing Length ¹	(l.f.)	120	125	195	220	245
Ticket Agent Area ²	(s.f.)	1,472	2,050	3,139	3,405	4,007
Ticket Lobby and Circulation	(s.f.)	2,842	3,958	6,060	6,574	7,736
Airline Ticket Offices	(s.f.)	3,720	5,181	7,932	8,605	10,127
Baggage Make-up ³	(s.f.)	4,373	3,357	5,139	5,576	6,561
Peak Hour Checked Bags ⁴	(each)	845	970	1,484	1,610	1,895
Checked Bag Screening Units	Unit	2	2	2	2	3
Checked Bag Screening Area ⁵	(s.f.)	3,288	5,000	5,000	5,000	7,500

Notes:

- 1) Future length calculated at 5 feet per position.
- 2) Existing includes circulation space along the ticket frontage.
- 3) Currently make-up space is exterior under a portion of the roof overhang. Future demand is counter frontage times 30 foot depth.
- 4) Based on 1.3 checked bags per peak hour passenger.
- 5) Future area based on in-line use and an average of 2,500 square feet per device.

Baggage Claim

The baggage claim areas of a terminal typically comprise the baggage claim devices, the public claim lobby and circulation, the inbound bag operations area (secure side), and the rental car agency spaces. It also sometimes includes miscellaneous ancillary spaces such as airline lost baggage offices, public waiting, and courtesy functions. The baggage claim facilities must display the arriving passenger's bags, provide sufficient space to retrieve the bags, and allow the claim activity to occur in a reasonable amount of time. The required size, configuration, and arrangement of the devices vary depending on number and sizes of arriving aircraft in the peak hour.

VPS currently provides two re-circulating conveyors for baggage claim, each with approximately 55 linear feet of claim frontage, and located 32 feet on center. Car rental counters are located opposite the conveyors. These are currently used by four agencies. Restrooms, a bag office, and other support functions are located at the west end of the space.

The baggage claim lobby (including the claim device, active bag retrieval, retrieval waiting space (queuing), and circulation) should provide approximately 2,200 square feet for each device (the device frontage times 5 feet of depth for the equipment, 15 feet for queuing, and 20 feet clear for circulation).

The inbound baggage operations area includes the secure side of the baggage conveyor system, drive-through lanes for two tugs to pass each other, and an area for baggage handlers to off-load bags onto the conveyor

system. Encompassed within the baggage operations area, the conveyor occupies five feet of depth, the two tug lanes are 10 feet wide each, three feet is needed for workers unloading bags, and an additional two-foot area is required for structure. The total depth is approximately 30 feet. The length of the space should accommodate a three-cart baggage tug train for each claim device, which with the tug is a length of ± 55 feet.

The rental car agency area is typically located opposite the circulation flow to the baggage claim area for the convenience of the traveling public and the enhancement of business for the agencies. The current configuration of rental car space provides a similar layout for each of the three areas with agencies' configuration divided to closely match market share.

Rental car agency agent positions and counter space can be evaluated similar to the way ticket counters and airline space is evaluated. For a leisure market such as VPS, it would not be unusual for up to 25% of arriving passengers to require rental cars. The number of agent positions needed is based on an average agent processing a transaction in five minutes and a maximum acceptable waiting time of 30 minutes. Allowing for circulation into the counter area, a typical agent position is five and one half feet. Office depth should be approximately 10 feet, with eight feet for the counter and agent circulation and 10 feet minimum for passenger queuing. A minimum of three agent positions per agency should be allowed, or a minimum of 650 square feet per agency.

As presented in **Table 4-8**, indicates the baggage claim area demands exceed the current capacities. It is recommended that the baggage claim area be expanded by 6,000 SF to accommodate the recommended space needs for claim lobby, inbound baggage operations, and rental car.

Table 4-8 Baggage Claim Area Demand/Capacity						
AREA	UNIT	EXISTING	2018	2023	2028	2038
Peak Hour Arrivals		6	7	8	8	9
Baggage Claim Devices	(each)	2	2	3	4	4
Claim Device Display Frontage	(l.f.)	110	110	165	220	220
Claim Lobby	(s.f.)	5,872	4,480	6,850	7,740	8,750
Inbound Baggage Operations	(s.f.)	3,706	2,688	4,110	4,644	5,250
Peak Hour Passengers		650	746	1,142	1,239	1,458
Peak Hour Rentals ¹		163	187	285	310	365
Rental Car Agent Positions	each	4	4	5	6	6
Rental Counter Frontage	(l.f.)		58	72	86	86
Rental Car Areas	(s.f.)	2,588	2,600	3,250	3,900	3,900
Rental Car Queuing	(s.f.)	600	600	750	900	900

Notes:

1) Based on 25% of arriving passengers to an O&D leisure market.

Terminal Core

The airport terminal should also provide public waiting space in the unsecured portion of the terminal. This area, which is often identified as the main public waiting lobby or arrival hall, should accommodate passengers and their "meeters-greeters" and "well-wishers". This population consists of departing passengers not ready to proceed through security, "well-wishers" accompanying the departing passengers, "meeter-greeters" waiting for arriving passengers, and arriving passengers on their way to baggage claim or other terminal function areas. The lobby should be sized to accommodate a population based on the peak hour enplanements. IATA's "Airport Development Reference Manual" includes a formula based on peak passengers, occupancy times, and visitors

per passenger. [For VPS this suggests 7 square feet per peak hour passenger, reducing to 6 square feet at the end of the planning period.]

Currently at VPS, space for this function is not existent. Most public waiting is desired near the passenger discharge area from the secure side, with some available for passengers waiting in the ticketing prior to screening and baggage claim area prior to leaving the airport. VPS has one separate areas for passengers to exit the secure area.

Concessions Areas

An airport's primary concessions provide food, beverage, and merchandise sales. Large airports locate most of their primary concessions in the sterile (secure) concourse area. Small-hub airports, such as VPS, do not have the great walk distances between the unsecured side of the terminal and the passenger gates, and until recently, have had greater flexibility in locating their concessions on either side of security. However, new TSA security requirements have impacted this arrangement. Longer passenger screening lines have increased passenger stress about getting to their gate on time. More passengers proceed directly to their gate than ever before. Studies have also documented that meeter/greeters generate only a small fraction of the revenue that travelers generate in airports. Therefore, more concessions should be located in the secure side of the terminal than ever before. For planning purposes, all concessions (secure and non-secure) are included in the Terminal Core portion of the demand.

Currently at VPS, concessions are in both the secure and non-secure area. Determining the amount of food and beverage and retail concessions appropriate at airports is complicated because what is economically most productive for the operator does not always provide the level of choice and quality that the airport and community demand. A balance must be reached between the concession operators and the airport to satisfy the needs of both. Large and medium hubs have the opportunity to offer a wide variety of offerings, have longer dwell times due to transfer passenger, and tend to realize \$6.00 -\$10.00 per enplaned passenger in gross sales. Small hub and non-hub airports tend to realize about half that level of sales or less and must limit the number of offerings to concentrate concession activity and maintain viable returns for the concessionaires.

Airports the size of VPS usually include smaller ancillary (miscellaneous lease) tenant space in addition to the primary concessions, such as bank automated teller machines (ATM's), shoe-shine stands, travel agency, information booth, sales kiosks, and vending machines. Advertising is another important source of concession income. At VPS most of this consists of wall displays in the form of signage or applied graphics which do not add to the required area. However, space for tourist information kiosks, hotel /transportation courtesy phones, and displays of merchandise or vehicles should also be included in the miscellaneous space. These ancillary areas can add another 5 to 10 percent to the primary concessions space allocation. The total area allowed for concessions is based on a comparison of other airports and is calculated at 0.25 square feet of concession area per enplaned passenger initially, decreasing to 0.15 square feet as enplanements grow in the medium to long term. A suggested ratio of space allocation is 60% secure to 40% non-secure for primary concessions.

Passenger Screening/TSA Security Checkpoint

The terminal core also includes the passenger screening area, which has undergone significant changes since 9/11. Prior to 9/11, the airlines were responsible for the security checkpoints and they typically hired a private firm to staff them. Since 9/11, the screening checkpoints have been converted to Federal control and the TSA staffs a large number of them. In addition, TSA has established increased security protocols which result in slower passenger throughput and, therefore, generate the need for more queuing space since 2001.

The passenger screening stations include X-ray machines for scanning carry-on bags and magnetometers for scanning people. Depending on case-by-case evaluations of airports, the TSA has additional requirements

including methods for explosive detection, hand search areas, and body search rooms. Per the TSA each screening station can process approximately 175-250 people per hour depending on configuration and passenger traffic characteristics. Each station needs space for the equipment, the security officers, and an area for queued passengers waiting to be processed. VPS currently has two standard lanes and one lane dedicated for TSA Pre-check. Approximately 200 passengers/per hour can be processed through the standard lanes and 250 passenger/per hour through the TSA Pre-check lane.

The standard TSA footprint (7/2006) for a two-lane checkpoint equipment area is 29 feet by 42 feet. Beyond the screening equipment a small transition area is needed for passengers to repack carry-on luggage, put on shoes, and wait for others in their traveling party who are undergoing more intensive searching. Allowing for this space for divestiture and repacking make a practical size approximately 30 feet by 62 feet or 960 square feet per lane. An additional 40 square feet per station for body search areas should be allowed. Eleven square feet (1.0 m²) per peak 30-minute enplanement for passenger queuing is required for Level of Service C as defined by IATA, while TSA recommends a minimum of nine square feet. Queuing space demand at the checkpoint is based on the IATA recommendation and uses a peak 30 minute passenger load similar to the design of the ticketing lobby.

As presented in **Table 4-9** the terminal core space needs greatly exceed its current capacity. Overall, over 34,000 SF would be needed to accommodate the space needs for public waiting, concessions, and passenger screening area.

Table 4-9 Terminal Core Area Demand						
AREA	UNIT	EXISTING	2018	2023	2028	2038
Peak Hour Total Passengers		650	746	1,142	1,239	1,458
Public Waiting ¹	(s.f.)	75	5,968	9,136	9,912	11,664
Forecast Annual Enplanements			709,751	999,546	1,111,718	1,375,239
Primary Concessions – Secure ²	(s.f.)	3,445	8,517	11,995	12,007	12,377
Primary Concessions – Unsecure ²	(s.f.)	6,281	5,678	7,996	8,004	8,251
Total Concessions ³	(s.f.)	9,726	14,195	19,991	20,011	20,629
Passenger Screening Stations	each	3	3	5	5	5
Passenger Screening Area ⁴	(s.f.)	2,709	7,928	11,535	13,514	14,625

Notes:

- 1) As indicated in the narrative there is little space dedicated to this use that would not otherwise be classified as circulation. Demand based on 8 sq. ft. per peak hour enplanement.
- 2) Includes food, gift, and news. Demand is based on 0.25 square feet per enplanement, decreasing to 0.20 square feet per enplanement in the long term.
- 3) Includes vending machines, information kiosks and other miscellaneous concessions.
- 4) Demand based on 1,000 sq. ft. per screening lane for checkpoint equipment and 11 sq. ft per peak 30 minute enplanement for queuing area.

Concourse Area/Holding Rooms

The concourse area includes the secure passenger holding area, circulation, restrooms, and other miscellaneous support space. The events of 9/11 have led to changes in the way these areas function. Prior to new TSA regulations, the method for determining the capacity of the passenger holding areas assumed the peak hour enplanements plus one “meeter-greeter” for every two to three enplanements. Since the new regulations, however, only ticketed passengers are allowed past the security checkpoint, except in unusual circumstances (minors traveling alone, personal attendants, etc.). The passenger holding area includes space for seating and ticket check and enplaning and deplaning passenger queue space. The holding area is based on an industry standard 15 square feet per peak-hour passenger, recognizing that not all passengers are seated in the holding

area. The gate counters require approximately 120 square feet per gate. The lift stations require 30 square feet per gate. The enplaning and deplaning path to the main circulation varies depending on the exact configuration of the concourse and holding areas, but 150 square feet per gate is a typical allowance. The total additional space is 300 square feet. An adequate narrow-body jet hold room size is then approximately 2,300 square feet (150 seats at 90% load +300) while an adequate regional hold room size is as small as approximately 1,250 square feet (70 seats at 90% load +300). As previously noted, VPS activity is principally characterized by narrow body aircraft with some larger (170+/- seat) flights in past activity. Thus, a larger flight could increase the demand to 2,700 to 3,600 square feet per gate (for 200 to 250 passengers). Where several gates share a common holding area, the FAA Terminal Design Circular AC 150 5360/13 indicates the space required can be reduced by 5-10% per gate.

Terminal gates and aircraft parking gates are sometimes used interchangeably, yet they refer to two different things. According to the FAA definition, a gate is an aircraft parking position. However, to the public, a gate is a hold room and the doorway from the terminal leading to an aircraft. The size and relationship of the existing gates are indicated in the following table.

The number of terminal gates should ideally equal the number of required aircraft parking gates. The number of available aircraft parking positions (Apron Gates) is dependent on the number of operations (arrivals and departures) that may be on the ground at the same time. The peak-hour operations are used to determine the number of gates required. At many origination and destination (O&D) airports, the key apron demand is represented by overnight parking required for the bank of early departures.

As shown in **Table 4-10**, it is recommended that an additional 19,000 SF would be needed to satisfy the space needs required for the hold rooms. The could be accomplished by the completion of Gate B-4 and a new satellite concourse (C) be constructed.

Table 4-10 Concourse Are/Hold Room Demand						
AREA	UNIT	EXISTING	2018	2023	2028	2038
Peak Hour Total Departures		6	6	8	9	11
Concourse A	(s.f.)	4,573	4,920	4,920	4,920	4,920
Concourse B	(s.f.)	9,033	8,350	15,350	15,350	15,350
Concourse C	(s.f.)	0	7,380	7,380	12,300	12,300
Total	(s.f.)	13,606	13,270	27,650	32,570	32,570

Airline Operations Areas

Airlines operations areas are those spaces occupied by airline employees for performing various functions related to aircraft handling at the gate. Cabin service storage, ramp service personnel training/break areas, aircraft line maintenance storage, office areas, flight operations facilities, secure (locked) storage areas, and volatile storage areas may be encompassed within the airline operations area. Although some of the functions above are often combined, a general guideline for planning of airline operations areas is 350 square feet per each peak hour departure. Space should be distributed with the gates to allow space for multiple airlines to operate, preferably in proximity to the gate if preferential use is continued. If possible, each airline should have access to operations and storage space available from the airside / apron.

Table 4-11 indicates the airlines operating requirements.

Table 4-11 Airline Operations Area Demand						
AREA	UNIT	EXISTING	2018	2023	2028	2038
Peak Hour Total Departures	(each)	6	6	8	9	11
Airline Operations Area	(s.f.)	1,932	2,100	2,800	3,150	3,850

Airport Administration

The airport administration spatial requirements vary to a wide degree due to the different operations at every airport and the activities performed by the administration staff. Some administrative functions of the airport, such as fire department and custodial staff, are not in the terminal or require limited office space for supervisory employees. Of the departments that should be in the terminal, all should be located together in a single administration area when possible. The airport has approximately 35 administration employees that need space. The administration area needs a combination of common-use facilities to be shared by all departments and dedicated facilities for individual departments. This area also includes restrooms, break area, storage areas, and a large conference room for meetings.

At VPS, the administrative office functions are currently located on the second floor. First floor space is also available and is used for security badging, operations and maintenance. Approximately 10,880 square feet. This includes circulation and stairs, which includes a significant amount of space due to the linear nature of the current layout. However, the general size and location of the administration offices are not expected to change in the short and medium term. Based on the current space use, VPS averages [544 square feet per administration employee.] The number of staff is not expected to grow at the same rate as the forecasted annual enplanements, however, a reasonable allowance for growth in administrative personnel is expected over the 20-year planning period (approximately 10 employees).

Transportation Security Administration (TSA) Offices

The security requirements mandated for the TSA as a result of 9/11 involve a large number of highly trained personnel to implement and administer new security operations. As is the case with many other aspects of the regulations, the number of staff dedicated to an airport terminal varies on a case-by-case basis. The staff may include the Federal Security Director (FSD) of the airport or group of airports, supervisors, personnel that man the passenger screening stations and the baggage screening systems, and administrative staff. The TSA requires a certain amount of space dedicated to administrative functions that may include office space, training areas, break areas, and storage rooms that are outside of the checkpoint and baggage screening areas previously described. Space requirements and standards are included in the TSA Office of Real Estate Services publication "Field Locations-Program of Requirements, July 2005". However, the space worksheets and room templates are based on staffing which is an internal decision of the TSA. Based on current staffing at other non-hub / Cat III airports, a minimum of 1,500 square feet should be allocated for TSA administrative functions. An additional 300 square feet per 100,000 enplanements should be allowed after enplanements exceed 400,000 per year (approximate break point of small hub versus non-hub classification) to allow for increased staffing and administration requirements.

Table 4-12 indicates the administration and TSA office space requirements.

Airport Administration and TSA Space Demand

Table 4-12 Airport Administration and TSA Space Demand						
AREA	UNIT	EXISTING	2018	2023	2028	2038
Airport Administration Offices	(s.f.)	10,880	10,880	11,967	13,600	16,320
TSA Administration Space	(s.f.)	2,994	2,525	3,115	3,794	5,110

Airport Support Space and Circulation Demand

In addition to the functional areas analyzed above for the terminal building, other miscellaneous and support space is not so readily calculated without a more specific layout. These areas include public circulation not included in a specific function, including the related stairs, elevators, and escalators. Restrooms, mechanical and electrical rooms, janitor's closets, structural columns, walls, etc. must also be accounted for when planning a terminal building. [Based on other terminal buildings of comparable size, circulation typically equals approximately 50 percent of the total of previously reviewed programmed spaces (or about one third of the total terminal building area).]

Circulation links the functional areas of the airport and is the key to successful operation. It is recommended that an effective design width of at least 16 feet be maintained (two persons with carry-ons/ baggage walking abreast in each direction). As shown below in the FAA planning guidelines, there is a boundary layer from walls and columns, as well as loss of effective depth where transactions take place, or people stop to look or wait. Therefore, it often requires 20 feet to 24 feet to gain the effective circulation width. As a comparison, Atlanta Hartsfield Airport (ATL) is the busiest airport in the world, but its long concourses (18 gates typically) function reasonably well with concourse circulation widths (column to column) of 22 feet to 28 feet.

For purposes of the demand calculation indicated in Table 4-13, the total of programmed space is increased by 50% to account for public circulation, restroom, and other miscellaneous support functions.

Passenger Terminal Demand/Capacity Summary

Table 4-13 summarizes the existing capacity and future demands for each component of the terminal building.

Table 4-13 Terminal Building Demand/Capacity Summary						
AREA	UNIT	EXISTING	2018	2023	2028	2038
Check-in Positions	(each)	24	30	46	52	58
Ticketing Counter Length	(l.f.)	120	125	195	220	245
Curbside Check-in	(each)	0	5	7	8	9
Ticket Agent Area	(s.f.)	1,472	2,050	3,139	3,404	4,007
Ticket Lobby (Queuing Area)	(s.f.)	2,842	3,958	6,060	6,574	7,736
Airline Ticket Office	(s.f.)	3,720	5,181	7,932	8,605	10,127
Baggage Make-up	(s.f.)	4,373	3,357	5,139	5,576	6,561
Checked Bag Screening	(s.f.)	3,288	5,000	5,000	5,000	7,500
Check Bag Screening Units	(each)	2	2	2	2	3
Baggage Claim Devices	(each)	2	2	3	4	4
Baggage Claim Lobby	(s.f.)	5,872	4,480	6,850	7,740	8,750
Inbound Baggage Operations	(s.f.)	3,706	2,688	4,110	4,644	5,250
Rental Car Agent Positions	(each)	4	4	5	6	6
Rental Car Office Agent Area	(s.f.)	2,588	2,600	3,250	3,900	3,900
Rental Car Queuing	(s.f.)	600	600	750	900	900
Public Waiting	(s.f.)	75	5,968	9,136	9,912	11,664
Concessions	(s.f.)	9,726	14,195	19,991	20,011	20,629
Passenger Screening Stations	(each)	3	3	4	5	5
Passenger Screening	(s.f.)	2,709	7,928	11,535	13,514	14,625
Gates	(each)	8	8	12	12	14
Hold Rooms	(s.f.)	13,606	13,270	27,650	32,570	32,570
Airline Operations Area	(s.f.)	1,932	2,100	2,800	3,150	3,850
Airport Administration Offices	(s.f.)	10,880	10,880	11,968	13,600	16,320
TSA Office Areas	(s.f.)	2,994	2,525	3,115	3,794	5,110
AREA SUBTOTAL ¹	(s.f.)	70,383	86,781	128,424	142,895	159,499
Support Space/Circulation	(s.f.)	50,441	43,391	64,212	71,448	79,749
GRAND TOTAL	(s.f.)	120,824	130,172	192,636	214,343	239,248

Facility Requirements Evaluation

The demand/capacity analysis quantifies the spatial relationship between the existing facilities and the requirements for future facilities, based on the projections of activity growth. Without activity growth, the larger facilities may not be needed. However, the reverse is also true. Without improved facilities, growth in activity is constrained and existing problems limiting the level of service are unresolved. The demand/capacity analysis provides direction on what and when improvements are needed to prevent constrained growth. In accordance with FAA standards, the analysis was presented in three time periods, short-range period (0-5 years), intermediate-range period (6-10 years), and long-range period (11-20 years). If activity growth occurs faster than projected, then improvements should be implemented sooner. Likewise, if growth occurs slower than projected, then improvements may be delayed.

However, the demand / capacity analysis is a strictly quantitative analysis that compares lengths, areas, and units. This section of the report adds a qualitative evaluation of the analysis to shed additional light onto the results. It recognizes that most terminals have existing problems that should be addressed regardless of growth projections and recognizes inequities in the way the space is used or located that also affect the terminal's ability to adequately serve its customers and tenants.

Terminal Area Evaluation

The terminal area demand/capacity analysis provided a quantitative study of the parking facilities, roadway, curbfront, and apron and gates. Several other conclusions may be reached from the analysis.

- The apron capacity (aircraft parking positions) is not adequate into the long-term planning period.
- Additional gates will be required to accommodate future activity. An additional 6 gates should be planned.
- The on-airport circulation roads have sufficient capacity for forecast traffic volume, but the decision point time in the airport loop road immediately upon entering the airport presents operational concerns. An electronic signage system would be beneficial in informing customers of available spaces in all public parking lots.
- Auto parking facilities are inadequate in the short to long term. Key issues are the ability to implement a structured (garage parking). Expansion of the existing surface lots is also recommended.
- Shaded covers should be considered for the surface lots and the rental car ready lot due to customer convenience and protection during severe weather common to the area.
- All vehicles undergo a security check at the east side access gate by the Okaloosa County Sheriff's Office prior to entry into the SIDA. One area of concern is the lack of an enclosed shelter to conduct inspections. An enclosed shelter would provide a safer environment from the weather conditions. An inspection pit would provide for a more complete level of inspections.
- Expand fuel farm to include two 25,000-GAL Jet A Tanks.

Terminal Building Evaluation

The terminal building demand / capacity analysis provided a quantitative study of the ticketing, baggage claim, security, concessions, public waiting and passenger holding, terminal gates, and other components of the facilities. Several observations of the problems facing VPS may be reached from the analysis.

- The ticketing area(s) need improvement to check-in more people faster in order to alleviate problems with the queuing depth versus cross circulation. Curb check-in could remove some of the load from the lobby area. Additional Common Use Terminal Equipment (CUTE) positions at some of the counters between airlines could allow greater capacity at peak periods. Common Use Self Service (CUSS) kiosks appear to be an option to increase overall check-in productivity and maintain a reasonable level of service.
- There is very limited space within the terminal for unsecure public waiting. The terminal does not have a main public lobby with seating for passengers and meeters-greeters to wait.
- The overall space devoted to concessions is inadequate and additional space is recommended.
- Baggage Handling System (BHS) should be expanded to correct baggage jamming issues.
- Installation of Security Bollards around terminal building and under concourse drive-throughs is recommended to harden/secure the terminal.
- Transportation Security Administration (TSA) Checkpoint Expansion including space and lanes for throughput capacity.
- Passenger Loading Bridges at Gates B1, B2, and B3 are due for replacement.
- Complete buildout of Gate B4 is recommended.

In conclusion, the terminal building at VPS has deficiencies, both quantitative and qualitative in several functional areas that can be addresses primarily by the above recommendations.

Passenger Terminal Building Capacity Analysis

The terminal building is divided into functional areas to simplify its analysis and to understand the relationship between the parts. In general, the terminal is divided into two primary sides: the “unsecure” side, which includes the ticketing and baggage claim activities, and the “secure” side, which includes passenger holding and gates. The dividing point between these two “sides” of the terminal is the passenger screening checkpoint(s), where the passengers and their carry-on baggage are checked for weapons and explosives. Each primary area can be further subdivided into specific components to gain a detailed understanding of the demand requirements of the terminal. By analyzing each component element of the terminal, future improvements can be implemented to create a balanced and efficient facility without activity bottlenecks. The main groupings are described and analyzed below.

The ticketing areas of the terminal will need expansion by the intermediate-range planning period (6-10 years).

The number of baggage claim devices and the areas provided for the functions will require expansion to accommodate future activity.

There is very limited space within the terminal for unsecure public waiting. The terminal does not have a main public lobby with seating for passengers and meters-greeters to wait. This issue has become most prominent

since the federal mandates that only ticketed passengers can proceed beyond security. This is a significant problem that needs immediate resolution.

Passenger screening needs some expansion in overall areas. The airport needs additional screening stations in the mid-term to long-term, yet the narrow structure at the current location will not easily allow expansion. Two additional passenger screening stations are recommended to be located in the proposed satellite concourse (C).

Total concession space at the airport is below the projected demands and additional space is needed.

Additional gates will be needed to accommodate passenger demand. The aircraft parking positions on the apron will drive the locations of the holding areas.

CHAPTER FIVE

ALTERNATIVES ANALYSIS

Destin-Fort Walton Beach Airport

Introduction

The previous sections of this study analyzed the facilities within, and immediately surrounding, the terminal building. Terminal building facilities include spaces and services related to outbound airline ticketing and baggage make-up, inbound baggage claim, passenger hold rooms, public waiting spaces, and concession operations. Facilities in the surrounding area include public parking lots, rental car ready/return lots, employee parking lots, the terminal loop road, and the commercial aircraft-operating apron. The Demand/Capacity Analysis and Facility Requirements covered in the previous chapter resulted in the program for the development of future improvements to the existing terminal area and terminal building. It provided the sizing and quantities of major individual areas. Improvement options were developed based on the demand analysis. This section documents the process used to determine the Preferred Option to meet future demands.

Options Identification

During the Options Identification Phase, broad-brush, long-range conceptual options were developed. These initial options explored the range of possibilities available in conceptual terms without providing component detail. The goal was to determine the major-issues that were to define the direction of development.

To evaluate the options, the objectives of the site and terminal building organization were defined. The Federal Aviation Administration (FAA) provides guidance for site and terminal building organization in Advisory Circular 150/5360-13A *Planning and Design Guidelines for Airport Terminal Facilities*.

Exhibits 5-1 and **5-2** illustrate the “ideal” site and terminal building layouts, respectively, based on the FAA guidance materials and similar planning experience at other airports of comparable size. The primary objectives for the Ideal Terminal Area Site Layout include a dedicated loop road with one-way traffic flow and gentle curves, consolidated public parking, separated service roads, an adequately sized apron, and convenient parking lot locations and access points.

The primary objectives for the Ideal Terminal Building Layout include ease of future expansion, separation of outbound and inbound passenger activities, single security checkpoint, centralized concession locations, and simple circulation paths for travelers and airline employees. The Initial Concepts were reviewed for their ability to accommodate the forecast demands and their ability to satisfy the objectives of the “ideal” site and terminal.

Exhibit 5-1
Ideal Terminal Area Site Layout

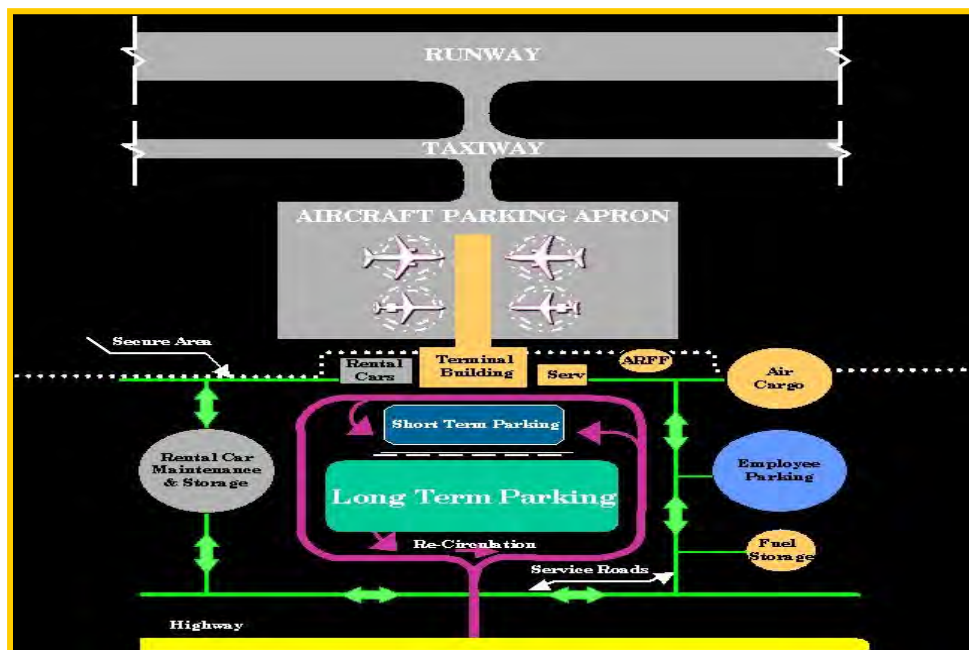
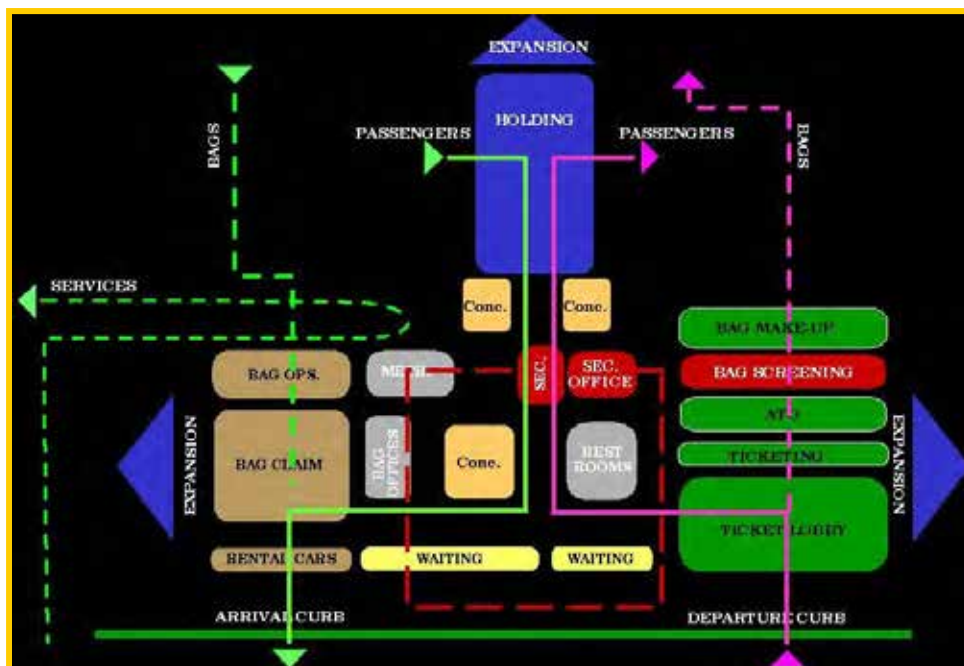


Exhibit 5-2
Ideal Terminal Building Layout



Several options were explored to expand the aircraft gate capacity of the Apron (aircraft parking) and Concourse (boarding gates). Options included a linear expansion of the existing terminal building with an attached parallel concourse, a modified linear expansion, and several options for a new remote satellite concourse. Each option arrangement offered particular advantages and disadvantages. Some of the considerations analyzed consisted of the following:

- Magnitude of the Capital Investment
- Implementation – Phased vs. Immediate
- Passenger Travel Distance to the Main Terminal

Among the most significant main terminal concerns identified in the *Inventory* and the *Demand/Capacity Analysis and Facility Requirements* were the following:

- Lack of sufficient space for TSA's baggage screening operation
- Undersized passenger screening checkpoint
- Insufficient space for concession operations
- Insufficient space for ticketing and baggage claim facilities

These concerns were the driving factors behind the selection of the best overall option.

The baggage claim facilities include the claim lobby, baggage display devices, rental car counters and offices, and behind-the-scenes baggage handling facilities for off-loading bags onto the display devices. All the options include a 6,400 SF expansion of the terminal building to the east to allow construction of two baggage claim facilities, additional rental car space, and additional area for passenger circulation.

The ticketing facilities include the ticket lobby, ticketing counters and kiosks, airline offices, and baggage make-up. Recommendations included expanding ticketing from the existing area to the west. Space needs were identified to accommodate the forecasted demand for baggage screening. All options included expanding the terminal building approximately 33,000 SF to the west to accommodate the ticketing facilities and provide additional baggage handling system capacity.

Public waiting space within the terminal is virtually non-existent. Waiting areas are needed on the unsecure side of the passenger checkpoint for meter-greeters who wait for arriving passengers and for well-wishers who accompany departing travelers. Passenger screening is located at the connection point between the concourse and the main terminal. The overall north terminal expansion would provide an additional 30,500 SF of space on the unsecure side of the checkpoint and would include reworking of circulation, widening the connector to provide room for the checkpoint and expanding the surrounding concessions, waiting, and support space.

Solutions for parking expansion utilized options for both parking deck structures and expanded surface parking. Due to the significant increase in parking demand in the future planning periods, an expansion of the parking facilities will be necessary to accommodate parking requirements. The more parking that is accommodated in multi-level parking structures, the lesser the impacts to adjacent areas. The more parking accommodated by surface lots, the greater the impacts to adjacent areas.

An additional facility considered as part of the Terminal Area Plan is the Security Inspection Facility. The Security Inspection Facility will be located just east of the existing AOA Gate south of the rental car parking lot. This facility will allow for inspection of vehicles entering the AOA by the Okaloosa County Sheriff's Airport Unit or other trained security personnel.

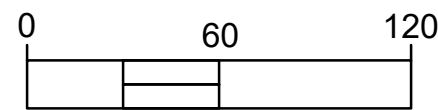
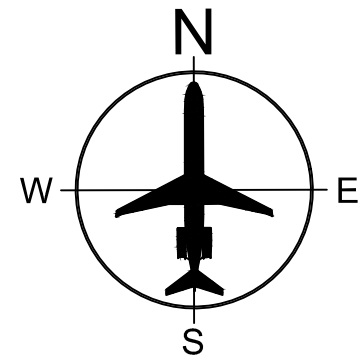
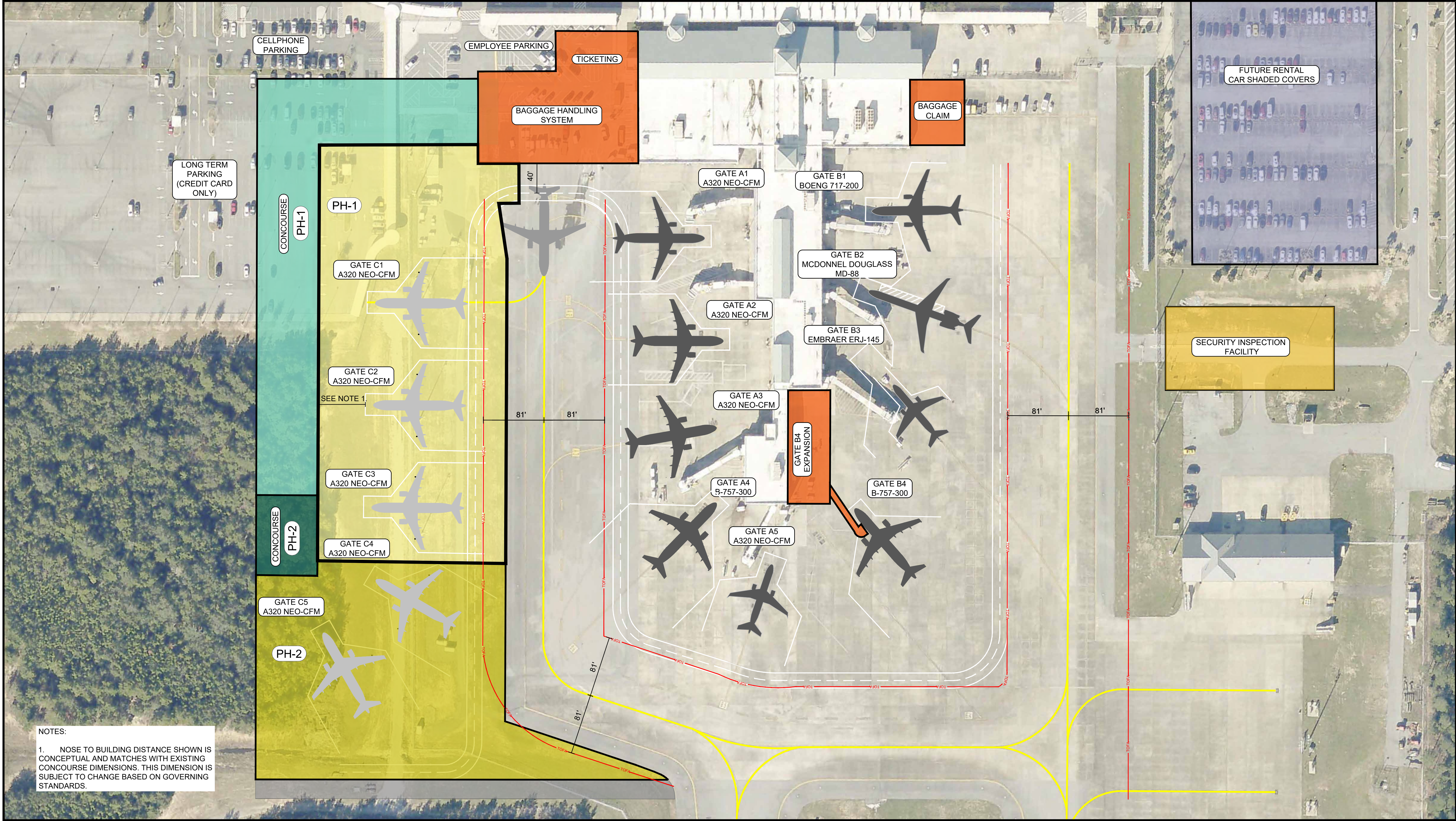
Terminal Layout Development Options

The options included a variety of layouts for improvement, growth, and expansion. The options address the shortcomings identified in Chapter Two - *Terminal Area Inventory* and the deficiencies identified in Chapter Four – *Demand Capacity Analysis and Facility Requirements*. The Terminal Layout Options developed are described below:

- **Option 1 – West Apron Expansion (ADG III):** Option 1 depicts a phased linear expansion of the existing terminal building with an attached concourse providing an additional five (5) gates. Phase 1 consists of 67,700 SF of concourse and Phase 2 is an additional 10,000 SF. The expansion of the west apron to allow for Aircraft Design Group III would be phased along with the Concourse. Phase 1 consists of 140,000 SF and Phase 2 is an additional 105,000 SF of apron. Additional terminal building expansion will allow for additional space needs for ticketing/baggage handling, baggage claim, concessions, and circulation. As illustrated in **Exhibit 5-3**, this option provides for capacity well beyond the demand expected in the planning periods.
- **Option 2 – West Apron Expansion (ADG IV):** Option 2 depicts a modified linear expansion of Option 1 to allow for Aircraft Design Group IV. The phase concourse expansion will allow for additional space needs for ticketing/baggage handling, baggage claim, concessions, and circulation. Phase 1 consists of 64,500 SF of concourse and Phase 2 is an additional 14,500 SF. The expansion of the west apron to allow for Aircraft Design Group IV would be phased along with the Concourse. Phase 1 consists of 300,000 SF and Phase 2 is an additional 82,000 SF of apron. As illustrated in **Exhibit 5-4**, this option provides for capacity well beyond the demand expected in the planning periods.
- **Option 3 – West Apron Expansion (ADG III):** Option 3 provides an L-Shaped satellite concourse to the west providing five (5) additional gates. Phase 1 consists of 19,500 SF of concourse and Phase 2 is an additional 14,000 SF. The expansion of the west apron to allow for Aircraft Design Group III would be phased along with the Concourse. Phase 1 consists of 255,000 SF and Phase 2 is an additional 94,000 SF of apron. Additional terminal building expansion to the north and east will allow for additional space needs for ticketing/baggage handling, baggage claim, concessions, and circulation. This option does not provide the needed capacity for the demand expected in the planning periods. **Exhibit 5-5** shows the layout of Option 3.
- **Option 4 – West Apron Expansion (ADG III):** Option 4 depicts a remote satellite concourse to the west providing five (5) additional gates. Phase 1 consists of 33,000 SF of concourse and Phase 2 is an additional 13,000 SF. The expansion of the west apron to allow for Aircraft Design Group III would be phased along with the Concourse. Phase 1 consists of 215,000 SF and Phase 2 is an additional 68,000 SF of apron. Additional terminal building expansion to the north and east will allow for additional space needs for ticketing/baggage handling, baggage claim, concessions, and circulation. Offers a layout that could provide curb-frontage access but would have the most impact on the credit card parking lot. As illustrated in **Exhibit 5-6**, this option provides for capacity well beyond the demand expected in the planning periods.
- **Option 5 – West Apron Expansion (ADG III):** Similar to Option 3, Option 5 provides an L-Shaped satellite concourse providing five (5) additional gates. Phase 1 consists of 26,500 SF of concourse and Phase 2 is an additional 14,000 SF. The expansion of the west apron to allow for Aircraft Design Group III would be phased along with the Concourse. Phase 1 consists of 231,000 SF and Phase 2 is an additional 97,500 SF of apron. This option could also provide curb-frontage access but would impact the credit card parking lot. Requires a larger apron due to layout of satellite concourse. Additional terminal building expansion to the north and east will allow for additional space needs for

ticketing/baggage handling, baggage claim, concessions, and circulation. **Exhibit 5-7** shows the layout of Option 3.

- **Option 6 – West Apron Expansion (ADG III):** Option 6 depicts a satellite concourse to the west with a north-south orientation providing five (5) additional gates. Phase 1 consists of 29,000 SF of concourse and Phase 2 is an additional 12,850 SF. The expansion of the west apron to allow for Aircraft Design Group III would be phased along with the Concourse. Phase 1 consists of 97,500 SF and Phase 2 is an additional 71,500 SF of apron. Terminal expansion will allow for additional space needs for ticketing/baggage handling, baggage claim, concessions, and circulation. Offers a layout that could provide curb-frontage access. As illustrated in **Exhibit 5-8**, this option provides for capacity well beyond the demand expected in the planning periods.
- **Parking Garage Options:** Several locations/sizes for the planned parking were identified and analyzed. All three options identified could provide capacity for the demand expected in the planning periods. **Exhibit 5-9** shows the location and possible layout of parking garage options.
- **Terminal Expansion:** The recommended expansion of the existing terminal is approximately 70,000 SF and will provide additional space needs for ticketing/baggage handling, TSA Checkpoints, baggage claim, concessions, and circulation. **Exhibit 5-10** shows the future terminal building expansion, including the covered walkways to the parking garage.

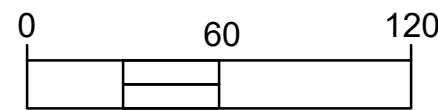
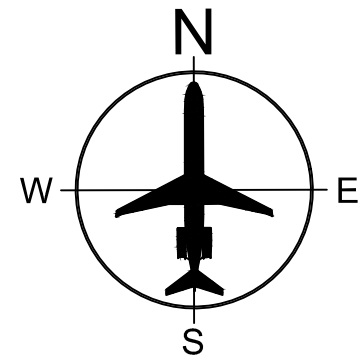
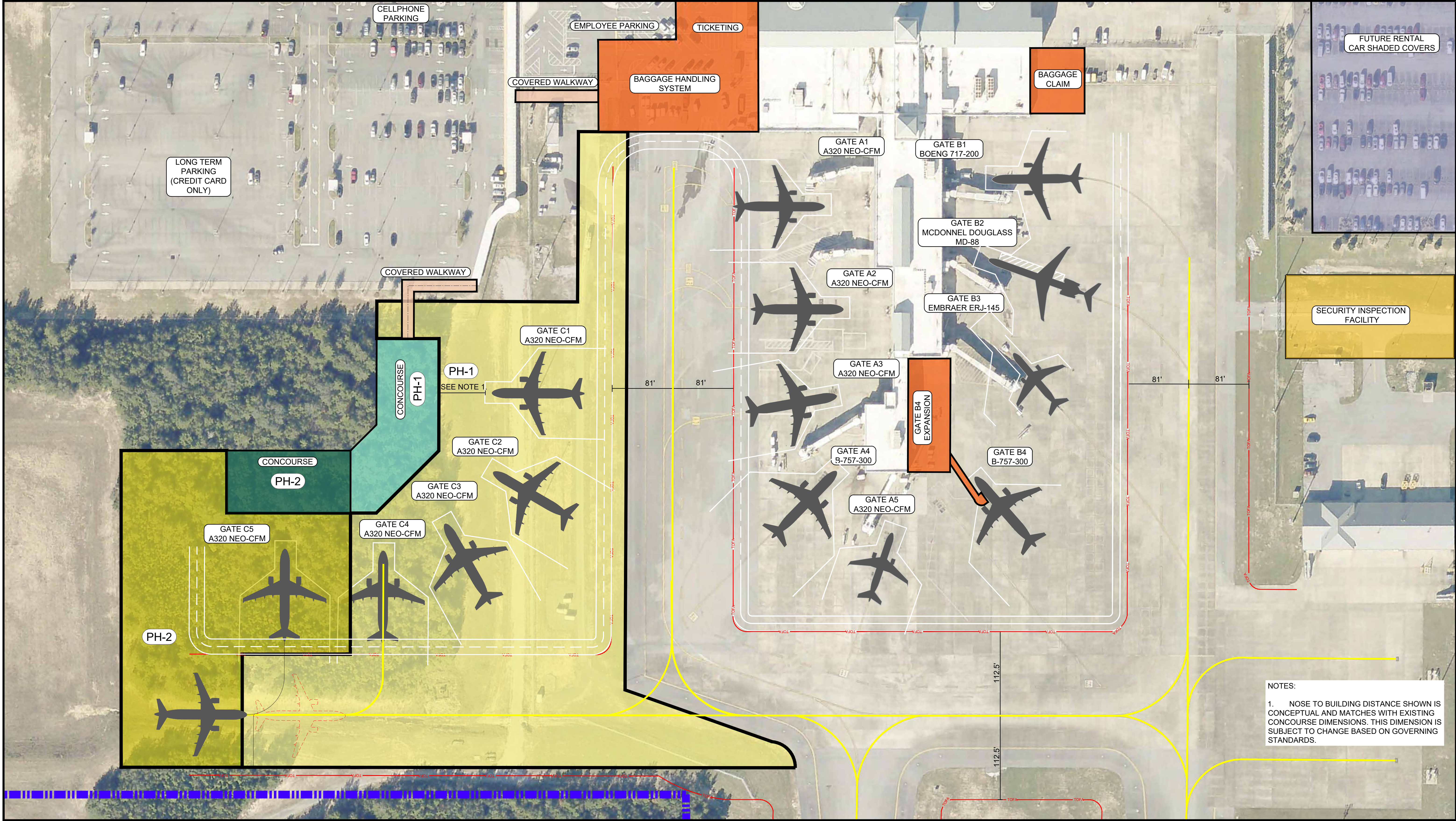


TERMINAL AREA STUDY / TERMINAL LAYOUT PLAN UPDATE

WEST APRON EXPANSION OPTION 1 (ADG III)

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MICHAEL BAKER INTERNATIONAL, INC.
495 GRAND BOULEVARD, SUITE 206
MIRAMAR BEACH, FLORIDA 32550 (850) 269-6883
CERTIFICATE OF AUTHORIZATION NUMBER 28861

EXHIBIT 5-3

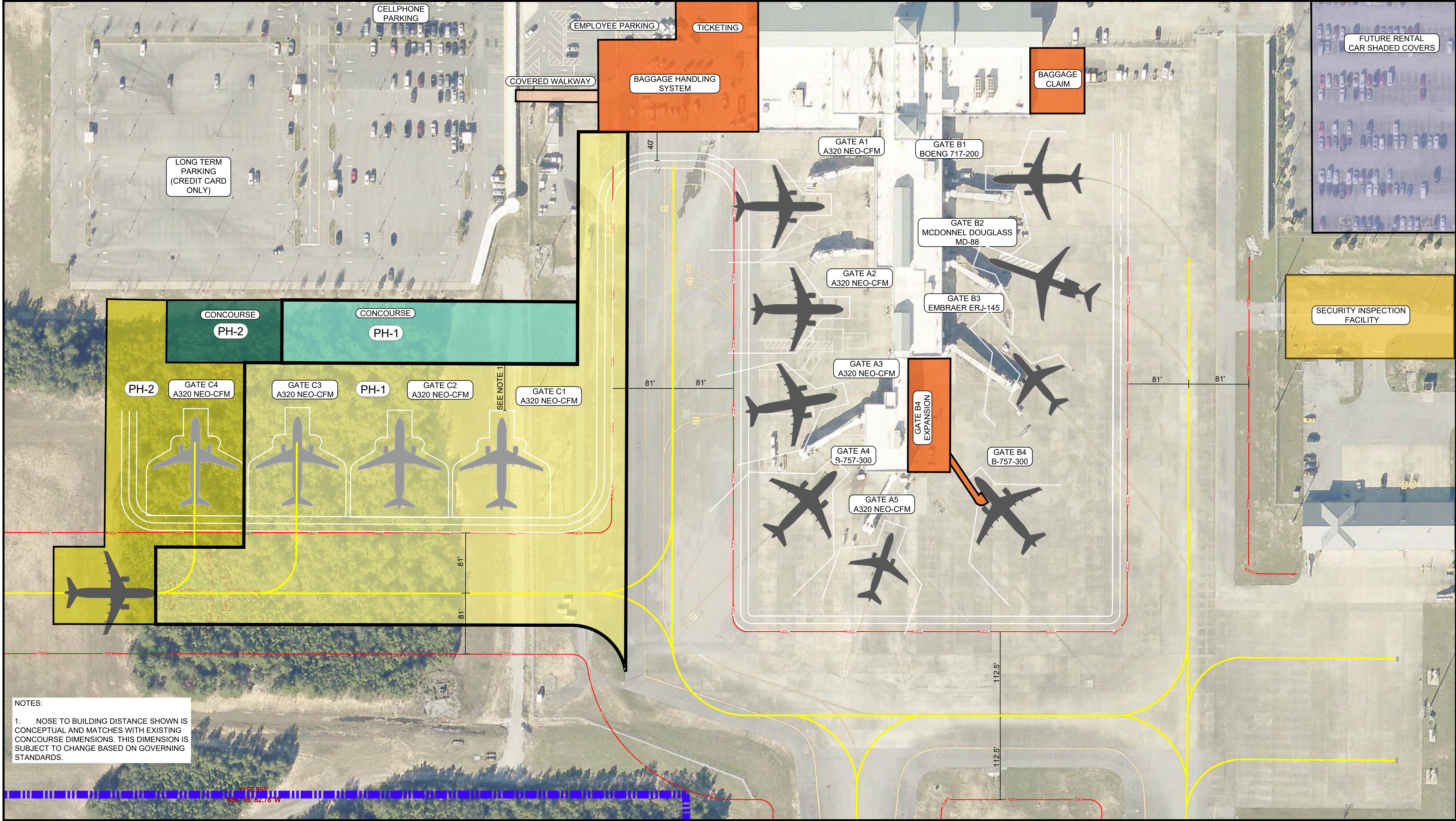


TERMINAL AREA STUDY / TERMINAL LAYOUT PLAN UPDATE

WEST APRON EXPANSION OPTION 3 (ADG III)

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CERTIFICATE OF AUTHORIZATION NUMBER 28861

EXHIBIT 5-5



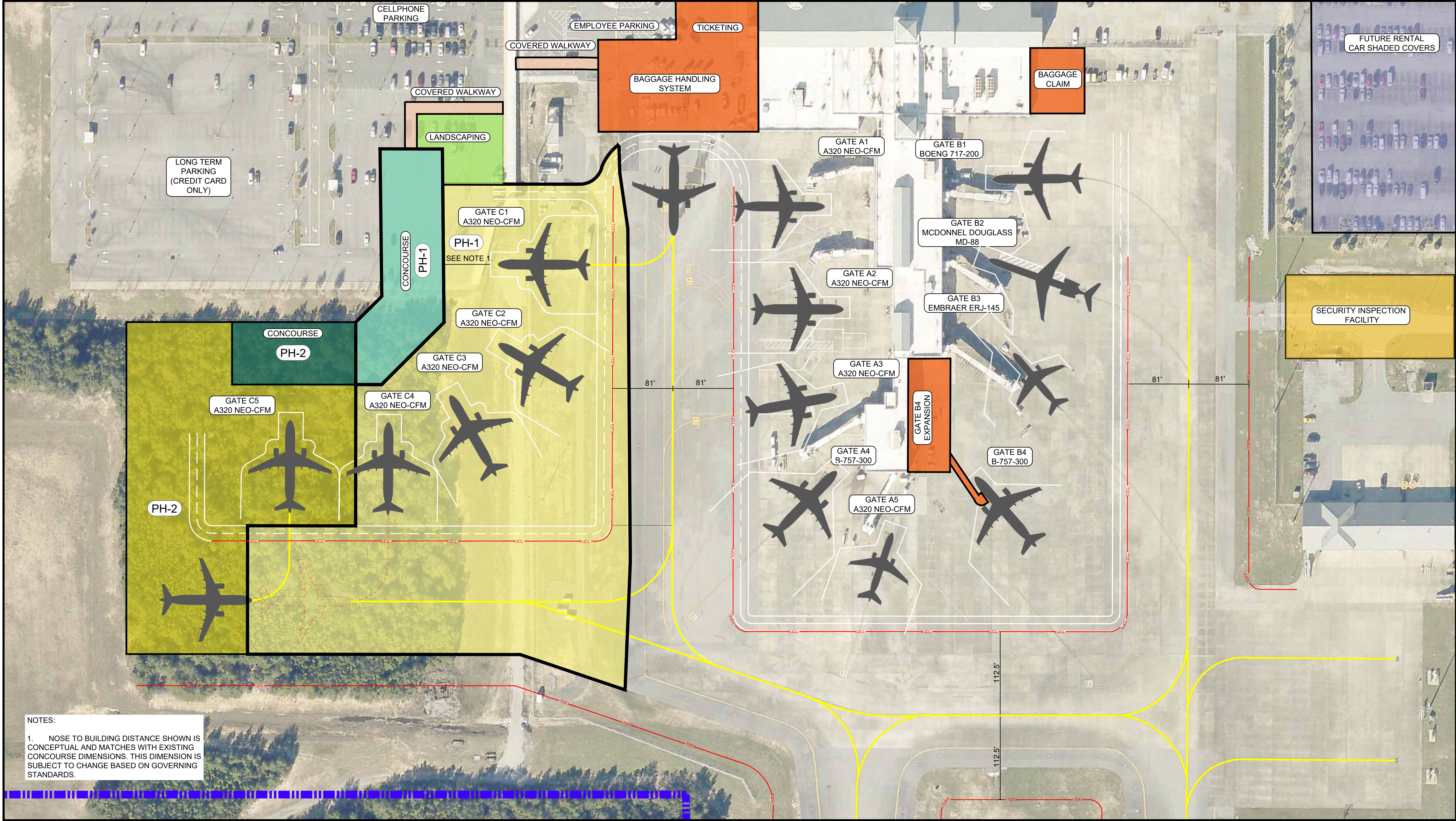
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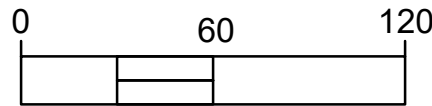
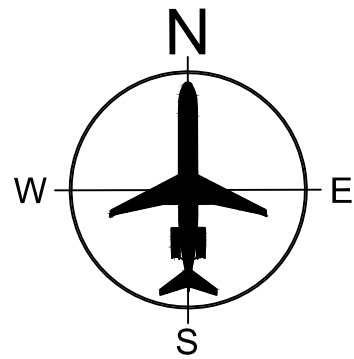
TERMINAL AREA STUDY / TERMINAL LAYOUT PLAN UPDATE
WEST APRON EXPANSION OPTION 4 (ADG III)

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EXHIBIT 5-6



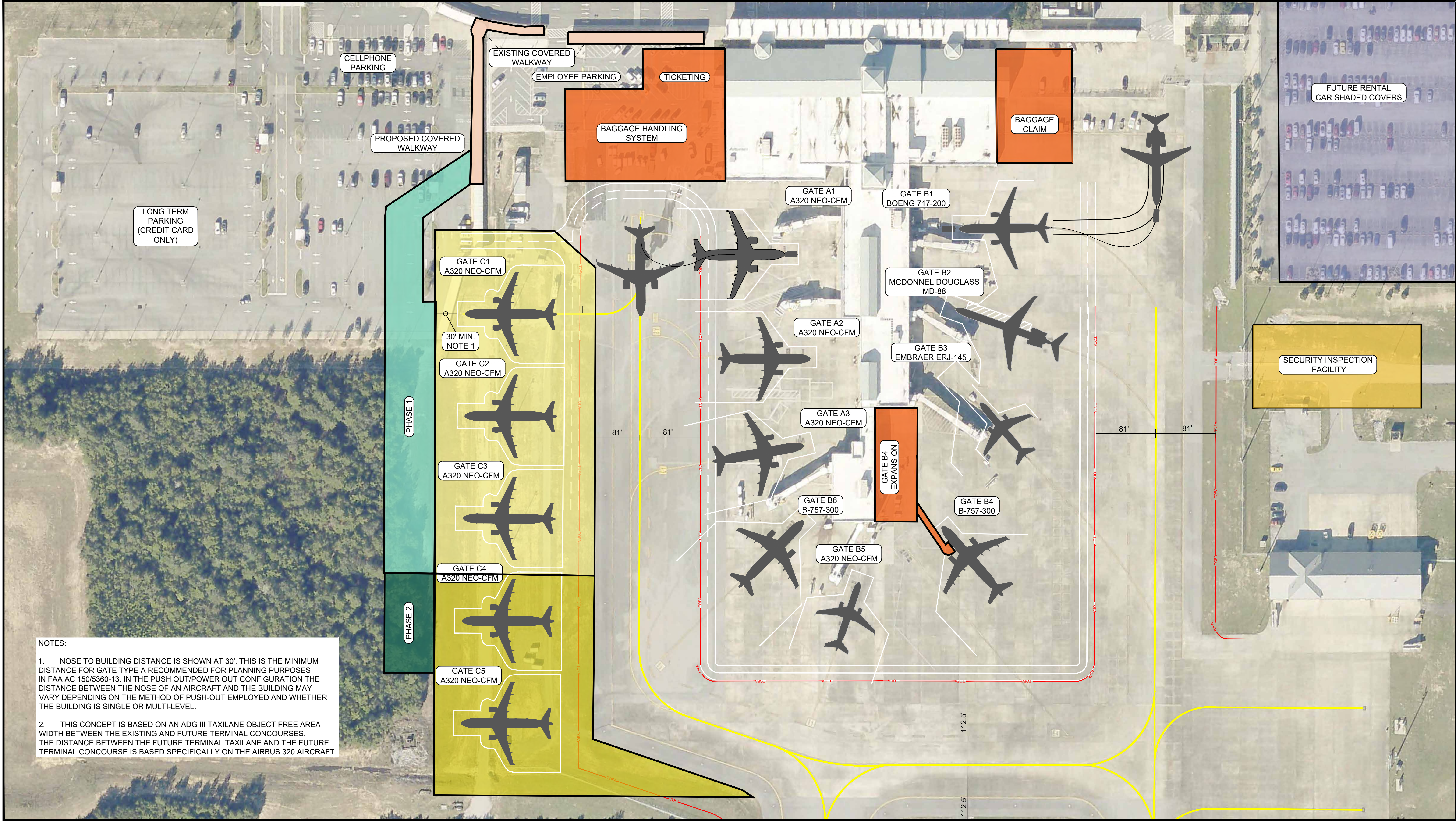
NOTES:
1. NOSE TO BUILDING DISTANCE SHOWN IS CONCEPTUAL AND MATCHES WITH EXISTING CONCOURSE DIMENSIONS. THIS DIMENSION IS SUBJECT TO CHANGE BASED ON GOVERNING STANDARDS.



TERMINAL AREA STUDY / TERMINAL LAYOUT PLAN UPDATE
WEST APRON EXPANSION OPTION 5 (ADG III)

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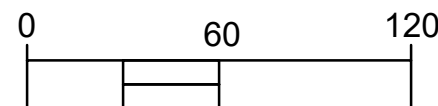
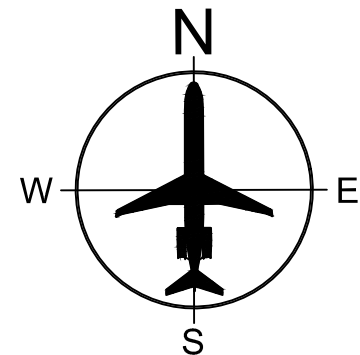
EXHIBIT 5-7



NOTES:

1. NOSE TO BUILDING DISTANCE IS SHOWN AT 30'. THIS IS THE MINIMUM DISTANCE FOR GATE TYPE A RECOMMENDED FOR PLANNING PURPOSES IN FAA AC 150/5360-13. IN THE PUSH OUT/POWER OUT CONFIGURATION THE DISTANCE BETWEEN THE NOSE OF AN AIRCRAFT AND THE BUILDING MAY VARY DEPENDING ON THE METHOD OF PUSH-OUT EMPLOYED AND WHETHER THE BUILDING IS SINGLE OR MULTI-LEVEL.

2. THIS CONCEPT IS BASED ON AN ADG III TAXILANE OBJECT FREE AREA WIDTH BETWEEN THE EXISTING AND FUTURE TERMINAL CONCOURSES. THE DISTANCE BETWEEN THE FUTURE TERMINAL TAXILANE AND THE FUTURE TERMINAL CONCOURSE IS BASED SPECIFICALLY ON THE AIRBUS 320 AIRCRAFT.

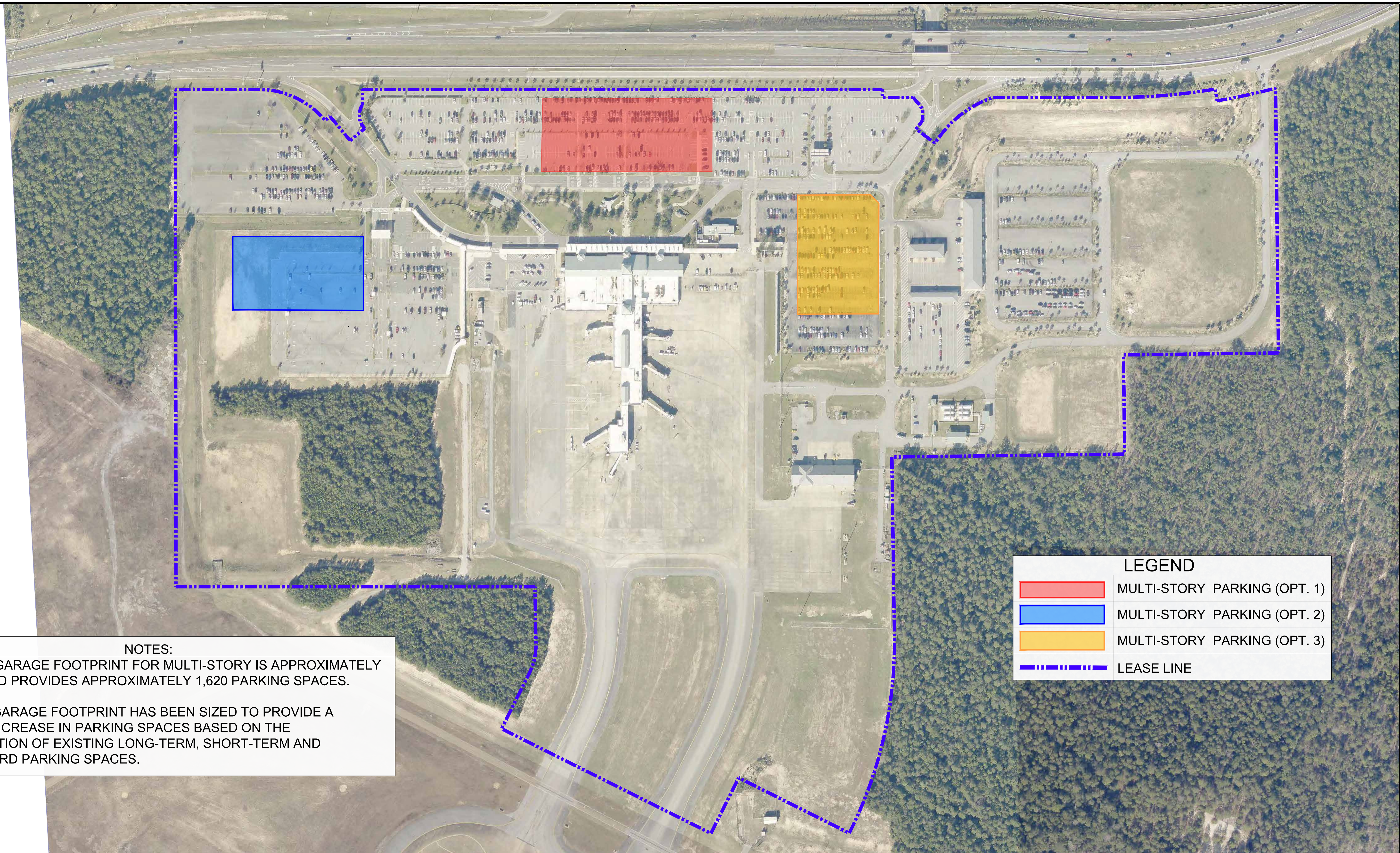


TERMINAL AREA STUDY / TERMINAL LAYOUT PLAN UPDATE
WEST APRON EXPANSION OPTION 6 (ADG III) (PREFERRED ALTERNATIVE)

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EXHIBIT 5-8


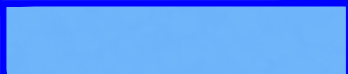


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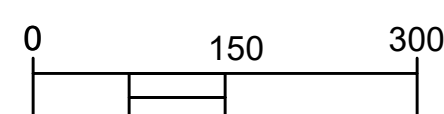
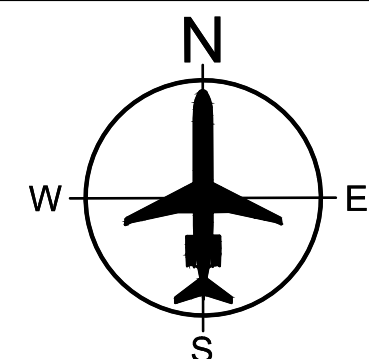


NOTES:

- 1- PARKING GARAGE FOOTPRINT FOR MULTI-STORY IS APPROXIMATELY 5.9 AC. AND PROVIDES APPROXIMATELY 1,620 PARKING SPACES.
- 2- PARKING GARAGE FOOTPRINT HAS BEEN SIZED TO PROVIDE A 50% NET INCREASE IN PARKING SPACES BASED ON THE CONTRIBUTION OF EXISTING LONG-TERM, SHORT-TERM AND CREDIT CARD PARKING SPACES.

LEGEND

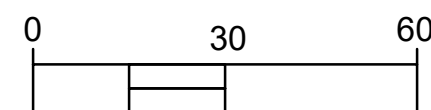
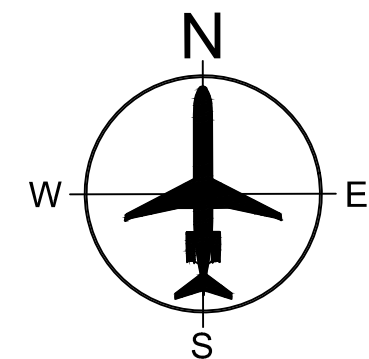
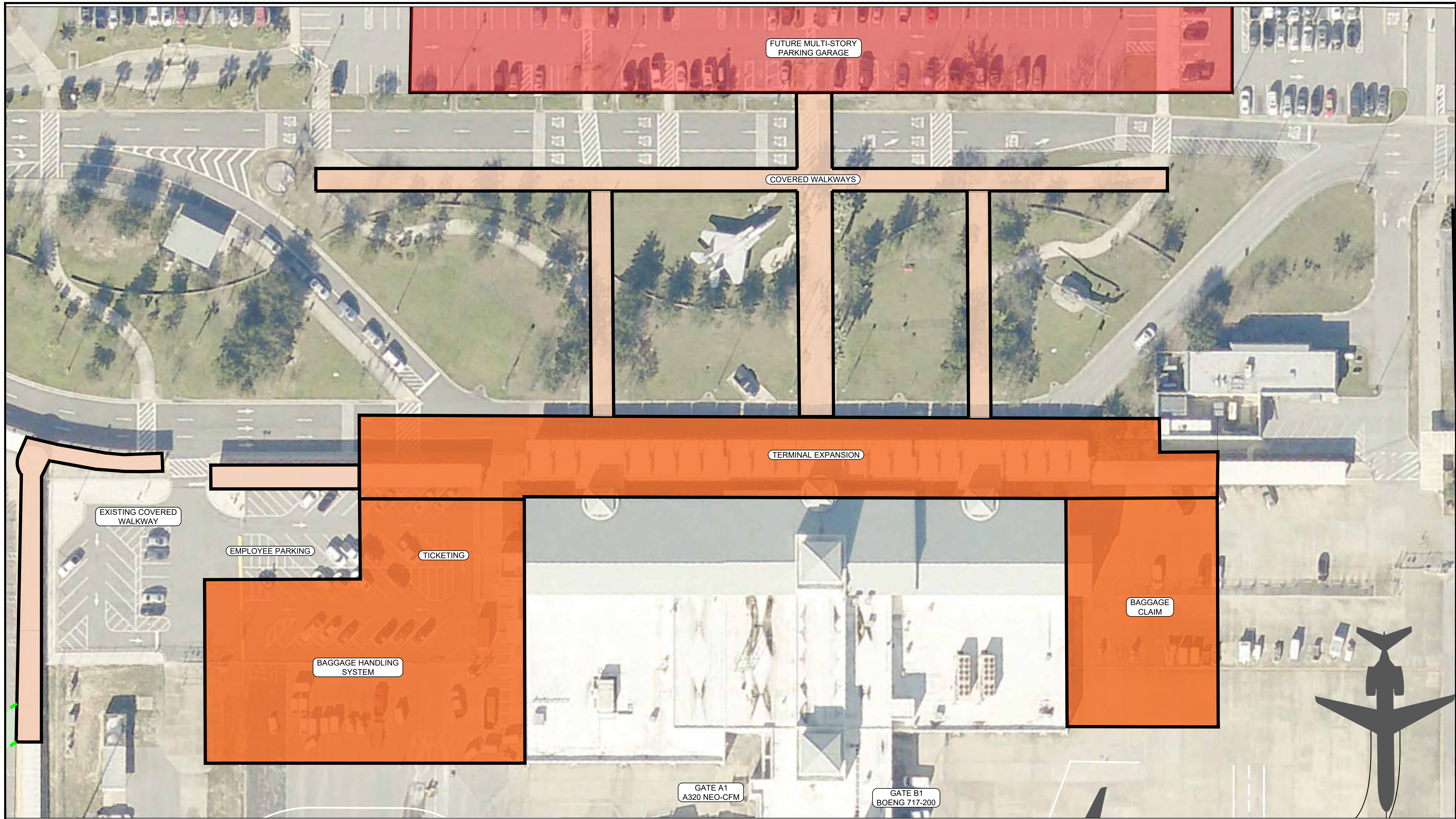
	MULTI-STORY PARKING (OPT. 1)
	MULTI-STORY PARKING (OPT. 2)
	MULTI-STORY PARKING (OPT. 3)
	LEASE LINE



TERMINAL AREA STUDY / TERMINAL LAYOUT PLAN UPDATE
PARKING GARAGE OPTIONS

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EXHIBIT 5-9



TERMINAL AREA STUDY / TERMINAL LAYOUT PLAN UPDATE

NORTHERN TERMINAL EXPANSION OPTION 1

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EXHIBIT 5-10

The options had several similar solutions to demand and service issues, but each had a number of differences in approach to different elements of the terminal. The common themes for each option are as follows:

- Post-ticketing, in-line baggage screening.
- Expansion of passenger screening, public waiting, and concessions in the terminal core.
- Expansion of Gate B4.

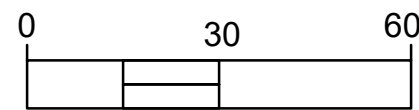
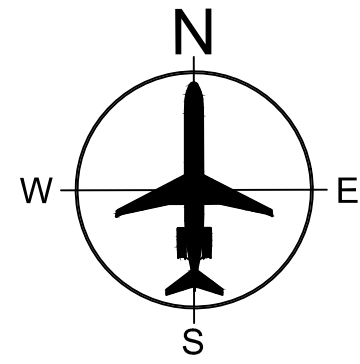
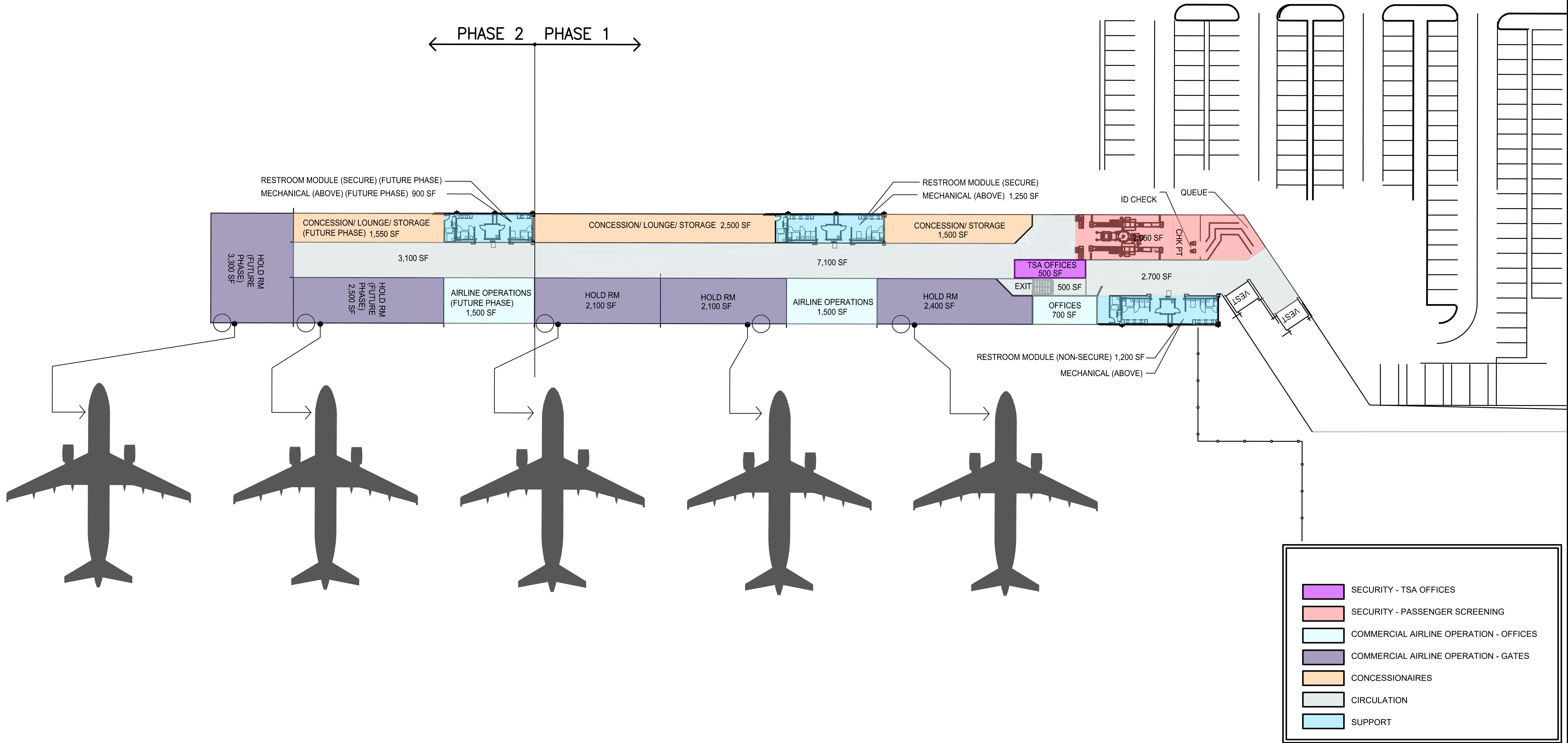
A comparison of the pros and cons of the concepts is included in **Table 5-1** below.

Table 5-1 Alternatives Analysis				
Options	Description	Pros	Cons	Other Considerations
West Apron Expansion Options				
Option 1	Linear expansion of the existing terminal building with an attached concourse providing 5-gates and expansion of the west apron to allow for Aircraft Design Group III.	Accommodates the projected facility requirements. Can be constructed in phases. Provides capacity for the demand expected in the planning periods. Interior access to new concourse.	Extended walk to Baggage Claim. Impacts Credit Card Parking Requires larger apron.	Increased costs due to larger apron and additional interior space.
Option 2	Modified linear expansion of Option 1 to allow for Aircraft Design Group IV.	Accommodates the projected facility requirements. Can be constructed in phases. Provides capacity for the demand expected in the planning periods. Terminal expansion will allow for additional space needs for ticketing/baggage handling, baggage claim, concessions, and circulation.	Extended walk to Baggage Claim Requires larger apron.	Increased costs due to larger apron and additional interior space.
Option 3	Option 3 provides a L-Shaped 5-gate satellite concourse to the west and expansion of the west apron to allow for Aircraft Design Group III.	Can be constructed in phases.	Extended walk to Baggage Claim Does not accommodate the projected facility requirements. Requires larger apron	Increased costs for a facility that does not meet demand.
Option 4	Option 4 depicts a 5-gate satellite concourse to the west and expansion of the west apron to allow for Aircraft Design Group III.	Accommodates the projected facility requirements. Can be constructed in phases. Provides capacity for the demand expected in the planning periods.	Extended walk to Baggage Claim Requires larger apron	Increased costs due to larger apron
Option 5	Similar to Option 3, Option 5 provides a L-Shaped 5-gate satellite concourse to the west and expansion of the west apron to allow for Aircraft Design Group III.	Accommodates the projected facility requirements. Can be constructed in phases. Provides capacity for the demand expected in the planning periods.	Extended walk to Baggage Claim Requires larger apron	Increased costs due to larger apron
Option 6 Preferred Alternative	Option 6 depicts a an 5-gate satellite concourse to the west and expansion of the west apron to allow for Aircraft Design Group III.	Accommodates the projected facility requirements. Can be constructed in phases. Offers a layout that could provide curb-frontage access. Provides capacity for the demand expected in the planning periods.	Extended walk to Baggage Claim	Base line for cost comparison.
Parking Garage and Terminal Building Expansion Options				
Option 7	Garage Parking Options			
	Credit Card Lot	Limited impact to existing surface parking	Distance from Terminal Core	
Preferred Alternative	Short/Long Term Lot	Proximity to Terminal Core	Impact to existing surface lot and circulation	
	Rental Car Ready Lot	No impact to existing passenger parking lot	Distance from Terminal Care	
Option 8	Terminal Building Expansion	Terminal expansion will allow for additional space needs for ticketing/baggage handling, baggage claim, concessions, and circulation.		

Preferred Terminal Layout Plan Option

After discussions with County staff and project stakeholders it was determined the Option 6 is the Preferred Alternative. Option 6 was selected as the Preferred Alternative because of the limited impact that it had on existing airport facilities. The satellite concourse was identified as a cost-effective way to meet the current and future demand at VPS. In addition, the apron required to accommodate the satellite concourse was the smallest of any of the options identified therefore reducing the overall costs of implementing Option 6. Like all the Options analyzed, Option 6 also includes the terminal expansion shown on **Exhibit 5-10**. A conceptual Space Utilization Plan for Satellite Concourse C is included as **Exhibit 5-11** for additional information. In addition to Satellite Concourse C, the Preferred Terminal Layout Plan will include the elements discussed in Chapter 7.

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TERMINAL AREA STUDY / TERMINAL LAYOUT PLAN UPDATE

SPACE UTILIZATION FLOOR PLAN - CONCOURSE C

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EXHIBIT 5-11

CHAPTER SIX

Capital Improvement Plan

Destin-Fort Walton Beach Airport

Introduction

The previous sections of this Master Plan present a logical, step-by-step explanation of how the long-range improvement plan was developed for the Airport. This implementation plan is designed to assist Airport management in achieving their primary goals to maximize revenues and minimize operating expenditures, while at the same time providing facilities to accommodate the flying public. A public meeting was held at the Airport on February 27th, 2019 to present the Terminal Area Plan (TAP) and receive input on the recommended Capital Improvement Program (CIP). The Airport did not receive any comments from the public and will proceed with the recommended CIP. The information presented in this section both describes the staging of proposed improvements and provides the basic capital requirements of each. Over the 20-year planning period, the implementation plan may serve as general financial guidance in making policy decisions regarding the development of the airport.

Program Staging and Cost Estimating

An initial development schedule was prepared based upon facility needs presented in Chapter 5, which in most cases were dependent upon the operations forecast. Therefore, since actual activity levels realized at the Airport may vary, the staging must remain sensitive to such variations. It is quite possible for some projects to move up in priority, while at the same time, others may move down. A prioritization of improvements considered the urgency of need, ease of implementation, logic of sequence, and input received from Airport staff. The objective was to establish an efficient order for project development and implementation that satisfied forecasted activity and Airport desires. The development schedule is divided into three general stages that represent the short (2018-2023), intermediate (2023-2028), and long-term (2028-2038).

Capital Improvement Program

The next step focused on identifying costs associated with each capital improvement project. These project-specific development costs were then further broken down considering conventional aviation funding sources, such as AIP Eligible and Non-AIP Eligible projects. Focus was given to detailing estimated costs for the short-term.

The CIP cost summaries are presented in Table 6-1 with the development schedule and itemized breakdown of the AIP and Non-AIP funding for the improvements proposed by this Terminal Area Study/Terminal Area Layout Plan Update are presented in Table 6-2.

As noted, cost projections are based on 2018 dollars and include estimated engineering fees and contingencies. Although these costs are approximate, they are appropriate for planning purposes. These projections however, should be used for planning purposes only and do not imply that funding for these will necessarily be available. The total cost of the projects identified for Stage 1 (2018-2023) is \$61,166,000. The total cost of the projects identified for Stage II (2018-2023) is \$60,342,000. The total cost of the projects identified for Stage III (2018-2023) is \$4,073,181. The Total Program is \$128,362,057. The funding will be split based on AIP and Non-AIP eligibility of the proposed improvements between the FAA, FDOT and the Airport, as outlined in Table 6-below.

Table 6-1 – CIP Cost Summary

	Federal	State	Local	Private	Total
Stage 1 (0-5 YR)					
AIP Eligible	\$58,107,700	\$1,506,650	\$1,551,650	\$0	\$61,166,000
Non-AIP Eligible	\$0	\$537,500	\$537,500	\$0	\$1,075,000
Stage 2 (6-10 YR)					
AIP Eligible	\$57,324,900	\$1,508,550	\$1,508,550	\$0	\$60,342,000
Non-AIP Eligible	\$0	\$852,938	\$852,938	\$0	\$1,705,876
Stage 3 (11-20 YR)					
AIP Eligible	\$1,104,850	\$29,075	\$29,075	\$0	\$1,163,000
Non-AIP Eligible	\$0	\$1,455,091	\$1,455,091	\$0	\$2,910,181
TOTAL	\$116,537,450	\$5,889,803	\$5,934,803	\$0	\$128,362,057

TABLE 6-2

**Destin-Fort Walton Beach Airport (VPS)
Proposed Capital Improvement Plan Projects**

	Qty	Unit	Unit Cost	Federal	State	Local	Private/Other	Total
A. AIP ELIGIBLE - STAGE I (0-5 YR)								
1. TSA Checkpoint 4th Lane	1	LS	\$250,000	\$237,500	\$6,250	\$6,250	\$0	\$250,000
Subtotal				<u>\$237,500</u>	<u>\$6,250</u>	<u>\$6,250</u>	<u>\$0</u>	<u>\$250,000</u>
Total				\$237,500	\$6,250	\$6,250	\$0	\$250,000
2. Construct Terminal Gate Expansion (12,000 SF) Gate B-4 (#6)								
a. Construction	12,000	SF	\$300	\$3,420,000	\$90,000	\$90,000	\$0	\$3,600,000
Subtotal				<u>\$3,420,000</u>	<u>\$90,000</u>	<u>\$90,000</u>	<u>\$0</u>	<u>\$3,600,000</u>
Engineering/Contingencies		LS		\$1,026,000	\$27,000	\$27,000	\$0	\$1,080,000
Total				\$4,446,000	\$117,000	\$117,000	\$0	\$4,680,000
3. Expand West Terminal (11,900 SF) and Baggage Handling System (Construction) (#6)								
a. Construct Airport Passenger Terminal Building	35,000	SF	\$500	\$16,625,000	\$437,500	\$437,500	\$0	\$17,500,000
Subtotal				<u>\$16,625,000</u>	<u>\$437,500</u>	<u>\$437,500</u>	<u>\$0</u>	<u>\$17,500,000</u>
Engineering/Contingencies		LS		\$4,987,500	\$131,250	\$131,250	\$0	\$5,250,000
Total				\$21,612,500	\$568,750	\$568,750	\$0	\$22,750,000
4. Construct RON Apron (East Side) (#4)								
a. New Apron	4,761	CY	\$1,250	\$5,653,688	\$148,781	\$148,781	\$0	\$5,951,250
Subtotal				<u>\$5,653,688</u>	<u>\$148,781</u>	<u>\$148,781</u>	<u>\$0</u>	<u>\$5,951,250</u>
Engineering/Contingencies		LS		\$1,130,738	\$29,756	\$29,756	\$0	\$1,190,250
Total				\$6,784,425	\$178,538	\$178,538	\$0	\$7,141,500
5. Construct West Apron and Infrastructure (Include Blast Fence/Wall)								
a. New Apron	6,046	CY	\$1,250	\$7,179,625	\$188,938	\$188,938	\$0	\$7,557,500
b. Blast Fence	375	LF	\$750	\$267,188	\$7,031	\$7,031	\$0	\$281,250
Subtotal				<u>\$7,446,813</u>	<u>\$195,969</u>	<u>\$195,969</u>	<u>\$0</u>	<u>\$7,838,750</u>
Engineering/Contingencies		LS		\$1,489,363	\$39,194	\$39,194	\$0	\$1,567,750
Total				\$8,936,175	\$235,163	\$235,163	\$0	\$9,406,500
6. Install New Airport Electronic Directional/Information Signage	6	LS	\$150,000	\$855,000	\$22,500	\$22,500	\$0	\$900,000
Subtotal				<u>\$855,000</u>	<u>\$22,500</u>	<u>\$22,500</u>	<u>\$0</u>	<u>\$900,000</u>
Engineering/Contingencies				\$171,000	\$4,500	\$4,500	\$0	\$180,000
Total				\$1,026,000	\$27,000	\$27,000	\$0	\$1,080,000

TABLE 6-2

Destin-Fort Walton Beach Airport (VPS)
Proposed Capital Improvement Plan Projects

	Qty	Unit	Unit Cost	Federal	State	Local	Private/Other	Total
7. Construct Satalite Concourse C - 34,800 SF (Phase 1/2 - 27,660SF/7,200SF (#2))								
a. Construct Phase 1	27,660	SF	\$250	\$6,569,250	\$172,875	\$172,875	\$0	\$6,915,000
b. Construct Phase 2	7,200	SF	\$250	\$1,710,000	\$45,000	\$45,000	\$0	\$1,800,000
<i>Subtotal</i>				<u>\$8,279,250</u>	<u>\$217,875</u>	<u>\$217,875</u>	<u>\$0</u>	<u>\$8,715,000</u>
Engineering/Contingencies		LS		\$1,655,850	\$43,575	\$43,575	\$0	\$1,743,000
Total				\$9,935,100	\$261,450	\$261,450	\$0	\$10,458,000
8. Construct East Terminal Building Expansion/Baggage Claim (15,000 SF)								
<i>Subtotal</i>	15,000	SF	\$300	<u>\$4,275,000</u>	<u>\$112,500</u>	<u>\$112,500</u>	<u>\$0</u>	<u>\$4,500,000</u>
Engineering/Contingencies				\$855,000	\$0	\$45,000	\$0	\$900,000
Total				\$5,130,000	\$112,500	\$157,500	\$0	\$5,400,000
TOTAL - AIP ELIGIBLE - STAGE I				\$58,107,700	\$1,506,650	\$1,551,650	\$0	\$61,166,000
B. NON AIP ELIGIBLE - STAGE I (0-5 YR)								
1. Replace Gas Boilers								
a. Gas Boilers	1	EA	\$225,000	\$0	\$112,500	\$112,500	\$0	\$225,000
<i>Subtotal</i>				<u>\$0</u>	<u>\$112,500</u>	<u>\$112,500</u>	<u>\$0</u>	<u>\$225,000</u>
Total				\$0	\$112,500	\$112,500	\$0	\$225,000
2. Security Enhancements (Bollards)								
<i>Subtotal</i>	1	LS	\$250,000	<u>\$0</u>	<u>\$125,000</u>	<u>\$125,000</u>	<u>\$0</u>	<u>\$250,000</u>
Total				\$0	\$125,000	\$125,000	\$0	\$250,000
3. Rehab Rental Car Facility (Vacuums, Wash, Fuel - 5 Bays Each)								
<i>Subtotal</i>	1	LS	\$500,000	<u>\$0</u>	<u>\$250,000</u>	<u>\$250,000</u>	<u>\$0</u>	<u>\$500,000</u>
Engineering/Contingencies				\$0	\$50,000	\$50,000	\$0	\$100,000
Total				\$0	\$300,000	\$300,000	\$0	\$600,000
TOTAL NON-AIP ELIGIBLE - STAGE I				\$0	\$537,500	\$537,500	\$0	\$1,075,000
TOTAL STAGE I*				\$58,107,700	\$2,044,150	\$2,089,150	\$0	\$62,241,000

TABLE 6-2
**Destin-Fort Walton Beach Airport (VPS)
Proposed Capital Improvement Plan Projects**

	Qty	Unit	Unit Cost	Federal	State	Local	Private/Other	Total
C. AIP ELIGIBLE - STAGE II (6-10 YR)								
1. Construct Three-Story Parking Garage (#1)	1,620	Space	\$17,000	\$26,163,000	\$688,500	\$688,500	\$0	\$27,540,000
Subtotal				<u>\$26,163,000</u>	<u>\$688,500</u>	<u>\$688,500</u>	<u>\$0</u>	<u>\$27,540,000</u>
Engineering/Contingencies		LS		\$5,232,600	\$137,700	\$137,700	\$0	\$5,508,000
Total				\$31,395,600	\$826,200	\$826,200	\$0	\$33,048,000
Construct North Terminal Expansion (37,000 SF) w / Covered Walkways to Terminal and Curb Frontage (See Drawing)								
2. a. North Terminal Exp	56,150	SF	\$300	\$16,002,750	\$421,125	\$421,125	\$0	\$16,845,000
b. Covered Walkways	1,000	LF	\$3,500	\$3,325,000	\$87,500	\$87,500	\$0	\$3,500,000
Subtotal				<u>\$19,327,750</u>	<u>\$508,625</u>	<u>\$508,625</u>	<u>\$0</u>	<u>\$20,345,000</u>
Engineering/Contingencies		LS		\$3,865,550	\$101,725	\$101,725	\$0	\$4,069,000
Total				\$23,193,300	\$610,350	\$610,350	\$0	\$24,414,000
4. Replace Passenger Boarding Bridges - Gates B1, B2, B3	3	EA	\$800,000.00	\$2,280,000	\$60,000	\$60,000	\$0	\$2,400,000
Subtotal				<u>\$2,280,000</u>	<u>\$60,000</u>	<u>\$60,000</u>	<u>\$0</u>	<u>\$2,400,000</u>
Engineering/Contingencies		LS		\$456,000	\$12,000	\$12,000	\$0	\$480,000
Total				\$2,736,000	\$72,000	\$72,000	\$0	\$2,880,000
TOTAL - AIP ELIGIBLE - STAGE II				\$57,324,900	\$1,508,550	\$1,508,550	\$0	\$60,342,000
D. NON AIP ELIGIBLE - STAGE II (6-10 YR)								
1. Construct Inspection Building/Pit (East Access Gate)	10,000	SF	\$75.00	\$0	\$375,000	\$375,000	\$0	\$750,000
Subtotal				<u>\$0</u>	<u>\$375,000</u>	<u>\$375,000</u>	<u>\$0</u>	<u>\$750,000</u>
Engineering/Contingencies		LS		\$0	\$75,000	\$75,000	\$0	\$150,000
Total				\$0	\$450,000	\$450,000	\$0	\$900,000
3. Install Shaded Covers over Surface Lots (Credit Card/Rental Car Ready)								
a. T Carport Frame	162	EA	\$1,466.00	\$0	\$118,746	\$118,746	\$0	\$237,492
b. Installation per Parking Space	438	EA	\$991.03	\$0	\$217,036	\$217,036	\$0	\$434,071
Subtotal				<u>\$0</u>	<u>\$335,782</u>	<u>\$335,782</u>	<u>\$0</u>	<u>\$671,563</u>
Engineering/Contingencies		LS		\$0	\$67,156	\$67,156	\$0	\$134,313
Total				\$0	\$402,938	\$402,938	\$0	\$805,876
TOTAL NON-AIP ELIGIBLE - STAGE II				\$0	\$852,938	\$852,938	\$0	\$1,705,876
TOTAL STAGE II*				\$57,324,900	\$2,361,488	\$2,361,488	\$0	\$62,047,876

TABLE 6-2

**Destin-Fort Walton Beach Airport (VPS)
Proposed Capital Improvement Plan Projects**

	Qty	Unit	Unit Cost	Federal	State	Local	Private/Other	Total
E. AIP ELIGIBLE - STAGE III (11-20 YR)								
1. Update Master Plan	1	LS	\$250,000	\$237,500	\$6,250	\$6,250	\$0	\$250,000
Subtotal				<u>\$237,500</u>	<u>\$6,250</u>	<u>\$6,250</u>	<u>\$0</u>	<u>\$250,000</u>
Total				\$475,000	\$12,500	\$12,500	\$0	\$500,000
2. Install New Roof for Both Terminal and Concourse	85,000	SF	\$6.50	\$524,875	\$13,813	\$13,813	\$0	\$552,500
Subtotal				<u>\$524,875</u>	<u>\$13,813</u>	<u>\$13,813</u>	<u>\$0</u>	<u>\$552,500</u>
Engineering/Contingencies		LS		\$104,975	\$2,763	\$2,763	\$0	\$110,500
Total				\$629,850	\$16,575	\$16,575	\$0	\$663,000
TOTAL - AIP ELIGIBLE - STAGE III				\$1,104,850	\$29,075	\$29,075	\$0	\$1,163,000
F. NON AIP ELIGIBLE - STAGE III (11-20 YR)								
1. Surface Treatment of all Roadway/Surface Lots	#####	SF	\$3	\$0	\$750,000	\$750,000	\$0	\$1,500,000
Subtotal				<u>\$0</u>	<u>\$750,000</u>	<u>\$750,000</u>	<u>\$0</u>	<u>\$1,500,000</u>
Engineering/Contingencies		LS		\$0	\$150,000	\$150,000	\$0	\$300,000
Total				\$0	\$900,000	\$900,000	\$0	\$1,800,000
2. Expand Long Term Parking (Credit Card Only)								
a. 3" Asphalt Cement	1681	TON	\$125	\$0	\$105,063	\$105,063	\$0	\$210,125
b. Limerock Base Course (8")	2288	CY	\$18	\$0	\$20,592	\$20,592	\$0	\$41,184
Subtotal				<u>\$0</u>	<u>\$125,655</u>	<u>\$125,655</u>	<u>\$0</u>	<u>\$251,309</u>
Engineering/Contingencies		LS		\$0	\$25,131	\$25,131	\$0	\$50,262
Total				\$0	\$150,785	\$150,785	\$0	\$301,571
3. Construct New Employee Parking Lot								
a. Storm Drainage (18" HDPE)	500	LF	\$100	\$0	\$25,000	\$25,000	\$0	\$50,000
b. 3" Asphalt Cement	3,564	TON	\$125	\$0	\$222,750	\$222,750	\$0	\$445,500
c. Limerock Base Course (8")	4,808	CY	\$18	\$0	\$43,272	\$43,272	\$0	\$86,544
d. 3" Asphalt Cement	614	TON	\$125	\$0	\$38,375	\$38,375	\$0	\$76,750
e. Limerock Base Course (8")	836	CY	\$18	\$0	\$7,524	\$7,524	\$0	\$15,048
Subtotal				<u>\$0</u>	<u>\$336,921</u>	<u>\$336,921</u>	<u>\$0</u>	<u>\$673,842</u>
Engineering/Contingencies		LS		\$0	\$67,384	\$67,384	\$0	\$134,768
Total				\$0	\$404,305	\$404,305	\$0	\$808,610
TOTAL - NON AIP ELIGIBLE - STAGE III				\$0	\$1,455,091	\$1,455,091	\$0	\$2,910,181
TOTAL STAGE III*				\$1,104,850	\$1,484,166	\$1,484,166	\$0	\$4,073,181
TOTAL STAGES I, II, & III (AIP)*				\$116,537,450	\$3,044,275	\$3,089,275	\$0	\$122,671,000
TOTAL STAGES I, II, & III (NON-AIP)*				\$0	\$2,845,528	\$2,845,528	\$0	\$5,691,057
GRAND TOTAL STAGES I, II, & III*				\$116,537,450	\$5,889,803	\$5,934,803	\$0	\$128,362,057

*All cost are shown in terms of 2018 dollars.

CHAPTER SEVEN

Terminal Area Layout Plans

Destin-Fort Walton Beach Airport

Introduction

This chapter provides a graphic description of the recommended airport development program for facilities which is recommended for the Destin-Fort Walton Beach Airport. The airport plan drawings can be found in Exhibit 7-1 and include the following components:

- Title Sheet
- Terminal Layout Plan (TLP)
- Airport Property Map

Airfield Design Standards

The FAA publishes advisory circulars containing airfield design standards that are intended to provide guidance, with flexibility in application, to insure the safety, economy, efficiency, and longevity of the Airport.

The Terminal Layout Plan set has been prepared in conformity with the applicable criteria described in FAA Advisory Circulars 150/5300-13A, *Airport Design*, and 150/5070-6B, *Airport Master Plans*. The following is a description of the plans included in the Terminal Layout Plan Update.

Title Sheet

The Title Sheet includes the project name, approval status from FAA, site location, and other contact information.

Terminal Layout Plan

The Terminal Layout Plan depicts the existing airport facilities as well as the recommended facilities required to accommodate forecast demand through the Year 2032.

Major improvements incorporated in the TLP are summarized as follows:

- West Apron Expansion
- Construct new 5-gate satellite Concourse C
- North Terminal Expansion with Covered Walkways
- Terminal Gate Expansion (Gate B4)
- Expand West Terminal and Baggage Handling System (BHS)
- Expand East Terminal and Baggage Claim/Rental Car
- Construct new parking structure (garage parking)
- Expand At-Grade Revenue Parking (Credit Card)
- Construct At-Grade Employee Parking
- Aviation and Non-Aviation Development
- Rental Car Overflow Expansion
- Construct shaded cover for the Rental Car Ready Lot.

- Construct Security Inspection Facility.
- Expand Remote Over Night (RON) Apron
- Installation of Security Bollards around terminal building and under concourse drive-throughs.
- Transportation Security Administration (TSA) Checkpoint Expansion

Airport Property Map (Exhibit A)

The Airport Property Map depicts the leased boundary of the airport.



AIRPORT TERMINAL LAYOUT PLAN UPDATE

DESTIN - FORT WALTON BEACH AIRPORT
EGLIN AFB, FLORIDA



OPERATED BY:

OKALOOSA COUNTY AIRPORTS SYSTEM



LOCATION MAP
NOT TO SCALE

DRAWING INDEX

SHEET NO.	SHEET TITLE
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C-100	TITLE SHEET
C-101	TERMINAL LAYOUT PLAN
C-102	AIRPORT PROPERTY MAP
C-103	FACILITY KEY MAP

SPONSOR'S APPROVAL

AUTHORIZED REPRESENTATIVE	DATE
---------------------------	------

PRINTED NAME AND TITLE

FAA CONDITIONAL APPROVAL

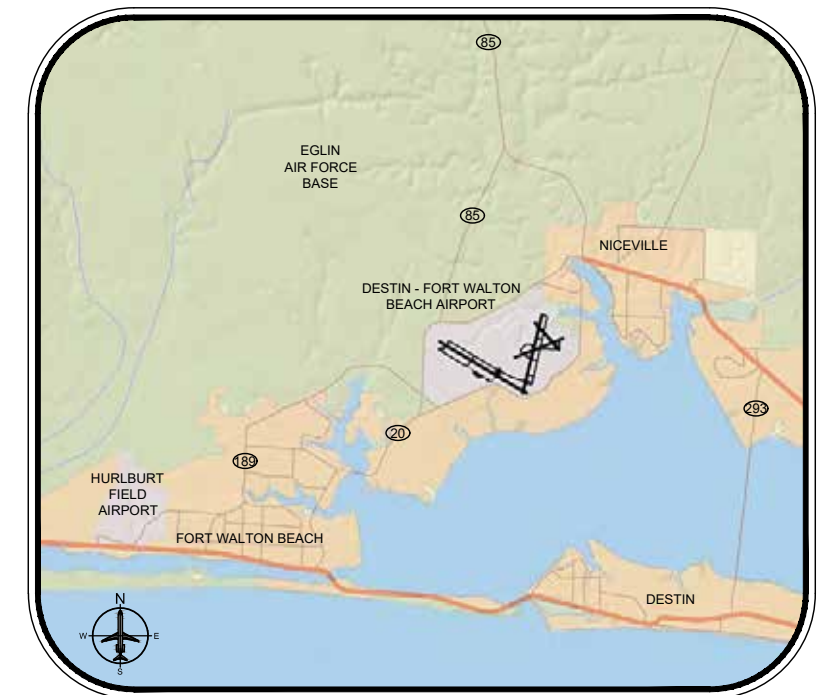
AUTHORIZED REPRESENTATIVE	DATE
---------------------------	------

PRINTED NAME AND TITLE

PREPARED BY:

Michael Baker
INTERNATIONAL

AUGUST 2019



VICINITY MAP
NOT TO SCALE

BOARD OF COUNTY COMMISSIONERS

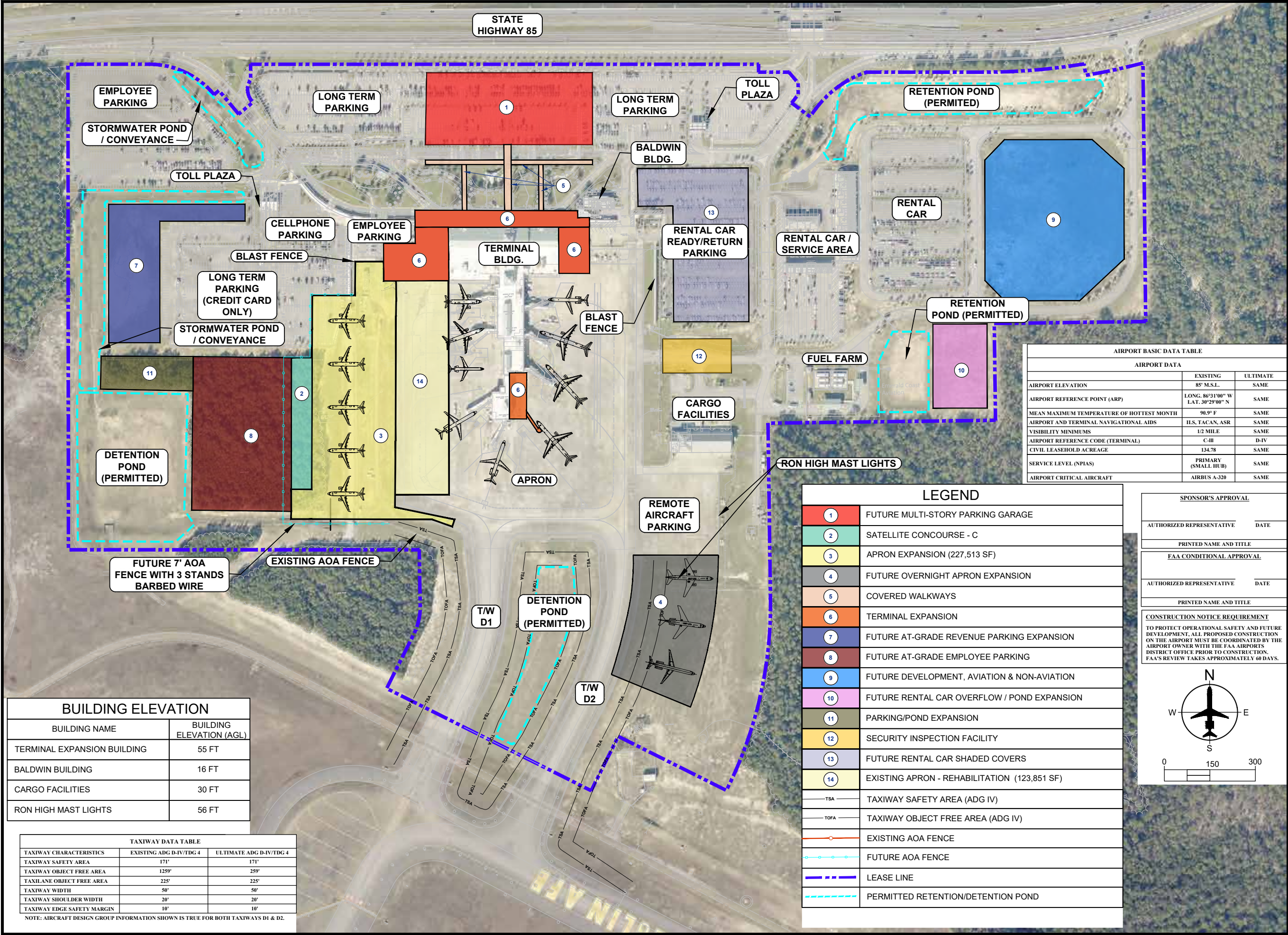
DISTRICT 5: KELLY WINDES, CHAIR
DISTRICT 4: TREY GOODWIN, VICE CHAIR
DISTRICT 1: GRAHAM FOUNTAIN
DISTRICT 2: CAROLYN KETCHEL
DISTRICT 3: NATHAN BOYLES

COUNTY ADMINISTRATOR

JOHN HOFSTAD

AIRPORTS DIRECTOR

TRACY STAGE, A.A.E.



BUILDING ELEVATION	
BUILDING NAME	BUILDING ELEVATION (AGL)
TERMINAL EXPANSION BUILDING	55 FT
BALDWIN BUILDING	16 FT
CARGO FACILITIES	30 FT
RON HIGH MAST LIGHTS	56 FT

TAXIWAY DATA TABLE		
TAXIWAY CHARACTERISTICS	EXISTING ADG D-IV/TDG 4	ULTIMATE ADG D-IV/TDG 4
TAXIWAY SAFETY AREA	171'	171'
TAXIWAY OBJECT FREE AREA	1259'	259'
TAXILANE OBJECT FREE AREA	225'	225'
TAXIWAY WIDTH	50'	50'
TAXIWAY SHOULDER WIDTH	20'	20'
TAXIWAY EDGE SAFETY MARGIN	10'	10'

NOTE: AIRCRAFT DESIGN GROUP INFORMATION SHOWN IS TRUE FOR BOTH TAXIWAYS D1 & D2.

AIRPORT BASIC DATA TABLE		
AIRPORT DATA		
	EXISTING	ULTIMATE
AIRPORT ELEVATION	85' M.S.L.	SAME
AIRPORT REFERENCE POINT (ARP)	LONG. 86°31'00" W LAT. 30°29'00" N	SAME
MEAN MAXIMUM TEMPERATURE OF HOTTEST MONTH	90.9° F	SAME
AIRPORT AND TERMINAL NAVIGATIONAL AIDS	ILS, TACAN, ASR	SAME
VISIBILITY MINIMUMS	1/2 MILE	SAME
AIRPORT REFERENCE CODE (TERMINAL)	C-III	D-IV
CIVIL LEASEHOLD ACREAGE	134.78	SAME
SERVICE LEVEL (NPAS)	PRIMARY (SMALL HUB)	SAME
AIRPORT CRITICAL AIRCRAFT	AIRBUS A-320	SAME

LEGEND	
1	FUTURE MULTI-STORY PARKING GARAGE
2	SATELLITE CONCOURSE - C
3	APRON EXPANSION (227,513 SF)
4	FUTURE OVERNIGHT APRON EXPANSION
5	COVERED WALKWAYS
6	TERMINAL EXPANSION
7	FUTURE AT-GRADE REVENUE PARKING EXPANSION
8	FUTURE AT-GRADE EMPLOYEE PARKING
9	FUTURE DEVELOPMENT, AVIATION & NON-AVIATION
10	FUTURE RENTAL CAR OVERFLOW / POND EXPANSION
11	PARKING/POND EXPANSION
12	SECURITY INSPECTION FACILITY
13	FUTURE RENTAL CAR SHADED COVERS
14	EXISTING APRON - REHABILITATION (123,851 SF)
TSA	TAXIWAY SAFETY AREA (ADG IV)
TOFA	TAXIWAY OBJECT FREE AREA (ADG IV)
—○—	EXISTING AOA FENCE
—○—	FUTURE AOA FENCE
---	LEASE LINE
---	PERMITTED RETENTION/DETENTION POND

SPONSOR'S APPROVAL

AUTHORIZED REPRESENTATIVE

DATE

PRINTED NAME AND TITLE

FAA CONDITIONAL APPROVAL

AUTHORIZED REPRESENTATIVE

DATE

PRINTED NAME AND TITLE

CONSTRUCTION NOTICE REQUIREMENT

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

N

W

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S

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150

300

DESTIN
FORT WALTON
BEACH

FLY VPS

AIRPORT

Michael Baker
INTERNATIONAL

MICHAEL BAKER INTERNATIONAL, INC.
5020 WEST LINEBAUGH AVE., SUITE 240
TAMPA, FL 33624
(813) 889-3892
CERTIFICATE OF AUTHORIZATION NO. 28861

Designed: TD

Checked: MC

Technician: TD

MBI Project No: 160458

FL P.E. NO. ---

GENERAL NOTES:
1. THE (NAVD88) VERTICAL CONTROL DATUM WAS USED FOR ALL ELEVATIONS.
2. THE (NAD83) COORDINATE SYSTEM WAS USED FOR ALL HORIZONTAL LATITUDE AND LONGITUDE COORDINATES.

REVISIONS

No.	Description	Date	By

Project Name:

DESTIN FORT WALTON
BEACH AIRPORT

Drawing Name:

TERMINAL LAYOUT
PLAN

FAA Proj. No.: ---

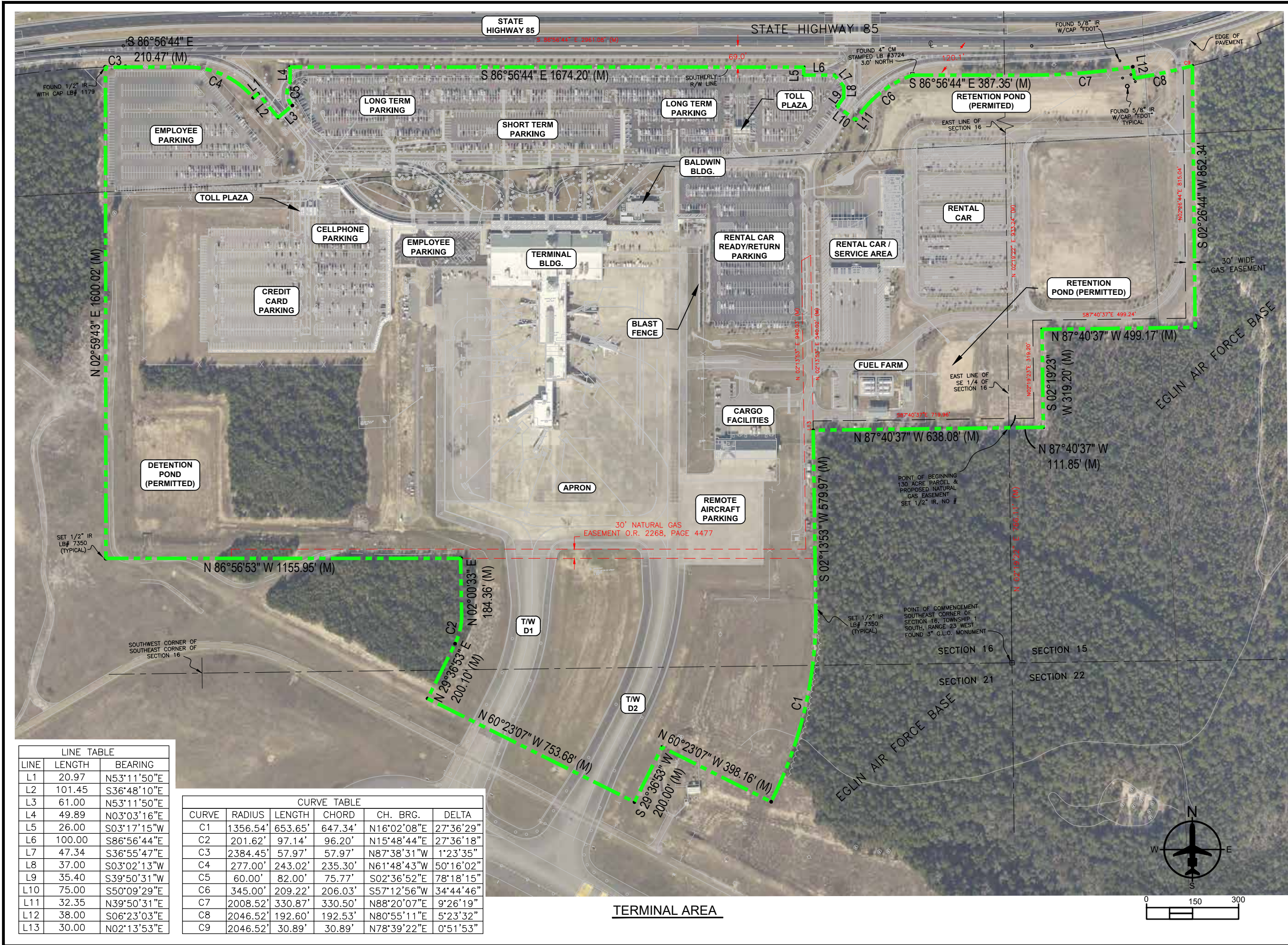
FDOT Proj. No.: ---

Date: AUGUST 2019

Issue: ---

Scale: AS-NOTED

Drawing No.: C-101



LINE TABLE		
LINE	LENGTH	BEARING
L1	20.97	N53°11'50"E
L2	101.45	S36°48'10"E
L3	61.00	N53°11'50"E
L4	49.89	N03°03'16"E
L5	26.00	S03°17'15"W
L6	100.00	S86°56'44"E
L7	47.34	S36°55'47"E
L8	37.00	S03°02'13"W
L9	35.40	S39°50'31"W
L10	75.00	S50°09'29"E
L11	32.35	N39°50'31"E
L12	38.00	S06°23'03"E
L13	30.00	N02°13'53"E

CURVE TABLE					
CURVE	RADIUS	LENGTH	CHORD	CH. BRG.	DELTA
C1	1356.54'	653.65'	647.34'	N16°02'08"E	27°36'29"
C2	201.62'	97.14'	96.20'	N15°48'44"E	27°36'18"
C3	2384.45'	57.97'	57.97'	N87°38'31"W	1°23'35"
C4	277.00'	243.02'	235.30'	N61°48'43"W	50°16'02"
C5	60.00'	82.00'	75.77'	S02°36'52"E	78°18'15"
C6	345.00'	209.22'	206.03'	S57°12'56"W	34°44'46"
C7	2008.52'	330.87'	330.50'	N88°20'07"E	9°26'19"
C8	2046.52'	192.60'	192.53'	N80°55'11"E	5°23'32"
C9	2046.52'	30.89'	30.89'	N78°39'22"E	0°51'53"

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Designed:	TD	Checked:	MC
Technician:	TD	MBI Project No:	160458

FL P.E. NO. ---

REVISIONS			
No.	Description	Date	By

Project Name:
DESTIN FORT WALTON BEACH AIRPORT

Drawing Name:
AIRPORT PROPERTY MAP

FAA Proj. No.:	FDOT Proj. No.:
---	---
Date:	Issue:
AUGUST 2019	---
Scale:	Drawing No.:
AS-NOTED	C-102



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Technician:	TD	MBI Project No:	160458

FL P.E. NO. ---

REVISIONS

No.	Description	Date	By

Project Name:
**DESTIN FORT WALTON
BEACH AIRPORT**

Drawing Name:
**FACILITY KEY
MAP**

FAA Proj. No.:	FDOT Proj. No.:
Date:	Issue:
Scale:	Drawing No.:
AS-NOTED	C-103