

Pompano Beach Airpark

MASTER PLAN UPDATE

Executive Summary



Kimley»Horn



INTRODUCTION

The Pompano Beach Airpark Master Plan Update (MPU) provides a strategic vision for the growth and operation of the Airpark over the next 20 years and establishes an updated framework to help guide landside, airside, and development decisions on and near the Airport.

The previous Master Plan Update was completed in 2007. In accordance with Federal Aviation Administration (FAA) programs and guidance, this Master Plan Update will supersede the previous plans and updates to reflect the changes that have occurred in the aviation industry as well as the economy. The goals of the MPU are to address those changes and ensure that regional aviation needs are met in a feasible and fiscally responsible manner. The MPU also ensures that ongoing Airport development maintains a safe and efficient movement of passengers and products while being wholly compatible with the surrounding community and environment.

AIRPORT MASTER PLANNING

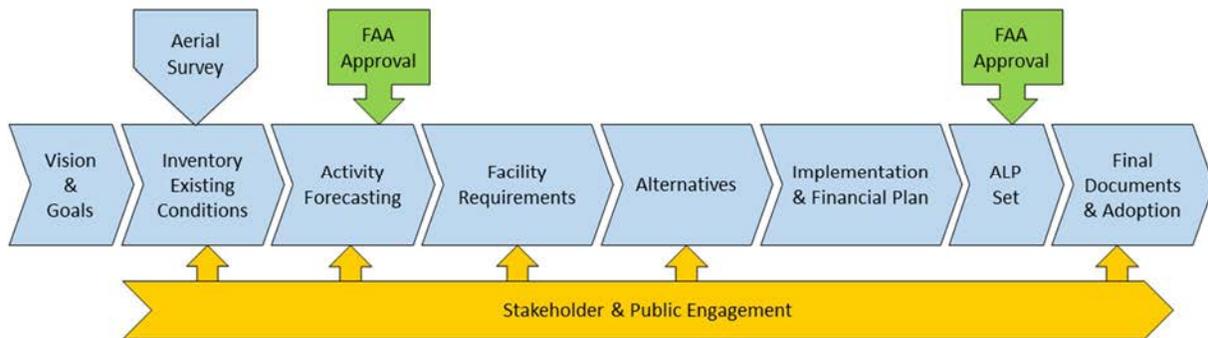
An airport master plan is a comprehensive study that evaluates an airport's existing facilities, current market trends, forecasts future activity levels, and assesses facility requirements to accommodate those needs. Airport master plans are undertaken to preserve and maximize the public benefit generated by an individual airport. Ultimately, these plans support and justify investment in specific capital improvement projects at an airport.

The results of this master plan for an Airport will provide the airport owner, stakeholders, government officials, and regulatory agencies with an organized and rational plan for maintaining and developing airport facilities over near-, mid-, and long-term planning horizons.

PLANNING PROCESS

The scope of work for this MPU was developed in cooperation with the FAA and the planning process involved several key elements including defining study goals, taking an inventory of existing conditions, forecasting future activity levels, identifying user needs and facility requirements, evaluating alternative development scenarios, selecting a preferred concept, and preparing an implementation/capital improvement plan (CIP). The results of the study are documented in a technical report and set of Airport Layout Plan (ALP) drawings that depict existing conditions and planned improvements.

Master Planning Process



Source: Prepared by Kimley-Horn & Associates

While coordination with the FAA occurs throughout the process, the two elements of a master plan study that are officially approved by the FAA are the activity forecasts and ALP drawings. These two items are used by the FAA to justify and support funding assistance for eligible projects under the FAA's Airport Improvement Program (AIP).

STAKEHOLDER AND PUBLIC INVOLVEMENT

This MPU has been prepared to address the needs of the City and the various users and stakeholders that rely on the Airport and its facilities. For that reason – and to ensure that future development is in concert with the community and other local initiatives – outreach and public involvement was prevalent throughout the study process.

A Planning Review Committee was established to provide insight on Airpark operational matters and local/regional activities and concerns. The Committee met four times during the study and were given the opportunity to review and comment on draft report chapters that were prepared. The Committee consisted of the following organizations:

- Pompano Airpark Advisory Board Representative
- City of Pompano Beach Planning Department
- City of Pompano Beach Engineering Department
- Airport tenants and Fixed Base Operators
- Air Traffic Control Tower (ATCT) Manager
- FAA Orlando Airports District Office – Community Planner
- FDOT, District 4, Aviation Coordinator
- Local Economic Development Agency
- Local Chamber of Commerce

INVENTORY OF EXISTING CONDITIONS

The Inventory of Existing Conditions includes an overview of the local setting, physical assets, operational activity, services and activities supported by the Airpark. This information provides insight into opportunities and constraints of the Airport and its surroundings from both physical and operational

perspectives. In other words, this inventory sets the baseline of the Master Plan Update. Information and data for this inventory was provided through multiple sources, including the City of Pompano Beach, FAA, and the Planning Review Committee. Web-based research, examination of previous planning studies, on-site data validation and interviews with Airport staff and other tenants were performed to supplement information where needed.

Overall, the inventory identified that the Airpark has excellent services and facilities, and adequately serves local and regional aviation activity.

FORECASTS OF AVIATION DEMAND

As noted, forecasts of aviation demand are one of two components in a Master Plan that are reviewed and approved by the FAA because these forecasts provide justification for services or facilities that may be needed currently or in the future. Because the Airpark is a general aviation (non-commercial) airport, the forecasts focused on aircraft operations, based aircraft, and the design aircraft. These elements are described as follows:

- **Aircraft Operations:** An aircraft operation represents either a take-off or landing conducted by an aircraft; as a result, a take-off and a landing—such as those that occur with flight training “touch-and-go” practice flights—count as two operations. Operations can be local (training operations or those within 20-miles of an airport) or itinerant (operations that derive from or depart outside a 20-mile radius of an airport).
 - Forecasts of operations are important because they are measured against an airport’s airfield system to calculate any capacity or delay issues.
- **Based Aircraft:** A based aircraft is generally defined as an aircraft that is considered airworthy, operational, and is stored at an airport for the majority of the year.
 - Based aircraft impact aircraft parking apron and storage hangar need.
- **Design Aircraft:** The most demanding existing and future aircraft type in terms of wingspan and approach speed that conducts 500 annual operations
 - The design aircraft determines FAA design standards for various separation criteria and safety areas.

Forecasts of Aviation Demand				
Year	Total Operations	Local Operations	Itinerant Operations	Based Aircraft
2017	132,489	79,761	52,728	166
2022	140,723	90,931	49,793	190
2027	148,964	96,256	52,708	216
2037	166,729	107,735	58,994	275
Avg. Annual Growth Rate 2017-2037	1.16%	1.51%	0.56%	2.55%
Sources: FAA Air Traffic Activity System (ATADS) database. Kimley-Horn.				

Forecasts were originally developed and approved utilizing base year 2017. The Airpark’s overall activity was re-examined in 2020 to validate the Design Aircraft. Based on this re-examination, it was determined that the existing and future Design Aircraft was a combination of several aircraft types that include such models as the turboprop-powered Beechcraft Super King Air 90, 200, 300, and 350, and small jets

including the Cessna Citation CJ3 and CJ4, Cessna Citation II/III/IV/V/XLS, and the Cessna Citation Sovereign. Generally, these aircraft types have wingspans between 49 and 79 feet and have approach speeds between 91 and 121 knots. Based on an examination of 2020 aircraft operations data, the King Air 350 was identified as the existing and future Design Aircraft at the Airpark.

FACILITY REQUIREMENTS

Forecasts of aviation demand were compared to existing Airpark services and facilities as well as their conditions, and overall facility requirements were identified for the 20-year planning horizon. Facilities can be categorized as airside (runways, taxiways, navigational aids, airfield pavements), landside (terminal/admin building, aircraft storage hangars, vehicle parking), or support (fuel storage, maintenance).

Although the Master Plan did identify some gaps in existing facilities compared to those needed in the future, the majority of improvements are related to adhering to FAA design standards. The Airpark was originally constructed during the World War II era and significant pavement rehabilitations and reconstructions have occurred over time. FAA design standards have also been reformed over the years. As such, the Airpark has a significant amount of non-standard pavement geometry, which will need to be mitigated over time.

Additionally, the Master Plan identified a need for additional aircraft storage hangars and apron, removal and lighting of airspace obstacles, construction of vehicle parking areas, and fencing/gate improvements. A summary of facility requirements is presented in the table below.

Facility Requirements Summary

Airside Facilities	Project Justification
Mitigate direct apron-to-runway taxiways	Enhance operational safety
Eliminate wide expanses of pavement	Enhance operational safety
Potential Runway 15-33 extension	Satisfy forecast demand - Contingent on change in aircraft fleet mix
Acquire properties within existing and future approach and departure Runway Protection Zones via easement or fee simple	Reduce incompatible land use within protected areas
Conduct a Control Tower feasibility/siting study to confirm ultimate location	Enhance operational safety
Remove/light obstructions	Enhance operational safety
Landside Facilities	Project Justification
Construct additional 72,000 SF aircraft parking apron	Satisfy forecast demand
Construct additional 55,000 SF box hangars and 61,000 SF (49 units) T-hangars	Satisfy forecast demand
Support Facilities	Project Justification
Construct 152 vehicle parking spaces	Satisfy forecast demand
Construct two secure access gates and one emergency/fire access, improvements to gate operators	Enhance Airpark security
Expand CCTV coverage to include monitoring of the fence line, fueling area, apron, and hangar area	Enhance Airpark security
Provide additional high mast lighting for the aircraft parking areas	Enhance Airpark security

Source:
Kimley-Horn.

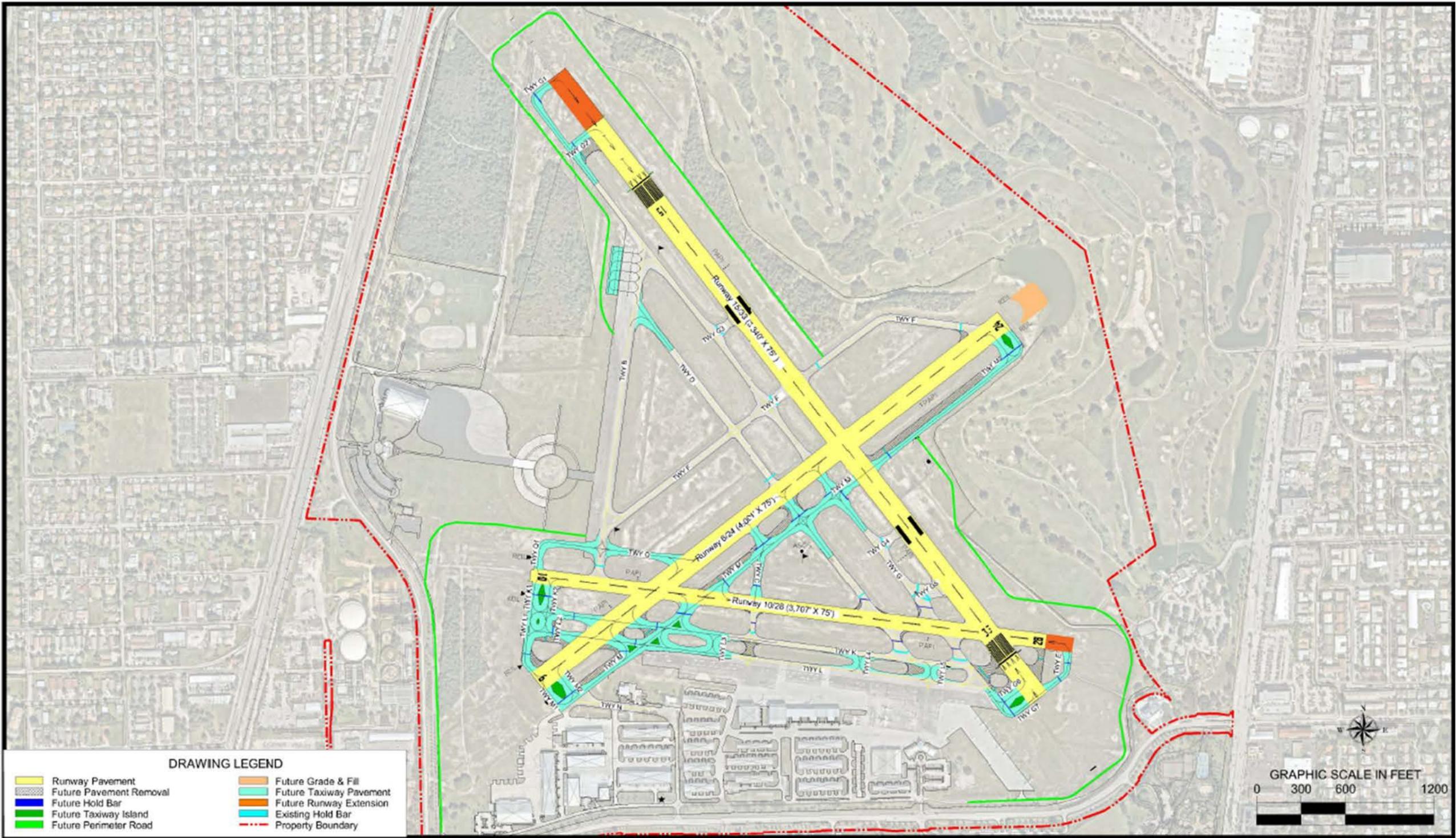
DEVELOPMENT ALTERNATIVES AND RECOMMENDED DEVELOPMENT PLAN

Development alternatives are intended to accommodate aviation demand forecasts and facility requirements, while incorporating feedback from the Planning Review Committee, Airpark Management, and the public. Evaluation criteria were established to compare multiple development alternatives for specific recommended improvements based on:

- Ability to satisfy forecast demand
- Minimizes environmental impacts
- Enhances safety
- Ability to enhance revenue and future development
- Minimizes off-Airport impacts
- Impacts to existing facilities
- Project cost (flexibility of implementation)

Various development alternatives to address facility needs identified previously were developed and preferred alternatives were selected based on the evaluation criteria. A consolidated Preferred Alternative identified all improvements recommended to be implemented within the 20-year planning horizon.

In addition to the improvements in the Preferred Alternative, Airpark staff identified other previously planned or recommended projects in the City of Pompano Beach Adopted Capital Improvement Plan for fiscal years 2021-2025 and the Airport Pavement Management Plan (APMP) that were incorporated into the overall program. The combination of projects identified in the Master Plan Update, the City's CIP, and the APMP represent the Recommended Development Plan (RDP), shown below.



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Recommended Development Plan

EXHIBIT

Pompano Beach Airport
MASTER PLAN UPDATE

IMPLEMENTATION AND FINANCIAL PLAN

One of the most important components of the Master Plan is an implementation and financial plan that identifies logical phasing of recommended improvements as well as project costs and funding mechanisms. Based on coordination with Airpark Management, projects were phased into near-term (fiscal year 2021-2025), mid-term (2026-2030) and long-term (2031-2040) implementation timeframes. The timing of implementation accounted for several factors including need, condition of existing facilities, justification, availability of funding, and others.

The table below outlines all projects by phase, total project cost, and anticipated funding sources, which includes FAA and State grants, private investment, and local match requirements. As shown, the 20-year program is anticipated to cost approximately \$33 million, approximately \$28 million of which is expected to come from FAA or State grants.

20-year Airport Capital Improvement Program (ACIP)					
Project	Project Cost ¹	FAA Share	FDOT Share	Local Share	Private Share
Near-Term (FY 2021–2025)					
Airpark Security Gate Enhancements and Upgrades	\$500,000	\$0	\$400,000	\$100,000	\$0
New Air Traffic Control Tower Design	\$450,000	\$0	\$360,000	\$90,000	\$0
5th Avenue Landside Access Parcel Y, Access Road	\$950,000	\$0	\$760,000	\$95,000	\$95,000
Design and Construction of Taxiway B Run-up Apron	\$357,280	\$0	\$285,824	\$71,456	\$0
Design and Construction of Runway 10-28 Extension	\$819,280	\$737,352	\$65,542	\$16,386	\$0
Apron N Segment 4205 Restoration	\$654,885	\$0	\$523,908	\$130,977	\$0
Runway 33 Segment 5110 Restoration	\$213,840	\$0	\$171,072	\$42,768	\$0
Air Traffic Control Tower Construction	TBD	-	-	-	-
Restoration of Apron S Segments 4105, 4110 and 4125	\$3,721,410	\$0	\$2,977,128	\$372,141	\$372,141
Design and Construction of Standard Grade RSA on Runway 6-24	\$239,580	\$215,622	\$19,166	\$4,792	\$0
Design and Construction of Taxiway G6/G7 Improvements	\$656,497	\$590,847	\$52,520	\$13,130	\$0
<i>Subtotal</i>	\$8,562,772	\$1,543,821	\$5,615,161	\$936,649	\$467,141
Mid-Term (FY 2026–2030)					
Design and Construction of Direct Apron-Runway Access on Taxiways L3, L4, and L5	\$1,247,400	\$1,122,660	\$99,792	\$24,948	\$0
Design and Construction of Realigned Taxiways K and L (Phase I)	\$1,150,779	\$1,035,701	\$92,062	\$23,016	\$0
Restoration of Runway 10-28 Segment 6105	\$2,876,415	\$2,588,774	\$230,113	\$57,528	\$0
Design and Construction of Paved Vehicle Service Road (Phase I)	\$339,693	\$0	\$271,754	\$67,939	\$0
Restoration of Runway 6-24 Segments 6205 and 6210	\$957,513	\$0	\$766,010	\$191,503	\$0
Restoration/Reconstruction of Taxilane Segments 4305, 4310, 4315, and 4320	\$2,590,076	\$0	\$2,072,061	\$259,008	\$259,008
<i>Subtotal</i>	\$9,161,877	\$4,747,135	\$3,531,793	\$623,941	\$259,008
Long-Term (FY 2031–2040)					
Design and Construction of New Taxiway Q and End Connector Q1 (Phase I)	\$737,923	\$0	\$590,339	\$147,585	\$0
Design and Construction of Taxiway M Relocation (Phase I)	\$1,465,971	\$0	\$1,172,777	\$293,194	\$0
Design and Construction of Realigned Taxiways K and L (Phase II)	\$1,146,614	\$1,031,952	\$91,729	\$22,932	\$0
Design and Construction of Paved Vehicle Service Road (Phase II)	\$472,443	\$0	\$377,954	\$94,489	\$0
Restoration of Taxiway F Segment 610	\$1,408,989	\$0	\$1,127,191	\$281,798	\$0
Design and Construction of Taxiway M Relocation (Phase II)	\$1,151,437	\$0	\$921,149	\$230,287	\$0
Design and Construction of New Taxiway Q and End Connector Q1 (Phase II)	\$883,675	\$0	\$706,940	\$176,735	\$0
Restoration of Taxiway B Segment 210	\$1,334,261	\$0	\$1,067,409	\$266,852	\$0
Restoration of Taxiway L Segment 1210	\$1,938,731	\$0	\$1,550,985	\$387,746	\$0
Restoration of Taxiway D Segment 420	\$293,253	\$263,928	\$23,460	\$5,865	\$0
Design and Construction of Taxiway M Relocation (Phase III)	\$1,667,718	\$0	\$1,334,174	\$333,544	\$0
Design and Construction of Runway 15-33 Extension	\$1,942,727	\$1,748,455	\$155,418	\$38,855	\$0
Design and Construction of Paved Vehicle Service Road (Phase III)	\$808,032	\$0	\$646,426	\$161,606	\$0
<i>Subtotal</i>	\$15,251,775	\$3,044,335	\$9,765,952	\$2,441,488	\$0
Grand Total	\$32,976,424	\$9,335,291	\$18,912,906	\$4,002,078	\$726,149

Source:
Kimley-Horn.
Notes:
1. Projects in 6-20-year timeframe include 10% escalator to account for anticipated inflation.

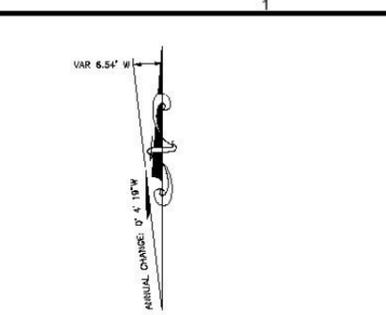
AIRPORT LAYOUT PLAN

The Airport Layout Plan (ALP) is a detailed set of drawings that depict existing and future conditions at an airport. The ALP must be approved by the FAA in order to justify grant funding for specific projects. The number of sheets is contingent on various factors, however, the Airpark ALP that was submitted to the FAA in May 2021 included the following sheets:

- Cover Sheet
- Airport Data Sheet
- Existing Airport Layout Plan
- Future Airport Layout Plan
- General Aviation Area Drawing
- Airport Airspace Drawing
- Airport Airspace Obstructions Table
- Airport Airspace Significant Objects Table
- Runway 10/28 Inner Approach
- Runway 10/28 Inner Approach Obstacles Table
- Runway 15 Inner Approach
- Runway 15 Inner Approach Table
- Runway 33 Inner Approach
- Runway 33 Inner Approach Table
- Runway 6 Inner Approach
- Runway 24 Inner Approach
- Runway 15 Departures
- On-Airport Land Use Drawing
- Off-Airport Land Use Drawing
- Exhibit A Airport Property Map

The FAA has requirements for developing these sheets in Standard Operating Procedure (SOP) 2.0, *Standard Procedure for FAA Review and Approval of Airport Layout Plans (ALPs)* and SOP 3.0 for *FAA Review of Exhibit 'A' Airport Property Inventory Maps*. The Future Airport Layout Plan Sheet that depicts planned ultimate conditions at the Airpark at the end of the 20-year planning horizon is shown below.

This document, together with the exhibits and reports prepared hereon, is intended only for the specific purpose and use for which it was prepared. Issues of aerial imagery reliance on the document without written certification and adoption by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



**NOVEMBER 2019
MAGNETIC DECLINATION**
SOURCE:
NATIONAL OCEANIC AND ATMOSPHERIC
ADMINISTRATION (NOAA), NOVEMBER 2019

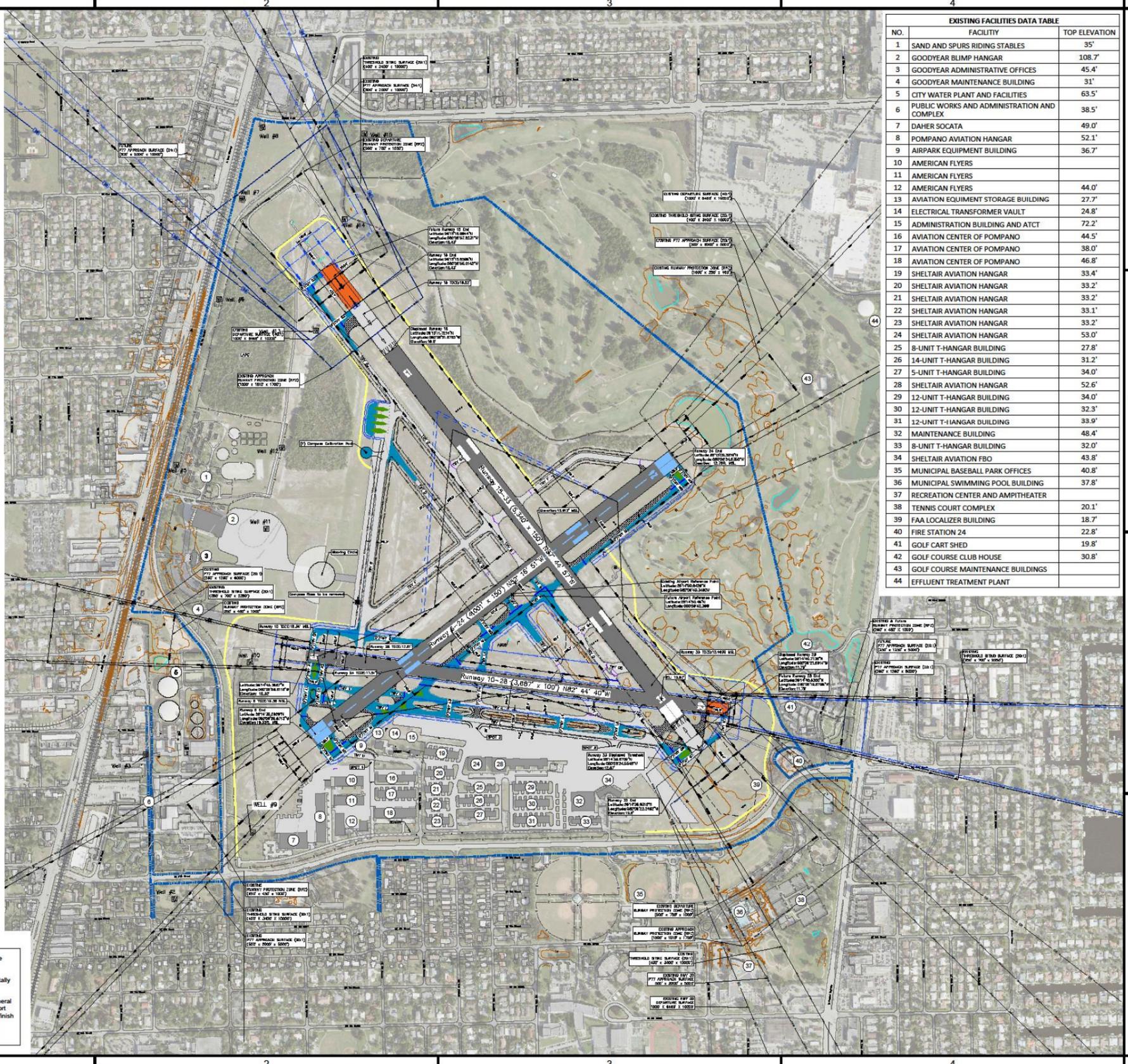


EXISTING	FUTURE	DESCRIPTION
—	—	PROPERTY LINE
+	+	AIRPORT REFERENCE POINT
—	—	RUNWAY PAVEMENT
—	—	TAXIWAY PAVEMENT
—	—	APRON/PARKING PAVEMENT
—	—	RUNWAY SAFETY AREA (RSA)
—	—	RUNWAY OBJECT FREE AREA (ROFA)
—	—	RUNWAY OBSTACLE FREE ZONE (ROFZ)
—	—	TAXIWAY SAFETY AREA (TSA)
—	—	TAXIWAY OBJECT FREE AREA (TOFA)
—	—	BUILDING RESTRICTION LINE
—	—	RUNWAY VISUAL ZONE (RVZ)
—	—	TREES
—	—	SURFACE ELEVATION
—	—	PAVED AIRFIELD SURFACES
—	—	FENCE
—	—	BUILDING
—	—	WINDSOCK
—	—	PAPI
—	—	SURVEY MONUMENT
—	—	RUNWAY END INDICATOR LIGHTS
—	—	LOCALIZER
—	—	WETLAND/SURFACE WATER BOUNDARY
—	—	ACCESS ROADS
—	—	THRESHOLD SITING SURFACE
—	—	DEPARTURE SURFACE
—	—	PART 77 APPROACH SURFACE
—	—	RUNWAY PROTECTION ZONE DEP
—	—	RUNWAY PROTECTION ZONE APP
—	—	RUNWAY PROTECTION ZONE
—	—	NAVIGATIONAL AID
—	—	NAVAID CRITICAL AREA
N/A	—	PAINTED ISLAND

- Notes:**
1. Refer to General Notes found on Sheet 2 - Airport Data Sheet for general information related to the sheet set.
 2. All elevations are in presented NAVD 88.
 3. All latitude and longitude coordinates are presented in NAD 83.
 4. Road elevation data within imaginary surfaces are detailed in the Airspace Sheets.
 5. Further wind data is available on Sheet 2 - Airport Data Table.
 6. Apron dimensions are presented on Sheet 5 - General Aviation Area Plan.
 7. Taxiway centerline separations to fixed or movable objects are detailed in Sheet 2 - Airport Data Sheet.
 8. The Building Restriction Line represents a height of 35'.

The contents of this plan do not necessarily reflect the official views or policy of the FAA. Acceptance of this document by the FAA does not in any way constitute a commitment on the part of the United States to participate in any development depicted herein nor does it indicate that the proposed development is environmentally acceptable in accordance with appropriate public laws.

FAA's approval of this Airport Layout Plan (ALP) represents acceptance of the general location of future facilities depicted. During the preliminary design phase, the airport owner is required to resubmit for approval the final locations, heights and exterior finish of structures. FAA's concern is obstructions, impact on electronic aids or adverse effects on controller view of aircraft approach and ground movement areas which could adversely affect the safety, efficiency or utility of the airport.



EXISTING FACILITIES DATA TABLE		
NO.	FACILITY	TOP ELEVATION
1	SAND AND SPURS RIDING STABLES	35'
2	GOODYEAR BLIMP HANGAR	108.7'
3	GOODYEAR ADMINISTRATIVE OFFICES	45.4'
4	GOODYEAR MAINTENANCE BUILDING	31'
5	CITY WATER PLANT AND FACILITIES	63.5'
6	PUBLIC WORKS AND ADMINISTRATION AND COMPLEX	38.5'
7	DAHER SOCATA	49.0'
8	POMPANO AVIATION HANGAR	52.1'
9	AIRPARK EQUIPMENT BUILDING	36.7'
10	AMERICAN FLYERS	
11	AMERICAN FLYERS	
12	AMERICAN FLYERS	44.0'
13	AVIATION EQUIPMENT STORAGE BUILDING	27.7'
14	ELECTRICAL TRANSFORMER VAULT	24.8'
15	ADMINISTRATION BUILDING AND ATCT	72.2'
16	AVIATION CENTER OF POMPANO	44.5'
17	AVIATION CENTER OF POMPANO	38.0'
18	AVIATION CENTER OF POMPANO	46.8'
19	SHELTAIR AVIATION HANGAR	33.4'
20	SHELTAIR AVIATION HANGAR	33.2'
21	SHELTAIR AVIATION HANGAR	33.2'
22	SHELTAIR AVIATION HANGAR	33.1'
23	SHELTAIR AVIATION HANGAR	33.2'
24	SHELTAIR AVIATION HANGAR	53.0'
25	8-UNIT T-HANGAR BUILDING	27.8'
26	14-UNIT T-HANGAR BUILDING	31.2'
27	5-UNIT T-HANGAR BUILDING	34.0'
28	SHELTAIR AVIATION HANGAR	52.6'
29	12-UNIT T-HANGAR BUILDING	34.0'
30	12-UNIT T-HANGAR BUILDING	32.3'
31	12-UNIT T-HANGAR BUILDING	33.9'
32	MAINTENANCE BUILDING	48.4'
33	8-UNIT T-HANGAR BUILDING	32.0'
34	SHELTAIR AVIATION FBO	43.8'
35	MUNICIPAL BASEBALL PARK OFFICES	40.8'
36	MUNICIPAL SWIMMING POOL BUILDING	37.8'
37	RECREATION CENTER AND AMPITHEATER	
38	TENNIS COURT COMPLEX	20.1'
39	FAA LOCALIZER BUILDING	18.7'
40	FIRE STATION 24	22.8'
41	GOLF CART SHED	19.8'
42	GOLF COURSE CLUB HOUSE	30.8'
43	GOLF COURSE MAINTENANCE BUILDINGS	
44	EFFLUENT TREATMENT PLANT	

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SPONSOR APPROVAL

SIGNATURE _____
NAME _____
TITLE _____
DATE _____

**AIRPORT LAYOUT PLAN UPDATE
POMPANO BEACH AIRPARK
POMPANO BEACH, FLORIDA**

No.	REVISIONS	DATE

AIP NUMBER: _____
DATE: _____
DRAWN BY: CA
DESIGNED BY: CA
CHECKED BY: AS & CW

SHEET TITLE
**FUTURE AIRPORT
LAYOUT PLAN**

SHEET NUMBER
4 of 20

Mar 10, 2021 1:30:27pm
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