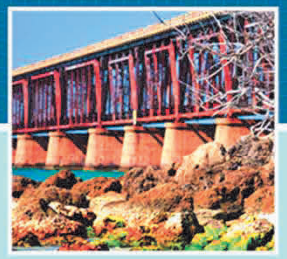
Appendix G

Technical Review Committee Materials

Key West International Airport

Master Plan Update

JACOBS

RICONDO & ASSOCIATES

Technical Review Committee Meeting #1
June 16, 2016

Draft – For Discussion Purposes Only

Overview

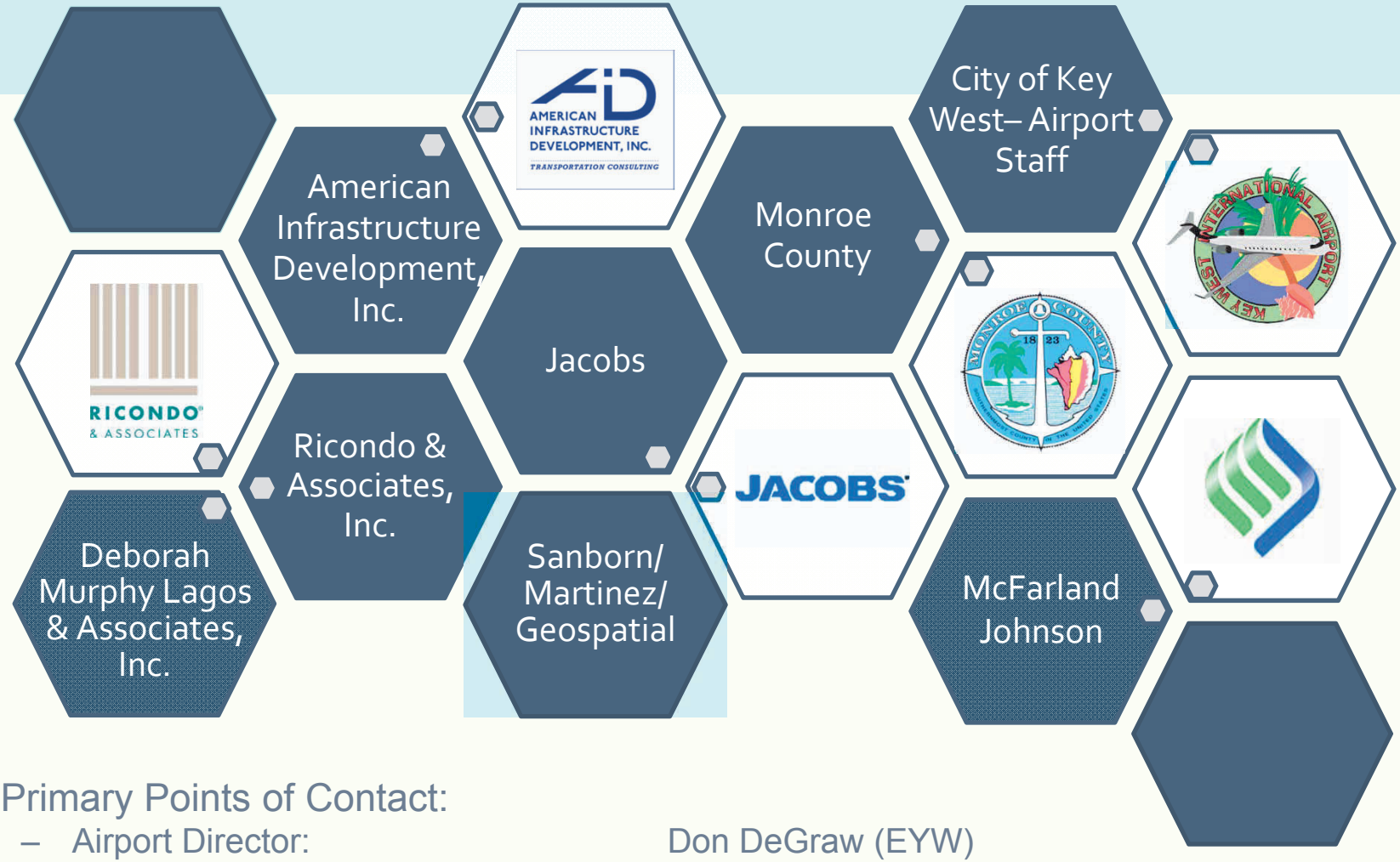
- Introductions
- Presentation of the Study
- The Technical Review Committee (TRC)
- Aviation Activity Forecasts
- Open Discussion/Next Steps

INTRODUCTIONS

Introductions

- Your name
- Which organization you represent
- What does your organization do ?
- Tell us how the Airport is important to your organization

Project Team



- Primary Points of Contact:
  - Airport Director: Don DeGraw (EYW)
  - Program Manager: Jacobs - Chris Bowker / Ryan Forney
  - Project Manager/Technical Lead: R&A - Shane Ingolia/Sebastien Carreau

PRESENTATION OF THE STUDY

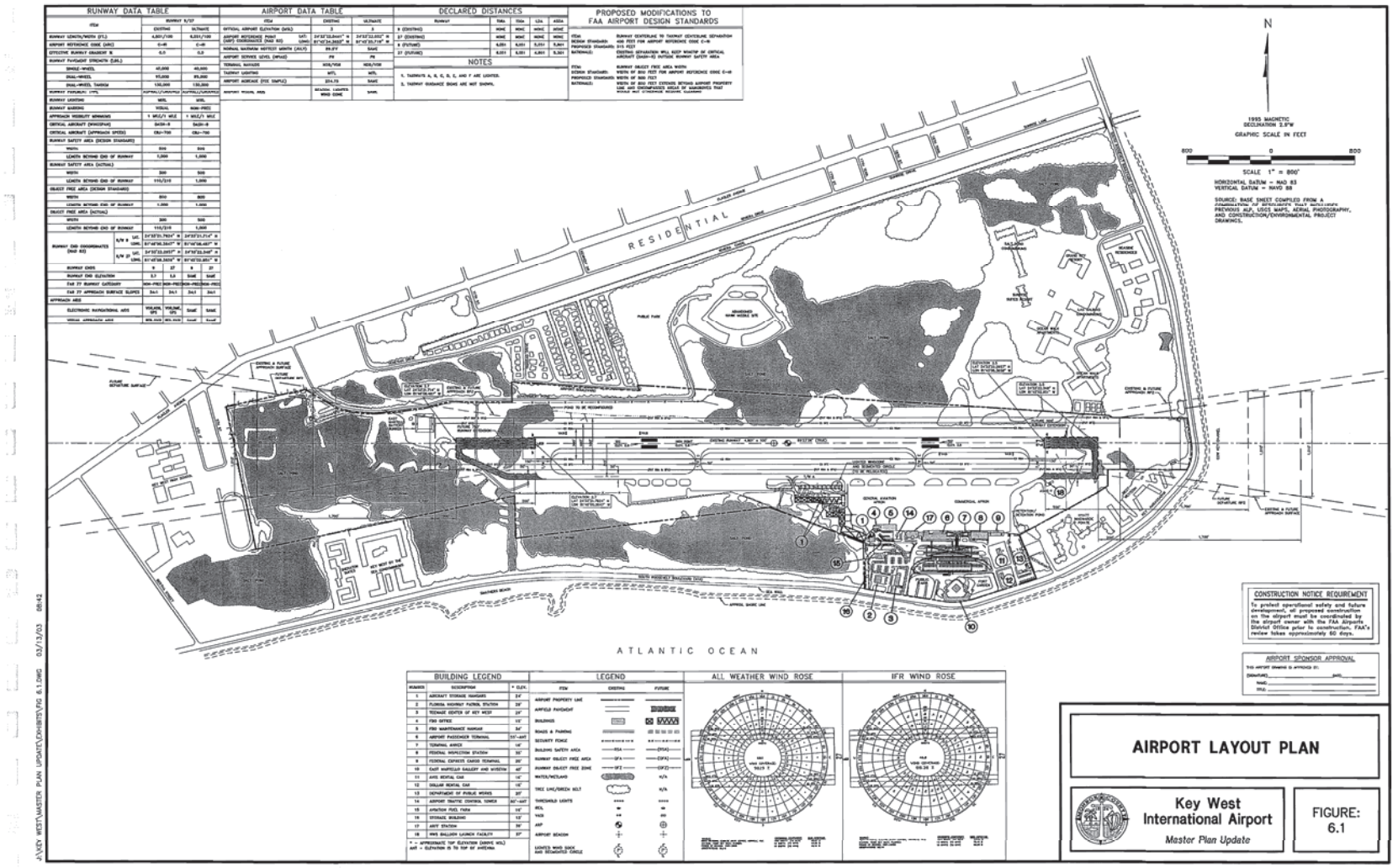
Airport Master Plan

"An airport master plan is a comprehensive study of an airport and usually describes the short-, medium-, and long-term development plans to meet future aviation demand."

FAA Advisory Circular 150/5070 – 6B – Airport Master Plans

- Decision-making tool to guide orderly development of airport facilities
- FAA recommends updating an airport master plan every 5 to 10 years.
- Specific elements of the Master Plan require approval from the Federal Aviation Administration (FAA)
  - Forecast (including passengers, operations, and design aircraft)
  - Airport Layout Plan (ALP) needs approval in order for the airport to obtain federal funding for capital projects

2003 Airport Layout Plan



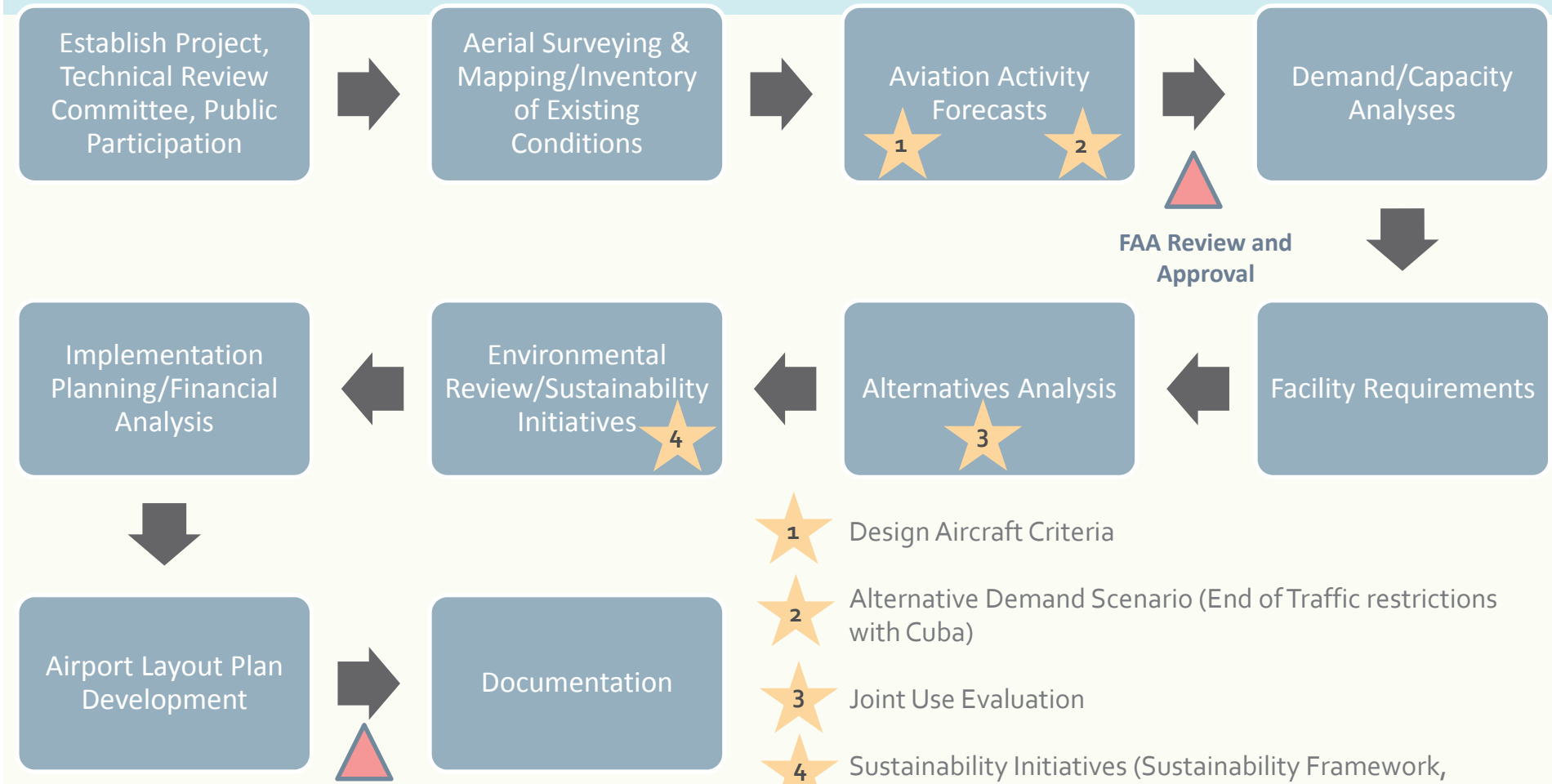
Project Background

- EYW Master Plan was last submitted to the FAA in 2003.
  - New Facilities (Passenger Terminal, Parking Garage, EMAS)
  - Traffic Levels
  - Property Acquisition
- Part 150 Noise study completed in 2013
- Major changes since the FAA-approval of the ALP:
  - AC 150/5300-13A Change 1, Airport Design
  - SOPs 2.00 and 3.00
  - AC 150/5300-16A, 17C and 18C
  - Draft AC on Critical Aircraft & Regular Use Determination

Key Goals and Objectives

1. Identify the Critical Aircraft
2. Assess Ways to Maximize the Existing Aircraft Ramp Layout
3. Reevaluate the Capacity of the Existing Passenger Terminal
4. Analyze the Congestion of the Bag Claim Area
5. Evaluate the Existing Airport Access Road and Curbside Capacity to Relieve Congestion
6. Explore the Need for Additional Aircraft Hangar Facilities
7. Identify Best Use for Non-Aeronautical Land Use Areas
8. Develop an Exhibit 'A' Airport Property Map
9. Reassess Conclusions and Recommendations from the 1990 Joint Use Evaluation Study
10. Examine Potential Traffic and Passenger Demand Resulting from Restored Relations with Cuba

Airport Master Plan Process



Airport Master Plan Deliverables

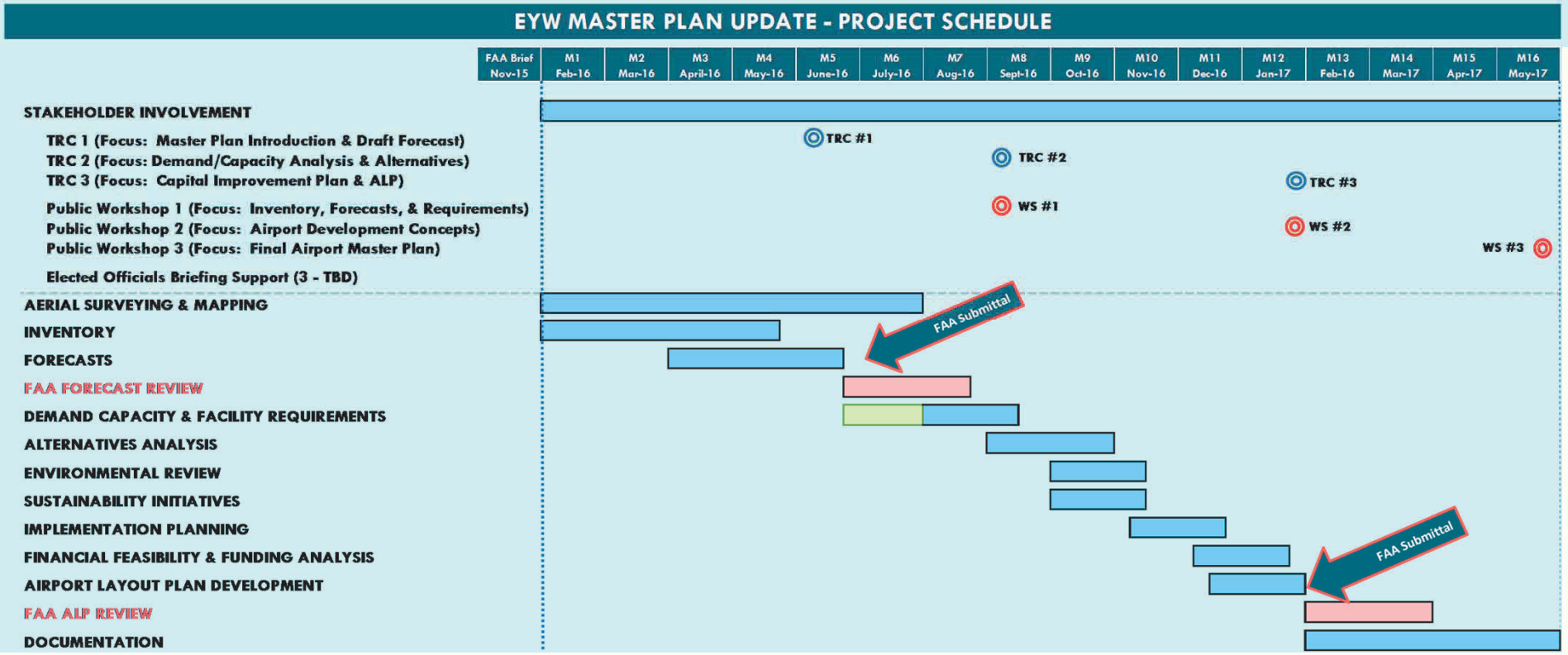
		Responsibility					
Master Plan Chapters	Stand Alone Deliverables	JACOBS	R&A	AID	MFJ	DML	Sanborn
Inventory of Existing Conditions		●		●	○		
Aerial Surveying & Mapping							●
Aviation Activity Forecasts	Activity Forecast (Subject to FAA approval)		●		○		
Demand/Capacity Analysis & Facility Requirements			●	○	○		
Alternatives Analysis		○	●		○		
Environmental Overview			●			○	
Sustainability Initiatives			●				
Financial Feasibility & Implementation Plan	Capital Improvement Program (CIP)	○	●				
Airport Layout Plan (ALP) Update	Draft and Final ALP (Subject to FAA approval)	○	●				
Final Documentation	Airport Master Plan Technical Report & Executive Summary		●				

Legend:

● Primary Responsibility

○ Support Role

Project Schedule



THE TECHNICAL REVIEW COMMITTEE

Technical Review Committee Role

- Advisory in nature. Will provide consensus opinion for Airport staff to consider when making planning decisions.
- Provide feedback and technical guidance on each element of the Master Plan Update:
  - Bring various master local perspectives to the master planning process
  - Reach consensus on key master plan issues

Technical Review Committee Responsibilities

- Attend three meetings over the course of the 16-month study
- Provide input and guidance on technical analyses
- Review and comment on technical work products
- Provide ideas for consideration in the Master Plan
- Stay engaged in the planning process
- Help build the Airport's future by sharing what you learn from Committee participation

Anticipated Meetings

- Meeting #1: Master Plan Introduction & Draft Aviation Activity Forecast
- Meeting #2: Demand/Capacity Analysis and Development Alternatives
- Meeting #3: Recommendation for Preferred Alternative and Capital Improvement Plan

FORECAST OF AVIATION ACTIVITY

Presentation Outline

- Section 1: Presentation Objectives and Forecasting Process
- Section 2: Baseline Enplaned Passenger Forecast
- Section 3: General Aviation Activity Forecasts
- Section 4: Baseline Aircraft Operations Forecast
- Section 5: Alternate Demand Scenarios Forecasts

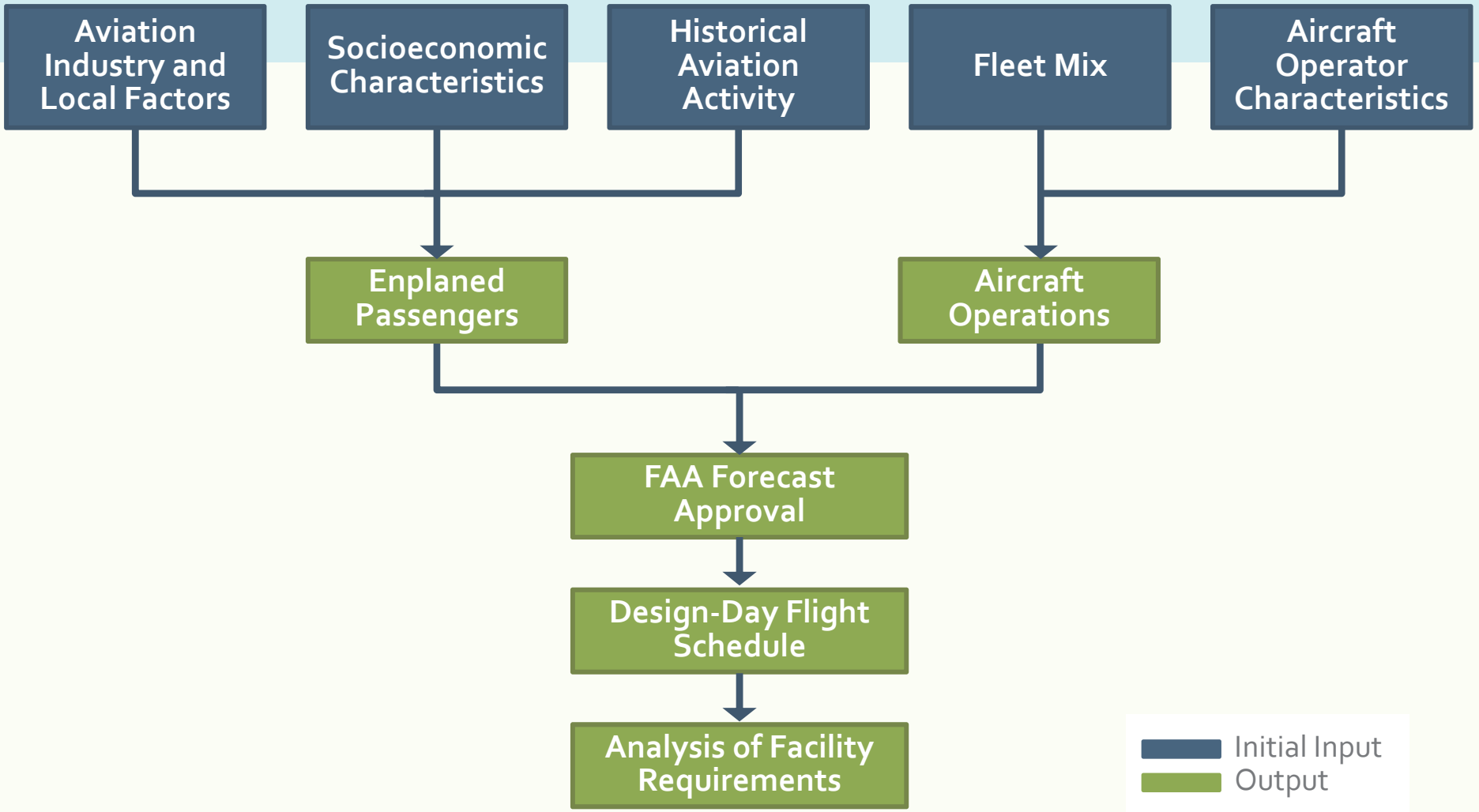
Section One

PRESENTATION OBJECTIVES AND FORECASTING PROCESS

Preface

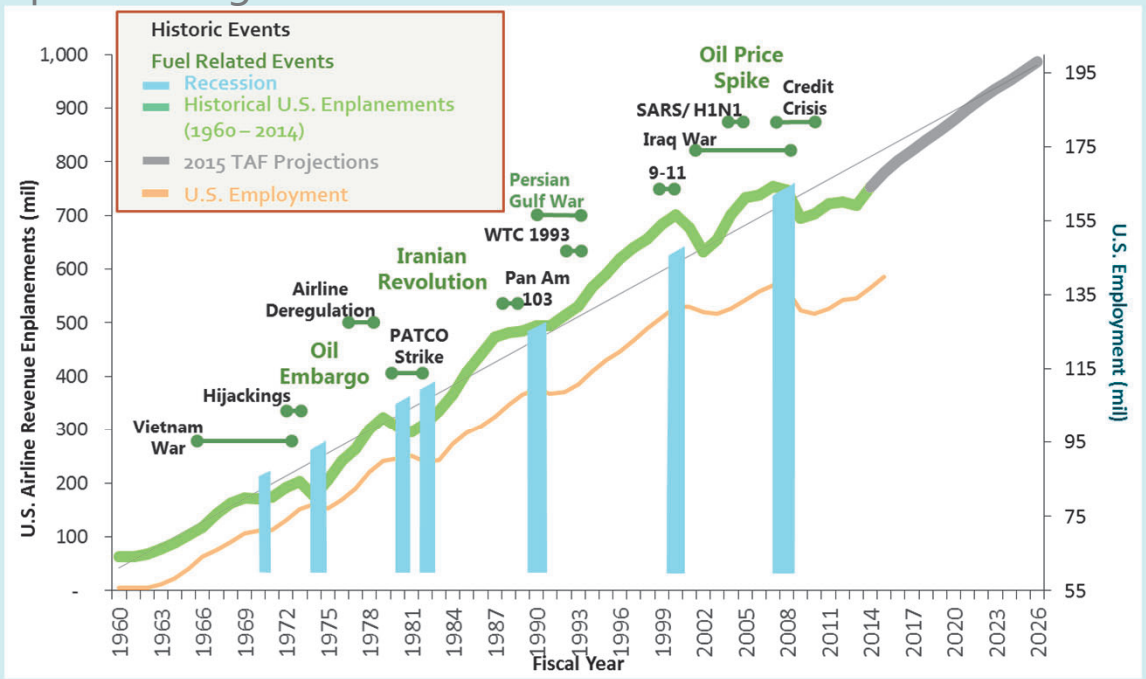
- Traditionally, passenger forecasts are based on relationships between passenger volumes of socioeconomic variables
- When there are no discernible relationships between socioeconomic variables and passengers, relationships with other indicators of demand must be explored
  - Over the last decade, the relationship between socioeconomic variables and passenger volumes has broken down at many airports due largely to capacity discipline: airlines are limiting capacity and deriving higher revenues from increased fares
- The relationship between socioeconomic variables and passenger revenue is strong at EYW
  - We first forecast revenue at EYW and then model how airlines will capture that revenue through a combination of higher fares and higher passenger volumes to forecast the enplaned passengers

The Master Plan Forecasting Process



National Trends

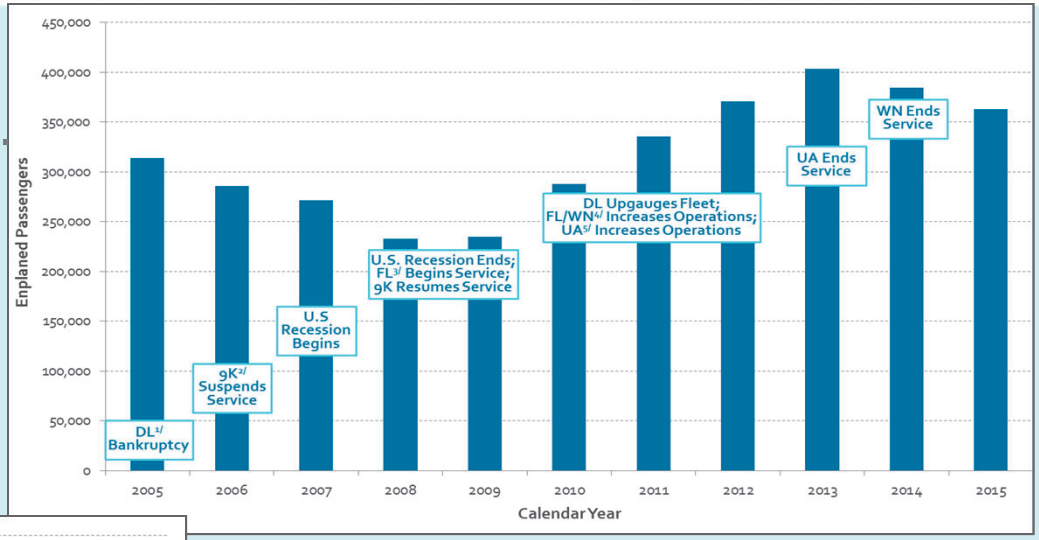
- Industry consolidation and restructuring have accelerated since 2008.
- Passenger demand has increased relative to seat capacity, resulting in higher load factors.
- Airline revenues have risen above pre-recession levels.
- Airlines have shifted focus from passenger growth to revenue growth.
- Overall, passenger demand is expected to grow nationwide.

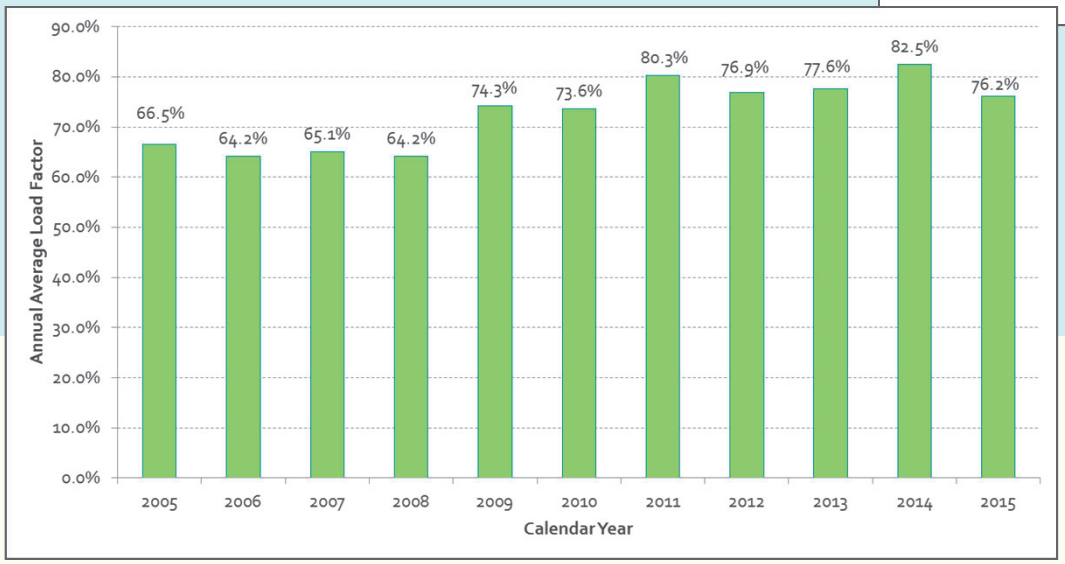


Sources: U.S. Bureau of Labor Statistics, March 2016; FAA 2015 TAF, March 2016.

Local Trends and Observations

- Carriers' entries and exits have affected passenger enplanements.
- Average load factors have remained high through the last 7 years but varies with carriers serving the Airport.





Sources: U.S. DOT T-100, March 2016; Innovata, March 2016.

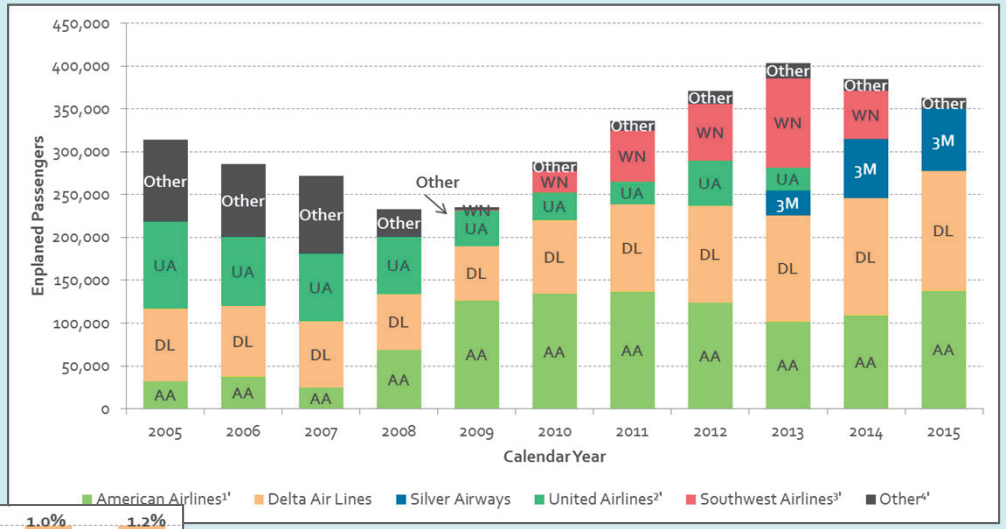
Notes: 1/ Delta Air Lines; 2/ Cape Air; 3/ AirTran Airways; 4/ Southwest Airlines; 5/ United Airlines.

Historical Scheduled Passenger Air Carrier Base											
AIR CARRIER[1/]	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Chalk's International Airlines			●								
American Airlines[2/]	●	●	●	●	●	●	●	●	●	●	●
Cape Air	●	●			●	●	●	●	●		
Delta Air Lines	●	●	●	●	●	●	●	●	●	●	●
Florida Coastal Airlines	●	●									
Silver Airways Corporation									●	●	●
Southwest Airlines[3/]					●	●	●	●	●	●	
United Airlines[4/]	●	●	●	●	●	●	●	●	●		
Yellow Air Taxi			●	●	●						

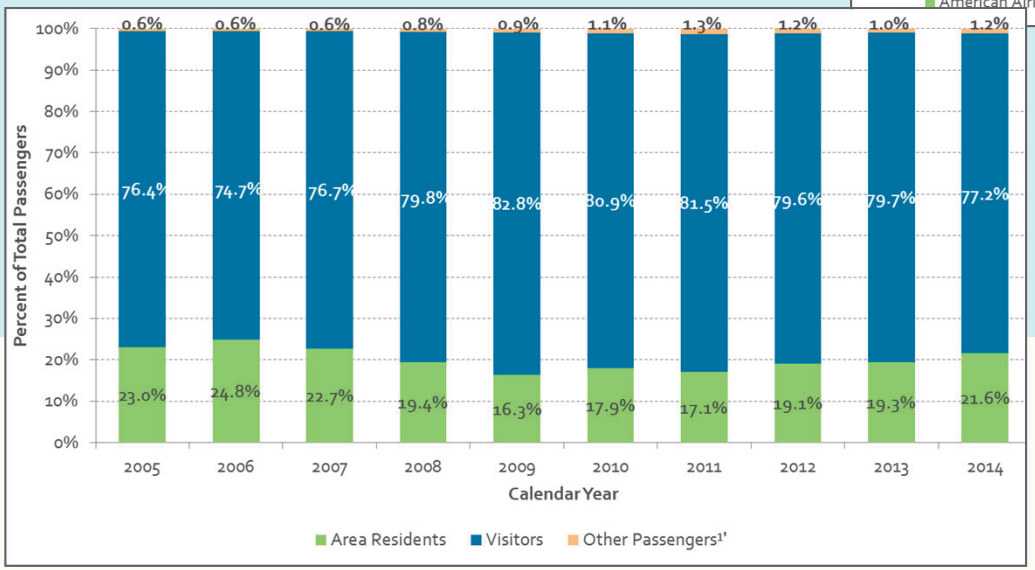
Notes: 1/ Includes regional affiliated airlines, as applicable; 2/ Includes US Airways; 3/ Includes AirTran Airways; 4/ Includes Continental Airlines.

Local Trends and Observations

- The market is shared between a few carriers at the Airport.
- EYW is a destination-heavy airport.
- March is most often the peak month.



Notes: Includes regional affiliates; 1/ Includes US Airways; 2/ Includes Continental Airlines; 3/ Includes AirTran Airways; 4/ Includes non-scheduled passenger airlines and other scheduled passenger airlines no longer serving the Airport.



Notes: Percentages may not sum to 100% due to rounding. 1/ Passengers on a multi-destination ticket.

Sources: U.S. DOT T-100, March 2016; U.S. DOT DB1B Survey, March 2016.

Local Trends and Observations

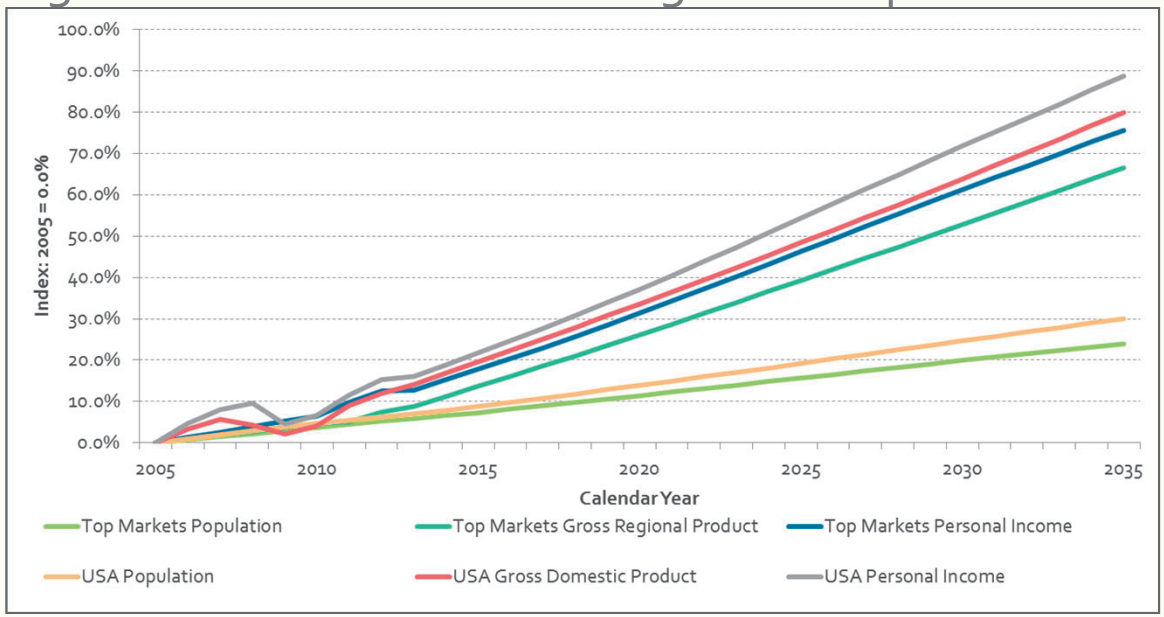
- Airlines at EYW serve a large number of markets via connecting or one-stop service.
- Top 10 markets to/from EYW include New York, Washington, Tampa, Philadelphia, Orlando, Atlanta, Boston, Chicago, Fort Lauderdale, and Charlotte.
- Based on historical data:
  - There are limited correlations between origin and destination (O&D) enplanements and revenues at EYW and local socioeconomic trends.
  - O&D revenues have closely followed socioeconomic trends in the top six non-Florida passenger markets (New York, Washington, Philadelphia, Boston, Chicago, and Charlotte) to/from EYW.

Section Two

BASELINE ENPLANED PASSENGER FORECAST

Enplaned Passenger Forecast

- Socioeconomic markers for the top six non-Florida passenger markets[1/] are expected to grow throughout the forecast period (2016-2035).
- Demand can be measured in terms of passengers or revenues.
- O&D revenues through 2035 were projected based on projected socioeconomic trends in the top six non-Florida passenger markets.
- Forecasts of enplanements were derived from the projections of O&D revenues by examining passenger contribution to revenue growth at peer airports.



Source: Woods & Poole, Inc., March 2016.

Notes: 1/ New York, Washington, Philadelphia, Boston, Chicago, and Charlotte

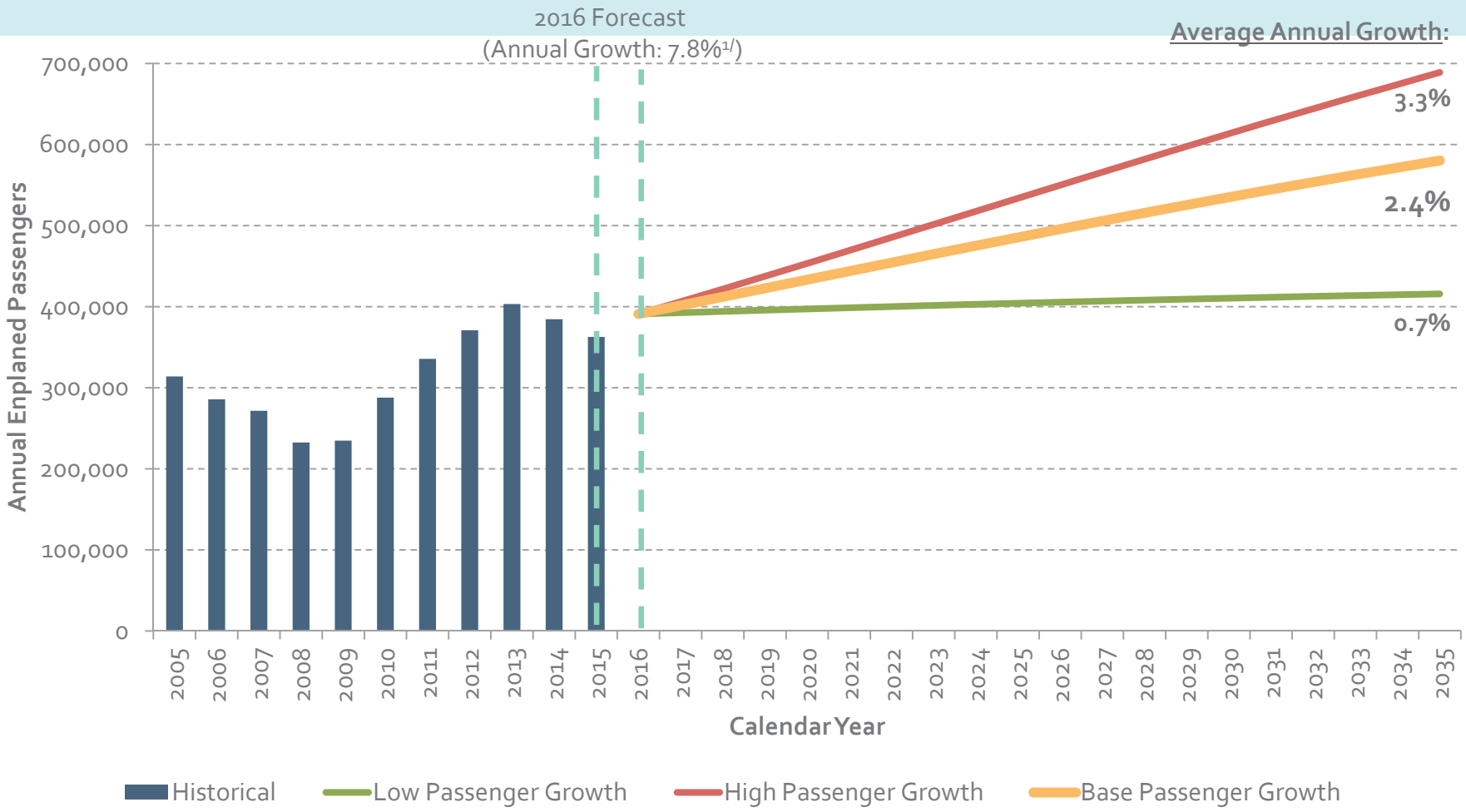
Enplaned Passenger Forecast

	EYW Domestic O&D Revenue ($)	Low Passenger Growth	Base Passenger Growth	High Passenger Growth
Revenue Growth due to Passengers	N/A	17.4%	60.5%	82.9%
Revenue Growth due to Fare	N/A	82.6%	39.6%	17.1%
CY 2015 (Actual)	74,116,100	362,800	362,800	362,800
CY 2035 (Projected)	160,294,700	415,820	580,470	689,150
20-Year CAGR	3.9%	0.7%	2.4%	3.3%

- Passenger growth and fare growth both contribute to revenue growth.
- As the passenger contribution to revenue growth increases, the enplaned passenger projections near the average revenue growth projections at 3.9% on an annual basis.

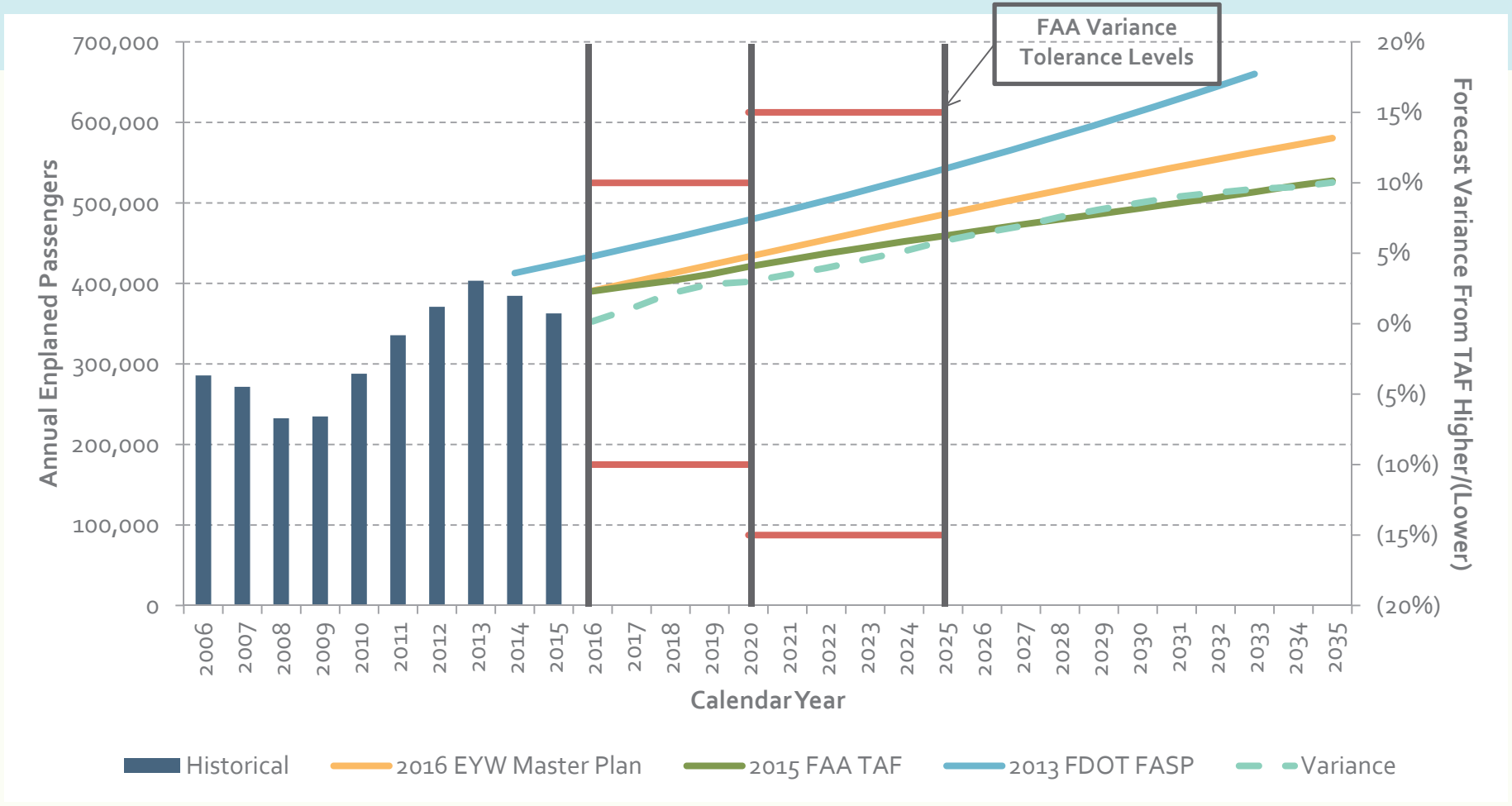
Sources: U.S. DOT DB1B Survey, March 2016; Ricondo & Associates, Inc., March 2016 (analysis).

Enplaned Passenger Forecast



Note: 1/ Scheduled departing seats are expected to increase 6.8% in 2016 from 2015, mostly on carriers with high historic load factors. Total scheduled departing seats in 2016 are expected to be near 2013 levels, when the Airport had its most enplaned passengers.
Sources: U.S. DOT T-100, March 2016; FAA 2015 TAF, March 2016; Ricondo & Associates, Inc., March 2016 (analysis).

TAF Enplaned Passengers Forecast Variance



Note: FAA TAF has been adjusted from fiscal year to calendar year.

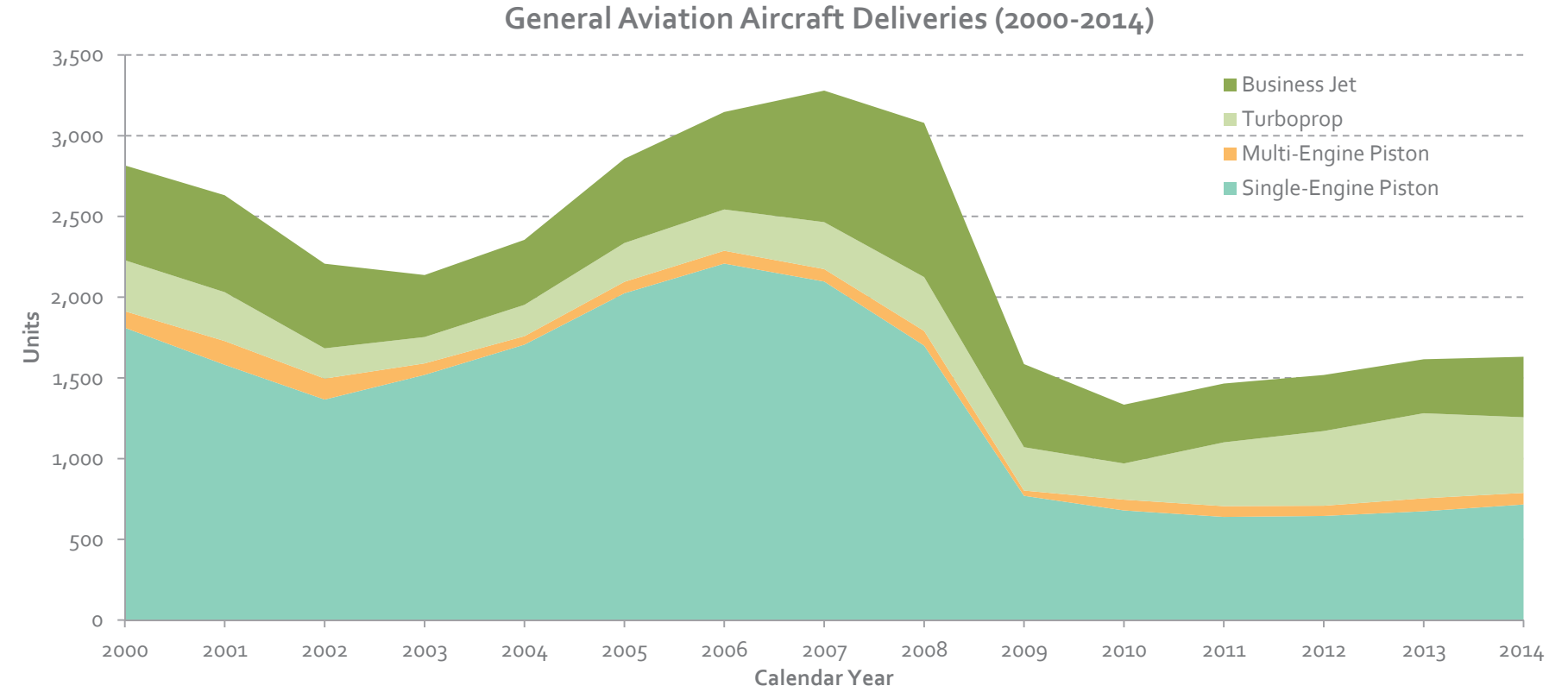
Sources: U.S. DOT T-100, March 2016 (historical); Ricondo & Associates, Inc., March 2016 (analysis).

Section Three

GENERAL AVIATION ACTIVITY FORECASTS

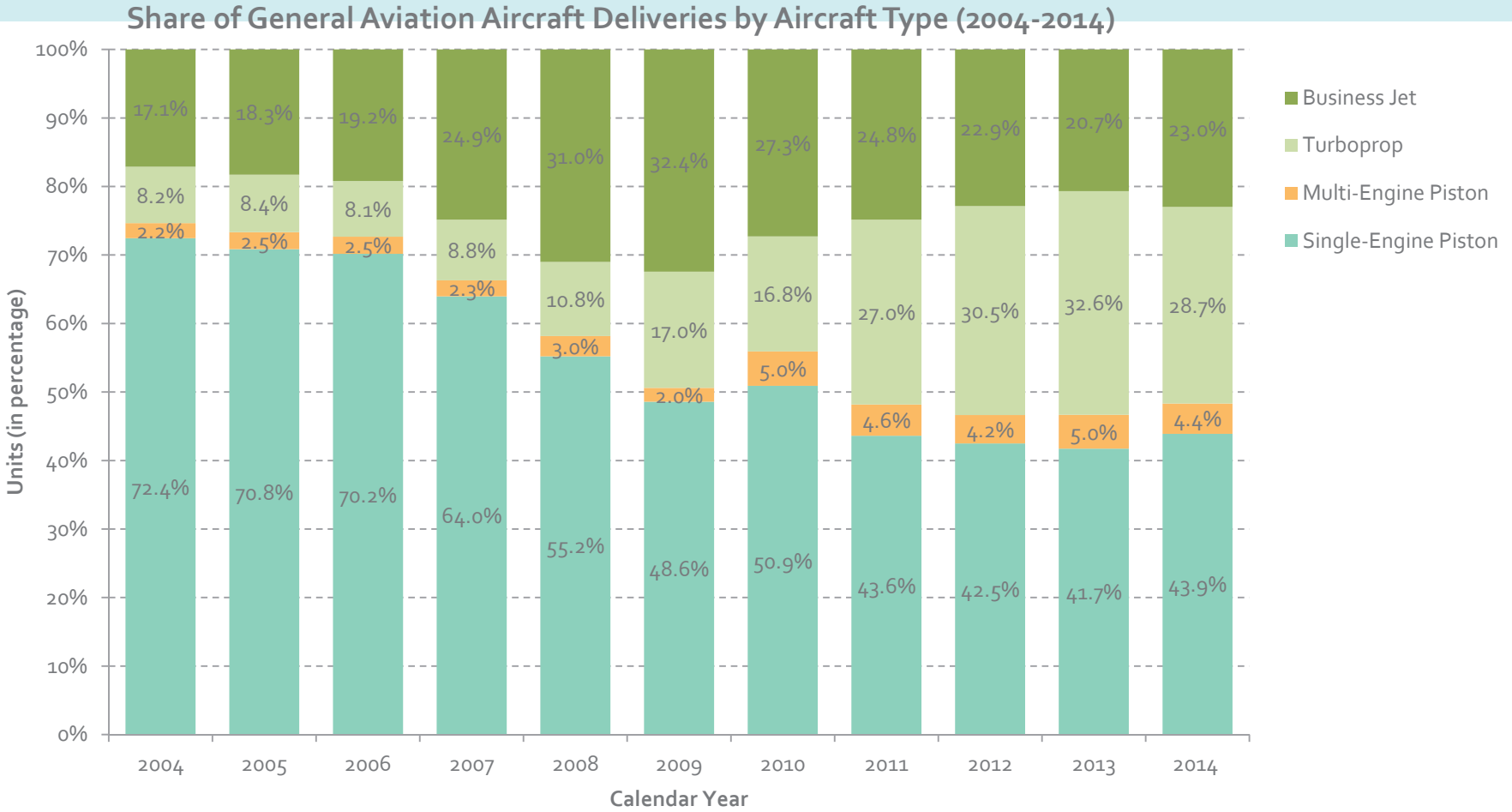
Global General Aviation Market Trends

- Through the end of 2008, the general aviation (GA) market was booming.
- Orders for new GA aircraft, however, fell dramatically in 2009 and 2010 as a result of the global economic downturn.



Sources: *GAMA, 2015 General Aviation Statistical Databook & 2016 Industry Outlook.*

Global General Aviation Market Trends

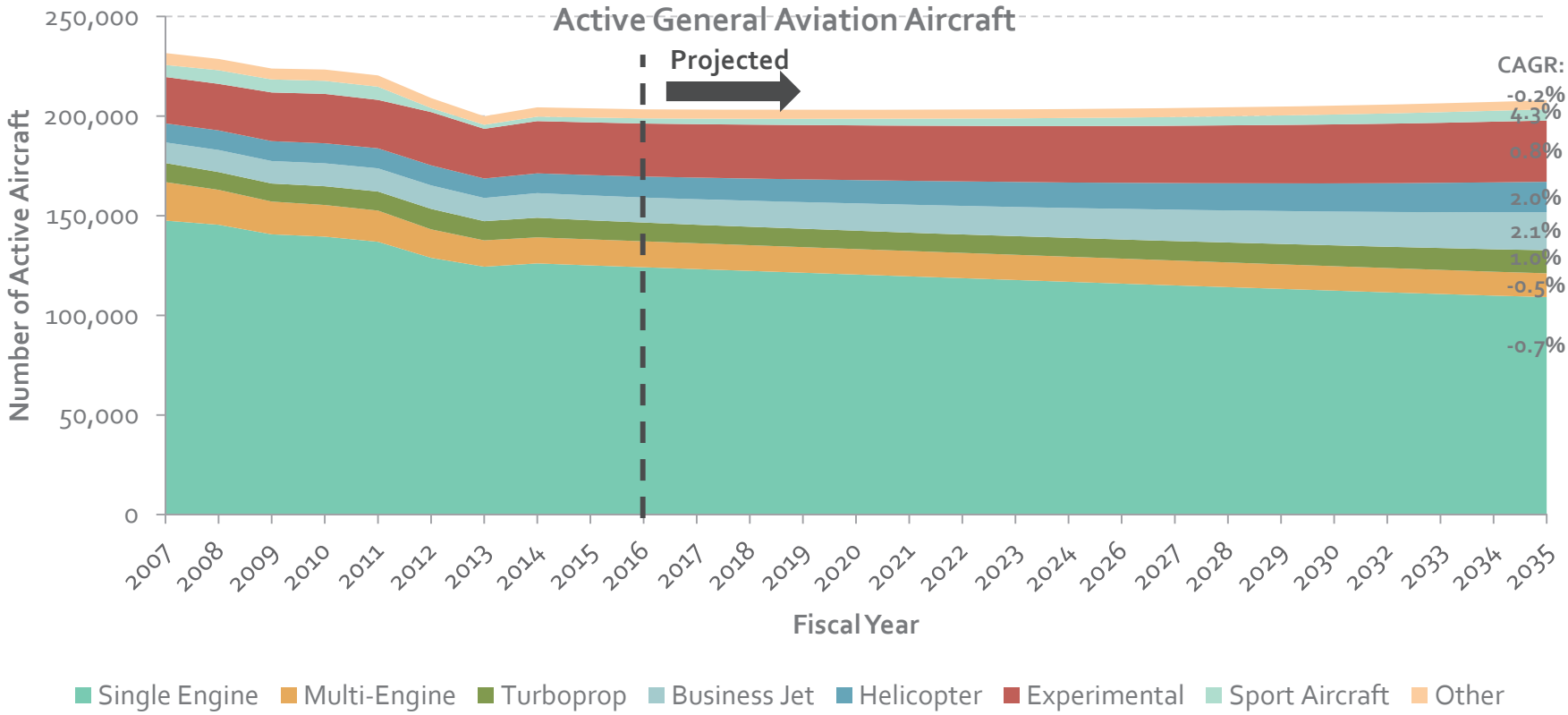


Note: Percentages may not sum to 100 percent due to rounding.

Sources: GAMA, *2015 General Aviation Statistical Databook & 2016 Industry Outlook.*

U.S. General Aviation Market Trends

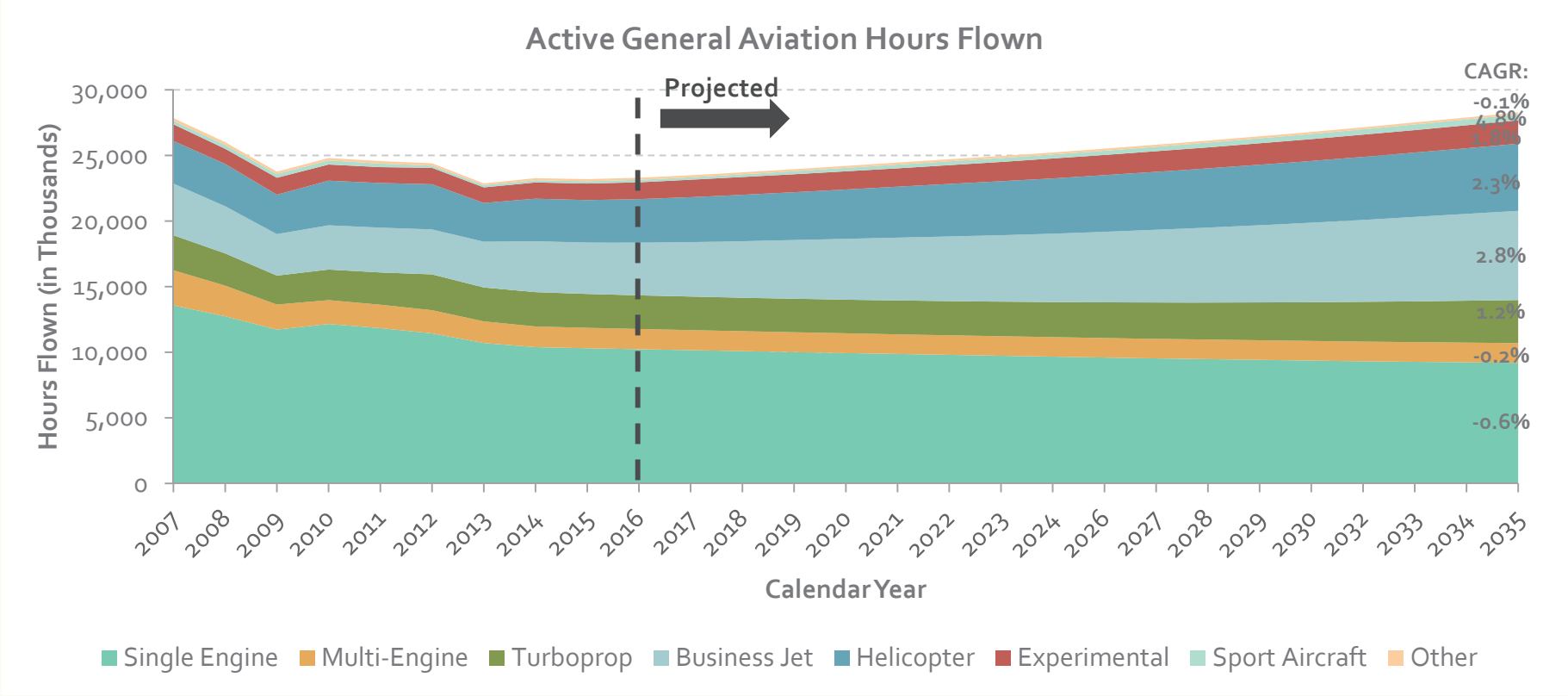
- Domestically, the FAA anticipates the active general aviation fleet to increase at an average annual rate of 0.2 percent through 2035.
- The business jet fleet is projected to grow at an average rate of 2.1 percent through 2035.



Source: *FAA Aerospace Forecast: Fiscal Years 2016-2036*, June 2016.

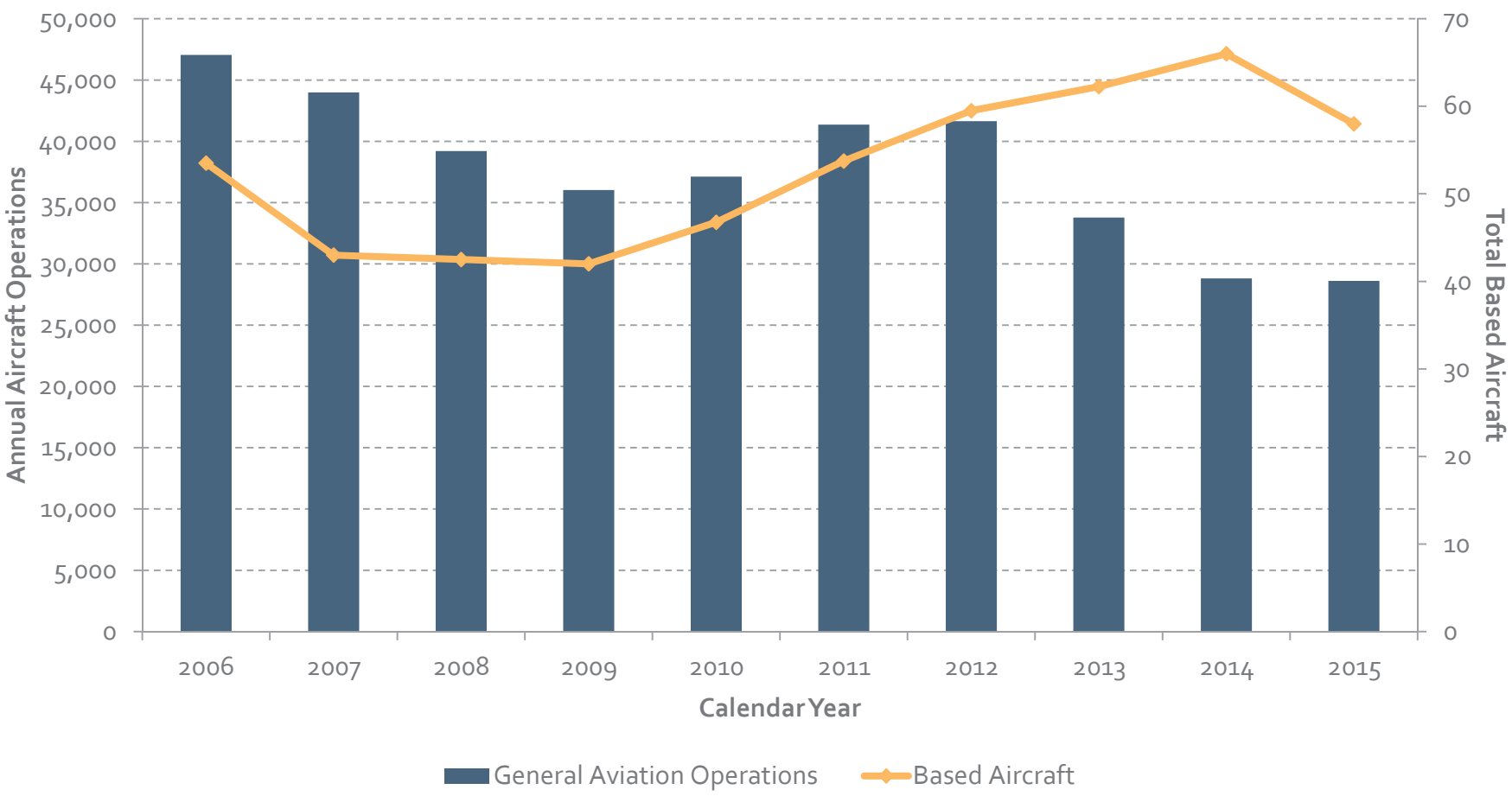
U.S. General Aviation Market Trends

- The total number of general aviation hours flown is projected to increase by 1.2 percent yearly over the forecast period.
- Hours flown by jet aircraft are forecast to increase at an average annual rate of 2.8 percent over the forecast period.



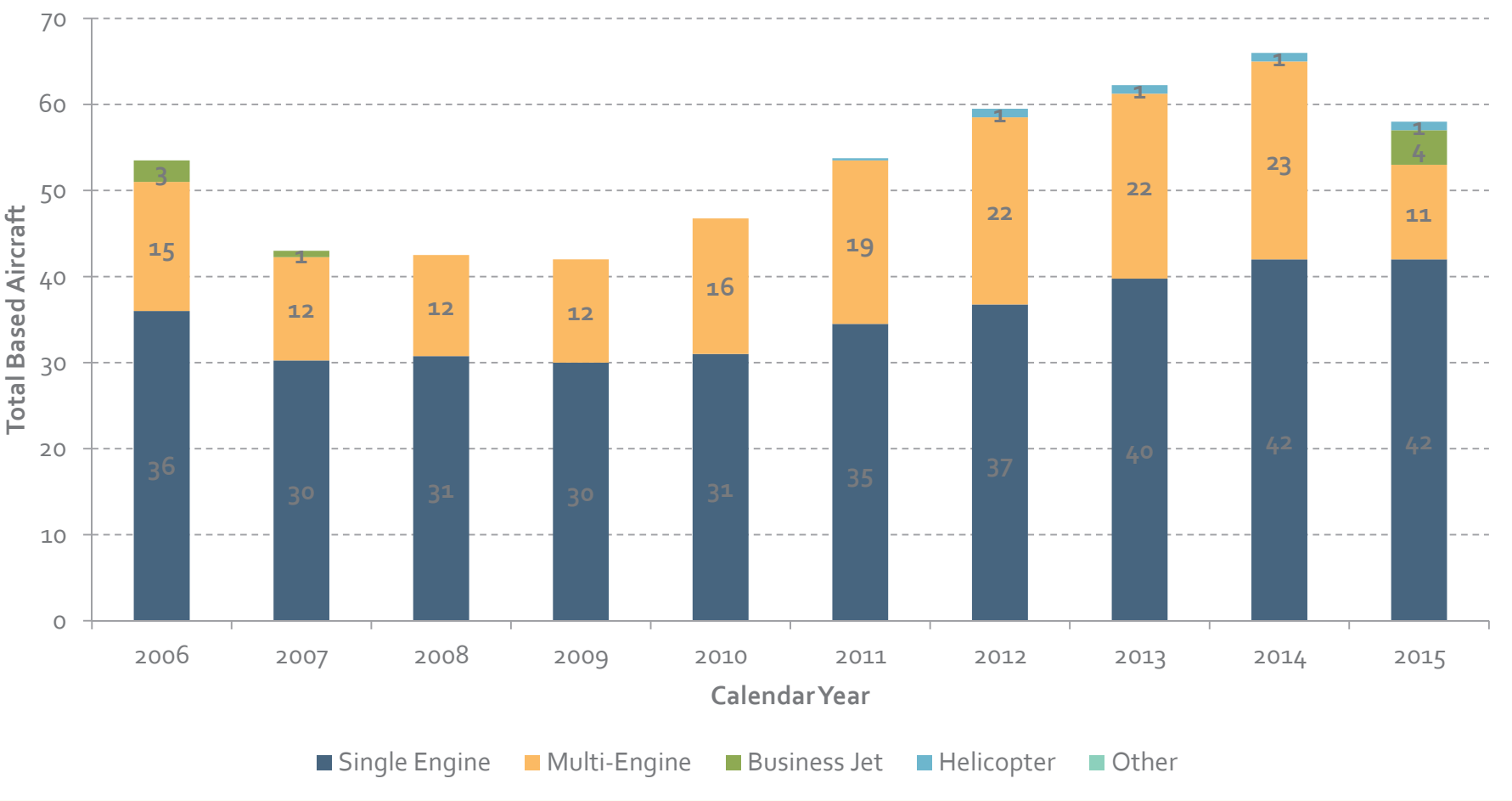
Source: *FAA Aerospace Forecast: Fiscal Years 2016-2036*, June 2016.

Key West Annual Historic General Aviation Operations and Based Aircraft



Sources: FAA, April 2016.

Key West Historic Based Aircraft by Aircraft Type

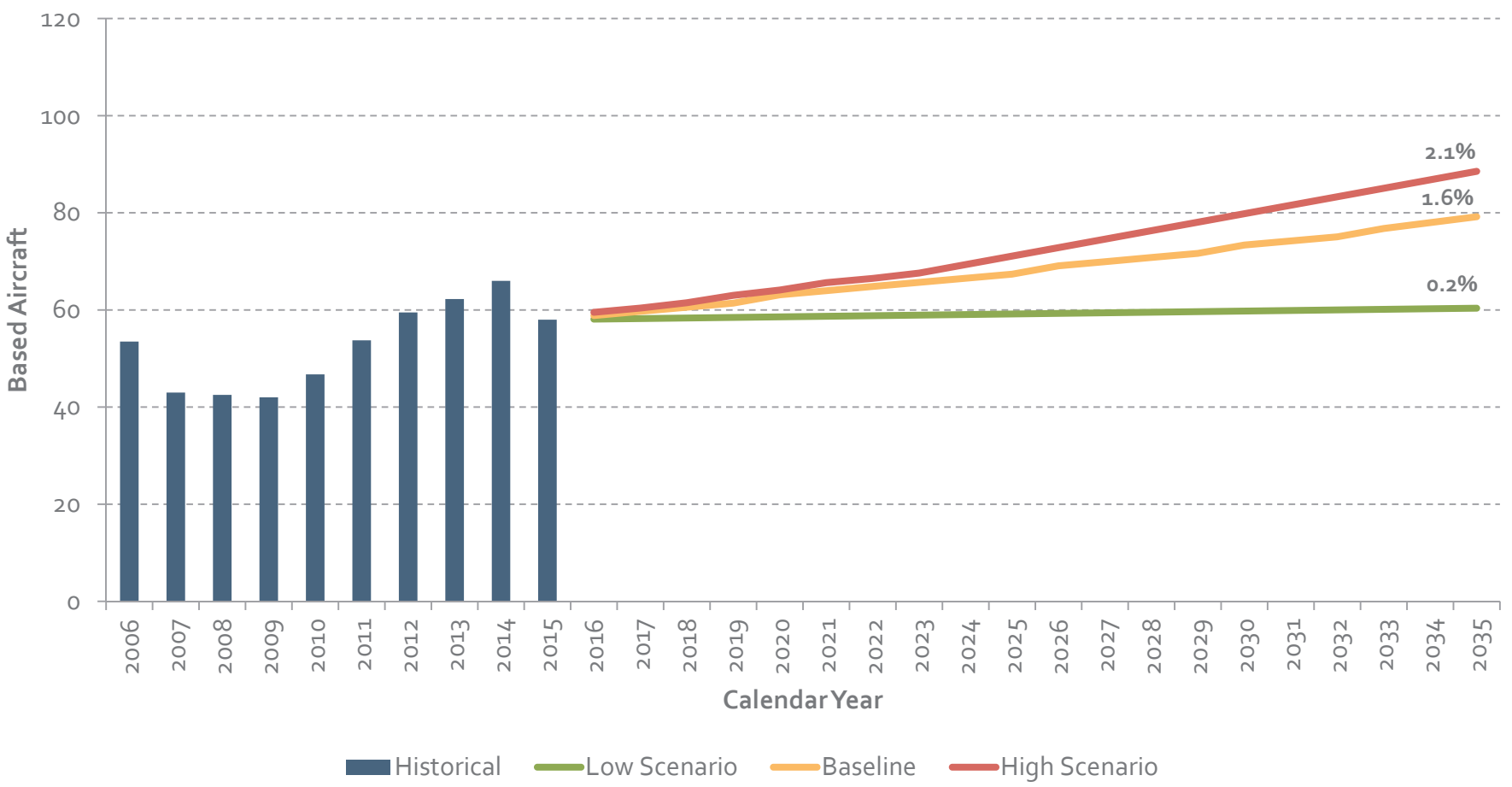


Sources: FAA, April 2016.

General Aviation Forecast Methodology and Assumptions

- Forecasts based on existing national forecasts
  - 2016-2036 FAA Aerospace Forecast
  - 2015 FAA TAF for EYW
  - 2013-2033 Florida Department of Transportation Florida Aviation System Plan
- Based aircraft
  - Growth from 2015 based aircraft proportional to growth in national forecasts
  - Fleet mix evolution similar to TAF (higher proportion of multi-engine and jet aircraft)
- Operations
  - Growth from 2015 operations proportional to growth in national forecasts

Based Aircraft Forecast



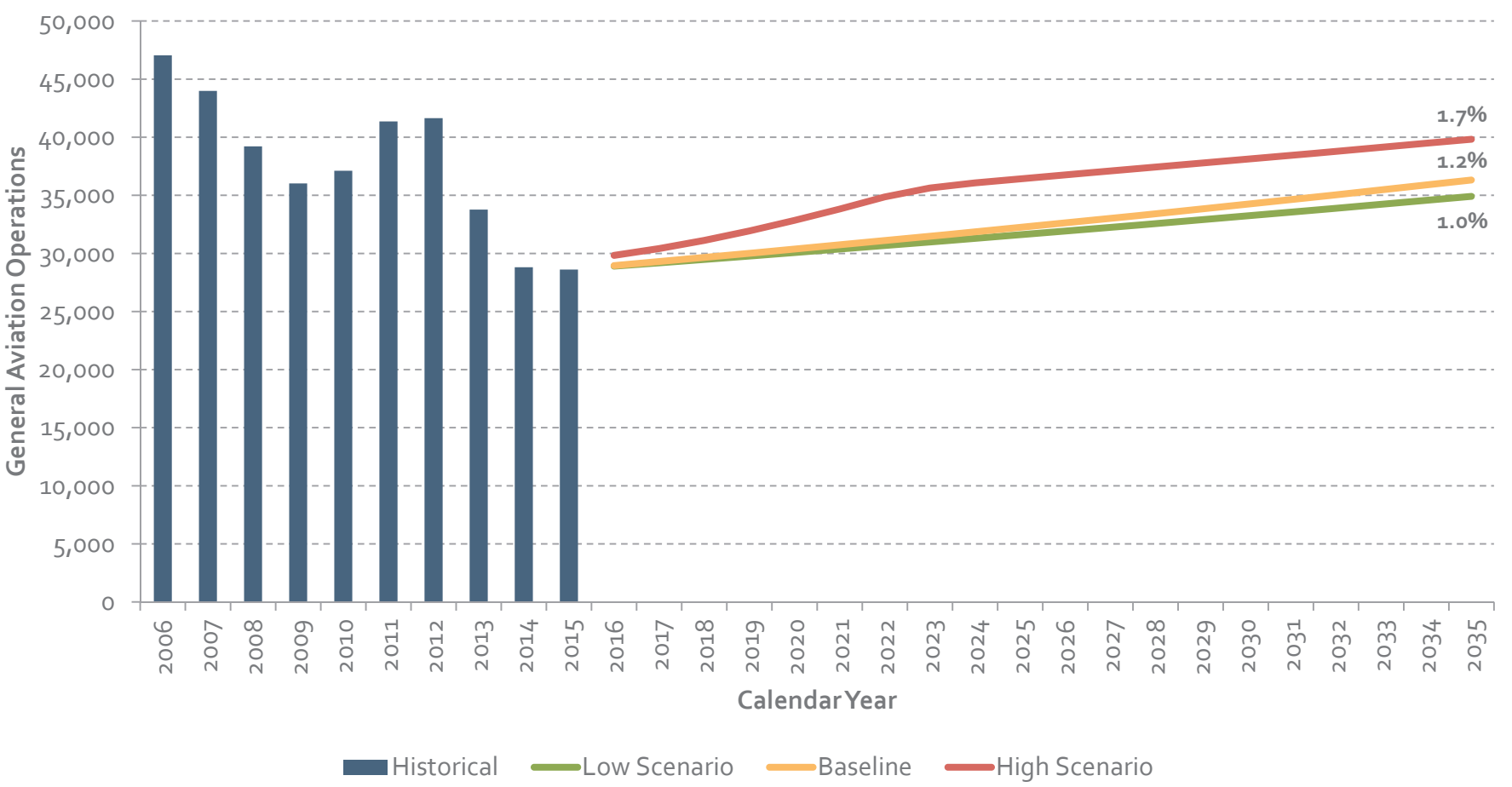
Sources: FAA, April 2016 (historical); McFarland Johnson, Inc., May 2016 (forecast).

Based Aircraft Fleet Mix Forecast

	Single Engine	Multi-Engine	Jet	Helicopter	Total
Historical					
CY2015	42	11	4	1	58
Forecast					
CY 2020	43	14	5	1	63
CY 2025	44	16	6	1	67
CY 2035	47	23	8	1	79

Sources: McFarland Johnson, Inc., May 2016.

General Aviation Operations Forecast



Sources: FAA, April 2016 (historical); McFarland Johnson, Inc., May 2016 (forecast).

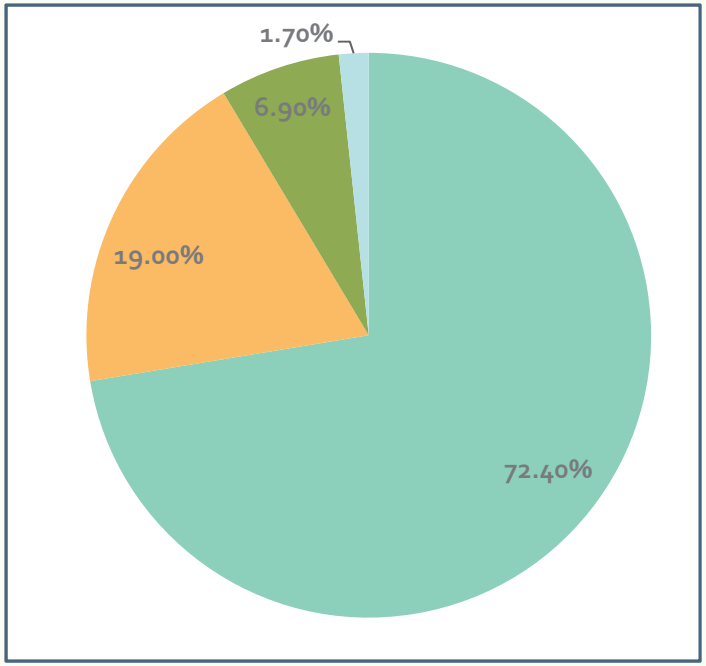
General Aviation Operations Fleet Mix Forecast

	Single Engine		Multi-Engine		Jet		Helicopter	
	Operations	Share	Operations	Share	Operations	Share	Operations	Share
Historical								
CY 2015	20,716	72.4%	5,436	19.0%	1,974	6.9%	486	1.7%
Forecast								
CY 2020	20,743	68.3%	6,742	22.2%	2,399	7.9%	486	1.6%
CY 2025	21,180	65.7%	7,705	23.9%	2,901	9.0%	451	1.5%
CY 2035	21,612	59.5%	10,569	29.1%	3,668	10.1%	472	1.3%

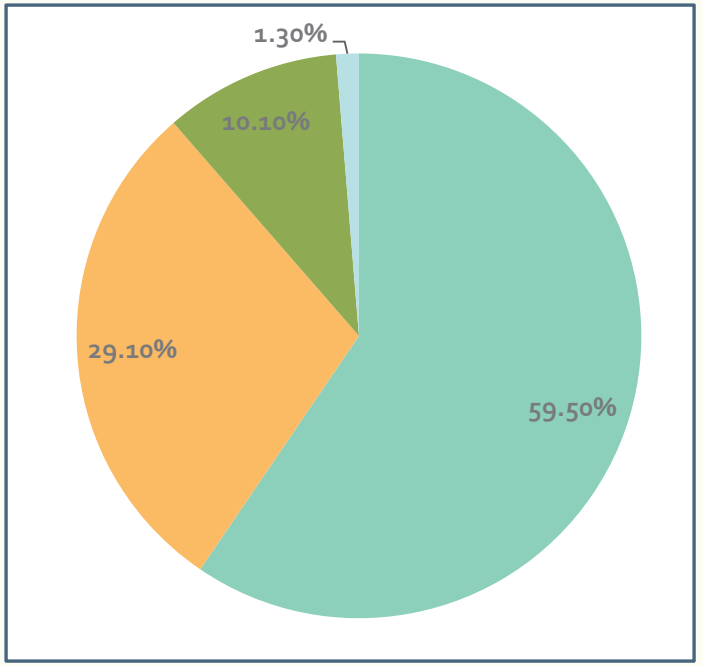
Sources: McFarland Johnson, Inc., May 2016.

General Aviation Operations Fleet Mix Forecast

CY 2015



CY 2035



Sources: McFarland Johnson, Inc., May 2016.

Section Four

BASELINE AIRCRAFT OPERATIONS FORECAST

Operations Forecast

- Passenger airline operations
  - Average passenger aircraft size is expected to grow throughout the forecast period
  - Average load factor is expected to remain consistent throughout the forecast period
- All-cargo operations
  - Cargo trends in South Florida were projected based on socioeconomic regression analysis and projected socioeconomic growth
  - EYW is expected to maintain its current share of cargo volume in South Florida
  - Average cargo volume per operation is expected to remain constant throughout the forecast period
- Other air taxi operations
  - Other air taxi operations are expected to account for 20 percent of total air carrier and air taxi operations, based on recent trends
- General aviation operations
  - General aviation operations are expected to grow according to projected growth in national general aviation hours flown
- Military operations
  - Military operations are held constant at 2015 levels throughout the forecast period
- Critical aircraft group: Boeing 737-700 or similar

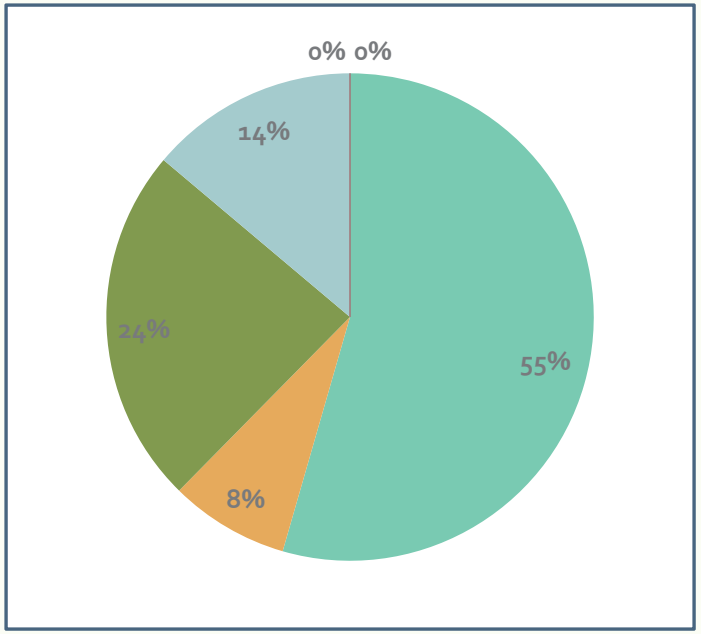
Operations Fleet Mix Forecast

		2015		2020		2025		2035	
AIRCRAFT CATEGORY	SEAT RANGE	Ops	%	Ops	%	Ops	%	Ops	%
PASSENGER									
Small Piston/Turboprop/Regional Jet	<51	10,204	55%	12,667	57%	10,525	46%	1,588	6%
Medium Regional Jet/Turboprop	51-76	1,527	8%	1,299	6%	2,649	12%	11,023	45%
Large Regional Jet/Turboprop	77-100	4,399	24%	4,999	23%	5,061	22%	5,337	22%
Small Narrowbody	101-130	2,521	14%	2,334	11%	2,985	13%	1,531	6%
Medium Narrowbody	131-150	0	0%	757	3%	1,612	7%	5,019	20%
Large Narrowbody/Widebody	151+	0	0%	0	0%	0	0%	0	0%
Total		**18,651**	**100%**	**22,056**	**100%**	**22,832**	**100%**	**24,498**	**100%**
CARGO									
Small Piston/Turboprop		729	100%	854	100%	984	100%	1,247	100%
GENERAL AVIATION		28,612	100%	30,370	100%	32,237	100%	36,321	100%

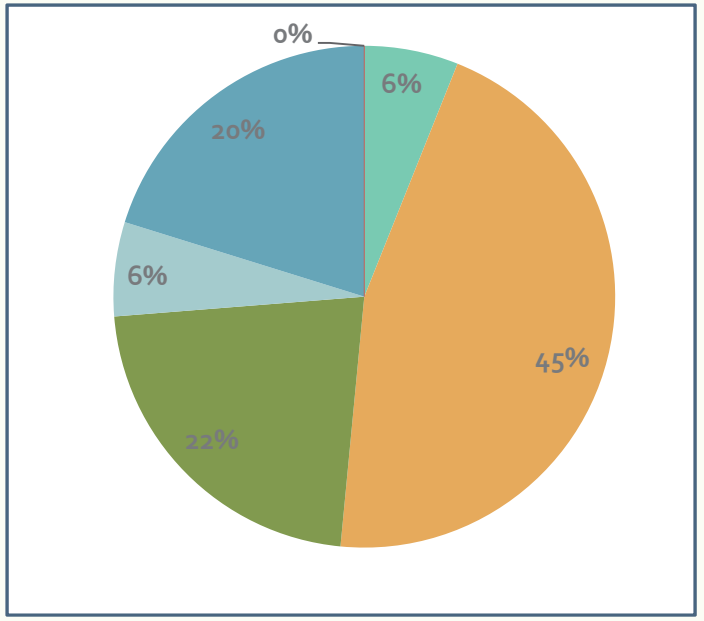
Source: Ricondo & Associates, Inc., June 2016.

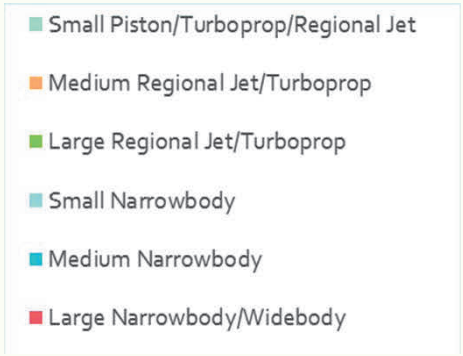
Passenger Operations Fleet Mix Forecast

CY 2015



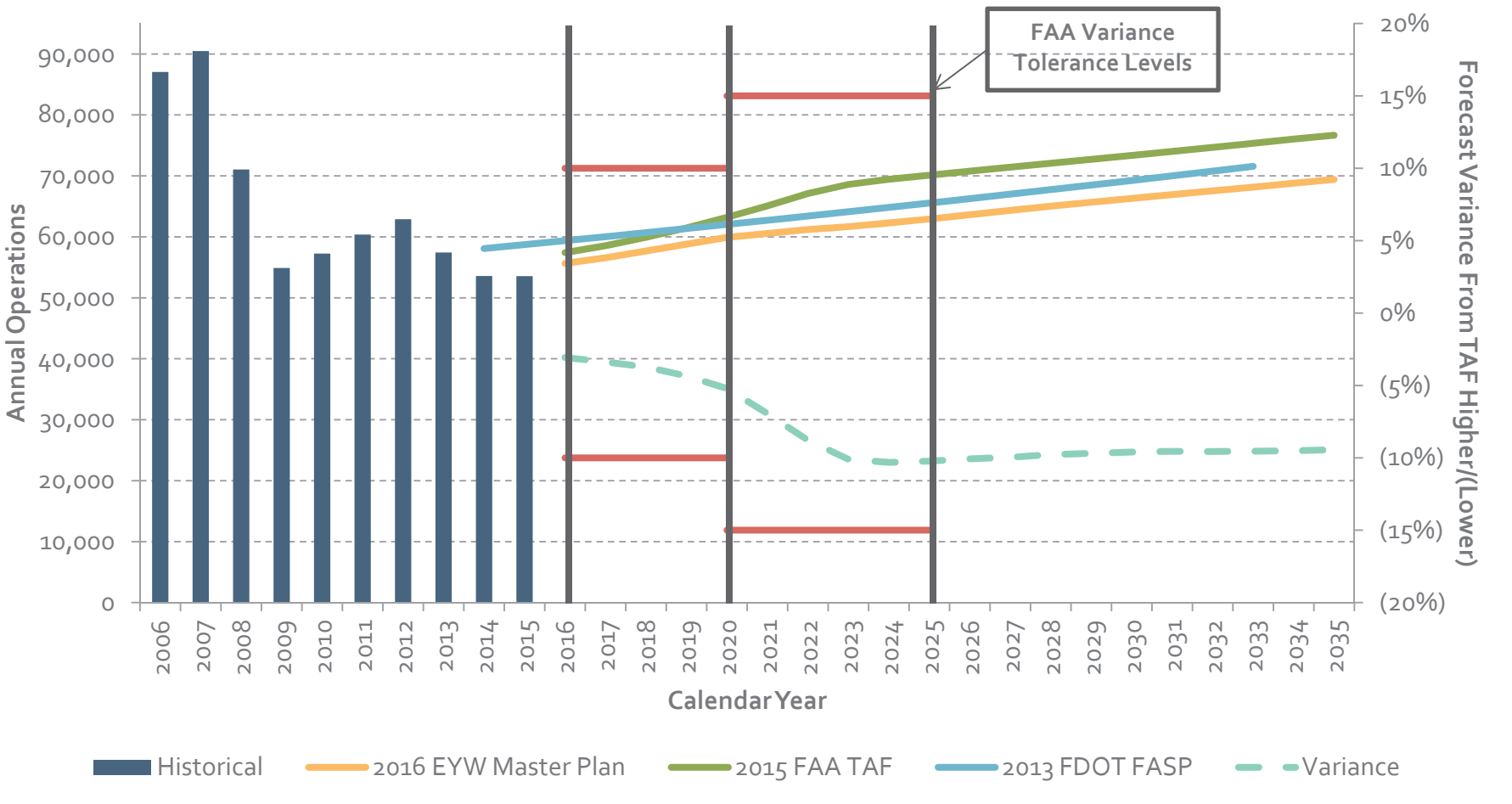
CY 2035





Source: Ricondo & Associates, Inc., June 2016.

TAF Operations Forecast Variance



Note: FAA TAF has been adjusted from fiscal year to calendar year.

Sources: U.S. DOT T-100, March 2016; Ricondo & Associates, Inc., May 2016 (analysis).

Section Five

ALTERNATE DEMAND SCENARIOS

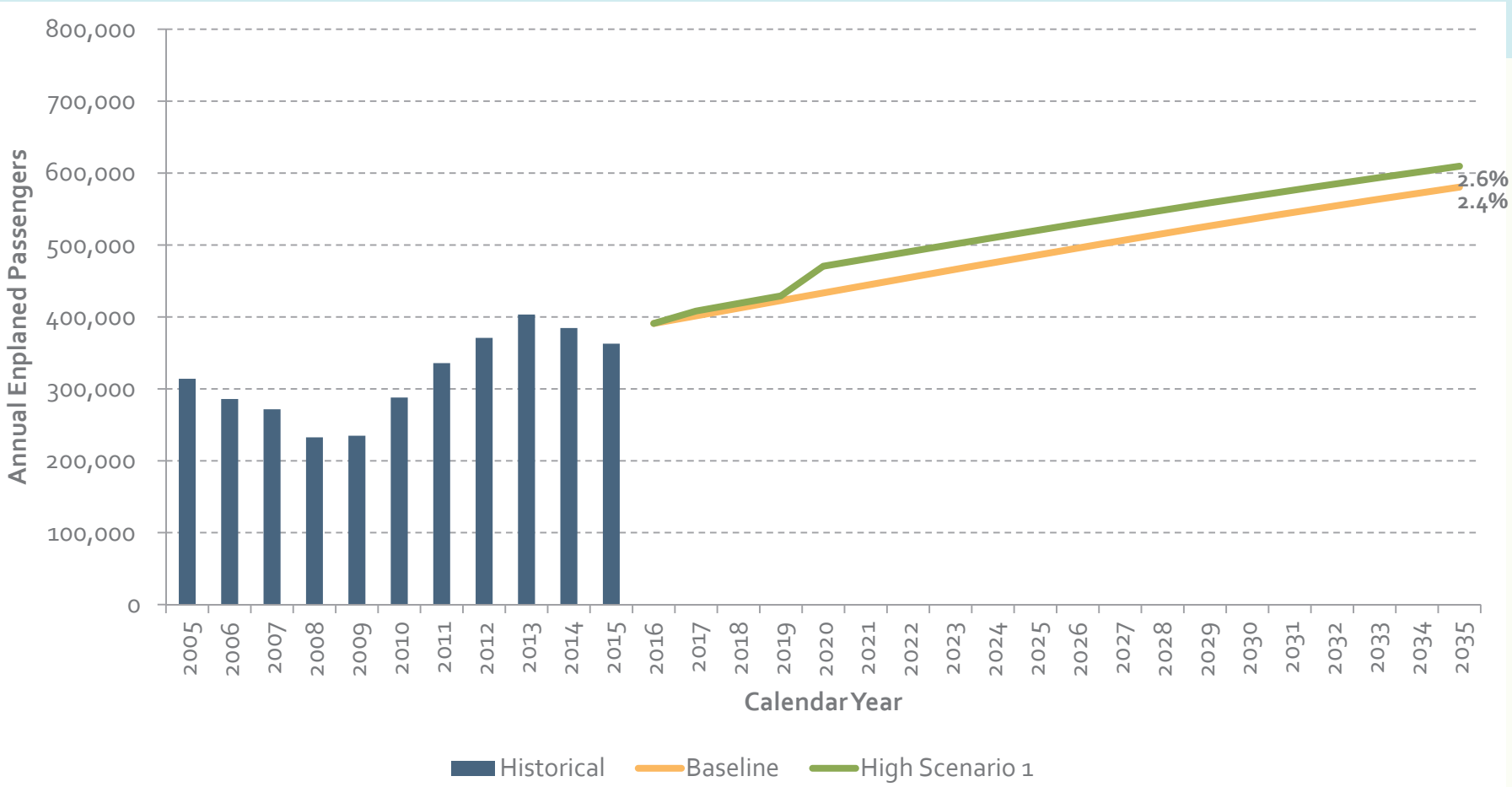
Forecast Scenarios

- High Scenario 1 – New nonstop service
  - Twice-weekly mainline service beyond Florida begins in 2017
  - Twice-daily large regional jet/mainline intra-Florida service begins in 2020
  - Not all traffic is incremental
- High Scenario 2 – New Cuba Service
  - New turboprop/small regional jet service to three Cuban destinations beginning in 2017
  - Additional up-line demand is generated by this new service
- High Scenario 3 – Longer Runway
  - Growth occurs as additional capacity to existing destinations and new destinations
  - Existing O&D demand patterns influenced new service
  - Activity was modeled considering of existing Florida beach/coastal commercial airport service
- Low Scenario – Recession event
  - Two year recession event modeled to begin in 2019 in a similar magnitude of the 2007/2008 recession
  - After a three year recovery period, growth resumes as initially forecast

Longer Runway Forecast Scenario

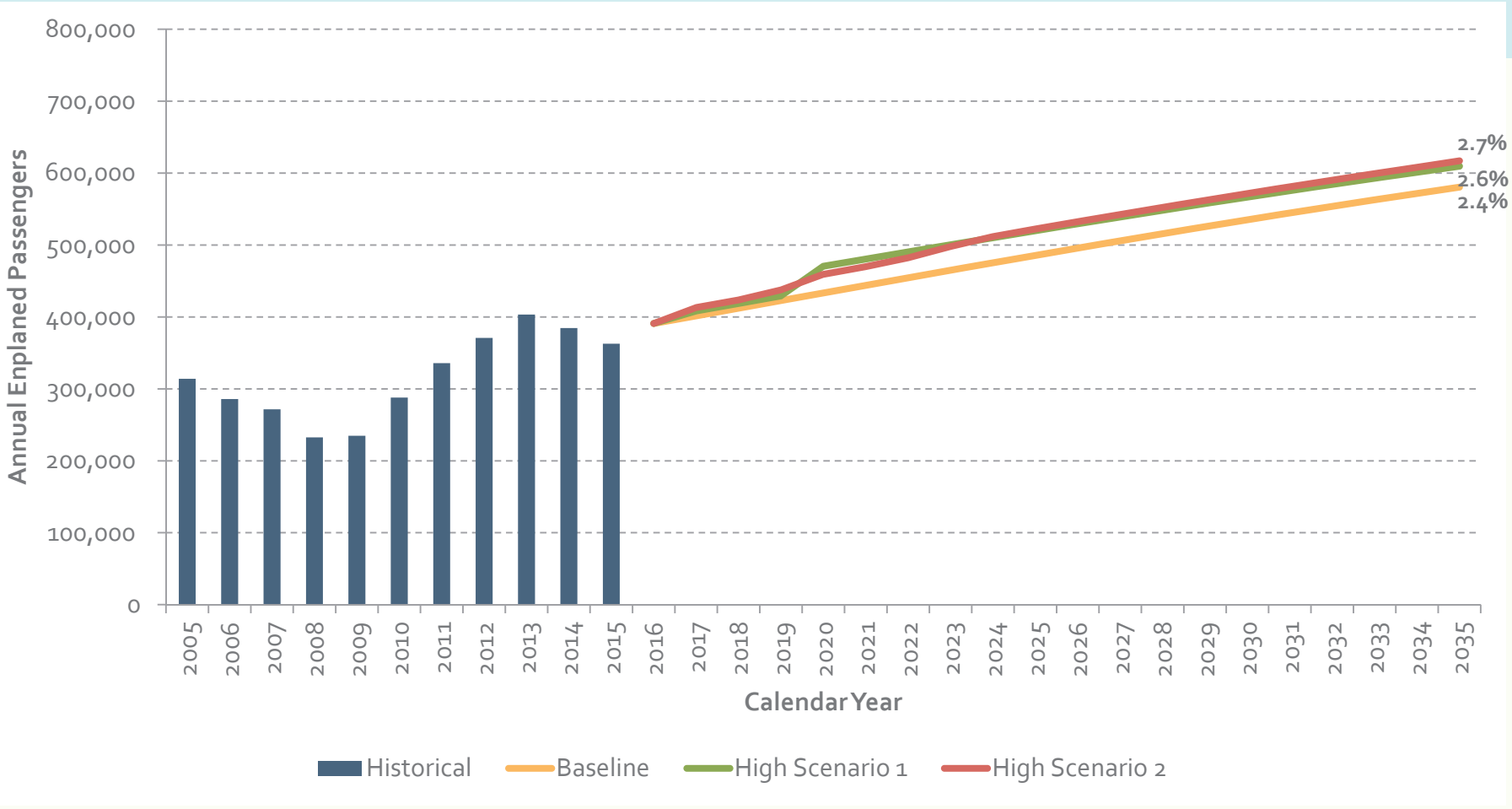
- Growth will be phased in over time as demand at EYW grows
- Aircraft size and route profiles are expected to be comparable to other coastal airports (e.g. ECP, MLB, NAS, SAV, SRQ ,VPS)
- Longer runways will allow existing service to be upgauged (e.g. ATL from B737-700 to B737-800/MD-90; MIA from E-175 to A319/B737-800)
- Most new service will be airline hubs that serve EYW's highest demand O&D markets (e.g. BOS, DFW, EWR, ORD, PHL, etc.)
- Limited seasonal or charter service to Canada and Europe has been assumed
- Critical aircraft group: Airbus A320, Boeing 737-800, or similar

Enplaned Passenger Forecast Scenarios



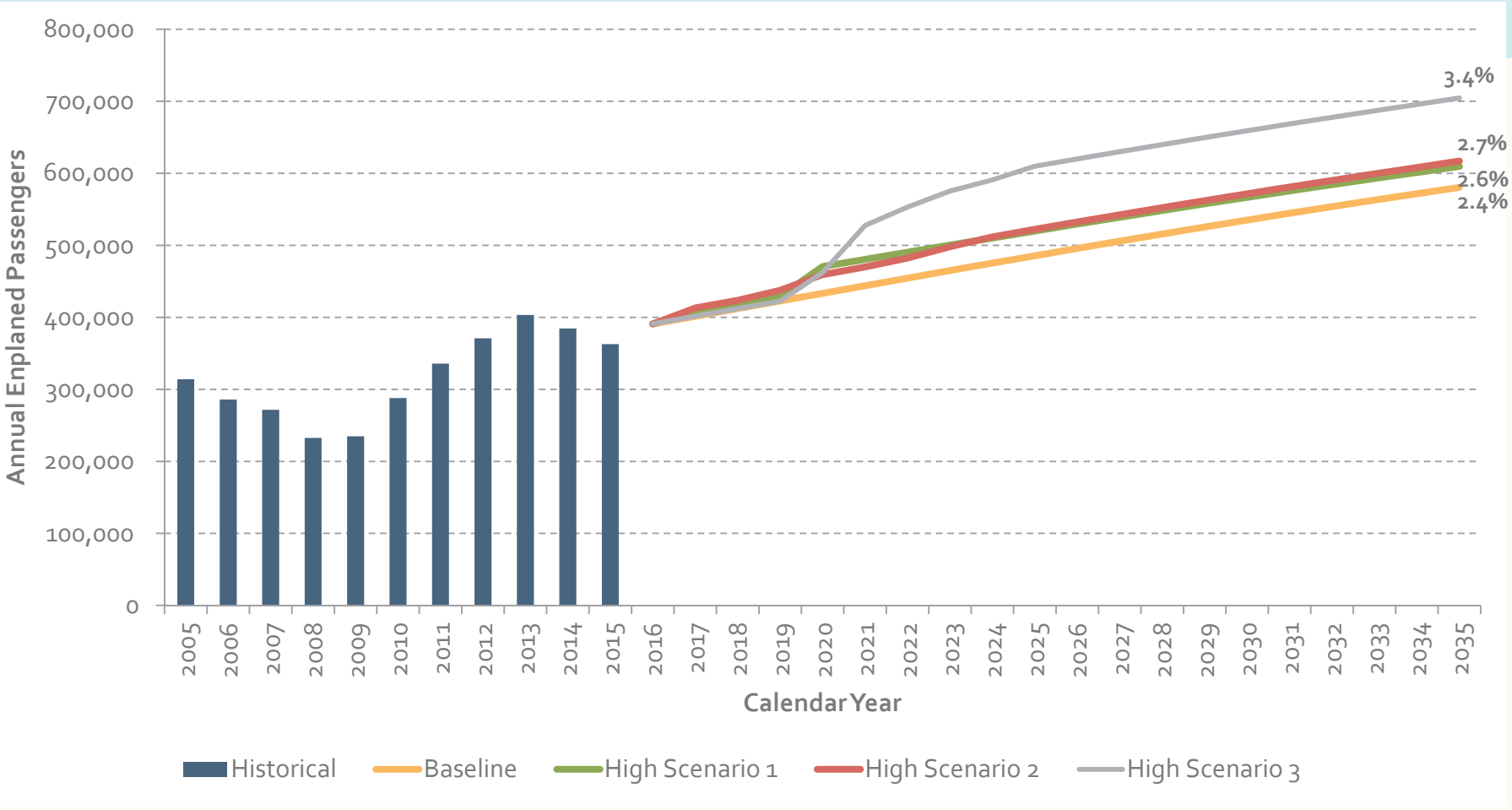
Sources: U.S. DOT T-100, March 2016 (historical); Ricondo & Associates, Inc., June 2016 (forecast).

Enplaned Passenger Forecast Scenarios



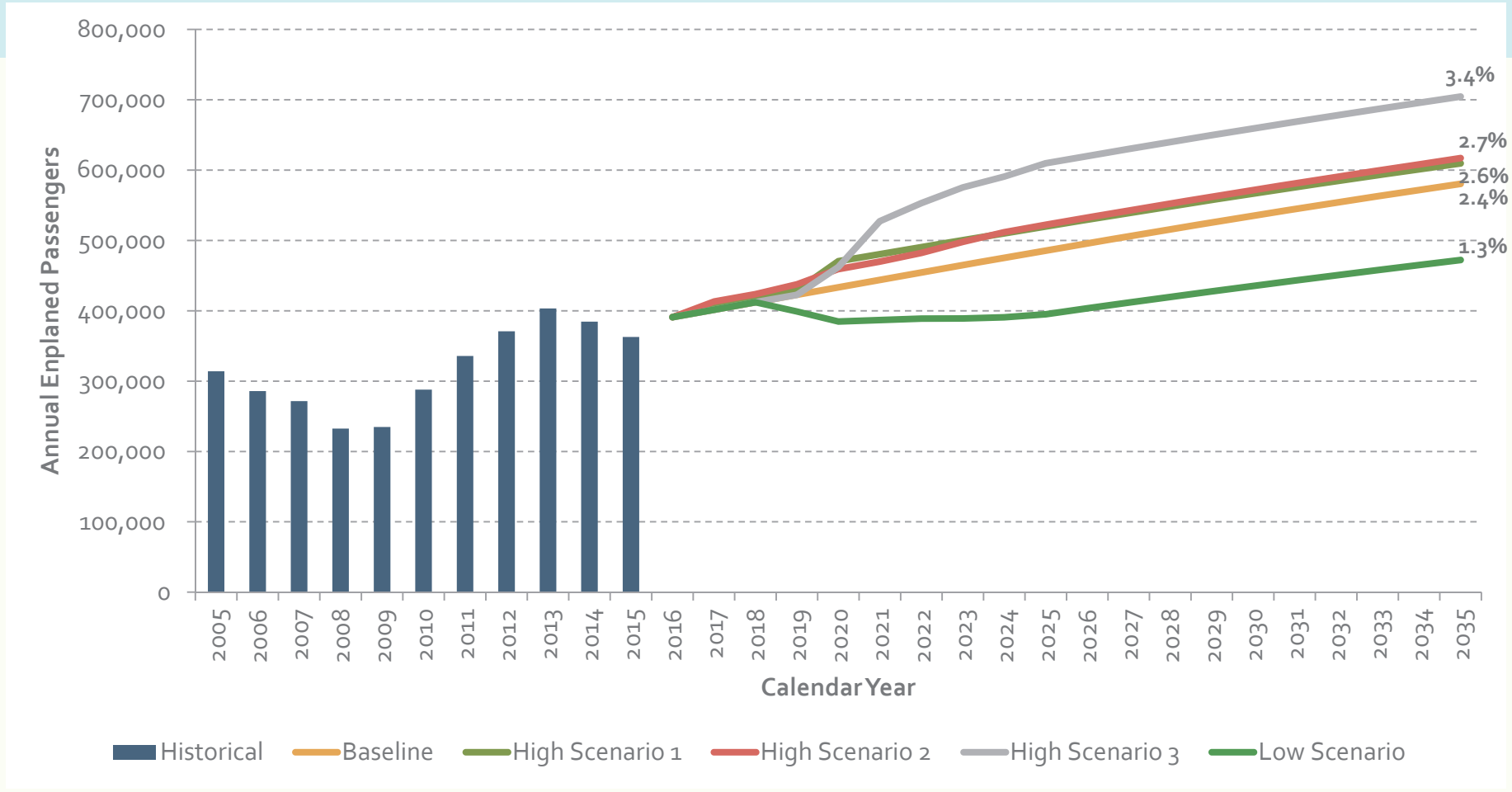
Sources: U.S. DOT T-100, March 2016 (historical); Ricondo & Associates, Inc., June 2016 (forecast).

Enplaned Passenger Forecast Scenarios



Sources: U.S. DOT T-100, March 2016 (historical); Ricondo & Associates, Inc., June 2016 (forecast).

Enplaned Passenger Forecast Scenarios



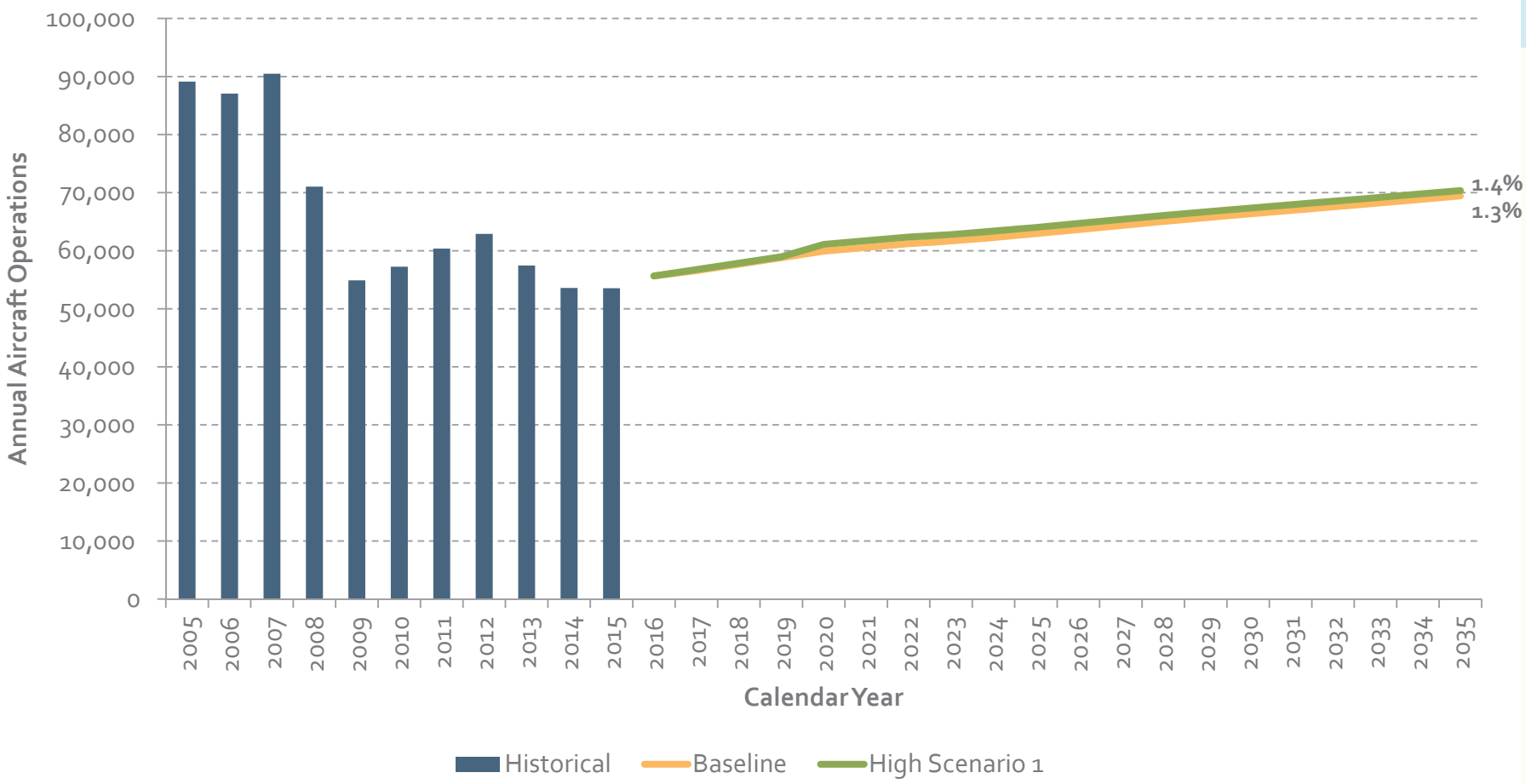
Sources: U.S. DOT T-100, March 2016 (historical); Ricondo & Associates, Inc., June 2016 (forecast).

Alternate Scenarios Enplaned Passenger Forecasts Summary

	Baseline	High Scenario 1	High Scenario 2		High Scenario 3		Low Scenario
CY	Total	Total	Total	Intl.	Total	Intl.	Total
Historical							
2015	362,802	362,802	362,802	-	362,802	-	362,802
Forecast							
2020	433,318	470,443	459,324	13,385	462,332	-	384,787
2025	485,707	519,974	522,258	18,793	609,804	8,580	395,159
2035	580,474	609,571	617,025	21,810	704,571	15,721	472,259

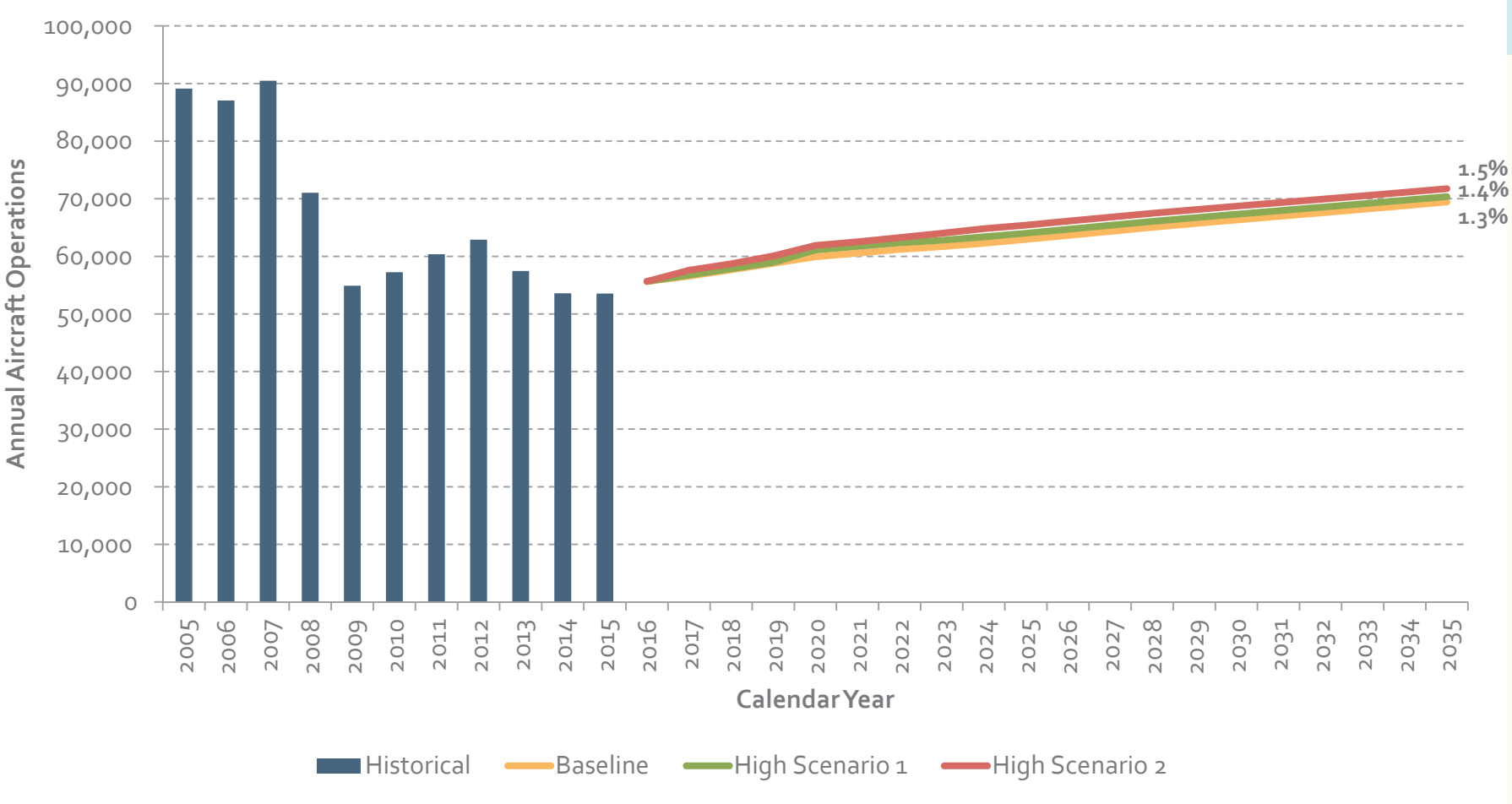
Source: Ricondo & Associates, Inc., June 2016.

Operations Forecast Scenarios



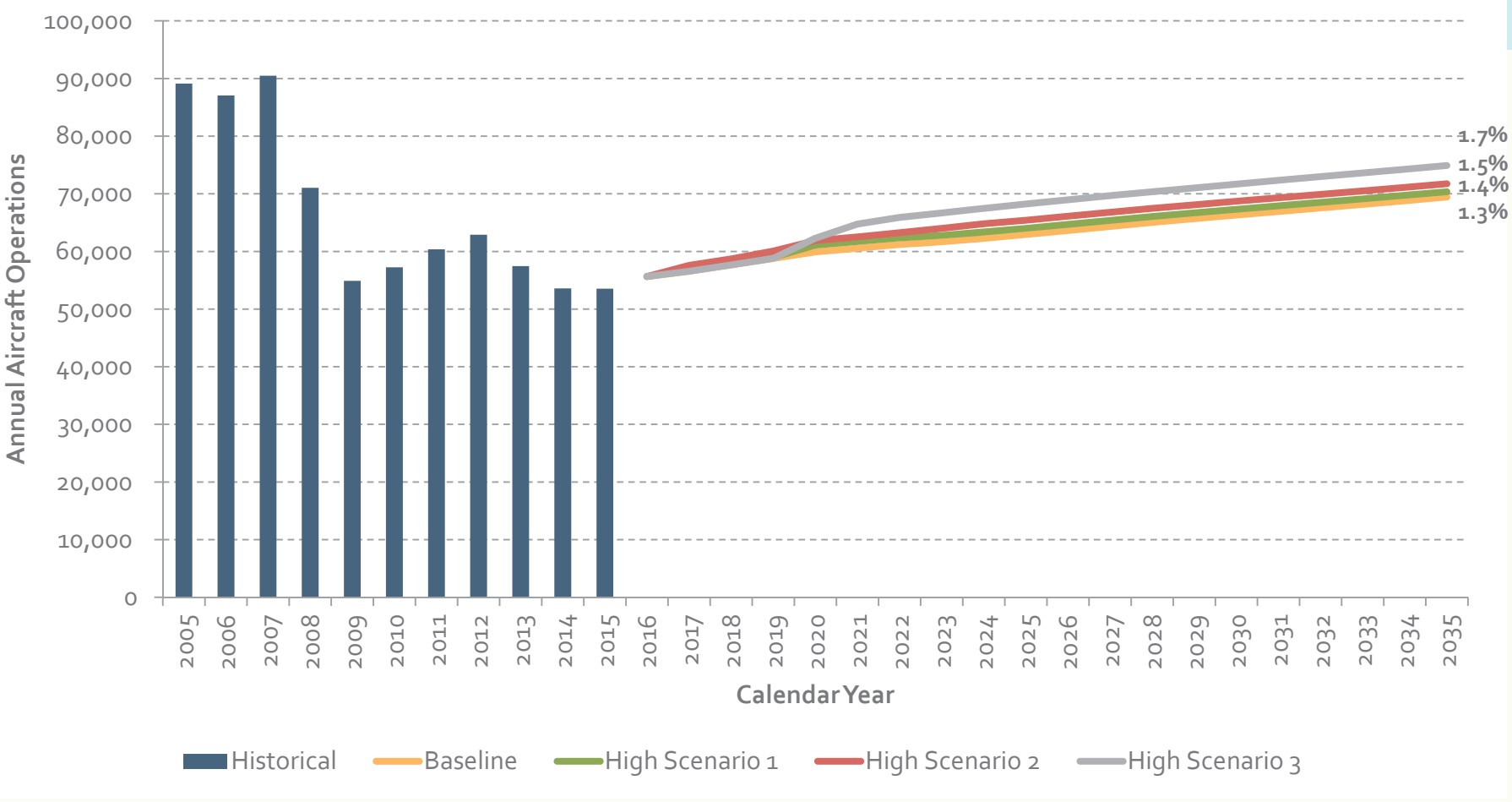
Sources: U.S. DOT T-100, March 2016 (historical);FAA, March 2016 (historical); Ricondo & Associates, Inc., June 2016 (forecast).

Operations Forecast Scenarios



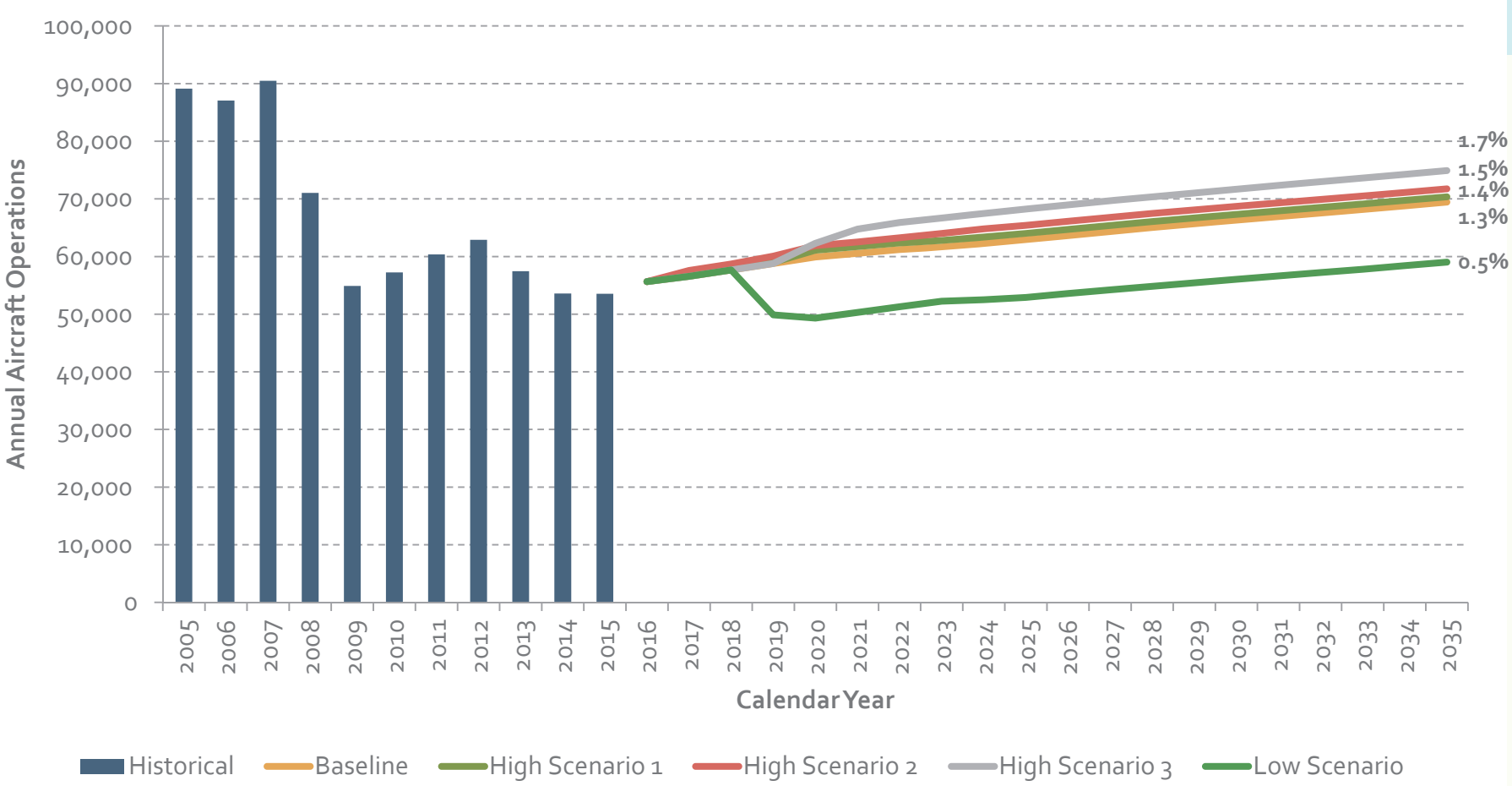
Sources: U.S. DOT T-100, March 2016 (historical);FAA, March 2016 (historical); Ricondo & Associates, Inc., June 2016 (forecast).

Operations Forecast Scenarios



Sources: U.S. DOT T-100, March 2016 (historical);FAA, March 2016 (historical); Ricondo & Associates, Inc., June 2016 (forecast).

Operations Forecast Scenarios



Sources: U.S. DOT T-100, March 2016 (historical);FAA, March 2016 (historical); Ricondo & Associates, Inc., June 2016 (forecast).

Alternate Scenarios Operations Forecasts Summary

	Baseline	High Scenario 1	High Scenario 2	High Scenario 3	Low Scenario
Calendar Year					
Historical					
2015	53,548	53,548	53,548	53,548	53,548
Forecast					
2020	59,912	61,085	61,884	62,294	49,321
2025	62,920	64,006	65,408	68,231	52,906
2035	64,435	70,366	71,742	74,909	59,027

Source: Ricondo & Associates, Inc., June 2016.

OPEN DISCUSSION/NEXT STEPS

Open Discussion/Next Steps

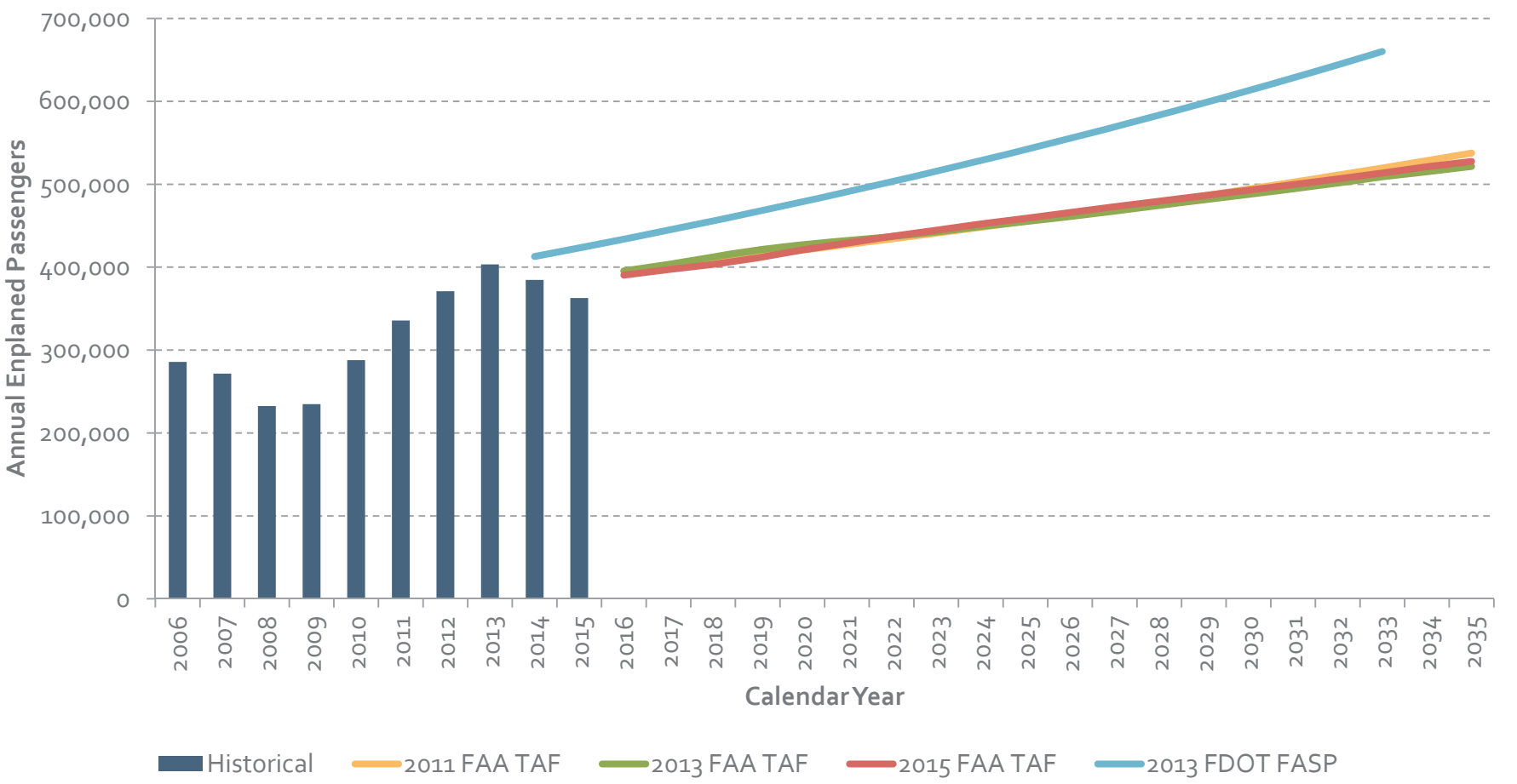
- Submit Aviation Activity Forecasts to FAA
- Initiate Demand/Capacity and Facility Requirements Analyses
- Complete Ground Surveys and Planimetric Base Map

Thank You!

Key West International Airport Master Plan Update
Technical Review Committee #1

ADDITIONAL SLIDES

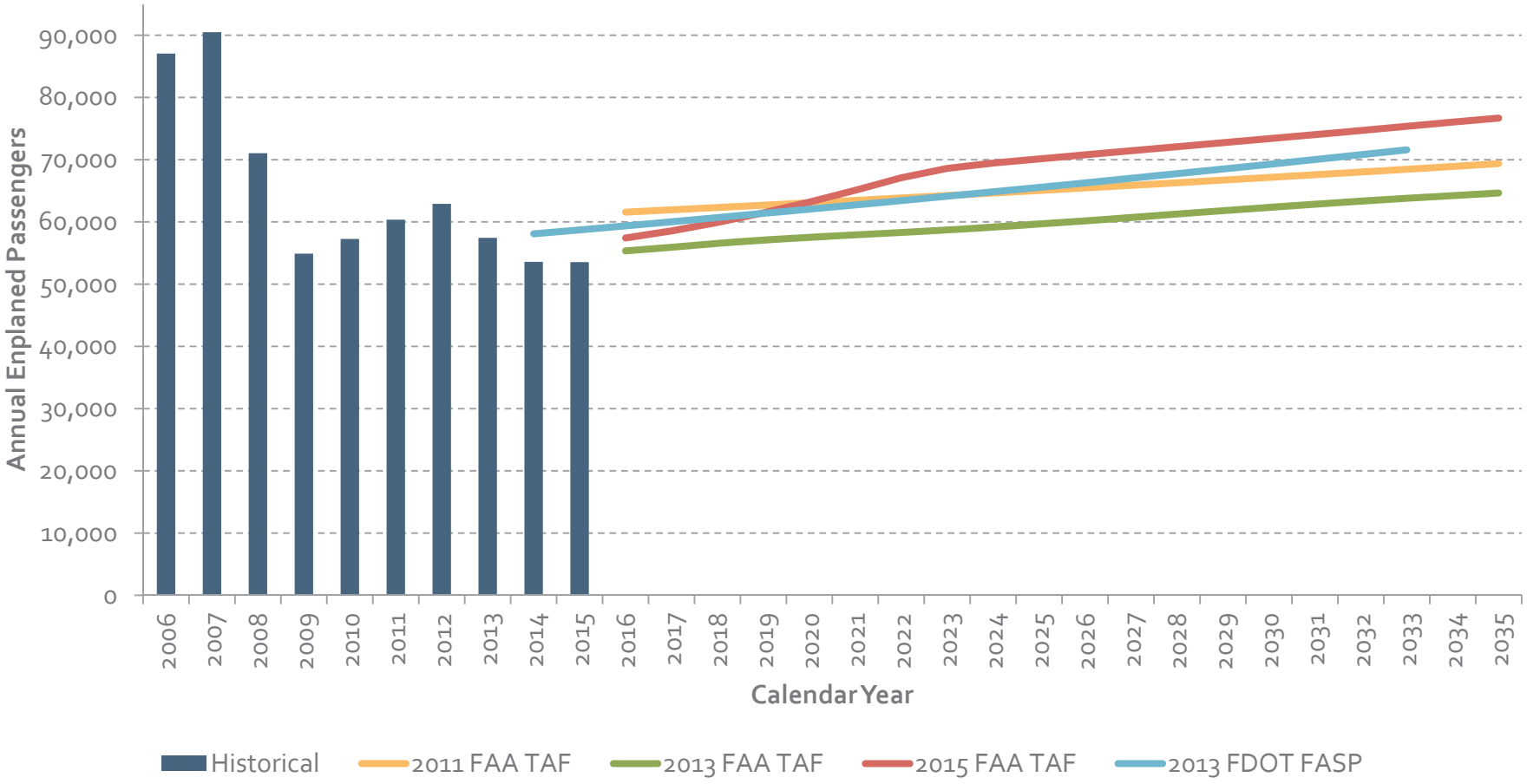
2011 and 2013 TAF Forecasts Have Similar Enplaned Passenger Forecasts to 2015 TAF



Note: FAA TAF has been adjusted from fiscal year to calendar year.

Sources: U.S. DOT T-100, March 2016; Ricondo & Associates, Inc., May 2016 (analysis).

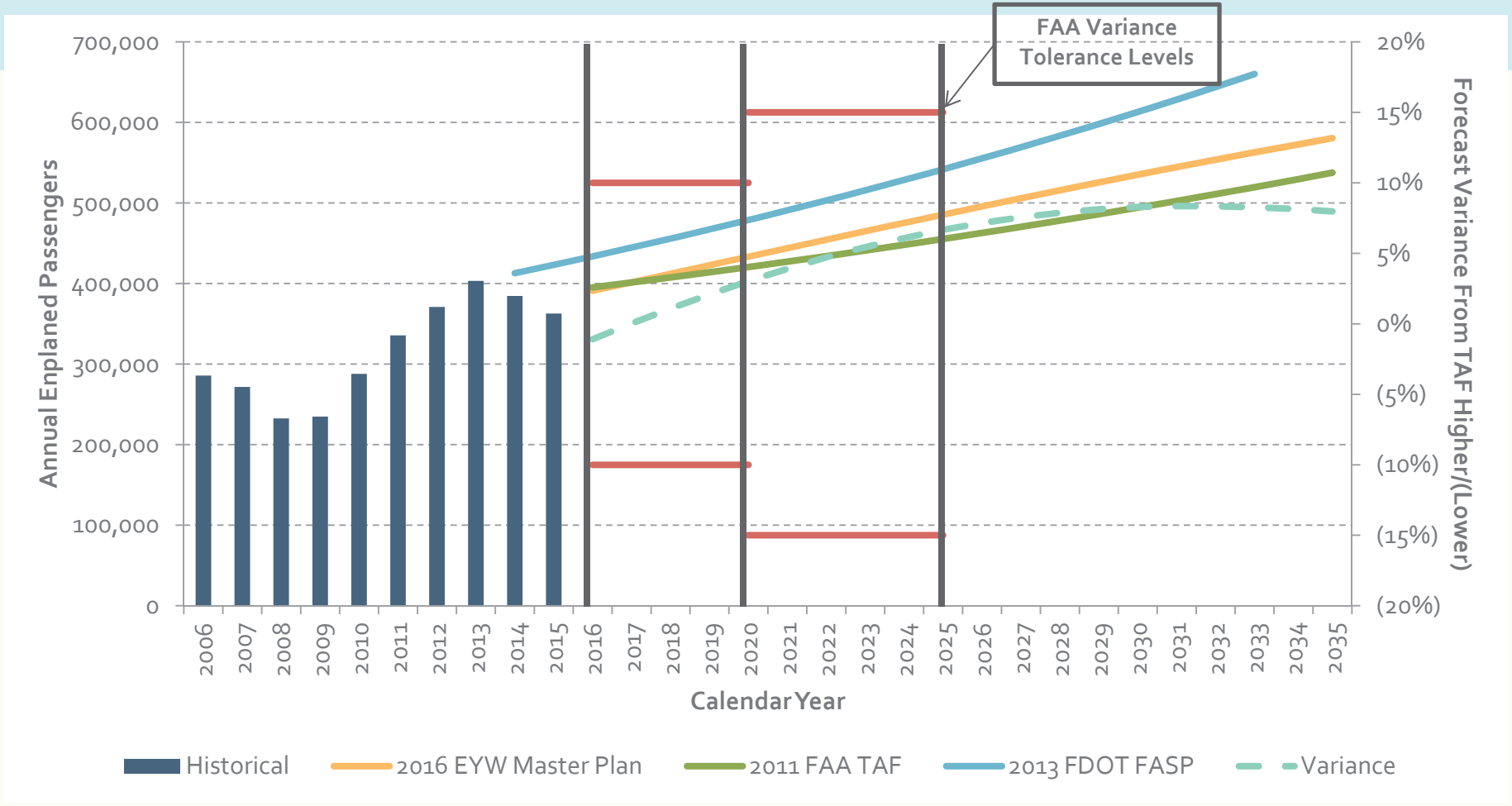
2011 and 2013 TAF Forecasts Differ in Operations Forecasts from 2015 TAF



Note: FAA TAF has been adjusted from fiscal year to calendar year.

Sources: U.S. DOT T-100, March 2016; Ricondo & Associates, Inc., May 2016 (analysis).

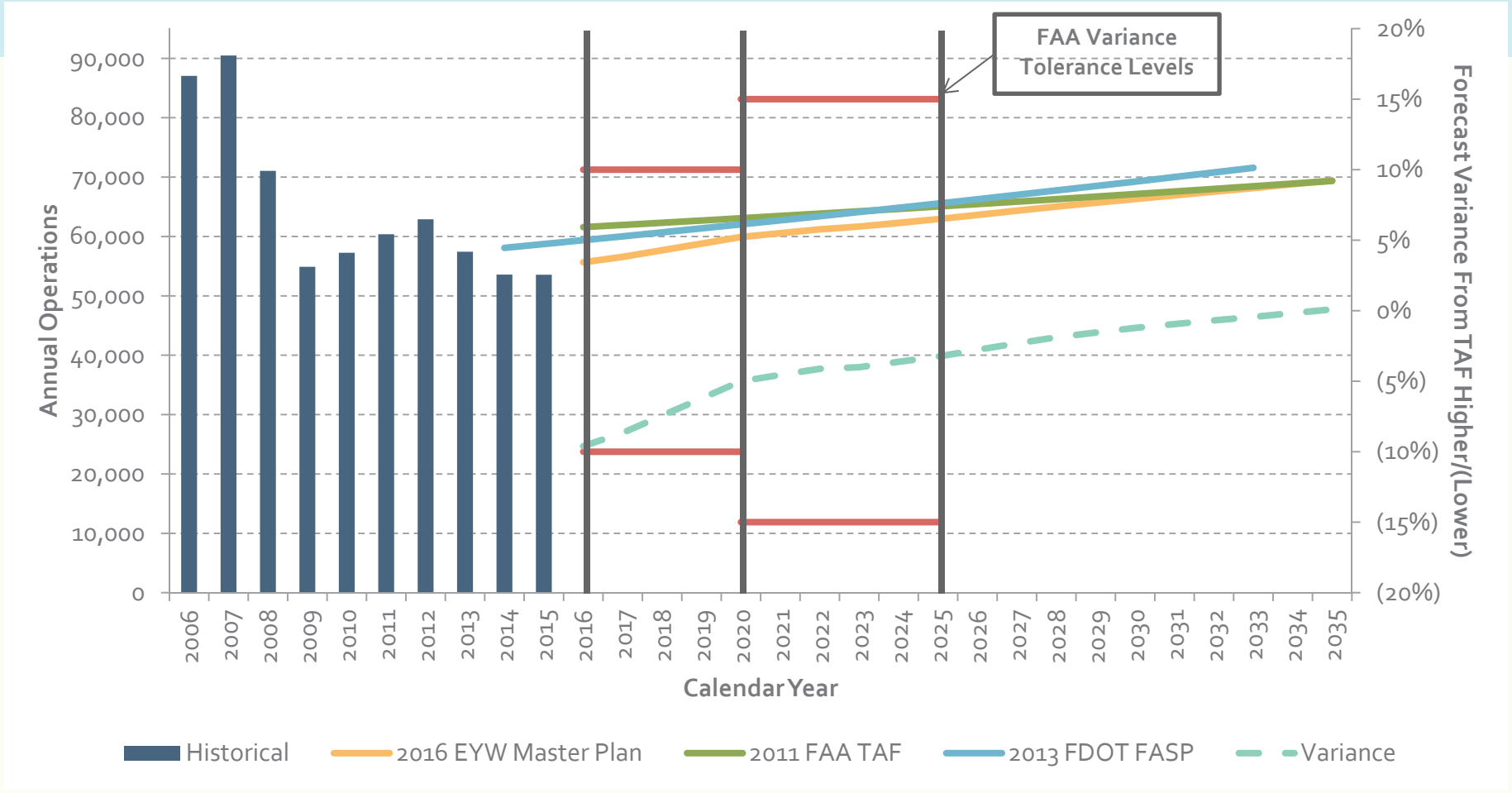
2011 TAF Enplaned Passengers Forecast Variance



Note: FAA TAF has been adjusted from fiscal year to calendar year.

Sources: U.S. DOT T-100, March 2016; Ricondo & Associates, Inc., May 2016 (analysis).

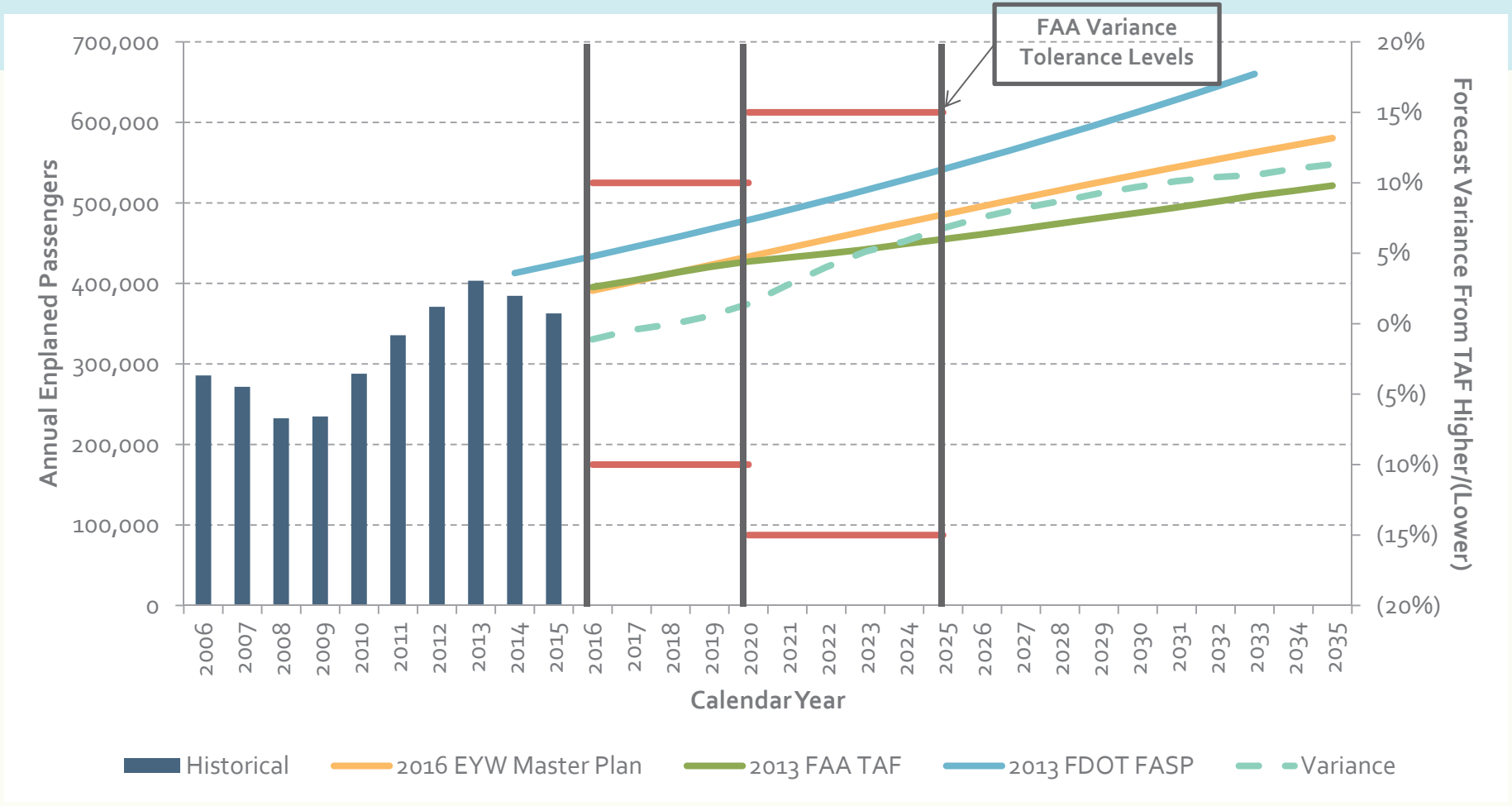
2011 TAF Operations Forecast Variance



Note: FAA TAF has been adjusted from fiscal year to calendar year.

Sources: U.S. DOT T-100, March 2016; Ricondo & Associates, Inc., May 2016 (analysis).

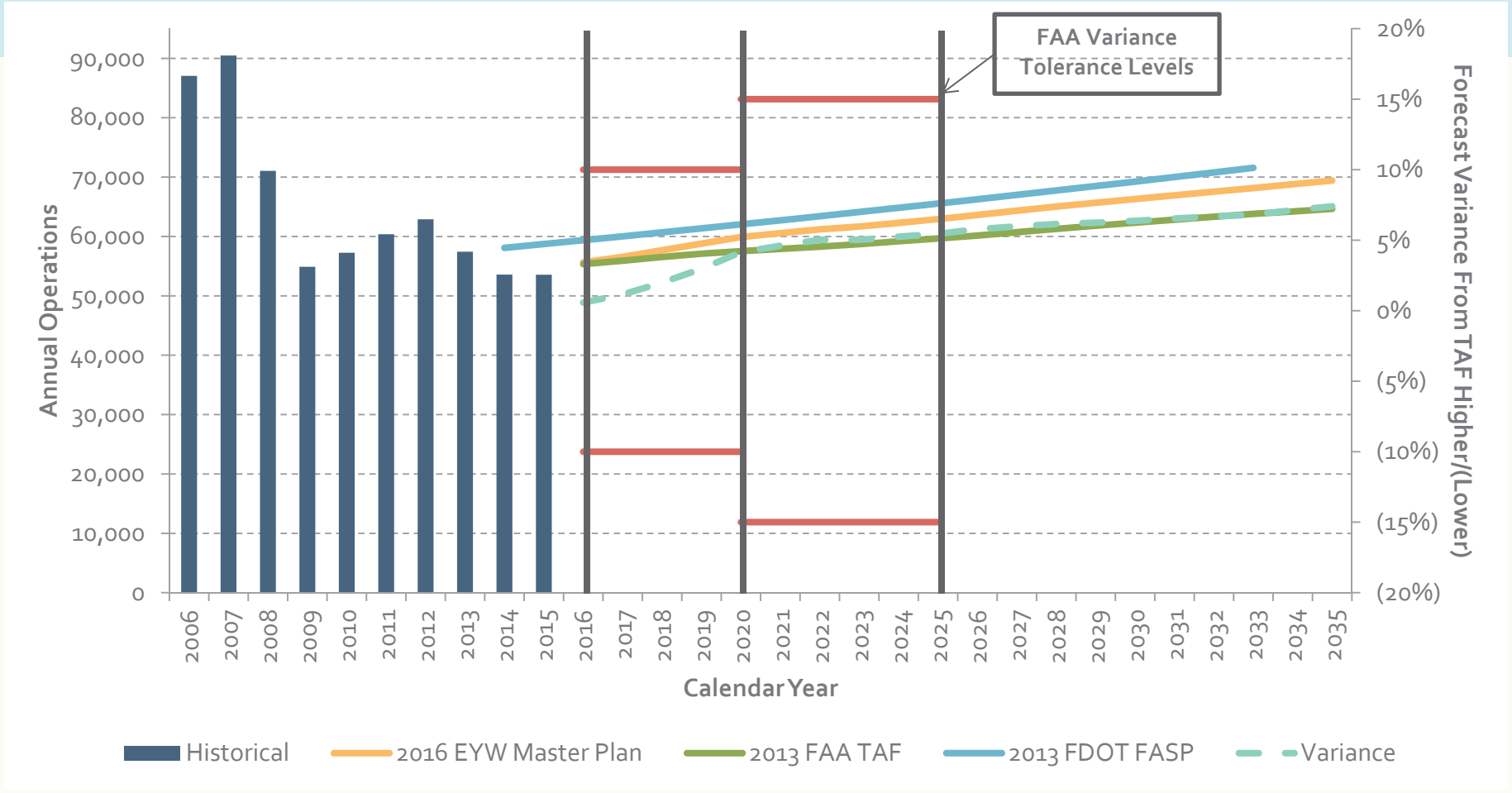
2013 TAF Enplaned Passengers Forecast Variance



Note: FAA TAF has been adjusted from fiscal year to calendar year.

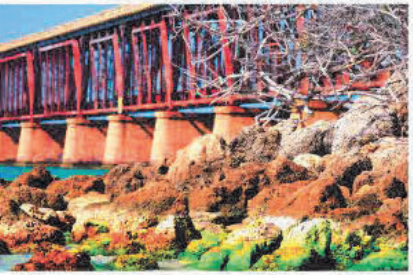
Sources: U.S. DOT T-100, March 2016; Ricondo & Associates, Inc., May 2016 (analysis).

2013 TAF Operations Forecast Variance



Note: FAA TAF has been adjusted from fiscal year to calendar year.

Sources: U.S. DOT T-100, March 2016; Ricondo & Associates, Inc., May 2016 (analysis).



Key West International Airport Master Plan Study
Technical Review Committee #2

Overview

- Review progress made since TRC #1
- Design Day Flight Schedule (DDFS)
- Facility Requirements and Preliminary Alternatives
  - Airside & Aircraft Ramp
  - Passenger Terminal
  - Parking and Roadway
- General Aviation and Joint-Use Evaluation Update
- Next Steps

Master Plan Progress

- Airport History
- Environmental Overview
- Financial Data
- Historical Aviation Activity
- Regional Setting and Land Use
- Existing Facility Conditions

- Airport Operations
- Enplanements
- Peaking Characteristics
- Fleet Mix
- Factors Affecting Demand

Received FAA approval in August 2016

- Passenger Terminal
- Auto Parking
- Ground Access and Roadways
- Cargo Facilities
- General Aviation Facilities
- Support Facilities
- Airfield/Airspace Facilities

- Evaluate Alternatives
- Select Preferred Alternative
- Identify Alternatives

- Environmental Overview Report
- Recycle, Reuse and Waste Reduction Plan
- Sustainability Workshop/ Framework
- Evaluation of Proposed Development
- Noise Evaluation

- Capital Investment Plan
- Sources of Funding
- Project Sequencing/ Master Schedule
- Benefit Cost Analysis
- Implementation Triggers
- Revenue Enhancements
- Financial Feasibility

- Approach Plans
- FAR Part 77 Plans
- Airport Layout Plan
- Land Use Plans
- Data Sheet

Completed
Ongoing
Future Tasks

Section 1

DESIGN DAY FLIGHT SCHEDULE (DDFS)

DDFS Overview

- A design day flight schedule (DDFS) includes projected activity at the Airport on a representative busy day
  - Passengers and passenger aircraft operations
  - Representative busy day: Peak Month Average Day (PMAD)
    - Peak months are measured as percentage of average months
    - Peak days are measured as a percentage of average days or weekdays in the peak month
- Identify future planning activity levels
  - 2015 (base schedule), 2020, 2025 and 2035

DDFS Overview

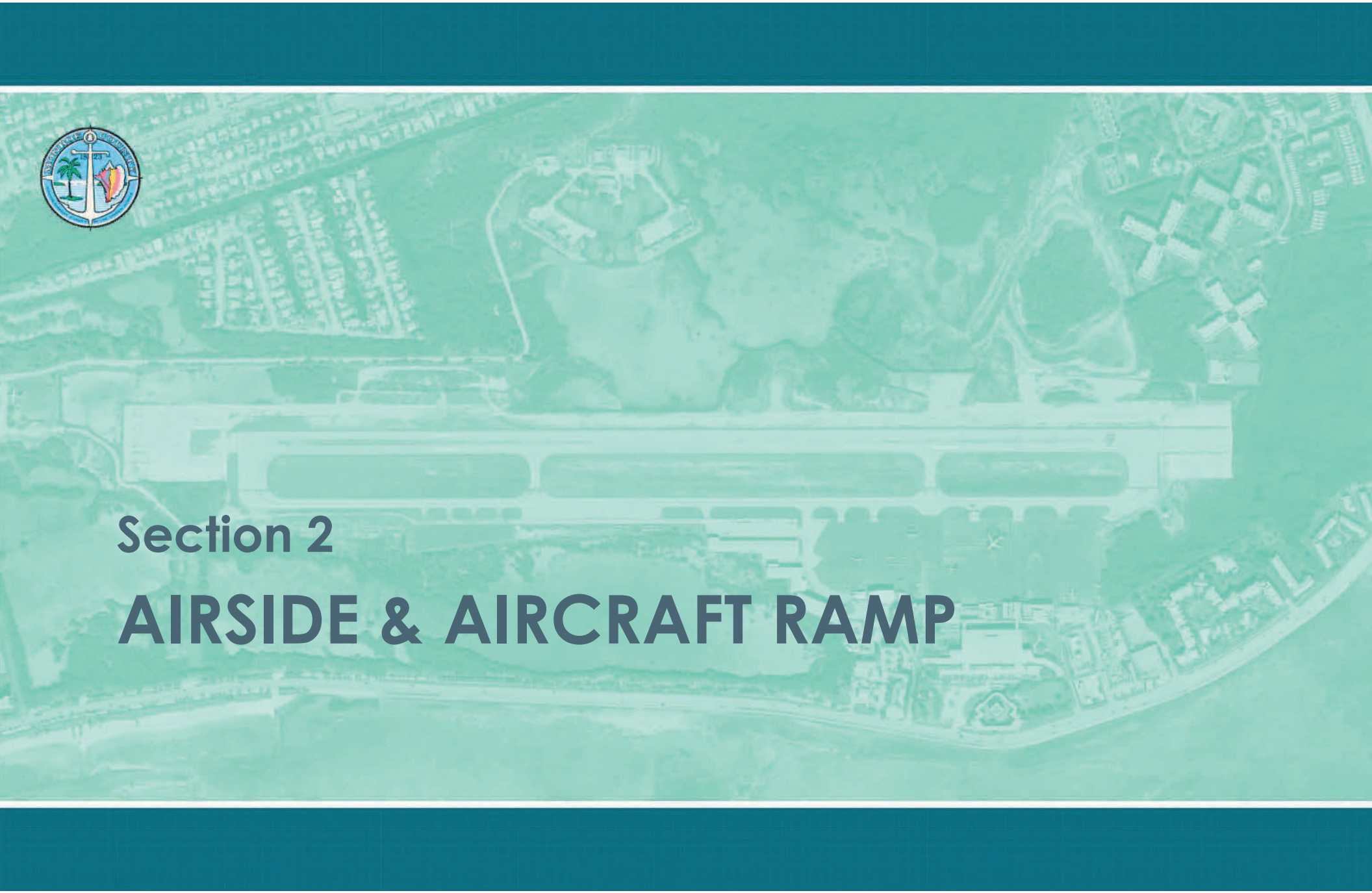
- The DDFS's are used to help determine requirements at the Airport:
  - Design day and peak hour operations:
    - Runways
    - Taxiways and taxilanes
    - Aprons
    - Gates
  - Design day O&D passengers:
    - Parking
    - Curbside
  - Peak hour O&D passengers
    - Check-in
    - Security screening
    - Holdrooms
    - Baggage claim
    - Other terminal processors

All Aircraft Operations

	Design Day			Peak Hour		
Year	Arrivals	Departures	Total Operations	Arrivals	Departures	Total Operations
2015	86	85	171	10	12	19
2020	96	94	190	10	12	20
2025	102	101	203	11	13	21
2035	115	114	229	12	14	25

Passengers (Scheduled and Unscheduled)

	Design Day			Peak Hour		
Year	Deplaned Passengers	Enplaned Passengers	Total Passengers	Deplaned Passengers	Enplaned Passengers	Total Passengers
2015	1,281	1,363	2,643	212	292	439
2020	1,529	1,363	2,892	214	301	437
2025	1,715	1,825	3,540	231	332	489
2035	2,049	2,181	4,230	278	368	544



Section 2

AIRSIDE & AIRCRAFT RAMP

Airside & Aircraft Ramp

1. Facility Requirements:

FUNCTIONAL AREA	DESCRIPTION	UNITS	EXISTING CAPACITY	REQUIREMENTS 2015	2020	2025	2035
Airside							
	Hourly Runway Capacity						
	Visual Meteorological Conditions	Arrival Operations (Per Hour)	62	19	20	21	25
	Instrument Meteorological Conditions	Arrival Operations (Per Hour)	46	9	10	11	15
	Annual Service Volume	Annual Operations		173,000	193,000	190,000	179,000
	Annual Aircraft Operations	Annual Operations		54,000	60,000	63,000	69,000
	Percent of Annual Service Volume	Percent of total Capacity		31%	31%	33%	39%
	Commercial Aircraft Positions	Gates	8 (3 Jets & 5 Turboprops)	8	5	5	5

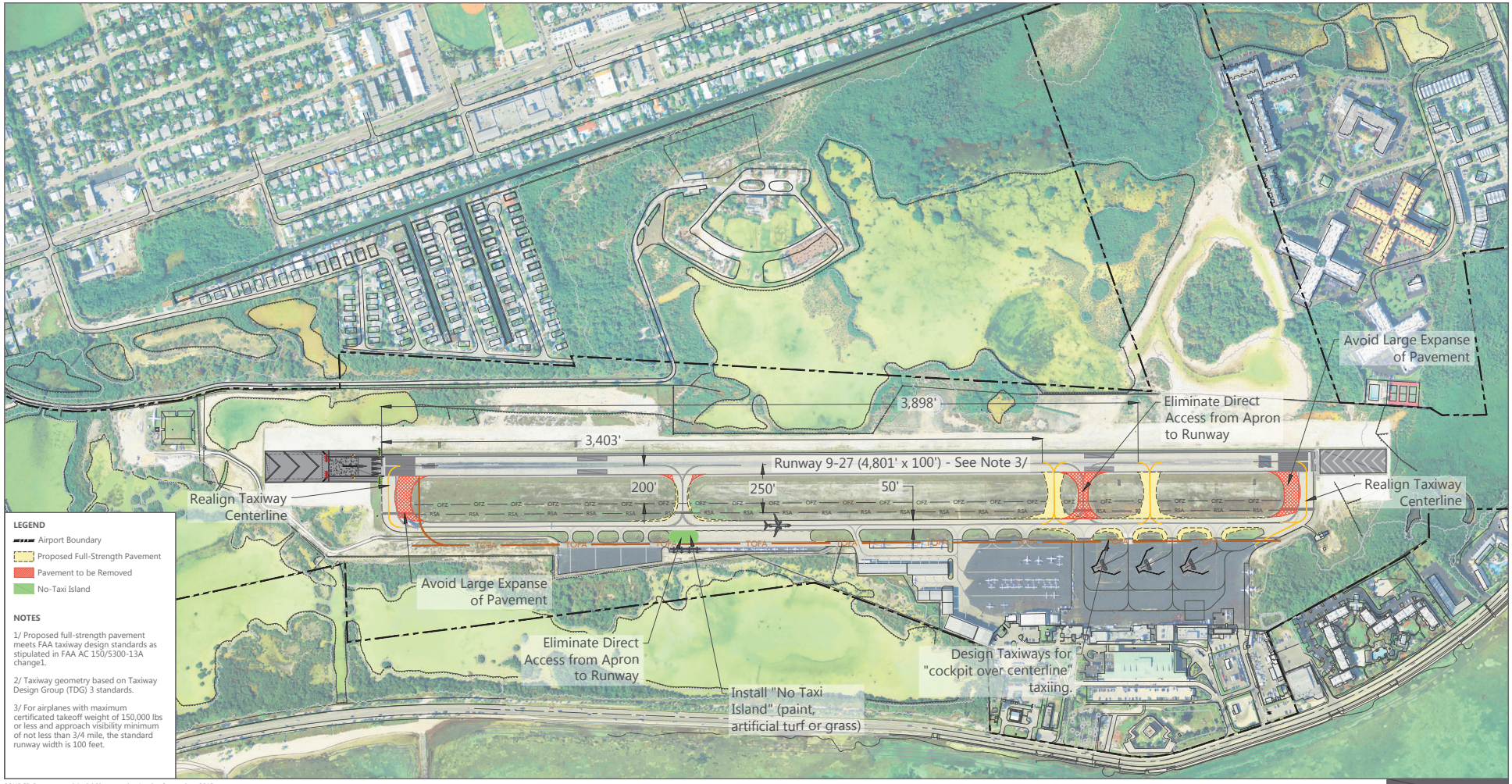
2. Alternatives Considerations:

- Airfield design criteria compliance
  - Wide expanses of pavement
  - Fillet modifications
  - Direct access to runway from ramp
  - 3-node criteria
- 2025 and 2035 gate requirements

3. Master Plan Objectives:

- Identify critical aircraft and future airfield requirements (runway length, width, etc.)
- Assess ways to maximize the existing aircraft ramp layout
- Preserve the integrity of the security identification display area (SIDA) separating the general aviation and commercial ramps
- Evaluate whether the installation of passenger boarding bridge could improve the level of service at the Airport
- Identify areas for the staging of ground support equipment (GSE)

[PRELIMINARY DRAFT- FOR DISCUSSION PURPOSES ONLY - NOT FOR DISTRIBUTION]



SOURCE: Basemap and Aerial Photography, Jacobs, September, 2015
PREPARED BY: Ricondo & Associates, Inc., October, 2016.

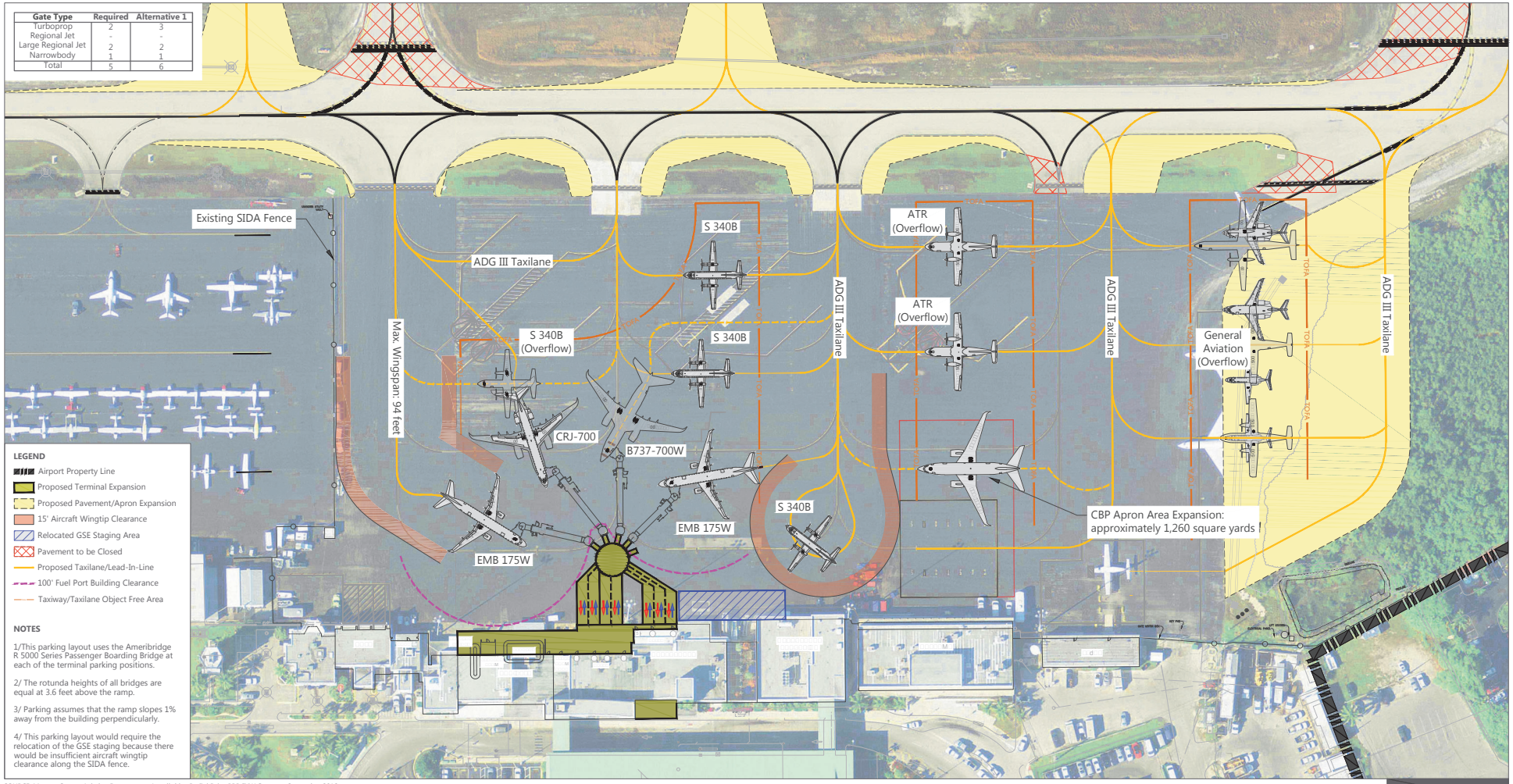
EXHIBIT 5.3-10

NORTH 0 500 ft

Taxiway Geometry Compliance
Proposed Improvements

Drawing: Z:\EYW\2015 Master Plan\5-Alternatives\Airfield\CAD\EYW_Masterplan_Exhibit 5.3.10_Taxiway Compliance_20161011.dwgLayout: 5.3.6 Taxiway Compliance Plotted: Oct 13, 2016, 12:42PM

[PRELIMINARY DRAFT FOR DISCUSSION PURPOSES ONLY - NOT FOR DISTRIBUTION]



SOURCE: Monroe County Aviation Department, *Ameribridge Radial Drive PBB EYW Concepts,* September 2016.
PREPARED BY: Ricondo & Associates, Inc., November 2016.

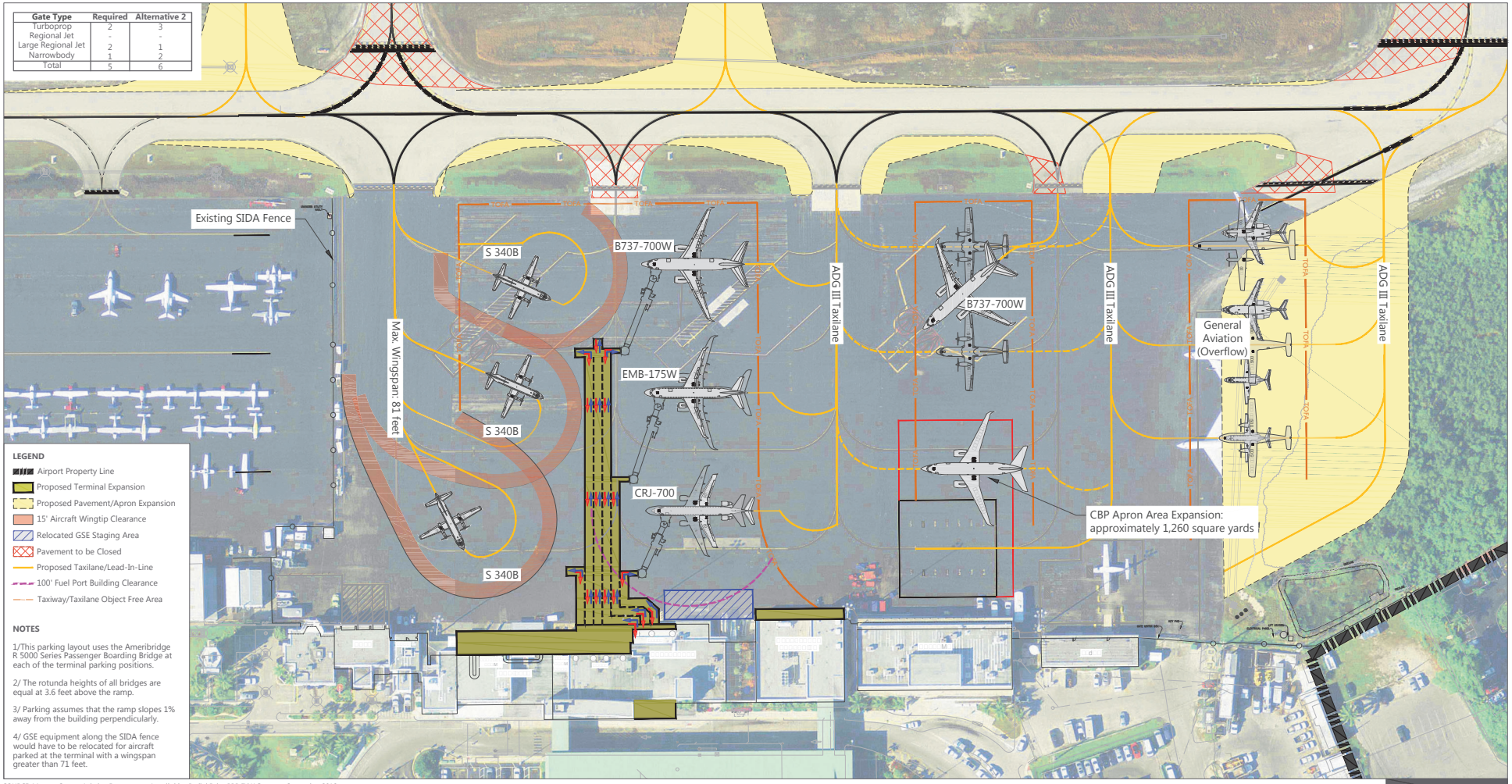
EXHIBIT 1

NORTH 0 □00 ft□

Commercial Apron
Alternative 1

Drawing: P:\Monroe County FL\Task 200 - EYW Master Plan\206 - Alternatives\CAD\Commercial Apron_Alternative 1.dwgLayout: Option 1 Plotted: Oct 31, 2016, 03:01PM

[PRELIMINARY DRAFT FOR DISCUSSION PURPOSES ONLY - NOT FOR DISTRIBUTION]



SOURCE: Monroe County Aviation Department, *Ameribridge Radial Drive PBB EYW Concepts,* September 2016.
PREPARED BY: Ricondo & Associates, Inc., November 2016.

EXHIBIT 2

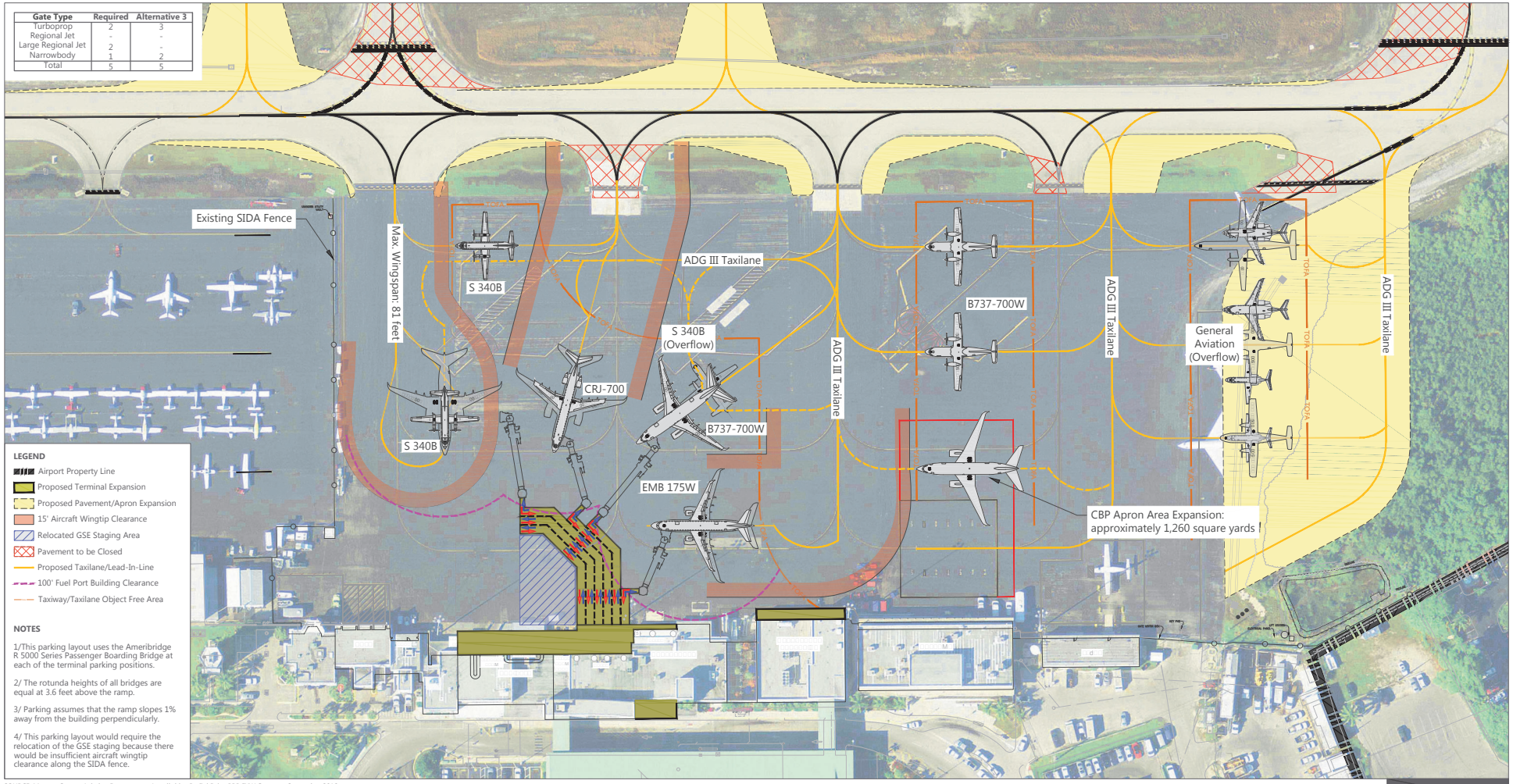
NORTH 0 □00 ft□

Commercial Apron
Alternative 2

Drawing: P:\Monroe County FL\Task 200 - EYW Master Plan\206 - Alternatives\CAD\Commercial Apron_Alternative 2.dwgLayout: Option 2 Plotted: Oct 31, 2016, 03:30PM

[PRELIMINARY DRAFT FOR DISCUSSION PURPOSES ONLY - NOT FOR DISTRIBUTION]

Gate Type	Required	Alternative 3
Turboprop	2	3
Regional Jet	-	-
Large Regional Jet	2	-
Narrowbody	1	2
Total	5	5



SOURCE: Monroe County Aviation Department, *Ameribridge Radial Drive PBB EYW Concepts,* September 2016.
PREPARED BY: Ricondo & Associates, Inc., November 2016.

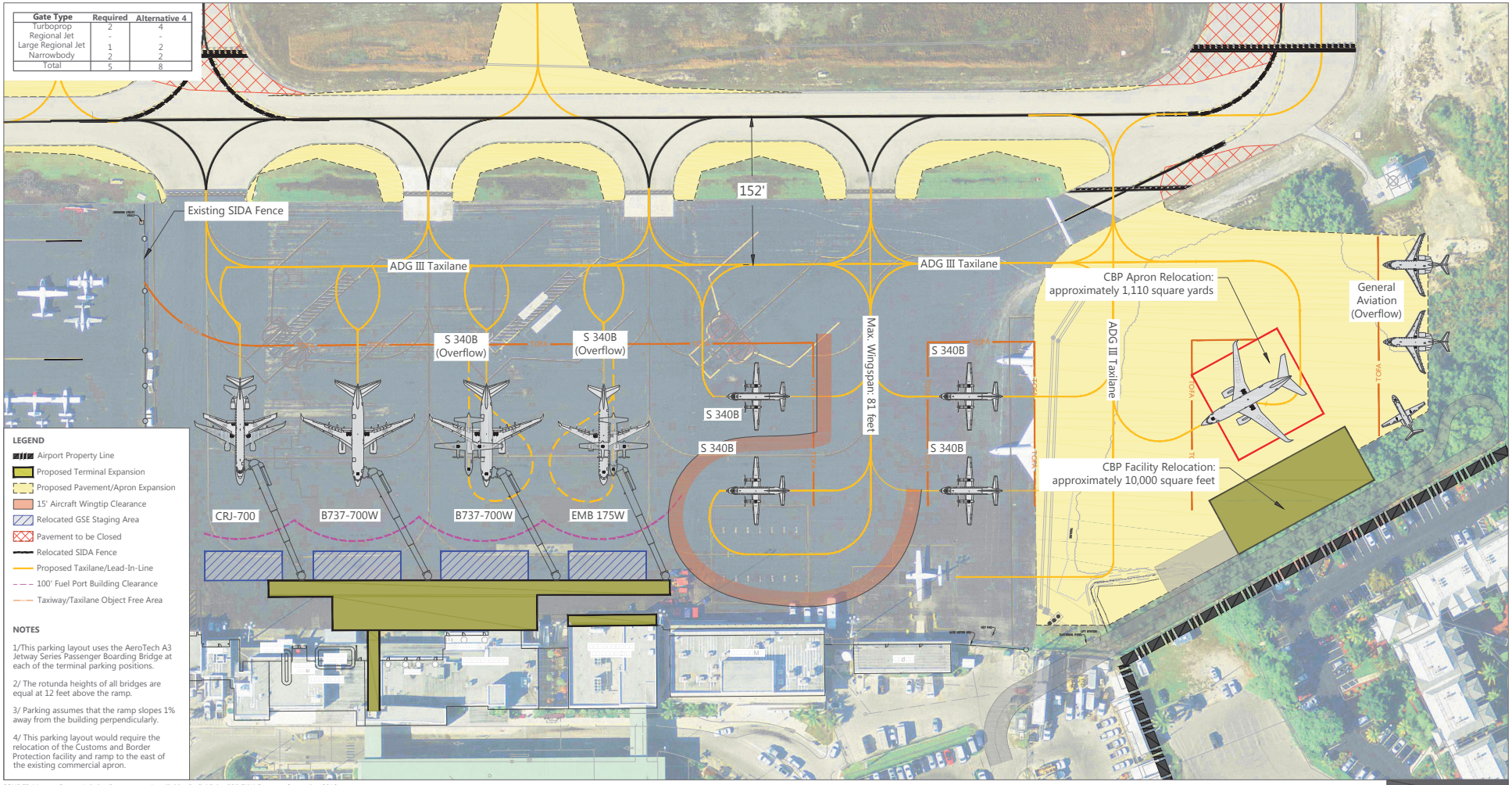
EXHIBIT 3

NORTH 0 □00 ft□

Commercial Apron
Alternative 3

Drawing: P:\Monroe County FL\Task 200 - EYW Master Plan\206 - Alternatives\CAD\Commercial Apron_Alternative 3.dwgLayout: Option 3 Plotted: Oct 31, 2016, 03:04PM

[PRELIMINARY DRAFT FOR DISCUSSION PURPOSES ONLY - NOT FOR DISTRIBUTION]



SOURCE: Monroe County Aviation Department, *Ameribridge Radial Drive PBB EYW Concepts*, September 2016.
PREPARED BY: Ricondo & Associates, Inc., November 2016.

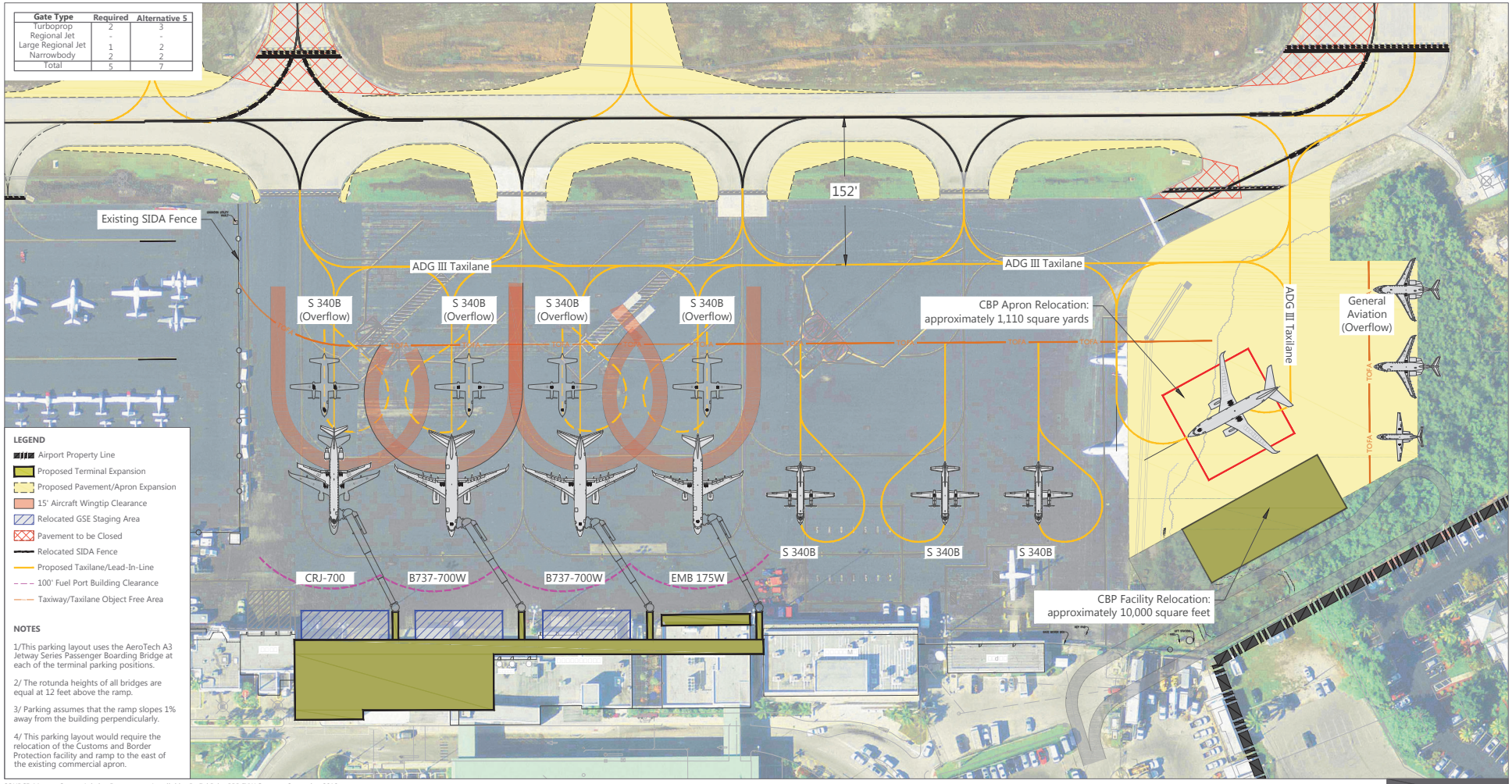
EXHIBIT 4

NORTH 0 □00 ft□

Drawing: P:\Monroe County FL\Task 200 - EYW Master Plan\206 - Alternatives\CAD\Commercial Apron_Alternative 4.dwgLayout: Option 4 Plotted: Oct 31, 2016, 04:29PM

Commercial Apron Alternative 4

[PRELIMINARY DRAFT FOR DISCUSSION PURPOSES ONLY - NOT FOR DISTRIBUTION]



SOURCE: Monroe County Aviation Department, *Ameribridge Radial Drive PBB EYW Concepts,* September 2016.
PREPARED BY: Ricondo & Associates, Inc., November 2016.

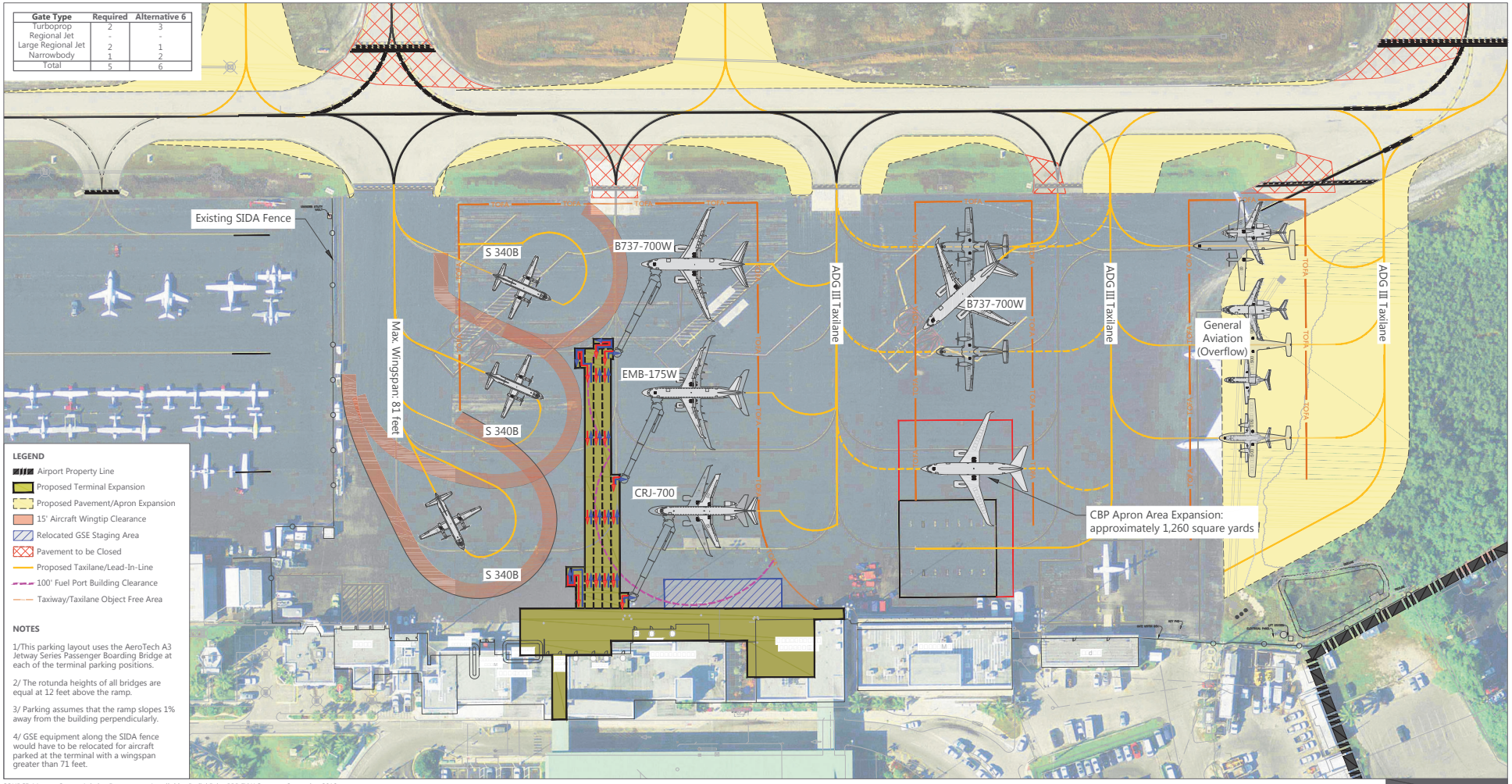
EXHIBIT 5

NORTH 0 □00 ft□

Commercial Apron
Alternative 5

Drawing: P:\Monroe County FL\Task 200 - EYW Master Plan\206 - Alternatives\CAD\Commercial Apron_Alternative 5.dwgLayout: Option 5 Plotted: Oct 31, 2016, 03:27PM

[PRELIMINARY DRAFT FOR DISCUSSION PURPOSES ONLY - NOT FOR DISTRIBUTION]



SOURCE: Monroe County Aviation Department, *Ameribridge Radial Drive PBB EYW Concepts,* September 2016.
PREPARED BY: Ricondo & Associates, Inc., November 2016.

EXHIBIT 6

NORTH 0 □00 ft□

Commercial Apron
Alternative 6

Drawing: P:\Monroe County FL\Task 200 - EYW Master Plan\206 - Alternatives\CAD\Commercial Apron_Alternative 6.dwgLayout: Option 6 Plotted: Oct 31, 2016, 04:28PM

Section 3
TERMINAL

Terminal

1. Facility Requirements:

FUNCTIONAL AREA	DESCRIPTION	UNITS	EXISTING CAPACITY	REQUIREMENTS 2015	2020	2025	2035
Terminal	Check-In						
	Kiosks	Positions	0	11	11	12	14
	Agent Positions	Positions	24	10	11	12	13
	Security Screening Checkpoint						
	Pre✓	Positions	0	0	0	1	1
	Standard Lanes	Positions	2	2	2	2	2
	Holdrooms	S.f.	4,952	5,397	5,535	5,890	6,459
	Outbound Bag Make-Up						
	Peak 10 minute flights in make-up	operations		6	7	7	8
	Cart Requirement	carts	16	12	14	18	20
	Total Outbound Make-Up Area	S.f.	7,538	5,700	6,650	8,550	9,500
	Bag Claim						
	Bag Claim Requirement	devices	2	2	2	2	2
	Retrieval Area Requirement	S.f.		2,952	3,060	3,132	3,618
	Total Bag Claim Area Requirement	S.f.	3,096	4,541	4,707	4,818	5,566

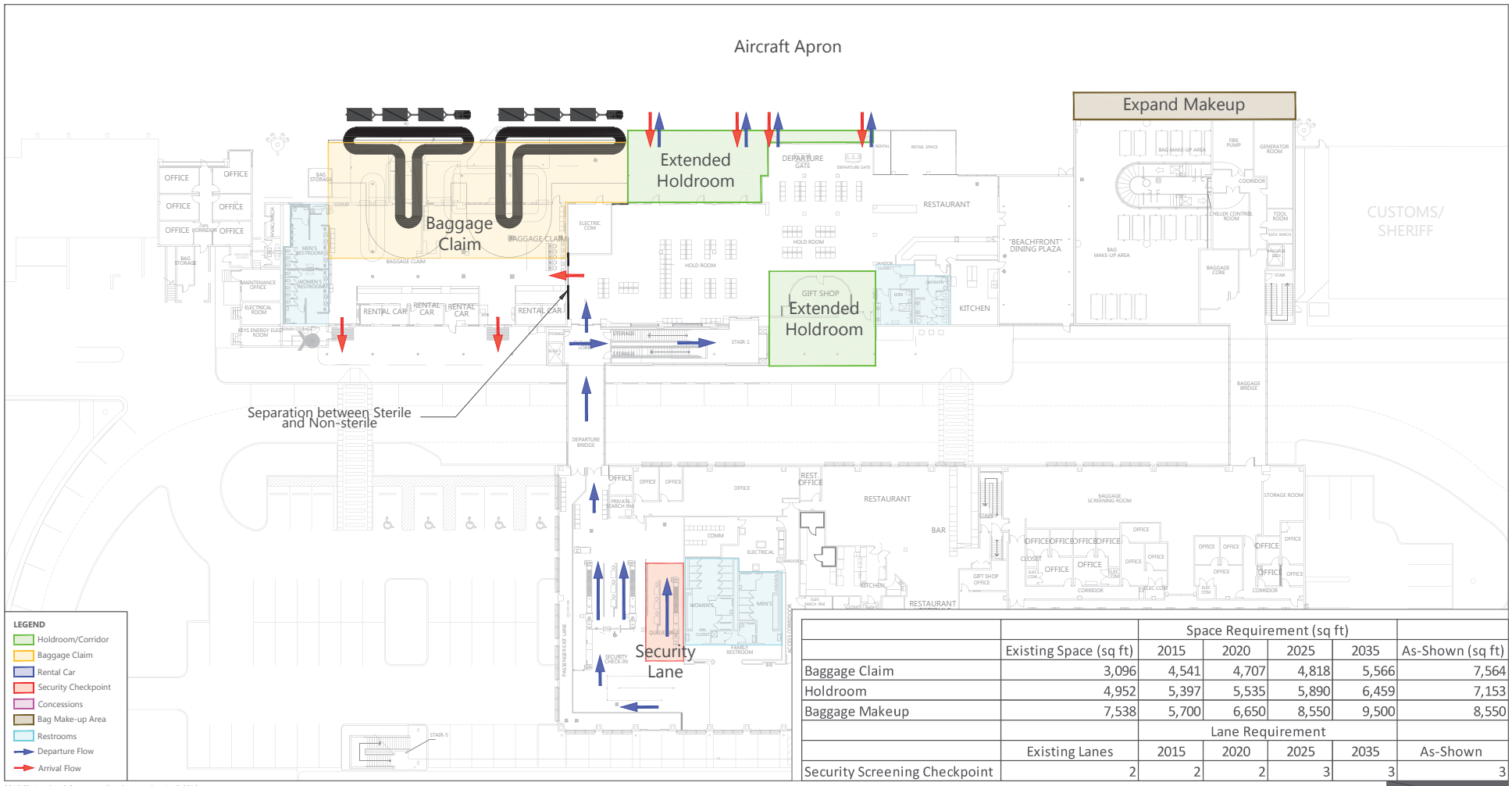
2. Alternatives Considerations:

- 3rd security checkpoint lane needed by 2025
- Holdrooms deficient today – require an additional 1,500 s.f. by 2035
- Bag claim deficient today, requires an additional 2,500 s.f. by 2035
- Outbound bag makeup requires an additional 2,000 s.f. by 2035

3. Master Plan Objectives:

- Reevaluate the capacity of the existing passenger terminal.
- Define a financially-sound expansion program that accommodates immediate, mid-term, and long-term needs focusing on improving passenger convenience and level of service
- Analyze congestion in the baggage claim area
- Establish alternative solutions that improve the handling and processing of baggage

[PRELIMINARY DRAFT-FOR DISCUSSION PURPOSES ONLY-NOT FOR DISTRIBUTION]



		Space Requirement (sq ft)				
	Existing Space (sq ft)	2015	2020	2025	2035	As-Shown (sq ft)
Baggage Claim	3,096	4,541	4,707	4,818	5,566	7,564
Holdroom	4,952	5,397	5,535	5,890	6,459	7,153
Baggage Makeup	7,538	5,700	6,650	8,550	9,500	8,550
		Lane Requirement				
	Existing Lanes	2015	2020	2025	2035	As-Shown
Security Screening Checkpoint	2	2	2	3	3	3

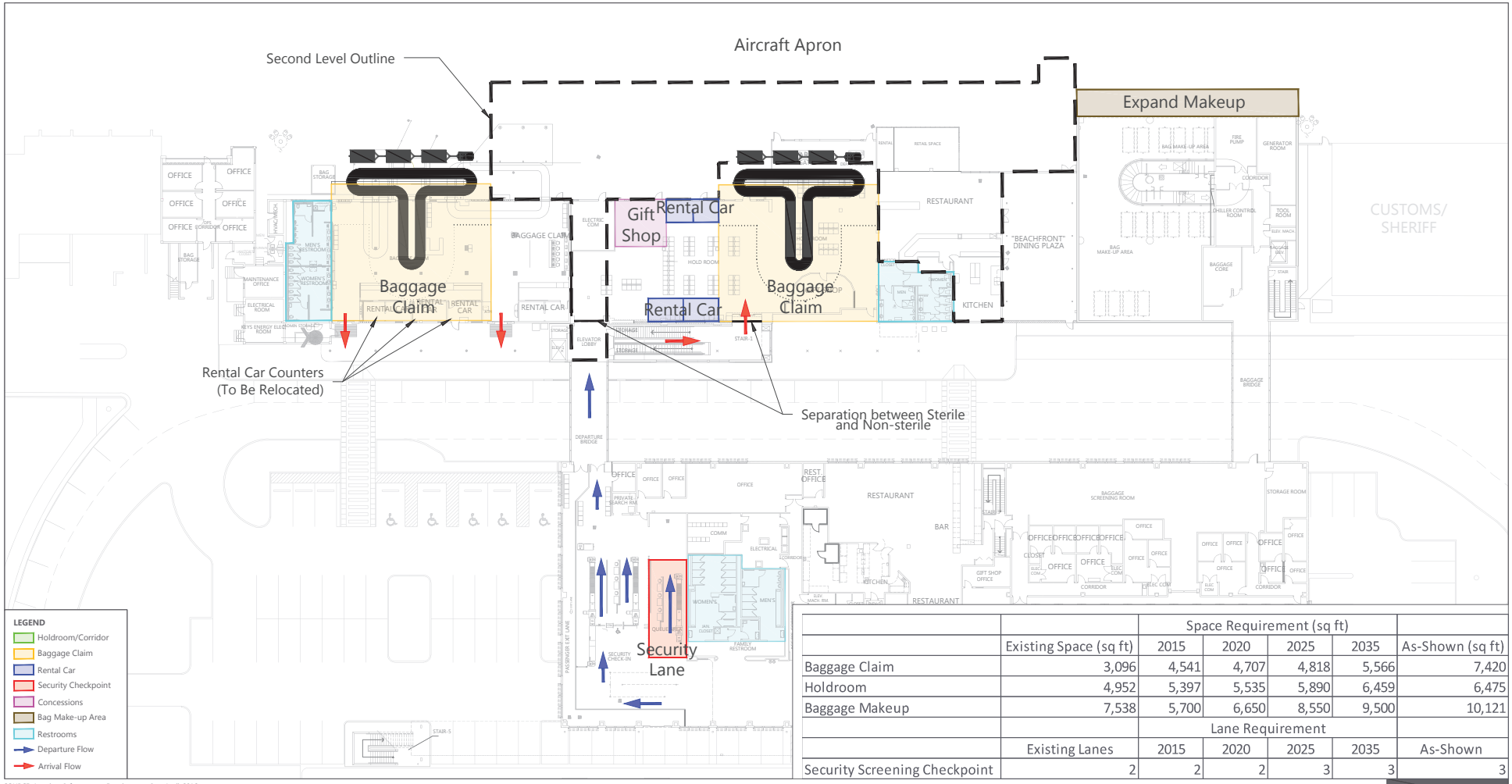
SOURCE: American Infrastructure Development, Inc., April, 2016.
PREPARED BY: Ricondo & Associates, Inc., November 2016.

EXHIBIT T1

NORTH 0 0 ft

Terminal Alternative 1-Minimum Build Out

Drawing: M:\Monroe County\Task 200 - EYW Master Plan\Terminal Alternatives\Terminal Alternative 1.dwg,Layout: 11X17 Plotted: Oct 31, 2016, 02:29PM



		Space Requirement (sq ft)				
	Existing Space (sq ft)	2015	2020	2025	2035	As-Shown (sq ft)
Baggage Claim	3,096	4,541	4,707	4,818	5,566	7,420
Holdroom	4,952	5,397	5,535	5,890	6,459	6,475
Baggage Makeup	7,538	5,700	6,650	8,550	9,500	10,121
		Lane Requirement				
	Existing Lanes	2015	2020	2025	2035	As-Shown
Security Screening Checkpoint	2	2	2	3	3	3

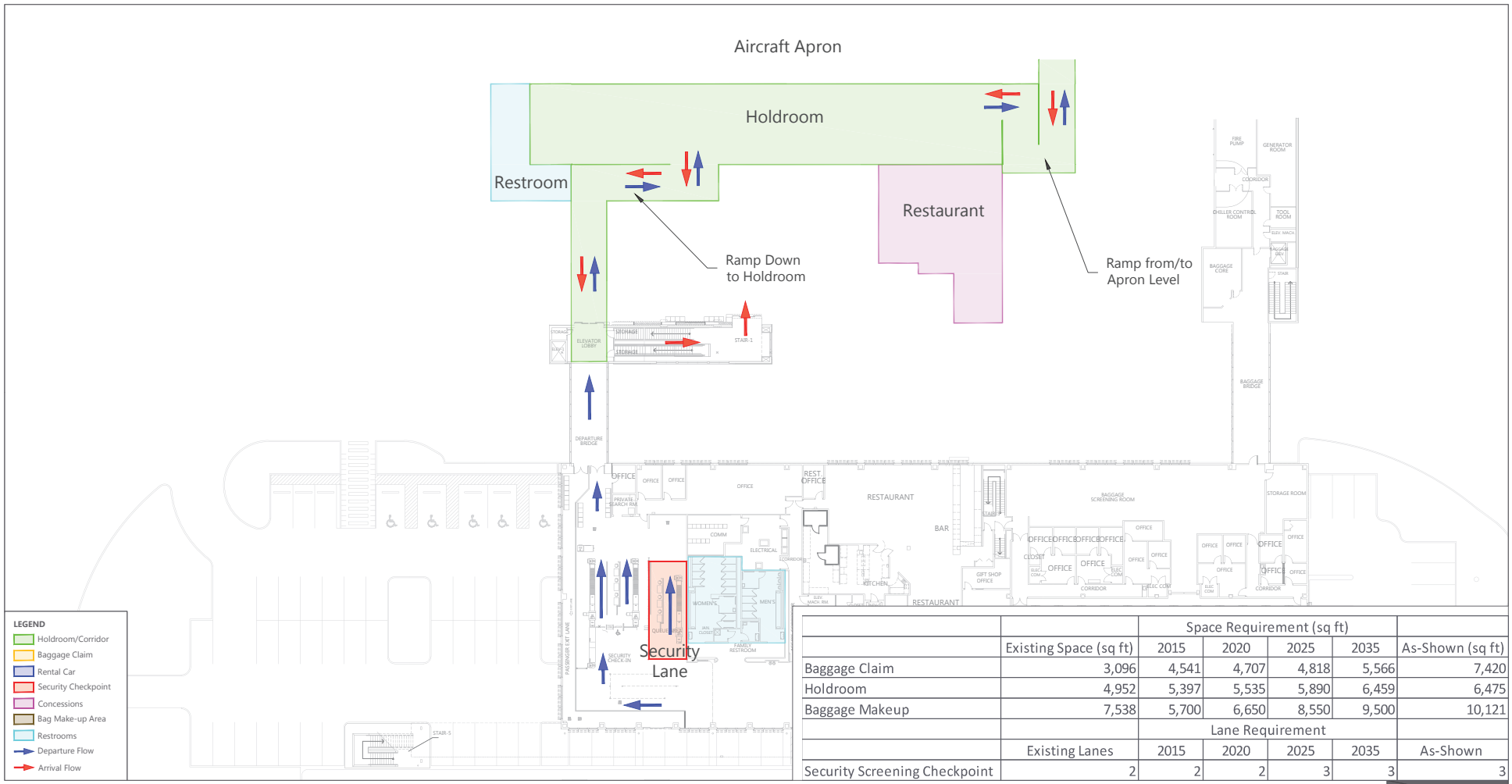
SOURCE: American Infrastructure Development, Inc., April, 2016.
PREPARED BY: Ricondo & Associates, Inc., November 2016.

EXHIBIT T2a

NORTH 0 0 ft

Drawing: M:\Monroe County\Task 200 - EYW Master Plan\Terminal Alternatives\Terminal Alternative 2a-Lower.dwg Layout: 11X17 Plotted: Oct 31, 2016, 02:34PM

Terminal Alternative 2-Holdroom Over Apron
First Floor



		Space Requirement (sq ft)				
	Existing Space (sq ft)	2015	2020	2025	2035	As-Shown (sq ft)
Baggage Claim	3,096	4,541	4,707	4,818	5,566	7,420
Holdroom	4,952	5,397	5,535	5,890	6,459	6,475
Baggage Makeup	7,538	5,700	6,650	8,550	9,500	10,121
		Lane Requirement				
	Existing Lanes	2015	2020	2025	2035	As-Shown
Security Screening Checkpoint	2	2	2	3	3	3

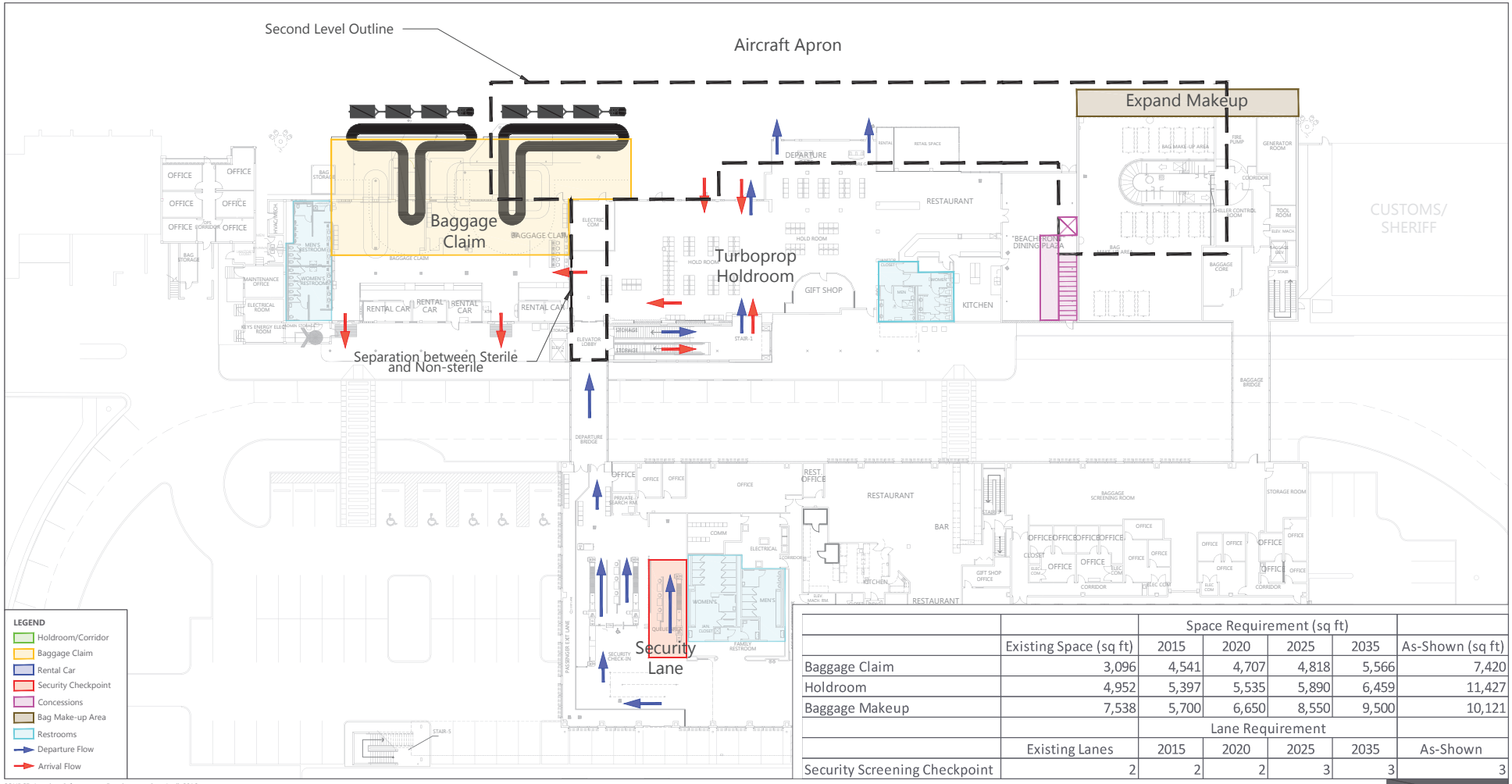
SOURCE: American Infrastructure Development, Inc., April, 2016.
PREPARED BY: Ricondo & Associates, Inc., November 2016.

EXHIBIT T2b

NORTH 0 0 ft

Terminal Alternative 2-Holdroom Over Apron
Second Floor

Drawing: M:\Monroe County\Task 200 - EYW Master Plan\Terminal Alternatives\Terminal Alternative 2b-Upper.dwg Layout: 11X17 Plotted: Oct 31, 2016, 02:41PM



		Space Requirement (sq ft)				
	Existing Space (sq ft)	2015	2020	2025	2035	As-Shown (sq ft)
Baggage Claim	3,096	4,541	4,707	4,818	5,566	7,420
Holdroom	4,952	5,397	5,535	5,890	6,459	11,427
Baggage Makeup	7,538	5,700	6,650	8,550	9,500	10,121
		Lane Requirement				
	Existing Lanes	2015	2020	2025	2035	As-Shown
Security Screening Checkpoint	2	2	2	3	3	3

SOURCE: American Infrastructure Development, Inc., April, 2016.
PREPARED BY: Ricondo & Associates, Inc., November 2016.

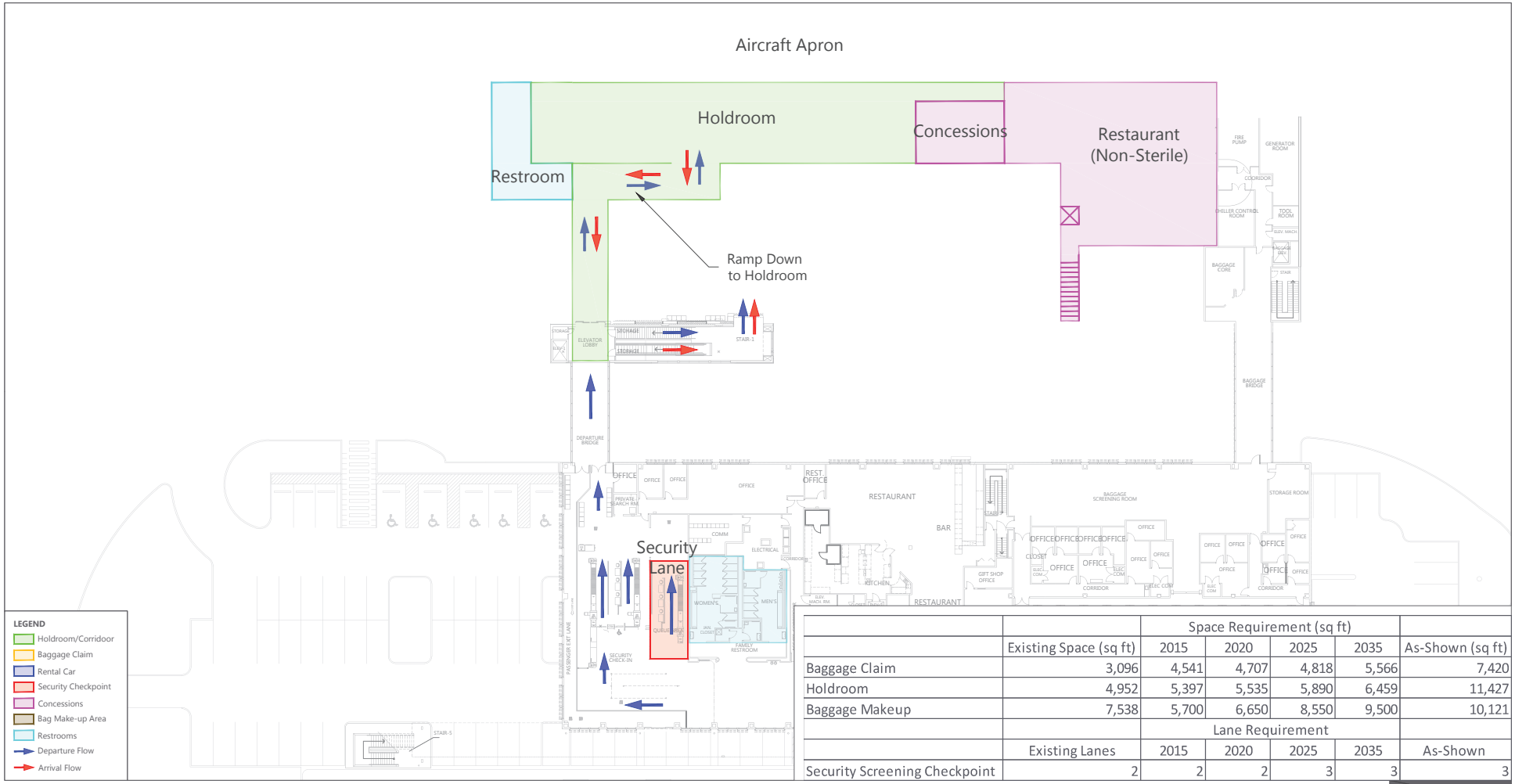
EXHIBIT T3a

NORTH 0 0 ft

Terminal Alternative 3-Split Holdroom
First Floor

Drawing: M:\Monroe County\Task 200 - EYW Master Plan\Terminal Alternatives\Terminal Alternative 3a-Lower.dwg Layout: 11X17 Plotted: Oct 31, 2016, 02:50PM

[PRELIMINARY DRAFT-FOR DISCUSSION PURPOSES ONLY-NOT FOR DISTRIBUTION]



		Space Requirement (sq ft)				
	Existing Space (sq ft)	2015	2020	2025	2035	As-Shown (sq ft)
Baggage Claim	3,096	4,541	4,707	4,818	5,566	7,420
Holdroom	4,952	5,397	5,535	5,890	6,459	11,427
Baggage Makeup	7,538	5,700	6,650	8,550	9,500	10,121
		Lane Requirement				
	Existing Lanes	2015	2020	2025	2035	As-Shown
Security Screening Checkpoint	2	2	2	3	3	3

SOURCE: American Infrastructure Development, Inc., April, 2016.
PREPARED BY: Ricondo & Associates, Inc., October 2016.

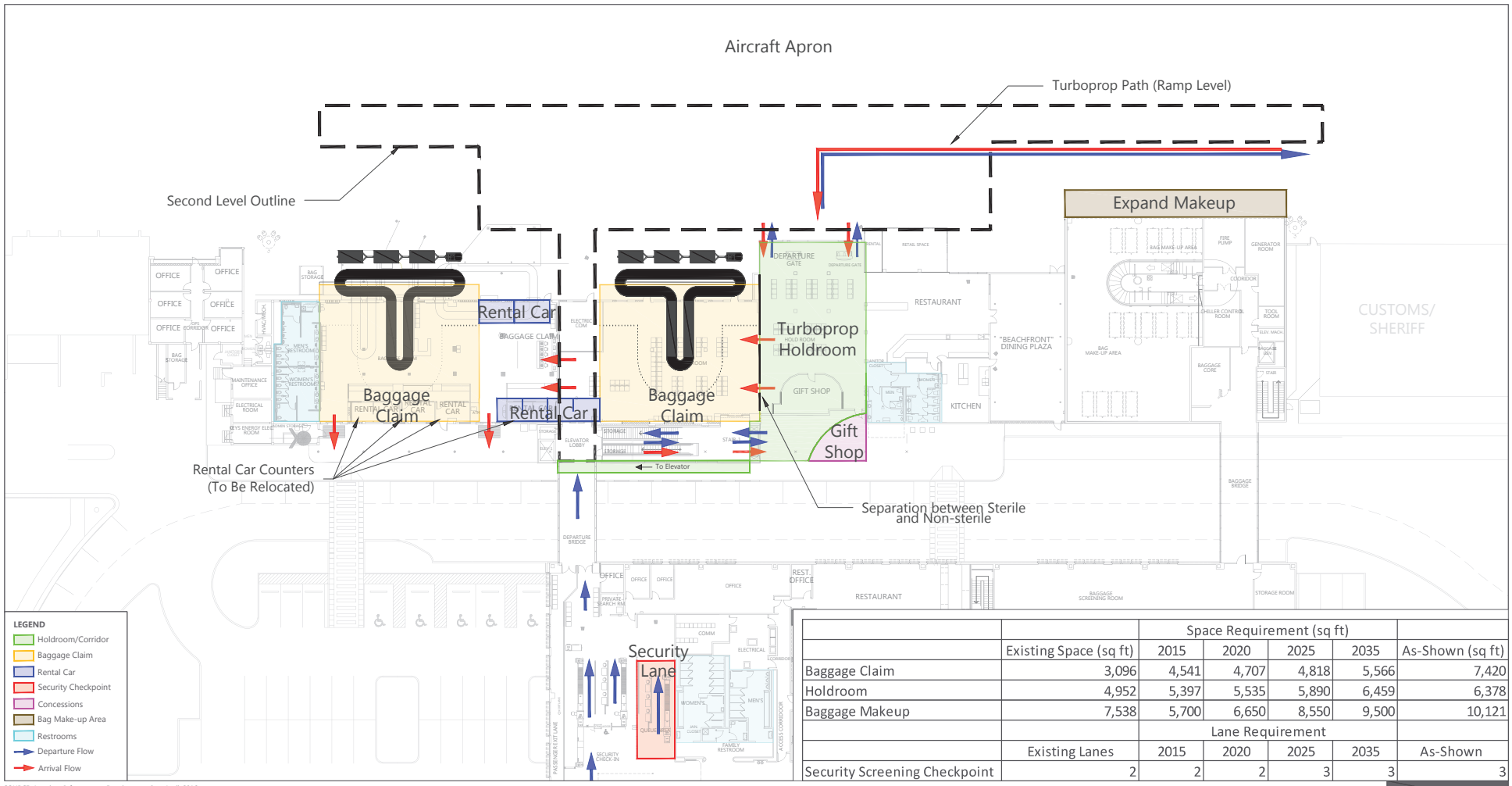
EXHIBIT T3b

NORTH 0 0 ft

Terminal Alternative 3b-Split Holdroom
Second Floor

Drawing: M:\Monroe County\Task 200 - EYW Master Plan\Terminal Alternatives\Terminal Alternative 3b-Upper.dwgLayout: 11X17 Plotted: Oct 31, 2016, 02:53PM

[PRELIMINARY DRAFT-FOR DISCUSSION PURPOSES ONLY-NOT FOR DISTRIBUTION]



		Space Requirement (sq ft)				
	Existing Space (sq ft)	2015	2020	2025	2035	As-Shown (sq ft)
Baggage Claim	3,096	4,541	4,707	4,818	5,566	7,420
Holdroom	4,952	5,397	5,535	5,890	6,459	6,378
Baggage Makeup	7,538	5,700	6,650	8,550	9,500	10,121
		Lane Requirement				
	Existing Lanes	2015	2020	2025	2035	As-Shown
Security Screening Checkpoint	2	2	2	3	3	3

SOURCE: American Infrastructure Development, Inc., April, 2016.
PREPARED BY: Ricondo & Associates, Inc., November 2016.

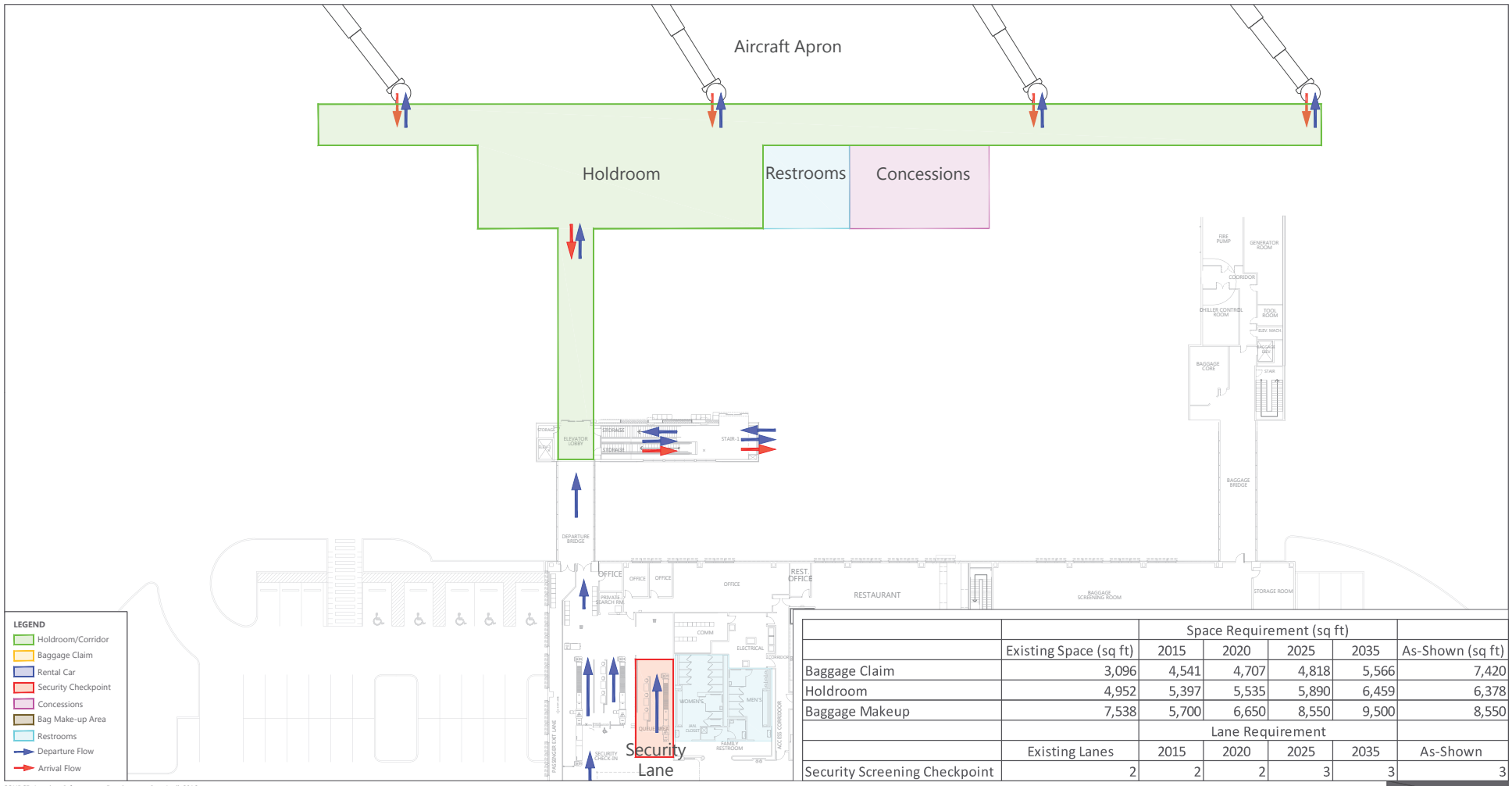
EXHIBIT T4a

NORTH 0 0 ft

Terminal Alternative 4-Second Level Holdroom over Apron
First Floor

Drawing: M:\Monroe County\Task 200 - EYW Master Plan\Terminal Alternatives\Terminal Alternative 4a-Lower.dwg,Layout: 11X17 Plotted: Oct 31, 2016, 03:05PM

[PRELIMINARY DRAFT-FOR DISCUSSION PURPOSES ONLY-NOT FOR DISTRIBUTION]



		Space Requirement (sq ft)				
	Existing Space (sq ft)	2015	2020	2025	2035	As-Shown (sq ft)
Baggage Claim	3,096	4,541	4,707	4,818	5,566	7,420
Holdroom	4,952	5,397	5,535	5,890	6,459	6,378
Baggage Makeup	7,538	5,700	6,650	8,550	9,500	8,550
		Lane Requirement				
	Existing Lanes	2015	2020	2025	2035	As-Shown
Security Screening Checkpoint	2	2	2	3	3	3

SOURCE: American Infrastructure Development, Inc., April, 2016.
PREPARED BY: Ricondo & Associates, Inc., November 2016.

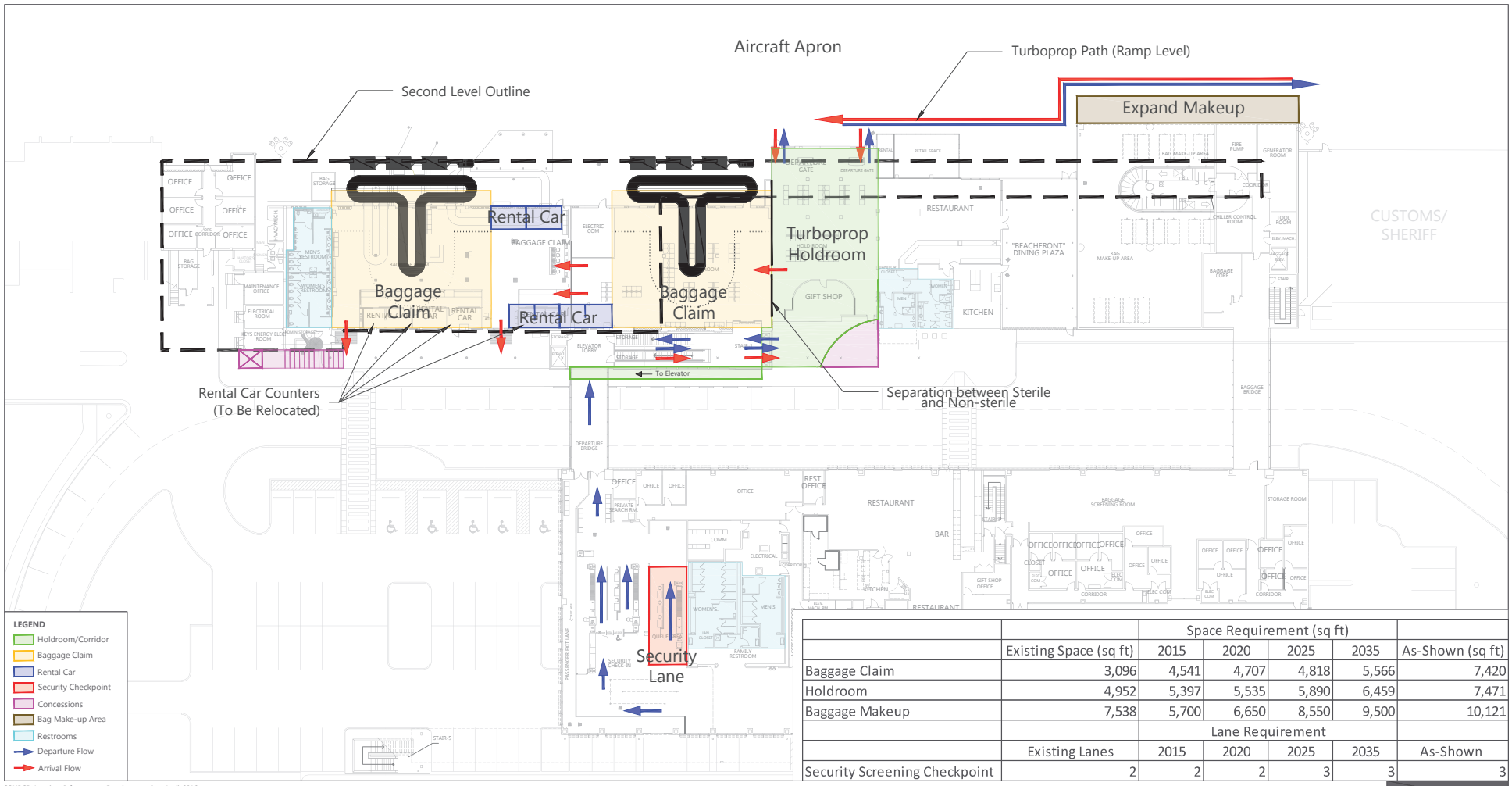
EXHIBIT T4b

NORTH 0 0 ft

Terminal Alternative 4-Second Level Holdroom over Apron
Second Floor

Drawing: M:\Monroe County\Task 200 - EYW Master Plan\Terminal Alternatives\Terminal Alternative 4b-Upper.dwg Layout: 11X17 Plotted: Oct 31, 2016, 03:06PM

[PRELIMINARY DRAFT-FOR DISCUSSION PURPOSES ONLY-NOT FOR DISTRIBUTION]



		Space Requirement (sq ft)				
	Existing Space (sq ft)	2015	2020	2025	2035	As-Shown (sq ft)
Baggage Claim	3,096	4,541	4,707	4,818	5,566	7,420
Holdroom	4,952	5,397	5,535	5,890	6,459	7,471
Baggage Makeup	7,538	5,700	6,650	8,550	9,500	10,121
		Lane Requirement				
	Existing Lanes	2015	2020	2025	2035	As-Shown
Security Screening Checkpoint	2	2	2	3	3	3

SOURCE: American Infrastructure Development, Inc., April, 2016.
PREPARED BY: Ricondo & Associates, Inc., November 2016.

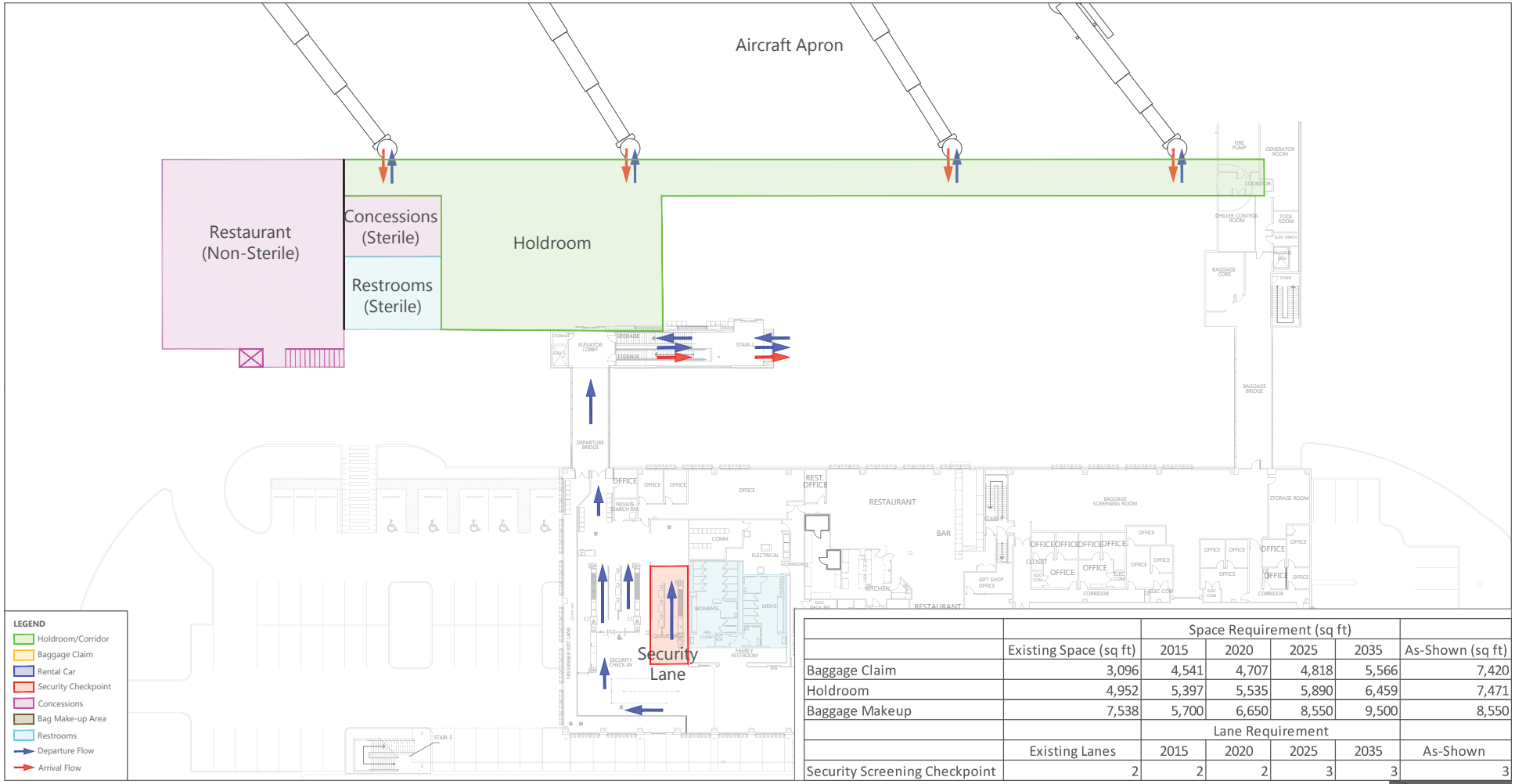
EXHIBIT T5a

NORTH 0 0 ft

Terminal Alternative 5-Second Level Holdroom over Terminal First Floor

Drawing: M:\Monroe County\Task 200 - EYW Master Plan\Terminal Alternatives\Terminal Alternative 5a-Lower.dwg Layout: 11X17 Plotted: Oct 31, 2016, 03:14PM

[PRELIMINARY DRAFT-FOR DISCUSSION PURPOSES ONLY-NOT FOR DISTRIBUTION]



		Space Requirement (sq ft)				
	Existing Space (sq ft)	2015	2020	2025	2035	As-Shown (sq ft)
Baggage Claim	3,096	4,541	4,707	4,818	5,566	7,420
Holdroom	4,952	5,397	5,535	5,890	6,459	7,471
Baggage Makeup	7,538	5,700	6,650	8,550	9,500	8,550
		Lane Requirement				
	Existing Lanes	2015	2020	2025	2035	As-Shown
Security Screening Checkpoint	2	2	2	3	3	3

SOURCE: American Infrastructure Development, Inc., April, 2016.
PREPARED BY: Ricondo & Associates, Inc., November 2016.

EXHIBIT T5b

NORTH 0 0 ft

Terminal Alternative 5-Second Level Holdroom over Terminal Second Floor

Drawing: M:\Monroe County\Task 200 - EYW Master Plan\Terminal Alternatives\Terminal Alternative 5b-Upper.dwg Layout: 11X17 Plotted: Oct 31, 2016, 03:16PM

Section 4

PARKING AND ROADWAY

Parking and Roadway

1. Facility Requirements:

FUNCTIONAL AREA	DESCRIPTION	UNITS	EXISTING CAPACITY	REQUIREMENTS 2015	2020	2025	2035
Landside	Terminal Curbside						
	Departures Curb	Linear Feet	375	300	325	325	375
	Arrivals Curb						
	Private Vehicles (POV)	Linear Feet	66	175	225	225	250
	Taxi (includes staging area)	Linear Feet	160	125	150	150	200
	Public Bus (Key West Transit)	Linear Feet	40	40	40	40	40
	Commercial Vehicles	Linear Feet	177	140	180	180	210
	Parking						
	Garage	Spaces	147 (20 Maint. Storage Spaces)	127	152	170	204
	Surface Lot	Spaces	58	40	48	54	64

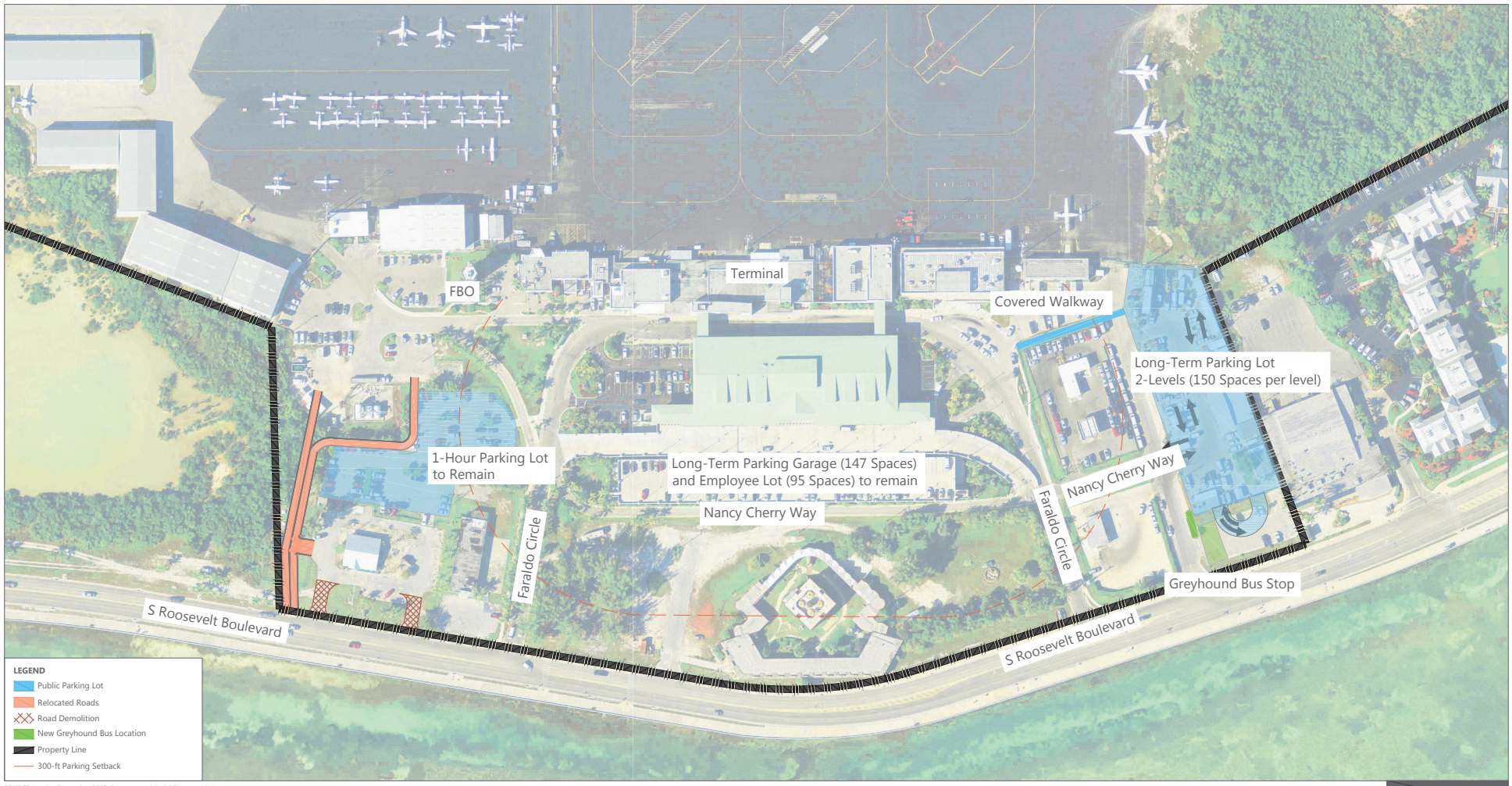
2. Alternatives Considerations:

- Private vehicle curb requirements deficient today
- Taxi curb and staging
  - Avoid radio operations and loss of line-of-sight queuing
- Commercial curb expansion by 2025
- Deficiencies in public parking
  - At capacity today
  - Additional parking structure to meet long-term requirements

3. Master Plan Objectives:

- Complete a comprehensive assessment of traffic flows within the terminal area
- Evaluate the existing airport access road and curbside capacity to relieve congestion
- Assess and evaluate the existing parking product capacities and the supply of non-revenue generation parking
- Provided dedicated access to the existing Fixed Based Operator (FBO) and fuel farm

[PRELIMINARY DRAFT- FOR DISCUSSION PURPOSES ONLY - NOT FOR DISTRIBUTION]



SOURCE: Jacobs, September 2015 (Basemap and Aerial Photography).
PREPARED BY: Ricondo & Associates, Inc., October 2016.

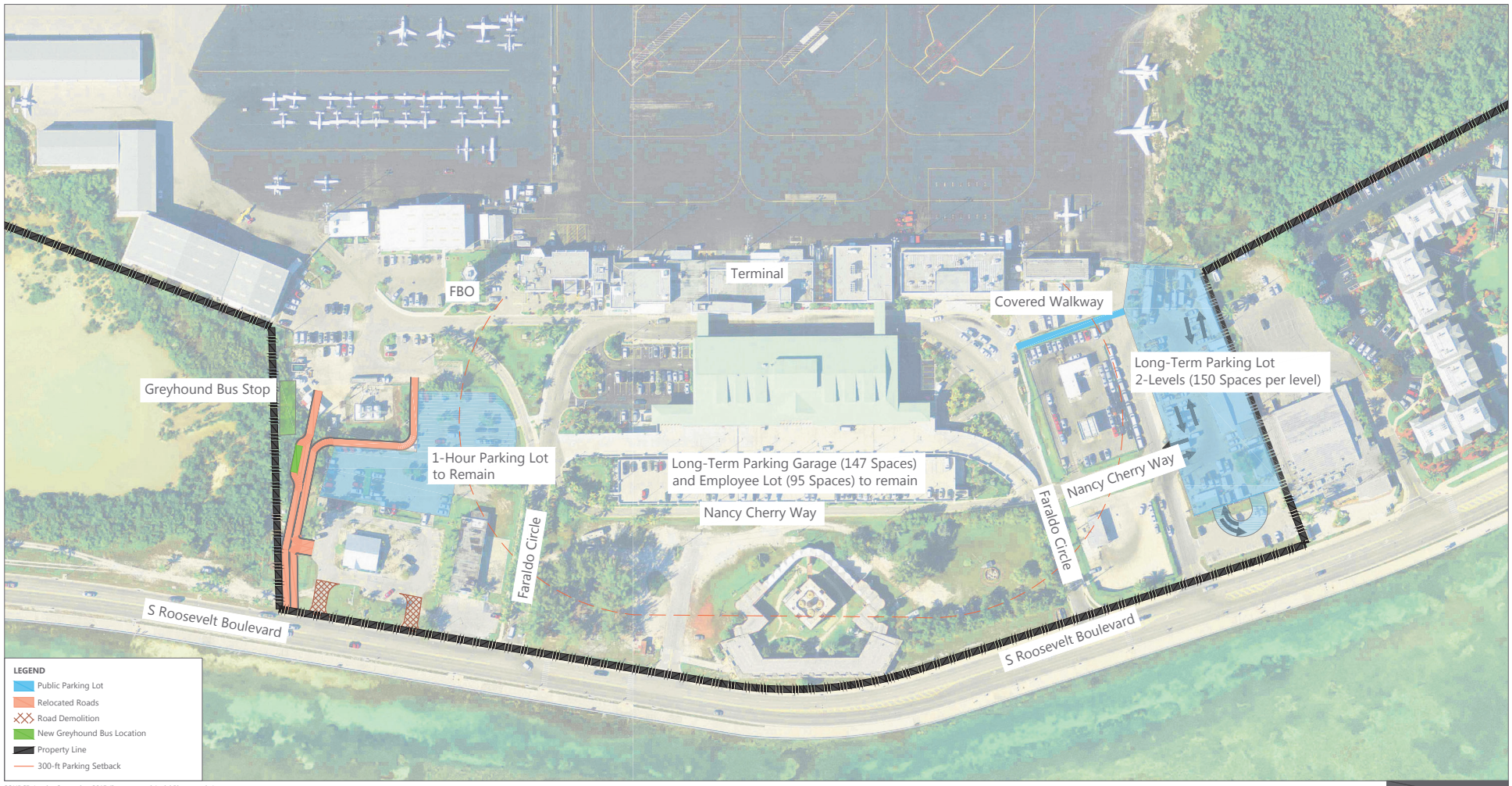
EXHIBIT 6.4-1

NORTH 0 200 ft

Drawing: N:\EYW\Master Plan\04-Working\02-Landside\CAD\EYW-Landside_Alts_v6(2025 Curb).dwgLayout: Ex_6.4-1 Plotted: Oct 28, 2016, 10:48AM

Parking / Airport Access Alternative 1

[PRELIMINARY DRAFT- FOR DISCUSSION PURPOSES ONLY - NOT FOR DISTRIBUTION]



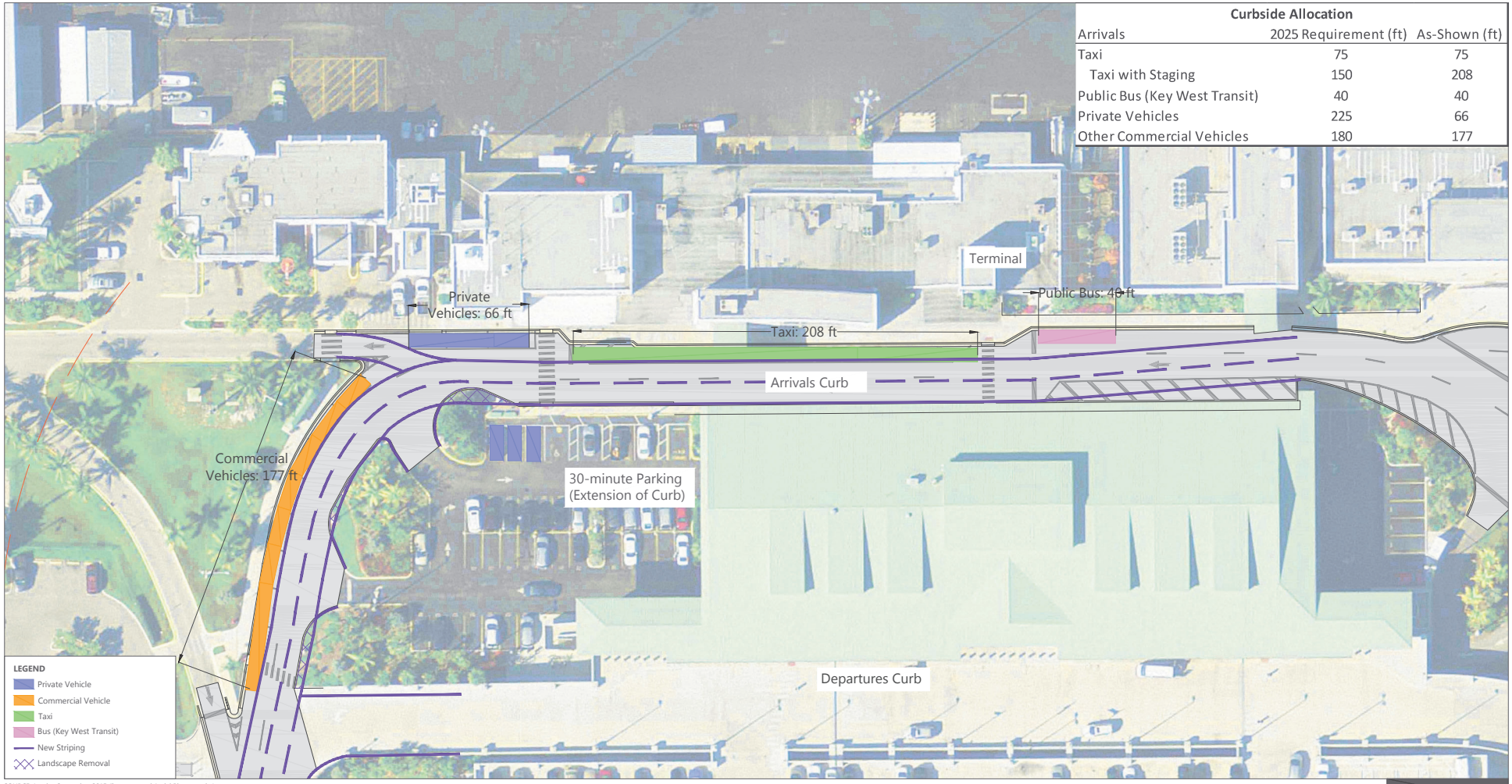
SOURCE: Jacobs, September 2015 (Basemap and Aerial Photography).
PREPARED BY: Ricondo & Associates, Inc., October 2016.

EXHIBIT 6.4-2

NORTH 0 200 ft

Drawing: N:\EYW\Master Plan\04-Working\02-Landside\CAD\EYW-Landside_Alts_v6(2025 Curb).dwgLayout: Ex_6.4-2 Plotted: Oct 28, 2016, 10:48AM

Parking / Airport Access Alternative 2



Curbside Allocation

Arrivals	2025 Requirement (ft)	As-Shown (ft)
Taxi	75	75
Taxi with Staging	150	208
Public Bus (Key West Transit)	40	40
Private Vehicles	225	66
Other Commercial Vehicles	180	177

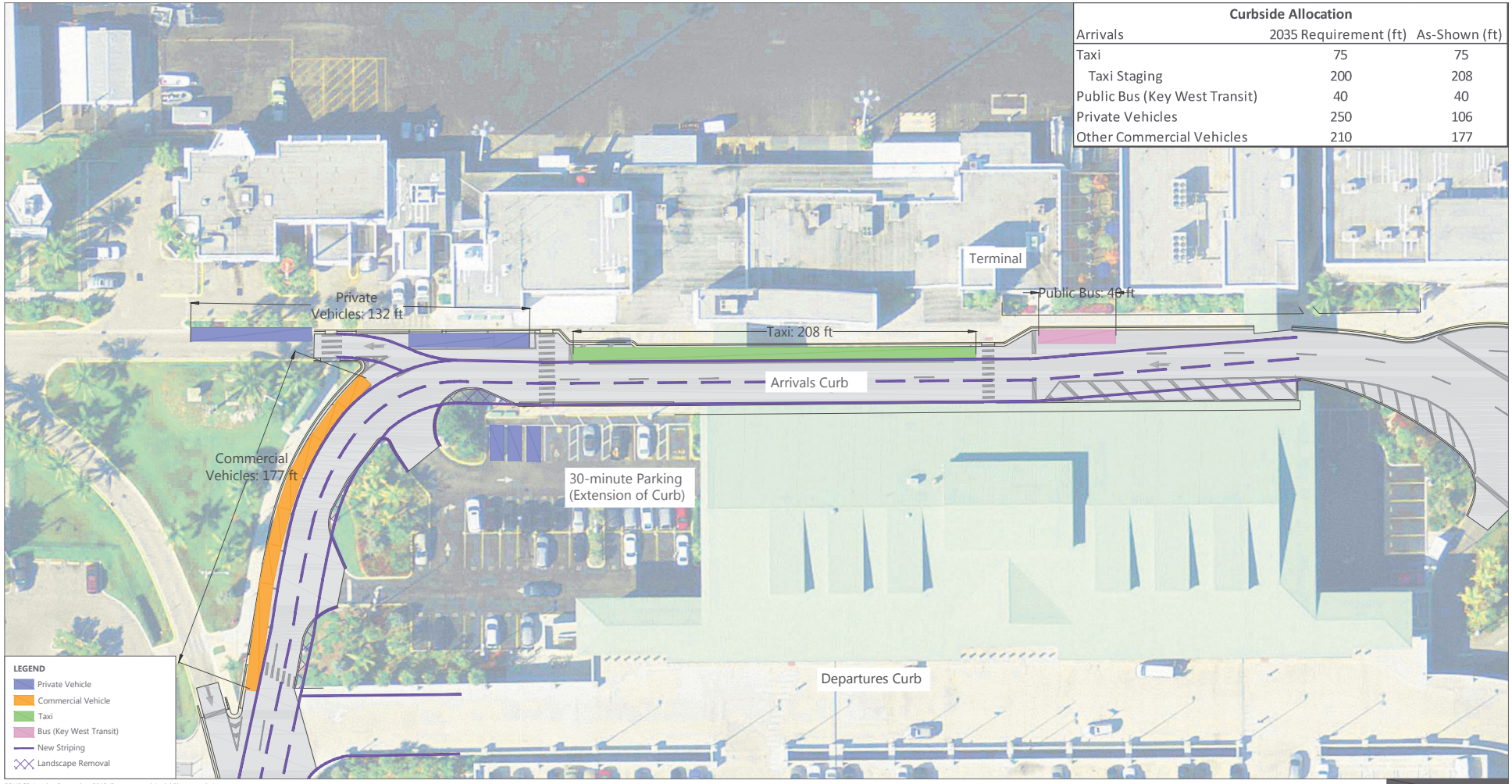
SOURCE: Jacobs, September 2015 (Basemap and Aerial Photography).
PREPARED BY: Ricondo & Associates, Inc., October 2016.

EXHIBIT 6.4-3

NORTH 0 50 ft

2025 Arrivals Curb

Drawing: N:\EYW\Master Plan\04-Working\02-Landside\CAD\EYW-Landside_Alts_v6(2025 Curb).dwgLayout: Ex_6.4-3 Plotted: Oct 28, 2016, 10:48AM



Curbside Allocation

Arrivals	2035 Requirement (ft)	As-Shown (ft)
Taxi	75	75
Taxi Staging	200	208
Public Bus (Key West Transit)	40	40
Private Vehicles	250	106
Other Commercial Vehicles	210	177

SOURCE: Jacobs, September 2015 (Basemap and Aerial Photography).
PREPARED BY: Ricondo & Associates, Inc., October 2016.

EXHIBIT 6.4-4

NORTH 0 50 ft

2035 Arrivals Curb

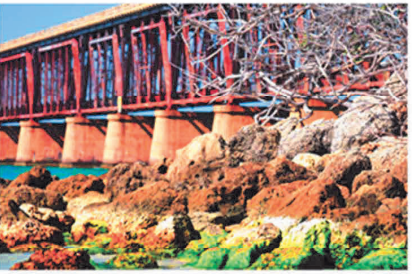
Drawing: N:\EYW\Master Plan\04-Working\02-Landside\CAD\EYW-Landside_Alts_v6(2035 Curb).dwgLayout: Ex_6.4-4 Plotted: Oct 28, 2016, 10:48AM

Section 5

GENERAL AVIATION & JOINT-USE UPDATE

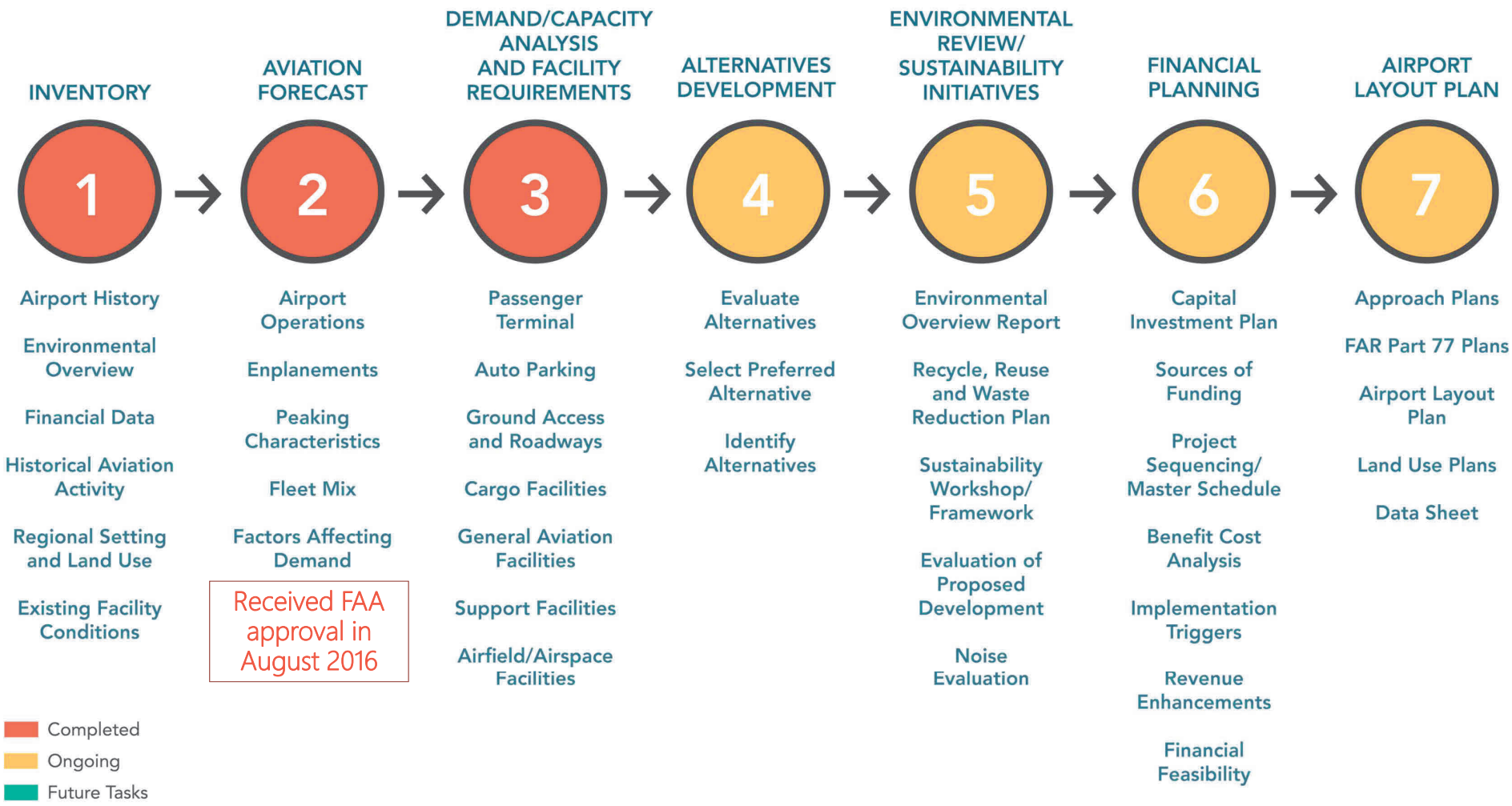
Next Steps

- Revise alternatives to address comments
- Submit Demand/Capacity Chapter
- Begin Documentation of Alternatives Analyses
- Select Preferred Development Plan
  - Initiate environmental review and financial planning of preferred plan
- Develop Airport Layout Plan (ALP) Drawing Set



Key West International Airport Master Plan Study
Technical Review Committee #3

Master Plan Progress



Section 1

AIRSIDE & AIRCRAFT RAMP

Airside & Aircraft Ramp

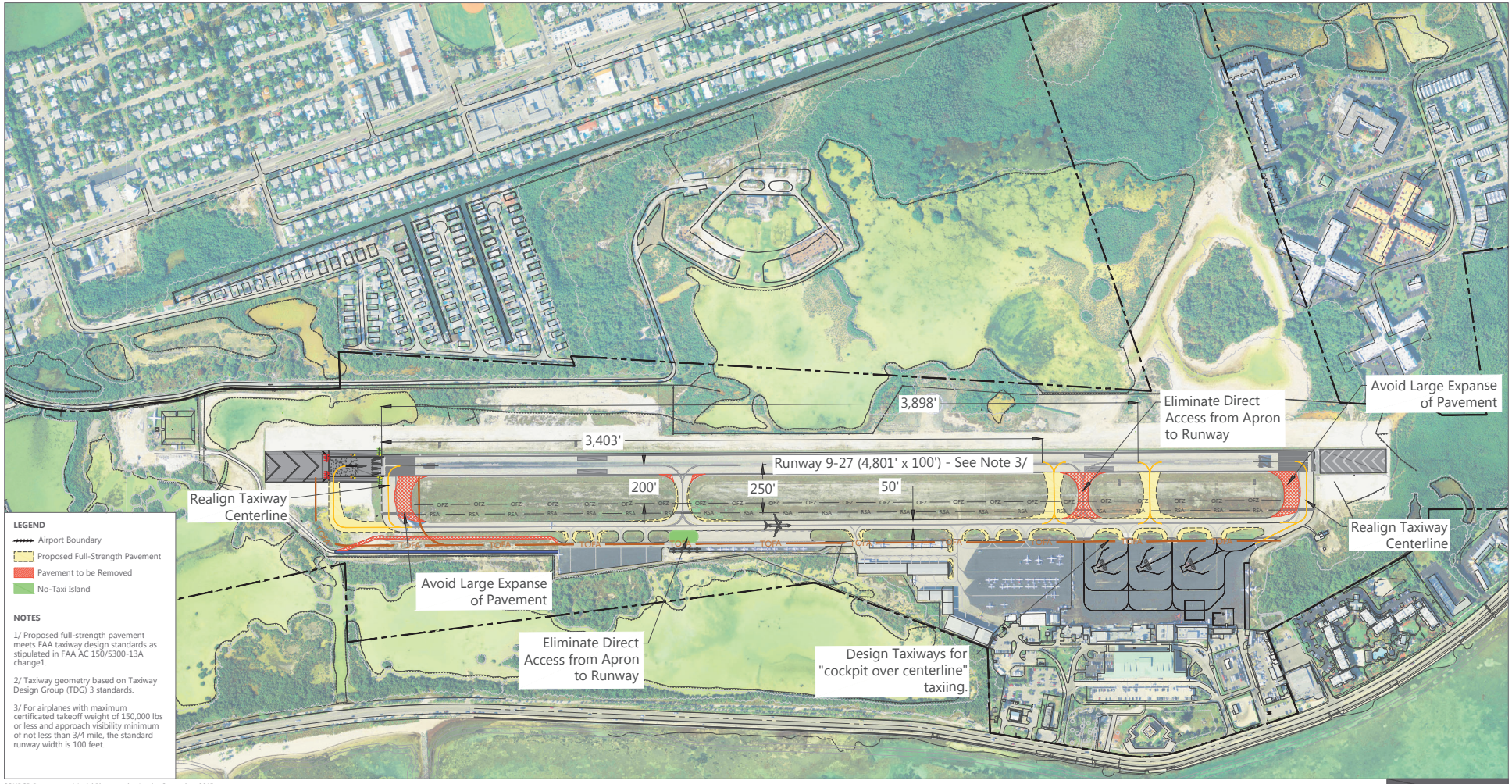
1. **Alternatives Considerations**:

- Airfield design criteria compliance
  - Wide expanses of pavement
  - Fillet modifications
  - Direct access from ramp to runway
  - 3-node criteria

2. **Master Plan Objectives**:

- Identify critical aircraft and future airfield requirements (runway length, width, etc.)
- Assess ways to maximize the existing aircraft ramp layout
- Preserve the integrity of the security identification display area (SIDA) separating the general aviation and commercial ramps
- Evaluate whether the installation of passenger boarding bridge could improve the level of service at the Airport
- Identify areas for the staging of ground support equipment (GSE)

[Preliminary Draft for Discussion Purposes Only]



SOURCE: Basemap and Aerial Photography, Jacobs, September, 2015
PREPARED BY: Ricondo & Associates, Inc., February, 2016.

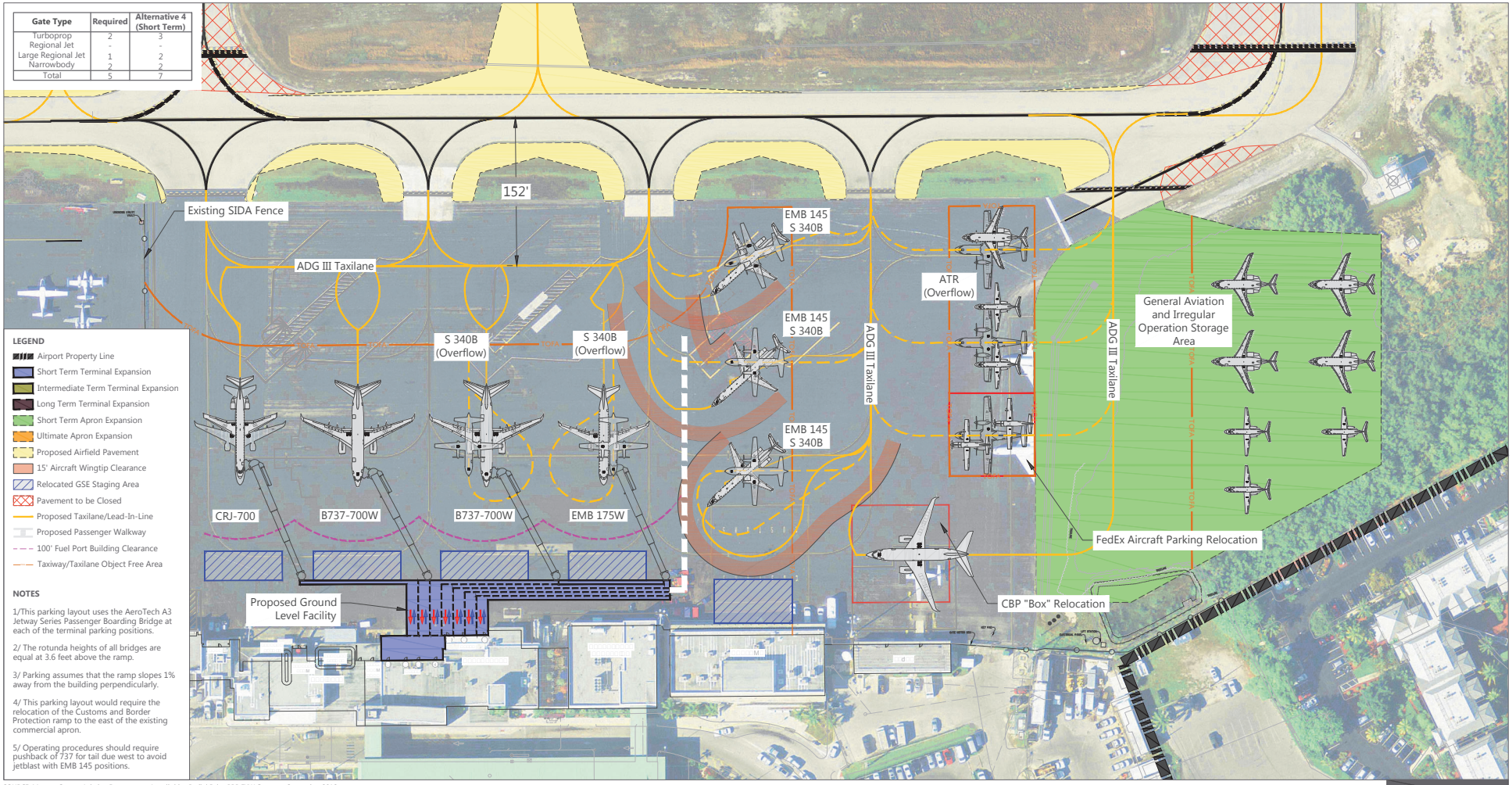
EXHIBIT 3

NORTH 0 □00 ft.

Airfield Geometry Assessment
Option 3

Drawing: M:\Monroe County\Task 200 - EYW Master Plan\214- Supplemental Tasks\Airfield Geometry Assessment\CAD\EYW-Airfield Geometry Assessment_Option 3_20170411.dwgLayout: 11x17L Plotted: May 18, 2017, 04:38PM

[PRELIMINARY DRAFT FOR DISCUSSION PURPOSES ONLY - NOT FOR DISTRIBUTION]



SOURCE: Monroe County Aviation Department, *Ameribridge Radial Drive PBB EYW Concepts*, September 2016.
PREPARED BY: Ricondo & Associates, Inc., November 2016.

EXHIBIT 1

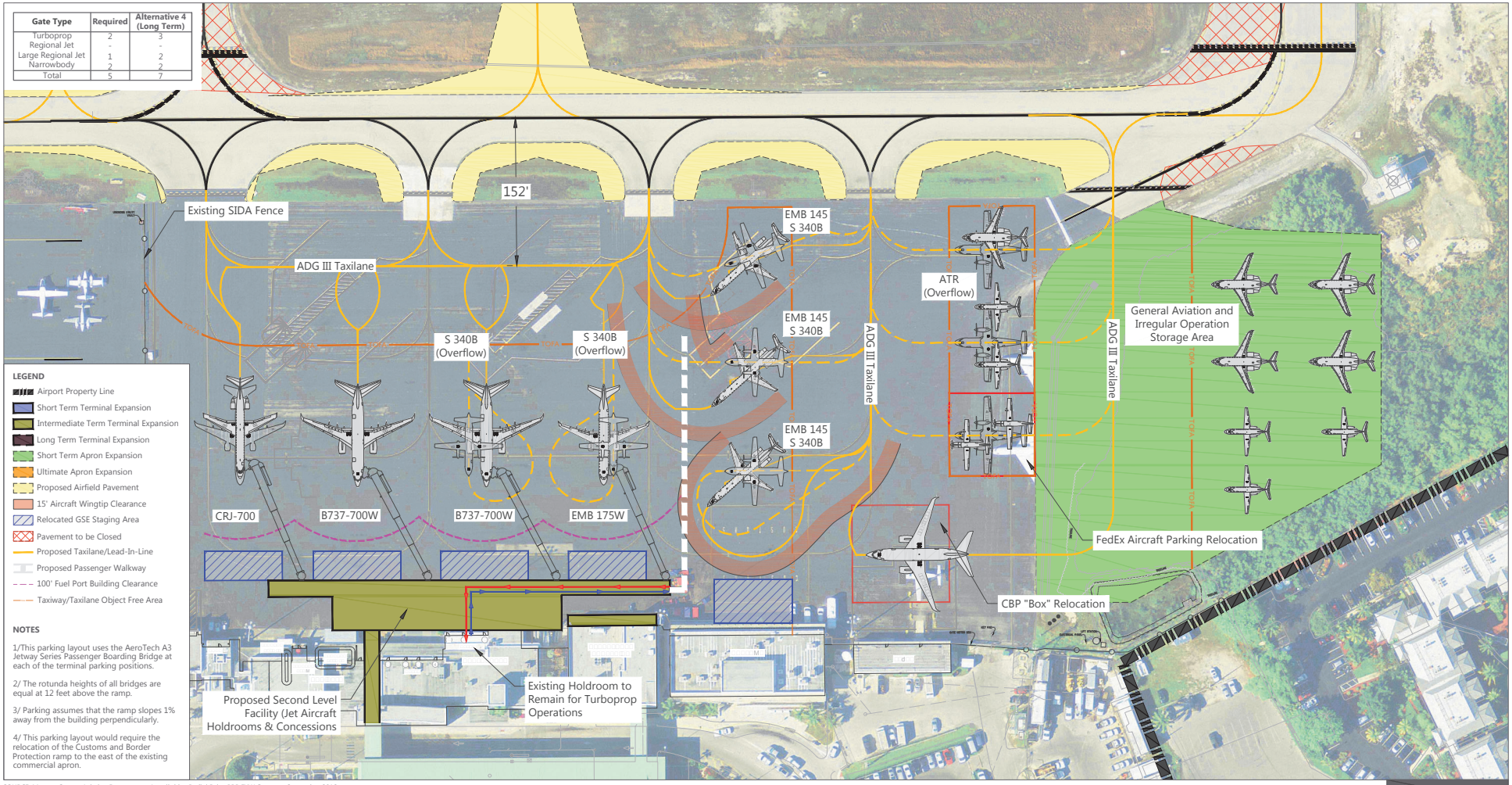
NORTH 0 00 ft.

Drawing: P:\Monroe County FL\Task 200 - EYW Master Plan\206 - Alternatives\CAD\Commercial Apron_Alternative 4_Short Term.dwgLayout: Short Term Plotted: Mar 2, 2017, 09:27AM

Commercial Apron
Alternative 4 (Short/Intermediate Term)

[PRELIMINARY DRAFT FOR DISCUSSION PURPOSES ONLY - NOT FOR DISTRIBUTION]

Gate Type	Required	Alternative 4 (Long Term)
Turboprop	2	3
Regional Jet	-	-
Large Regional Jet	1	2
Narrowbody	2	2
Total	5	7



SOURCE: Monroe County Aviation Department, *Ameribridge Radial Drive PBB EYW Concepts*, September 2016.
PREPARED BY: Ricondo & Associates, Inc., November 2016.

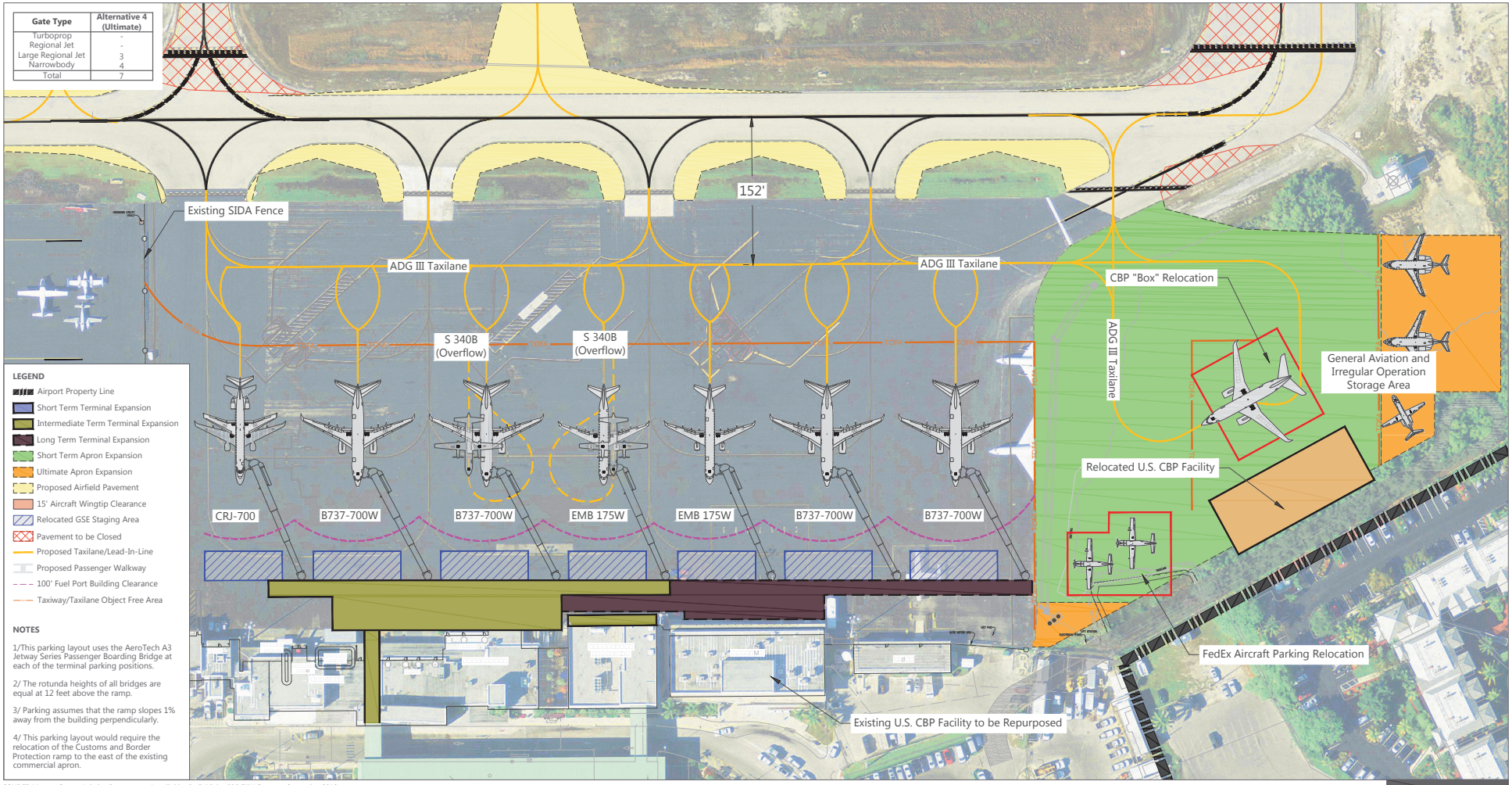
EXHIBIT 2

NORTH 0 00 ft.

Commercial Apron
Alternative 4 (Intermediate/Long Term)

Drawing: P:\Monroe County FL\Task 200 - EYW Master Plan\206 - Alternatives\CAD\Commercial Apron_Alternative 4_Long Term.dwgLayout: Long Term Plotted: Mar 2, 2017, 09:28AM

[PRELIMINARY DRAFT FOR DISCUSSION PURPOSES ONLY - NOT FOR DISTRIBUTION]



SOURCE: Monroe County Aviation Department, *Ameribridge Radial Drive PBB EYW Concepts*, September 2016.
PREPARED BY: Ricondo & Associates, Inc., November 2016.

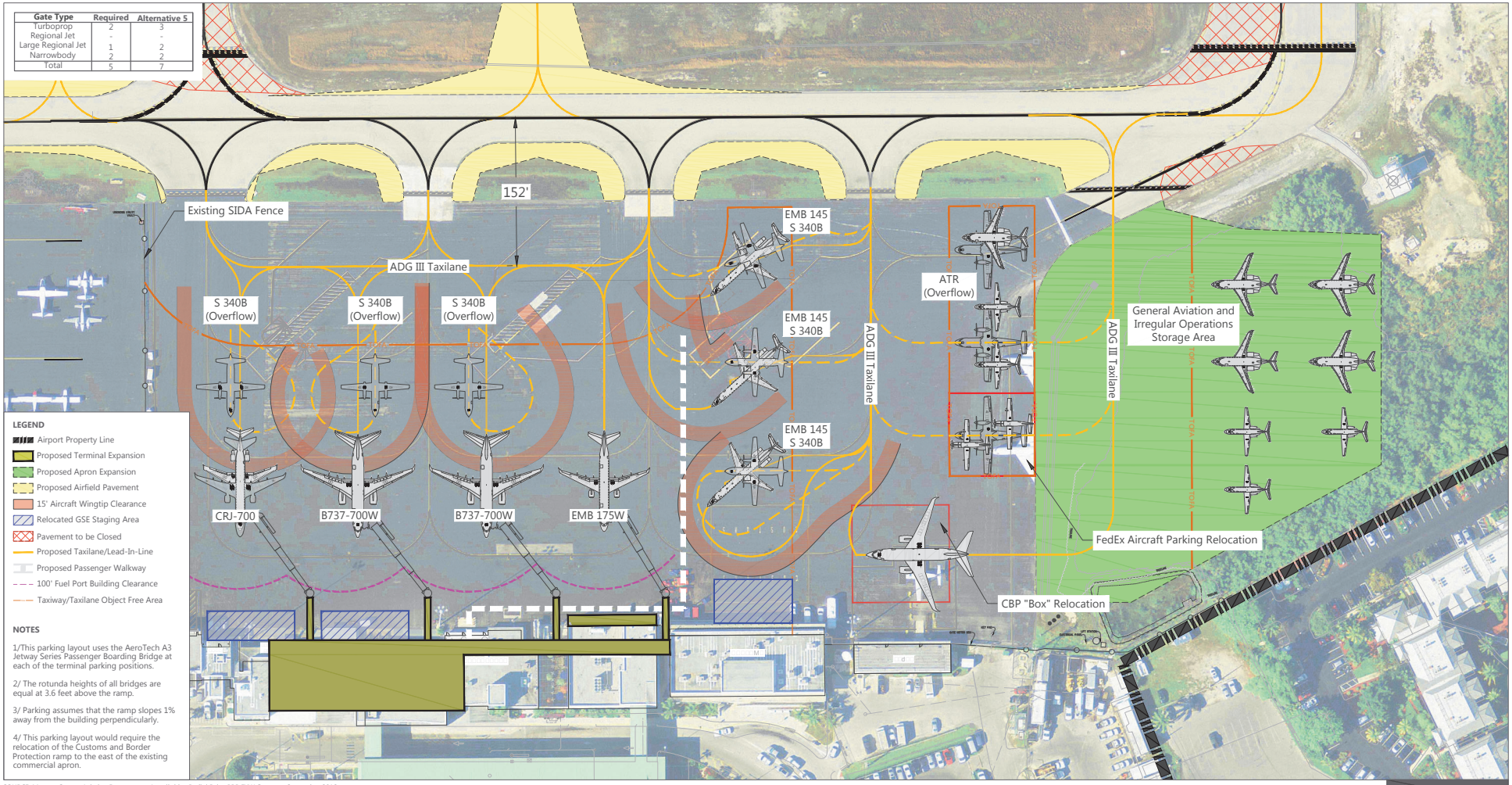
EXHIBIT 3

NORTH 0 00 ft.

Commercial Apron
Alternative 4 (Beyond the Planning Period)

Drawing: P:\Monroe County FL\Task 200 - EYW Master Plan\206 - Alternatives\CAD\Commercial Apron_Alternative 4_Beyond.dwgLayout: Ultimate Plotted: Mar 2, 2017, 09:32AM

[PRELIMINARY DRAFT FOR DISCUSSION PURPOSES ONLY - NOT FOR DISTRIBUTION]



SOURCE: Monroe County Aviation Department, *Ameribridge Radial Drive PBB EYW Concepts*, September 2016.
PREPARED BY: Ricondo & Associates, Inc., November 2016.

EXHIBIT 4

NORTH 0 00 ft.

Drawing: P:\Monroe County FL\Task 200 - EYW Master Plan\206 - Alternatives\CAD\Commercial Apron_Alternative 5.dwgLayout: Option 5 Plotted: Mar 2, 2017, 09:36AM

Commercial Apron Alternative 5

Section 2

TERMINAL

Terminal

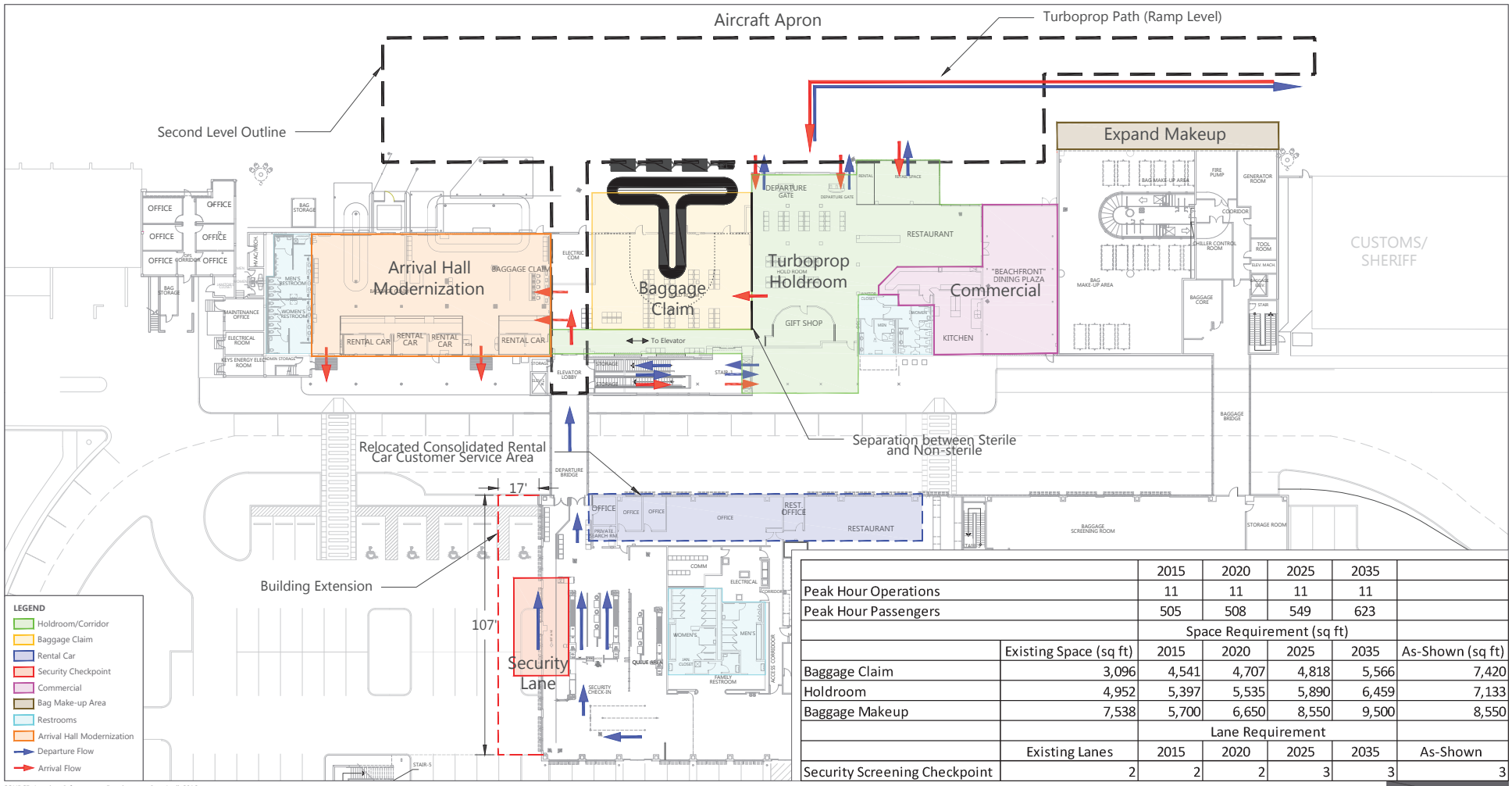
1. Alternatives Considerations:

- 3rd security screening checkpoint (SSCP) lane needed by 2025
- Holdroom areas deficient today – requires an additional 1,500 s.f. by 2035
- Baggage claim area deficient today – requires an additional 2,500 s.f. by 2035
- Outbound baggage makeup – requires an additional 2,000 s.f. by 2035
- 2025 and 2035 aircraft gate requirements

2. Master Plan Objectives:

- Reevaluate the capacity of the existing passenger terminal
- Define a financially-sound expansion program that accommodates immediate, mid-term, and long-term needs focusing on improving passenger convenience and level of service
- Review congestion in the baggage claim area

[PRELIMINARY DRAFT-FOR DISCUSSION PURPOSES ONLY-NOT FOR DISTRIBUTION]



		2015	2020	2025	2035	
Peak Hour Operations		11	11	11	11	
Peak Hour Passengers		505	508	549	623	
		Space Requirement (sq ft)				
	Existing Space (sq ft)	2015	2020	2025	2035	As-Shown (sq ft)
Baggage Claim	3,096	4,541	4,707	4,818	5,566	7,420
Holdroom	4,952	5,397	5,535	5,890	6,459	7,133
Baggage Makeup	7,538	5,700	6,650	8,550	9,500	8,550
		Lane Requirement				
	Existing Lanes	2015	2020	2025	2035	As-Shown
Security Screening Checkpoint	2	2	2	3	3	3

SOURCE: American Infrastructure Development, Inc., April, 2016.
PREPARED BY: Ricondo & Associates, Inc., March 2017.

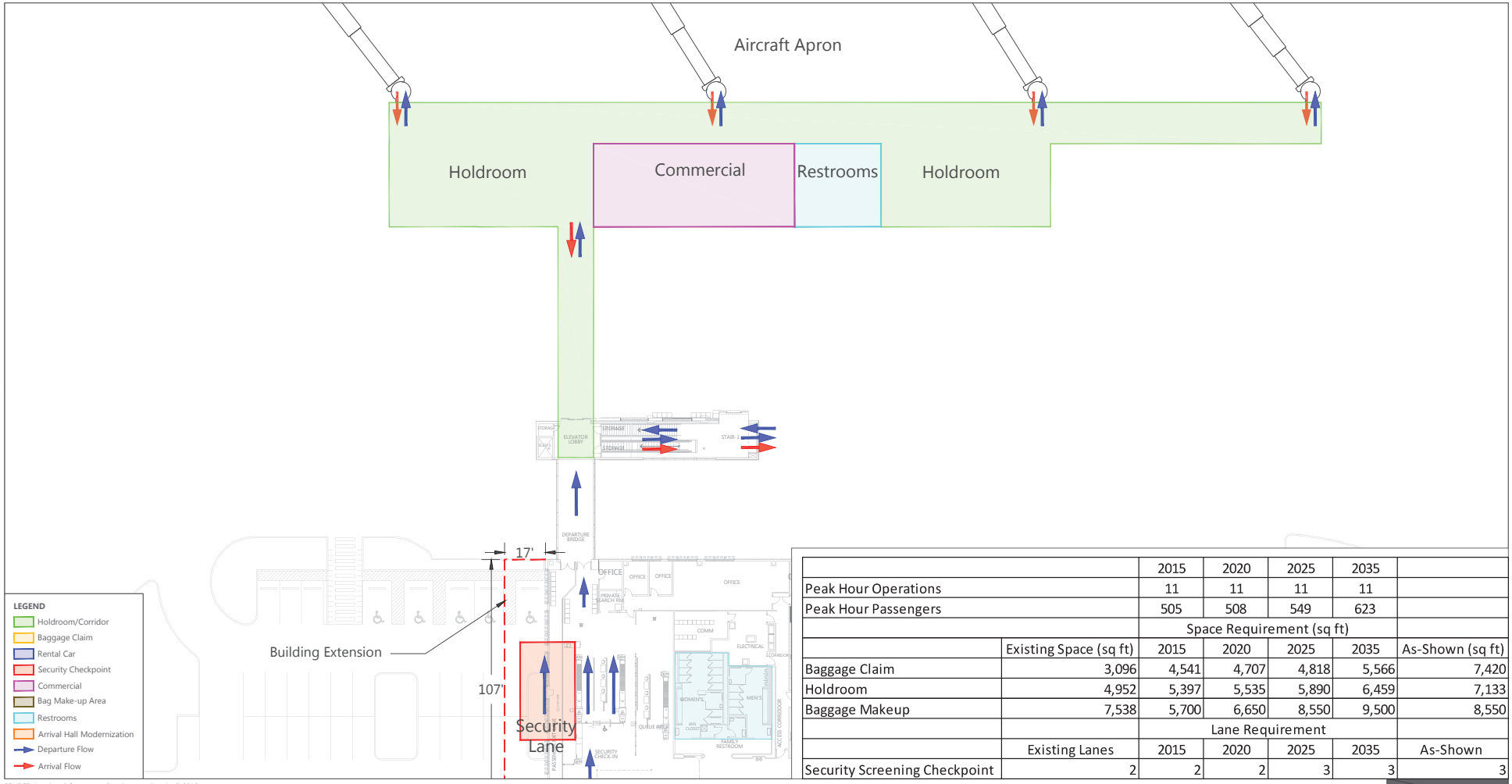
EXHIBIT T4a

NORTH 0 40 ft.

Terminal Alternative 4-Second Level Holdroom over Apron
First Floor

Drawing: M:\Monroe County\Task 200 - EYW Master Plan\Terminal Alternatives\Terminal Alternative 4a-Lower.dwg Layout: 11X17 Plotted: Mar 13, 2017, 10:20AM

[PRELIMINARY DRAFT-FOR DISCUSSION PURPOSES ONLY-NOT FOR DISTRIBUTION]



		2015	2020	2025	2035	
Peak Hour Operations		11	11	11	11	
Peak Hour Passengers		505	508	549	623	
		Space Requirement (sq ft)				
	Existing Space (sq ft)	2015	2020	2025	2035	As-Shown (sq ft)
Baggage Claim	3,096	4,541	4,707	4,818	5,566	7,420
Holdroom	4,952	5,397	5,535	5,890	6,459	7,133
Baggage Makeup	7,538	5,700	6,650	8,550	9,500	8,550
		Lane Requirement				
	Existing Lanes	2015	2020	2025	2035	As-Shown
Security Screening Checkpoint	2	2	2	3	3	3

SOURCE: American Infrastructure Development, Inc., April, 2016.
PREPARED BY: Ricondo & Associates, Inc., March 2017.

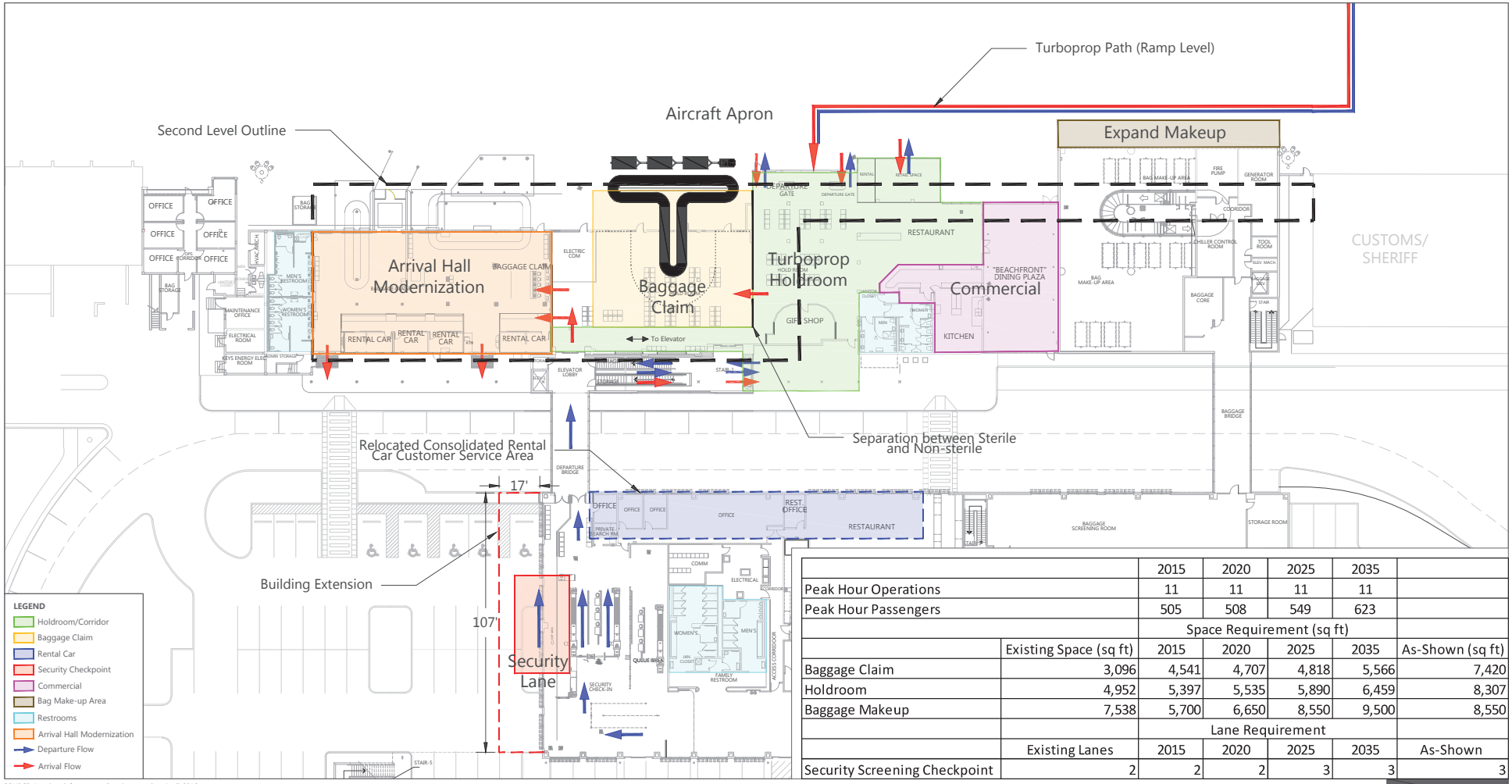
EXHIBIT T4b

NORTH 0 40 ft.

Terminal Alternative 4-Second Level Holdroom over Apron
Second Floor

Drawing: M:\Monroe County\Task 200 - EYW Master Plan\Terminal Alternatives\Terminal Alternative 4b-Upper_v2.dwgLayout: 11X17 Plotted: Mar 13, 2017, 10:18AM

[PRELIMINARY DRAFT-FOR DISCUSSION PURPOSES ONLY-NOT FOR DISTRIBUTION]



		2015	2020	2025	2035	
Peak Hour Operations		11	11	11	11	
Peak Hour Passengers		505	508	549	623	
		Space Requirement (sq ft)				
	Existing Space (sq ft)	2015	2020	2025	2035	As-Shown (sq ft)
Baggage Claim	3,096	4,541	4,707	4,818	5,566	7,420
Holdroom	4,952	5,397	5,535	5,890	6,459	8,307
Baggage Makeup	7,538	5,700	6,650	8,550	9,500	8,550
		Lane Requirement				
	Existing Lanes	2015	2020	2025	2035	As-Shown
Security Screening Checkpoint	2	2	2	3	3	3

SOURCE: American Infrastructure Development, Inc., April, 2016.
PREPARED BY: Ricondo & Associates, Inc., March 2017.

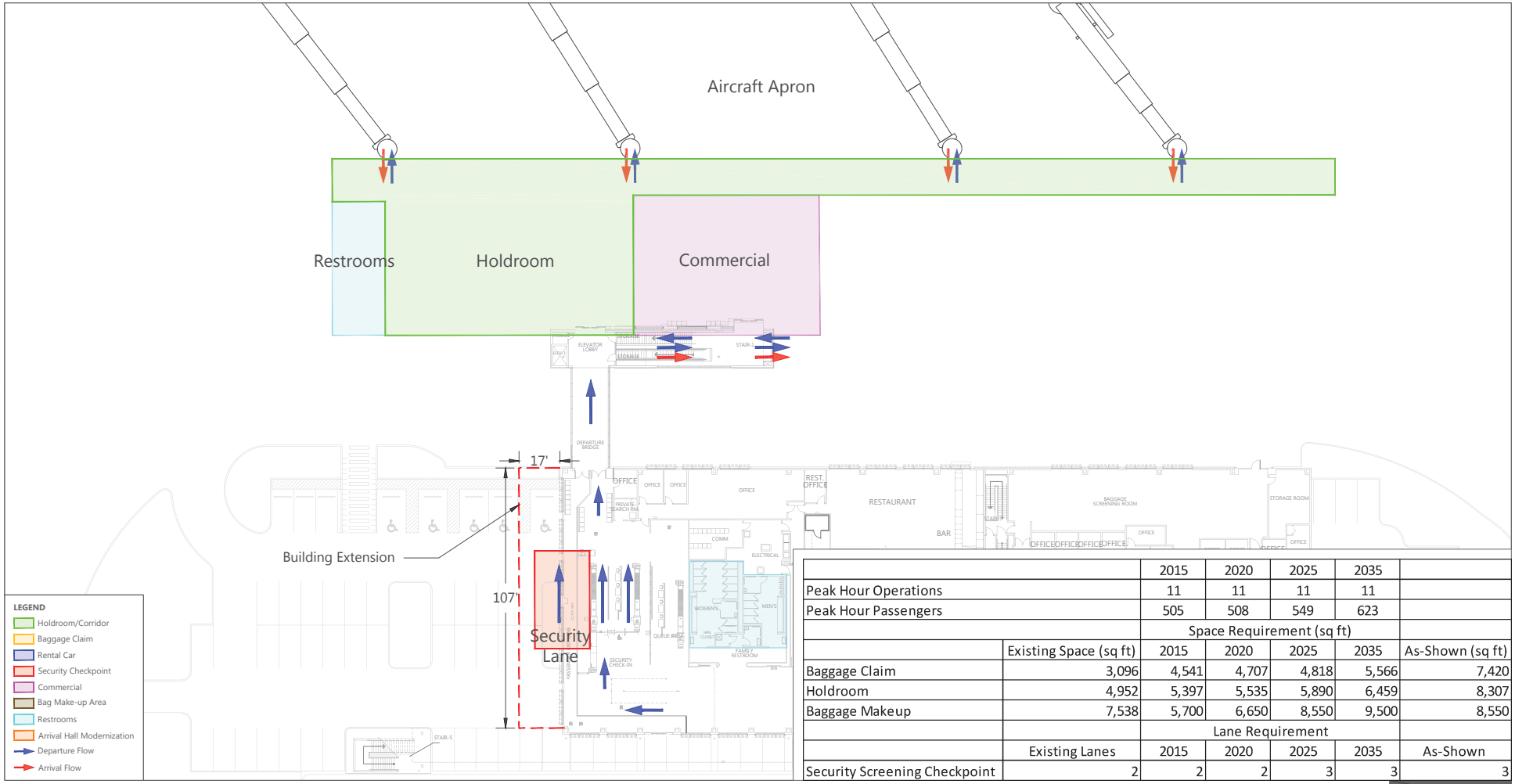
EXHIBIT T5a

NORTH 0 40 ft.

Drawing: M:\Monroe County\Task 200 - EYW Master Plan\Terminal Alternatives\Terminal Alternative 5a-Lower.dwg Layout: 11X17 Plotted: Mar 13, 2017, 10:17AM

Terminal Alternative 5-Second Level Holdroom over Terminal First Floor

[PRELIMINARY DRAFT-FOR DISCUSSION PURPOSES ONLY-NOT FOR DISTRIBUTION]



		2015	2020	2025	2035	
Peak Hour Operations		11	11	11	11	
Peak Hour Passengers		505	508	549	623	
		Space Requirement (sq ft)				
	Existing Space (sq ft)	2015	2020	2025	2035	As-Shown (sq ft)
Baggage Claim	3,096	4,541	4,707	4,818	5,566	7,420
Holdroom	4,952	5,397	5,535	5,890	6,459	8,307
Baggage Makeup	7,538	5,700	6,650	8,550	9,500	8,550
		Lane Requirement				
	Existing Lanes	2015	2020	2025	2035	As-Shown
Security Screening Checkpoint	2	2	2	3	3	3

SOURCE: American Infrastructure Development, Inc., April, 2016.
PREPARED BY: Ricondo & Associates, Inc., March 2017.

EXHIBIT T5b

NORTH 0 40 ft.

Drawing: M:\Monroe County\Task 200 - EYW Master Plan\Terminal Alternatives\Terminal Alternative 5b-Upper_v2.dwgLayout: 11X17 Plotted: Mar 13, 2017, 10:15AM

Terminal Alternative 5-Second Level Holdroom over Terminal Second Floor

Section 3

PARKING AND ROADWAY

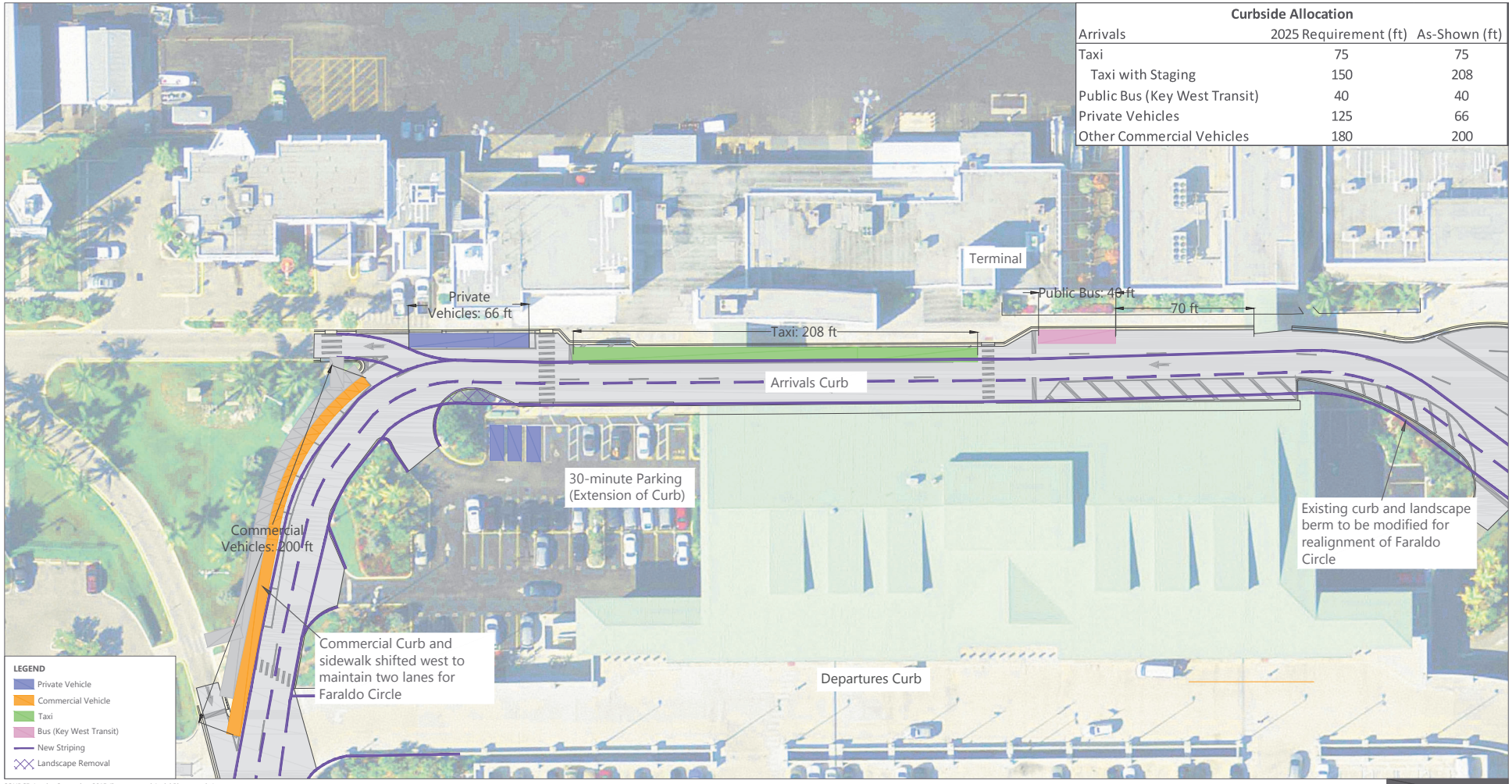
Parking and Roadway

1. Alternatives Considerations:

- Private vehicle curb deficient – requires an additional 40 linear feet by 2035
- Taxi curb and staging
  - Avoid radio operations
- Commercial curb improvement for enhanced 2-lane terminal roadway
- Deficiencies in public parking
  - At capacity today – requires an additional 83 spots by 2035
  - Additional parking structure to meet incremental future demand

2. Master Plan Objectives:

- Assess traffic flows within the terminal area
- Evaluate the existing airport access road and curbside capacity to relieve congestion
- Assess and evaluate the existing parking product capacities and the supply of non-revenue generation parking
- Provide dedicated access to the existing Fixed Based Operator (FBO) and fuel farm



Curbside Allocation

Arrivals	2025 Requirement (ft)	As-Shown (ft)
Taxi	75	75
Taxi with Staging	150	208
Public Bus (Key West Transit)	40	40
Private Vehicles	125	66
Other Commercial Vehicles	180	200

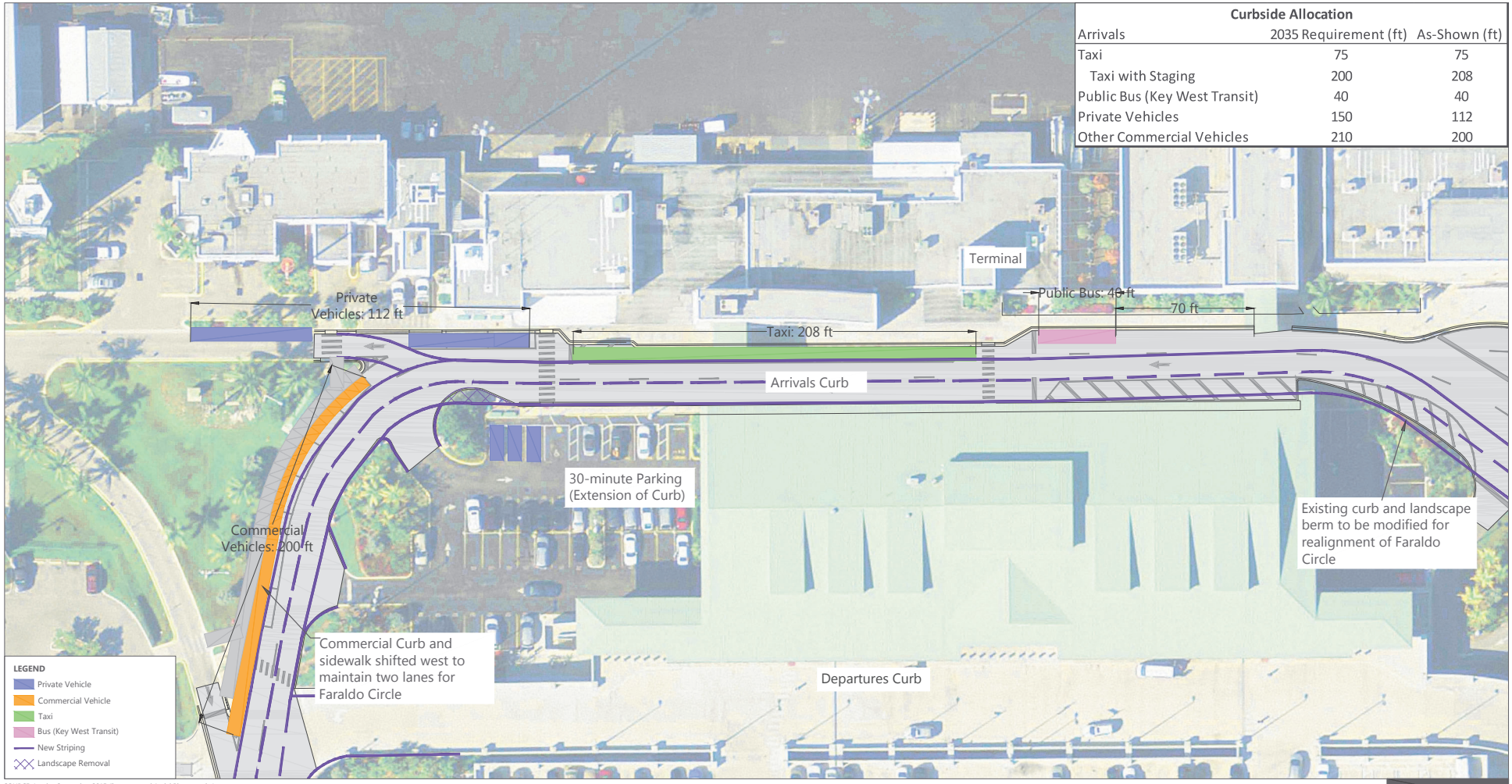
SOURCE: Jacobs, September 2015 (Basemap and Aerial Photography).
PREPARED BY: Ricondo & Associates, Inc., April 2017.

EXHIBIT 5.3-1

NORTH 0 0 ft

Drawing: P:\Monroe County FL\Task 200 - EYW Master Plan\206 - Alternatives\CAD\EYW-Landside_Alts_v8(2025 Curb).dwgLayout: Ex_5.3-1 Plotted: May 19, 2017, 09:45AM

2025 Arrivals Curb



Curbside Allocation

Arrivals	2035 Requirement (ft)	As-Shown (ft)
Taxi	75	75
Taxi with Staging	200	208
Public Bus (Key West Transit)	40	40
Private Vehicles	150	112
Other Commercial Vehicles	210	200

SOURCE: Jacobs, September 2015 (Basemap and Aerial Photography).
PREPARED BY: Ricondo & Associates, Inc., April 2017.

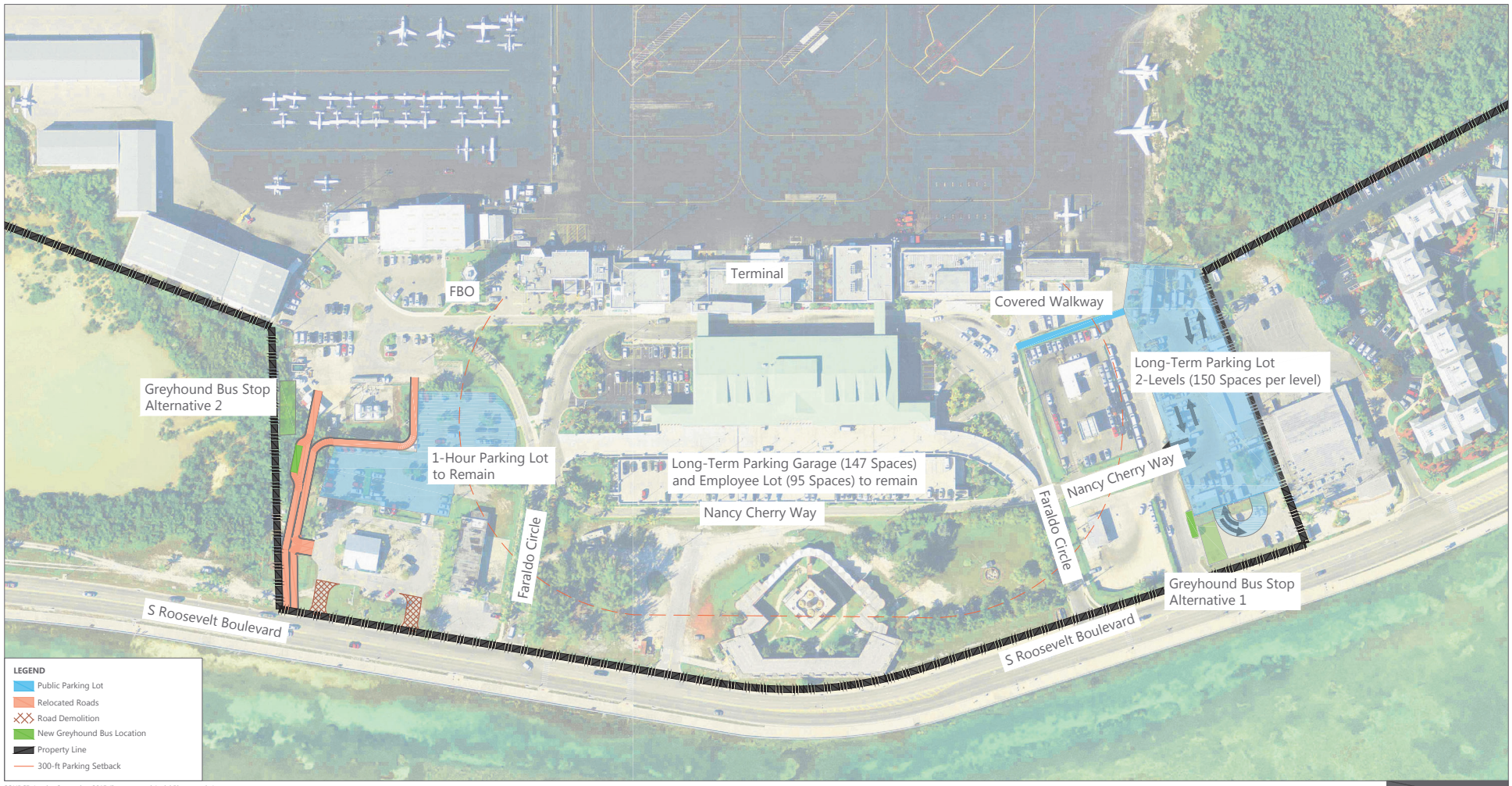
EXHIBIT 5.3-2

NORTH 0 0 ft

2035 Arrivals Curb

Drawing: P:\Monroe County FL\Task 200 - EYW Master Plan\206 - Alternatives\CAD\Landside 2035 Curb\EYW-Landside_Alts_v7(2035 Curb).dwg Layout: Ex_5.3-2 Plotted: May 19, 2017, 09:44AM

[PRELIMINARY DRAFT- FOR DISCUSSION PURPOSES ONLY - NOT FOR DISTRIBUTION]



SOURCE: Jacobs, September 2015 (Basemap and Aerial Photography).
PREPARED BY: Ricondo & Associates, Inc., October 2016.

EXHIBIT 6.4-1

NORTH 0 200 ft

Drawing: N:\EYW\Master Plan\04-Working\02-Landside\CAD\EYW-Landside_Alts_v7(2025 Curb).dwgLayout: Ex_6.4-1 Plotted: Nov 7, 2016, 10:23AM

Parking / Airport Access Alternative

Section 4

GENERAL AVIATION

General Aviation

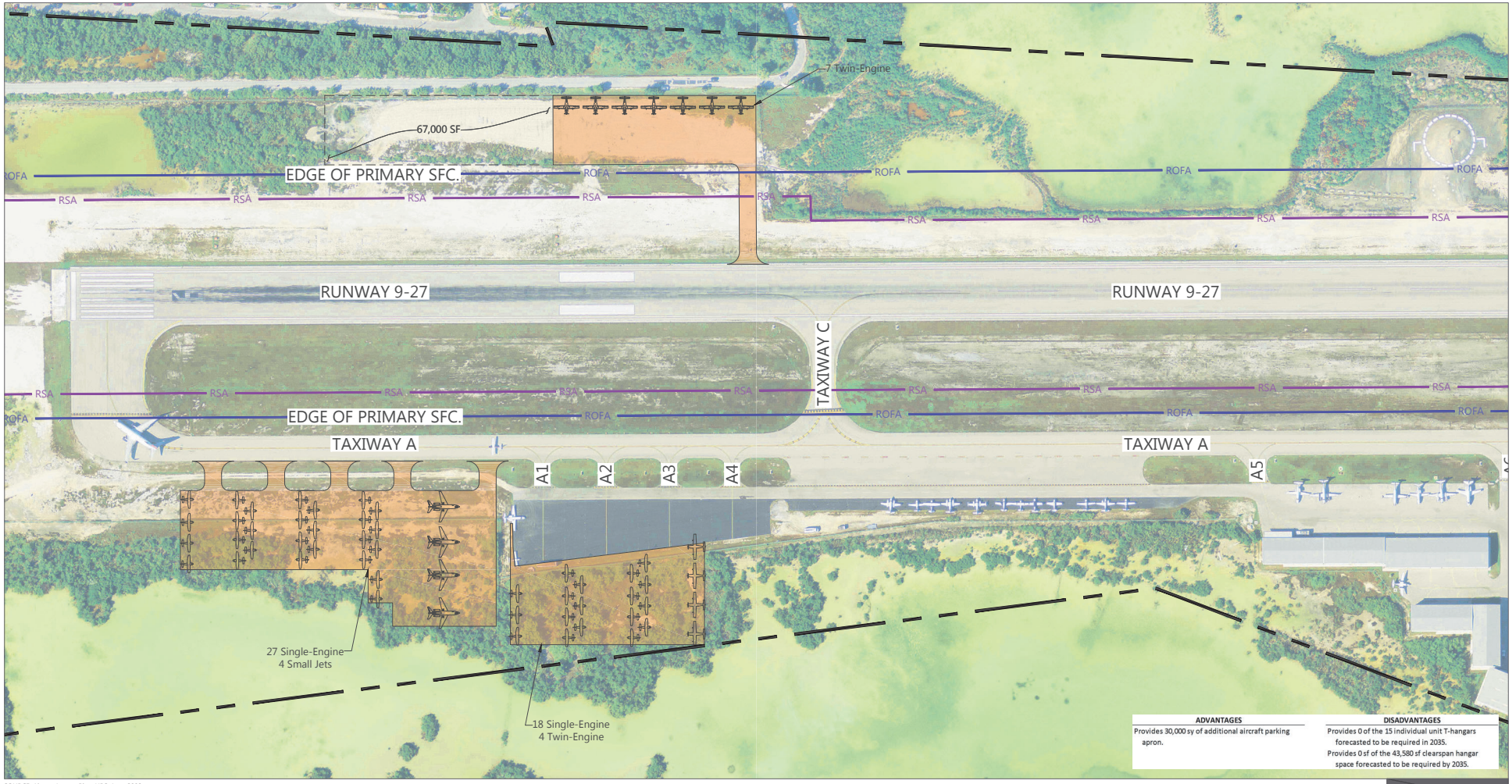
1. **Alternatives Considerations**:

- Individual t-hangars meet current demand – 15 additional units required by 2035
- Conventional hangars deficient today – requires an additional 43,580 sf by 2035
- FBO Terminal deficient today – requires an additional 3,750 sf by 2035
- General Aviation (GA) expansion opportunities
  - Ramp expansion South of Runway 9
  - North of Runway 9-27 on Airport-owned property

2. **Master Plan Objectives**:

- Provide additional aircraft storage facilities, including ramp and larger t-hangars
- Develop options to expand the East and West overflow ramp areas

[Preliminary Draft for Discussion Purposes Only]



ADVANTAGES	DISADVANTAGES
Provides 30,000 sy of additional aircraft parking apron.	Provides 0 of the 15 individual unit T-hangars forecasted to be required in 2035. Provides 0 sf of the 43,580 sf clearspan hangar space forecasted to be required by 2035.

SOURCE: Airport Layout Plan, URS, June 2003.
PREPARED BY: Ricondo & Associates, Inc., March 2016.

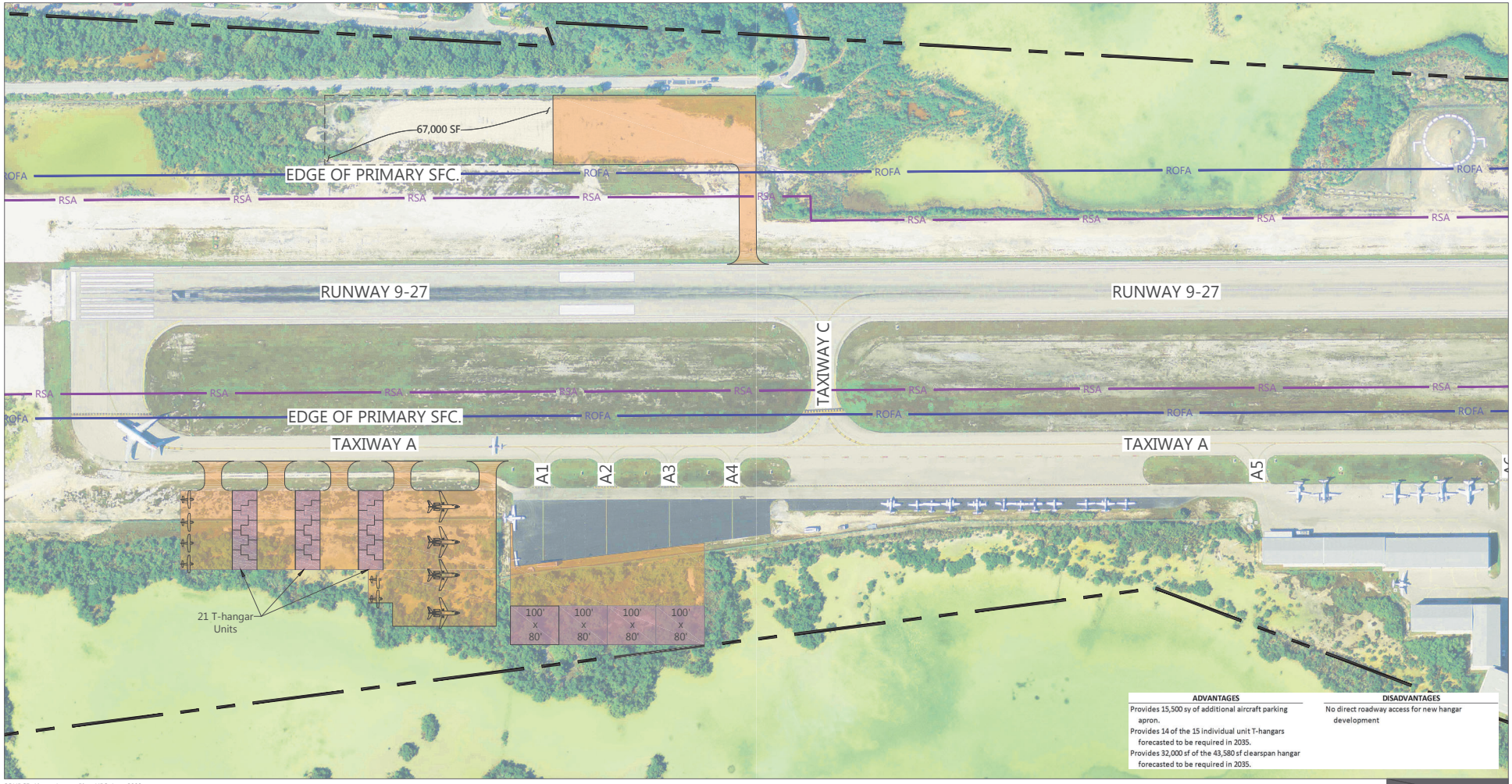
EXHIBIT 5-1

NORTH 0 00 ft.

Drawing: M:\Monroe County\Task 200 - EYW Master Plan\214- Supplemental Tasks\Airfield Geometry Assessment\CAD\GENERAL AVIATION ALTS 500 FT PRIMARY.dwg Layout: 1A 11x17 Plotted: May 18, 2017, 04:37PM

Concept 1A - Short-Term Development
Assumes Approval of MOS & 1 Mile Visibility Minima

[Preliminary Draft for Discussion Purposes Only]



SOURCE: Airport Layout Plan, URS, June 2003.
PREPARED BY: Ricondo & Associates, Inc., March 2016.

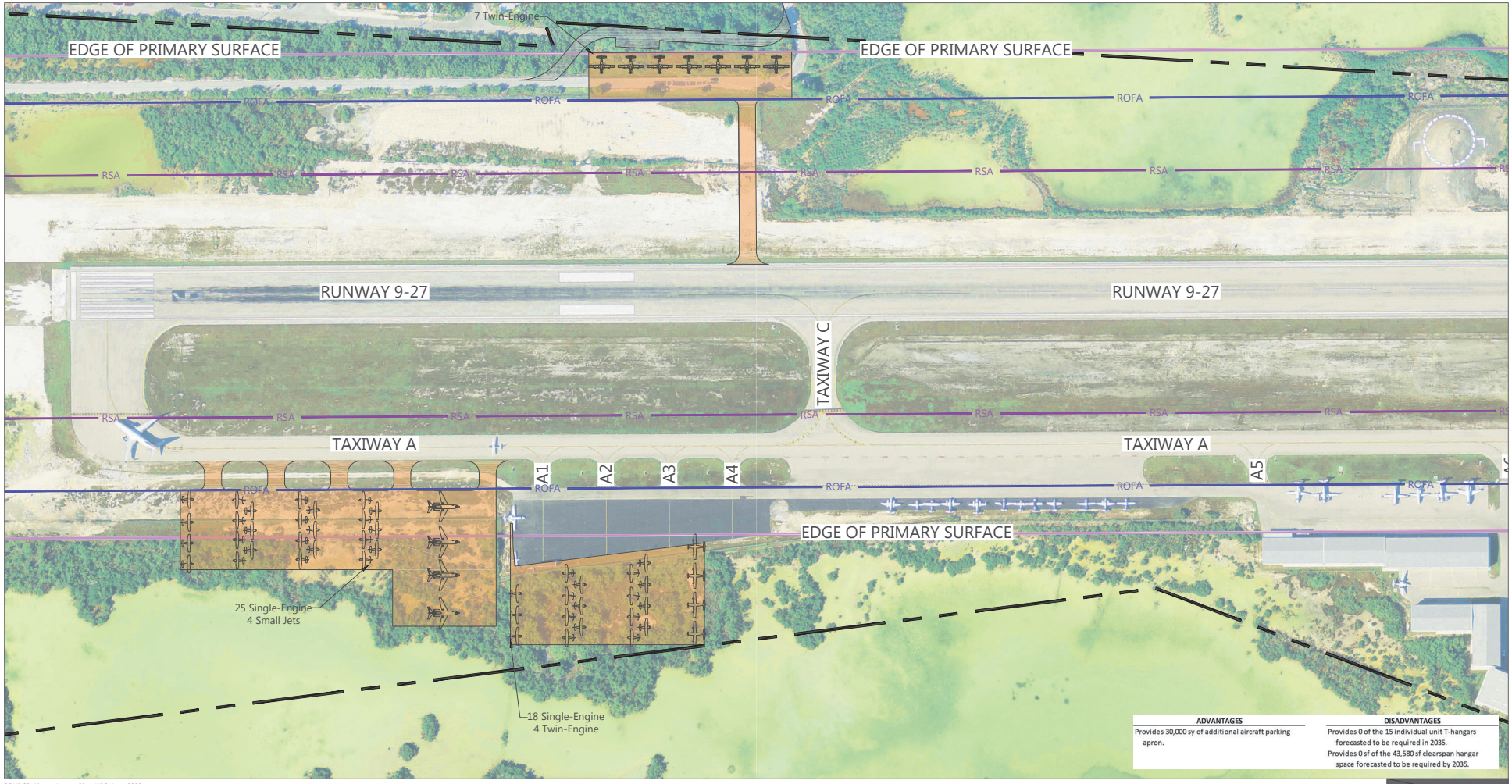
EXHIBIT 5-2

NORTH 0 00 ft.

Concept 1B - Long-Term Development
Assumes Approval of MOS & 1 Mile Visibility Minima

Drawing: M:\Monroe County\Task 200 - EYW Master Plan\214- Supplemental Tasks\Airfield Geometry Assessment\CAD\GENERAL AVIATION ALTS 500 FT PRIMARY.dwg Layout: 1B 11x17 Plotted: May 18, 2017, 04:37PM

[Preliminary Draft for Discussion Purposes Only]



SOURCE: Airport Layout Plan, URS, June 2003.
PREPARED BY: Ricondo & Associates, Inc., March 2016.

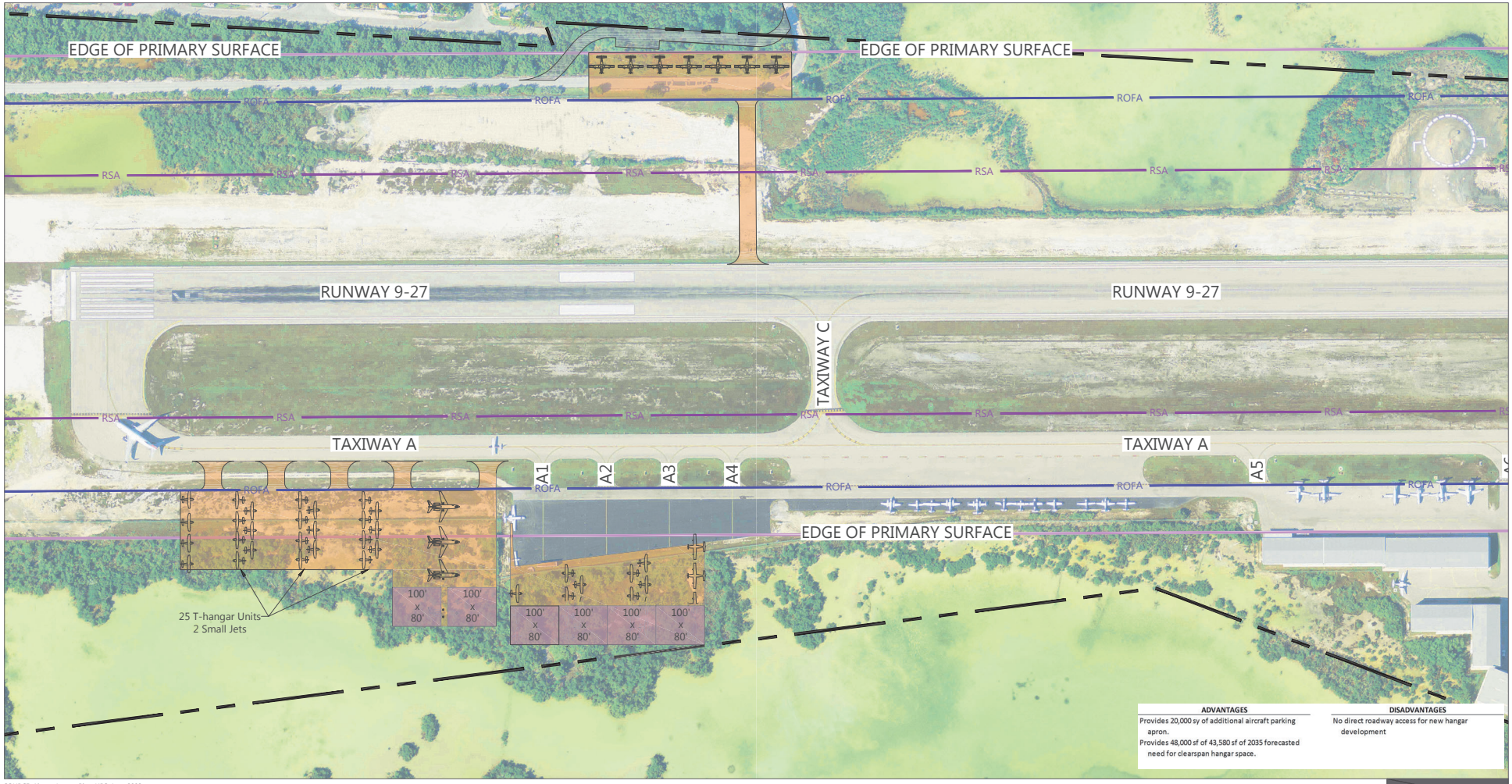
EXHIBIT 5-3

NORTH 0 00 ft.

Concept 2A - Short-Term Development
Assumes Fully Compliant RSA, ROFA, and 3/4 Mile Viability Minima

Drawing: M:\Monroe County\Task 200 - EYW Master Plan\214- Supplemental Tasks\Airfield Geometry Assessment\CAD\GENERAL AVIATION ALT 1K FT PRIMARY.dwg Layout: 2A 11x17 Plotted: May 18, 2017, 04:35PM

[Preliminary Draft for Discussion Purposes Only]



SOURCE: Airport Layout Plan, URS, June 2003.
PREPARED BY: Ricondo & Associates, Inc., March 2016.

EXHIBIT 5-4

NORTH 0 00 ft.

Concept 2B -Long-Term Development
Assumes Fully Compliant RSA, ROFA, and 3/4 Mile Viability Minima

Drawing: M:\Monroe County\Task 200 - EYW Master Plan\214- Supplemental Tasks\Airfield Geometry Assessment\CAD\GENERAL AVIATION ALT 1K FT PRIMARY.dwg Layout: 2B 11x17 Plotted: May 18, 2017, 04:36PM

Next Steps

- Submit Alternatives Analysis Chapter
- Refine Capital Improvement Program (CIP)
- Develop financial analysis and implementation plan
- Complete environmental review for the preferred development plan
- Finalize Airport Layout Plan (ALP) drawing set