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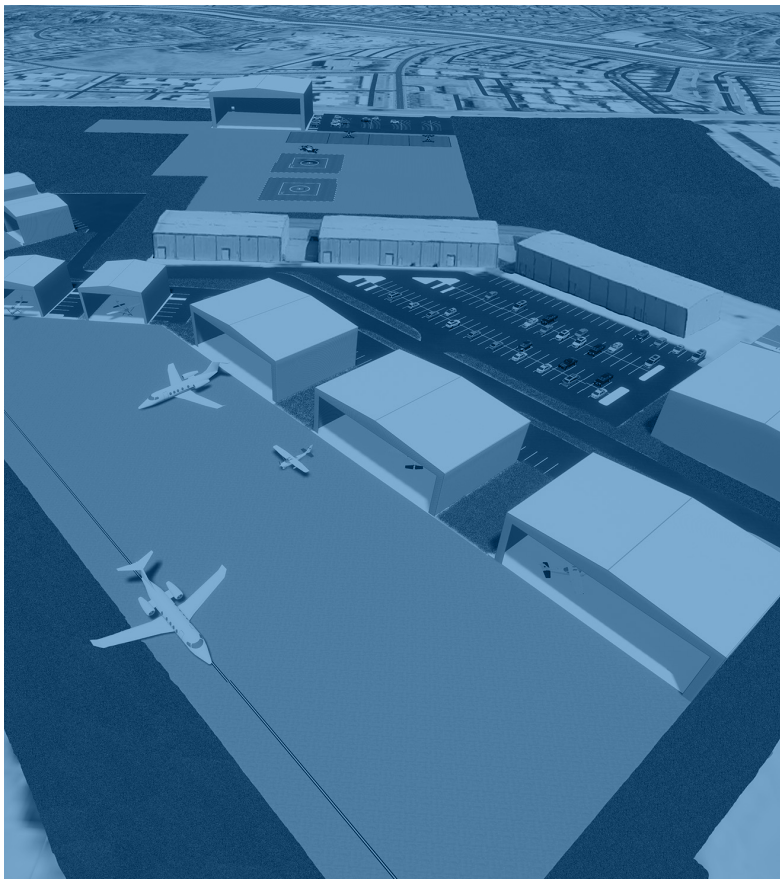


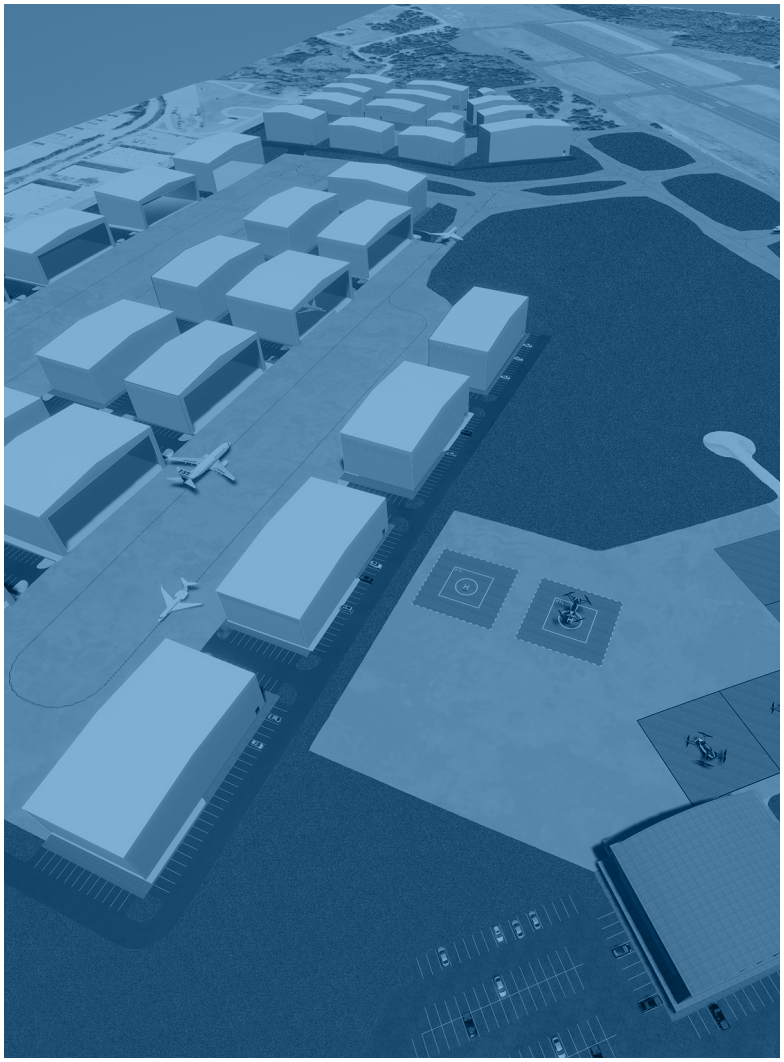


Airport Layout Plan Narrative Report

September 2026

DALLAS EXECUTIVE





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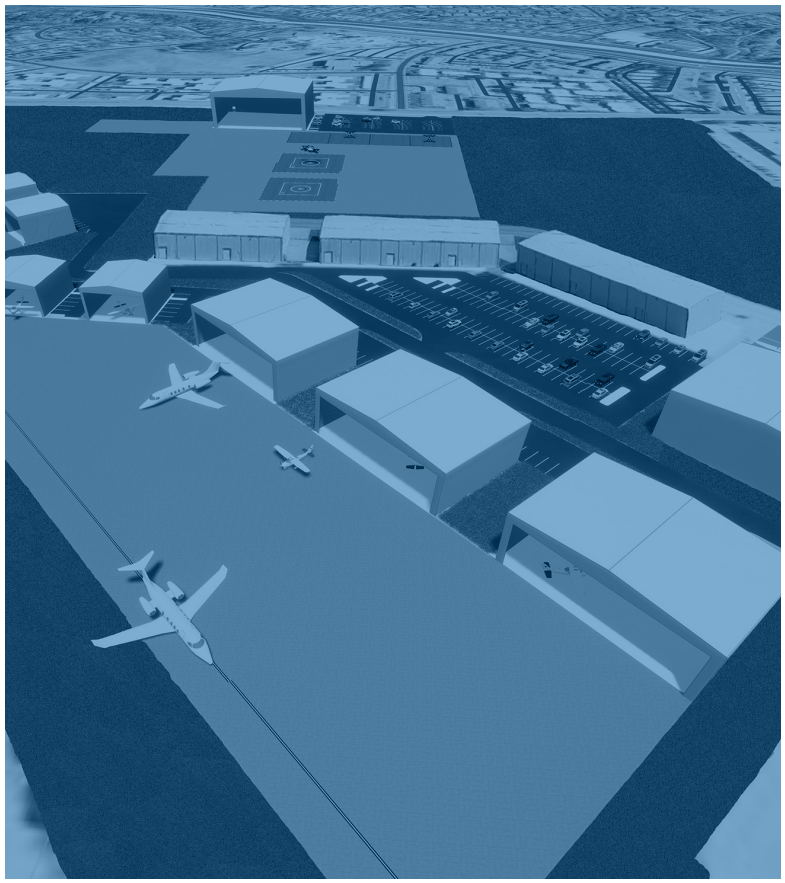
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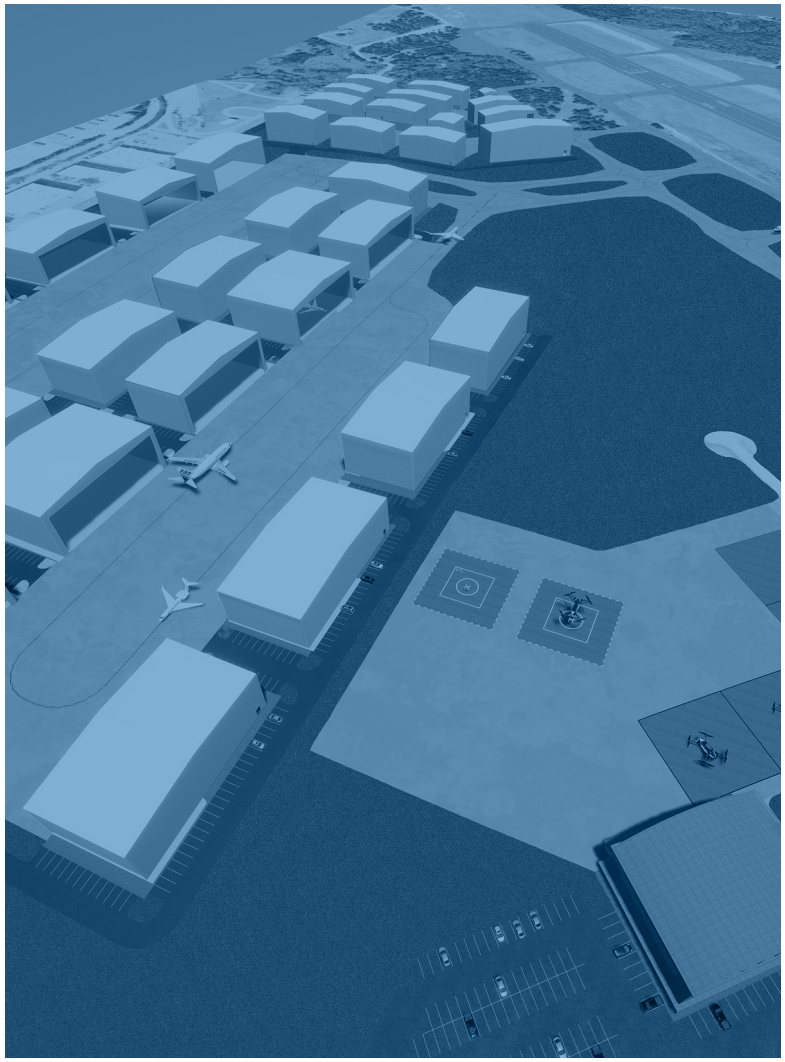
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CHAPTER 1: INTRODUCTION

Introduction and Purpose

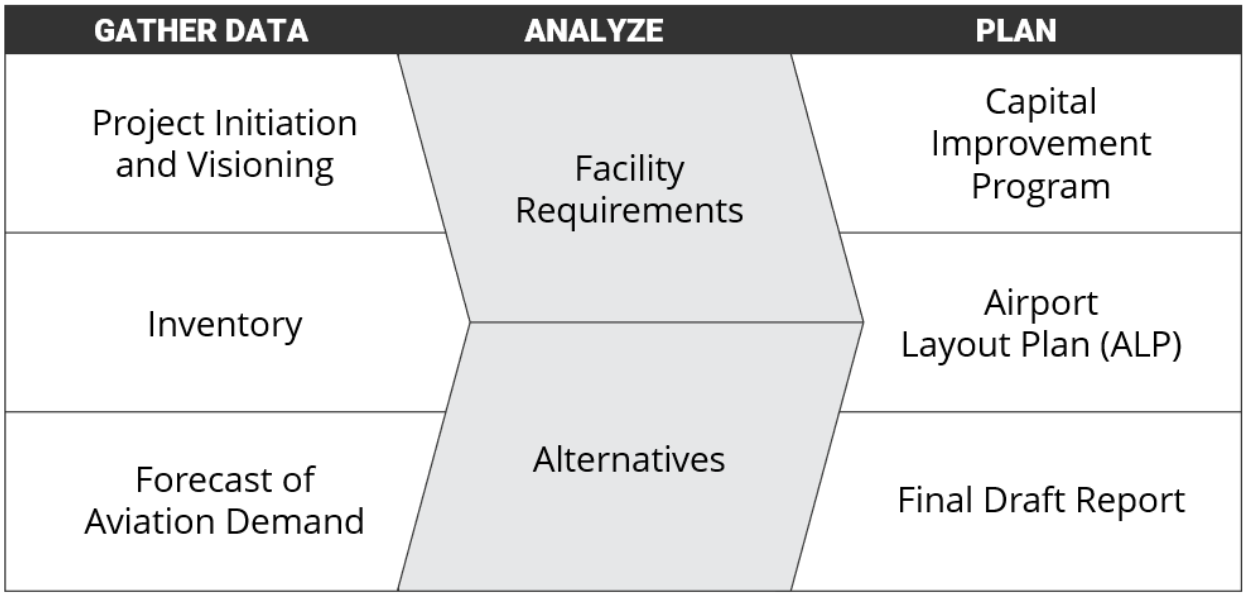
An Airport Layout Plan (ALP) with Narrative Report project evaluates an airport's physical facilities, planned development, and financial foundation for the future. Since the aviation industry is not static, periodic updates are needed to refresh this information and refine future development plans. Dallas Executive Airport (RBD or Airport) is a growing general aviation airport on the south side of Dallas. Consequently, an updated ALP Narrative Report is warranted.

This ALP Narrative Report focuses on examining existing facilities, forecasting future aviation demand, identifying the projects necessary to meet that demand, and examining the financial means to achieve the short- and long-term goals for RBD. Additionally, the ALP Narrative Report will serve as a tool to aid City of Dallas staff in their decision-making regarding RBD's upkeep and future development.

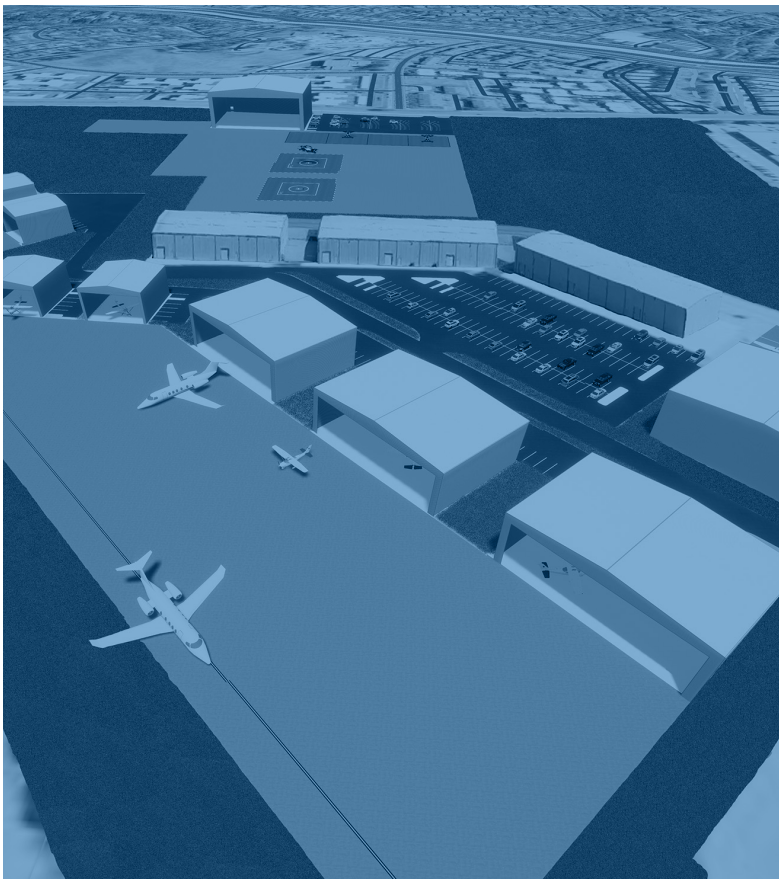
An overview of the ALP Narrative Report process is provided in **Figure 1-1**.

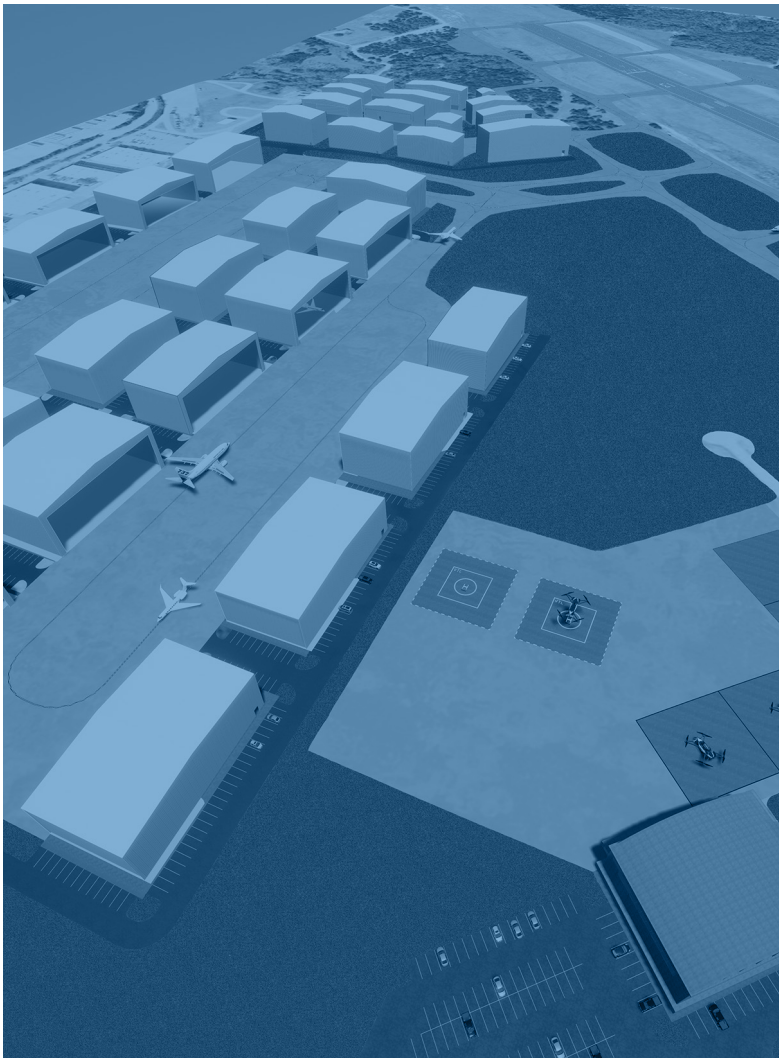
In addition to this report, an ALP drawing set was developed. The ALP is a set of drawings that detail the airport's current infrastructure and proposed development plans as well as the airspace and properties surrounding the airport. The ALP is reviewed and conditionally approved by the FAA and TxDOT Aviation. The ALP created as part of this project complies with FAA Standard Operating Procedures (SOP) 2.00 – *Standard Operating Procedure for FAA Review and Approval of Airport Layout Plans*.

Figure 1-1 – Airport Layout Plan Narrative Report Process



Source: Garver, 2026





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CHAPTER 2: INVENTORY AND DESCRIPTION OF EXISTING FACILITIES

Facilities Inventory

As part of the development of an Airport Layout Plan (ALP) with Narrative Report (ALP with Narrative), a detailed inventory of an airport's existing facilities, airspace, and supporting infrastructure is established to serve as a foundation for the development of the airport's infrastructure development plan. The inventory also identifies existing challenges and other considerations relevant to planning for future development and describes the role the airport plays within the state and national aviation system.

To inform the development of the ALP with Narrative for Dallas Executive Airport (RBD or Airport) the following inventory-related tasks were completed:

- An on-site inspection of existing facilities was conducted on October 20 and 21, 2025. This inspection included a review of airside infrastructure, terminal/landside facilities, and undeveloped properties at RBD. Runway Safety Area Inventories (RSAI) were also completed for Runway 13-31 and Runway 17-35.
- Multiple interviews were completed with Airport staff, stakeholders, and tenants to better understand the condition of the Airport's existing infrastructure, how it is utilized, and current development interests that should be considered for integration into future development plans.
- The collection and review of current and historical documentation related to Airport infrastructure and operations including documentation provided by the Federal Aviation Administration (FAA), Texas Department of Transportation – Aviation Division (TxDOT – Aviation), and Airport staff.
- The collection of environmental information from publicly available sources that is related or relevant to the extent of the Airport's property.
- A review of historical environmental reports regarding RBD property.

Airport History

Dallas Executive Airport has always been owned and operated by the City of Dallas. In 1944, the City purchased 1,026 acres of land to establish and develop the initial facilities. The Airport was constructed in an effort to support general aviation (GA) traffic on the south side of Dallas, Texas. It was originally named Redbird Airport and later changed to Dallas Executive Airport on May 1, 2002. The initial airfield included two runways – Runway

13-31 and Runway 17-35 – both of which are still present today. Since that time, Runway 13-31 has been extended multiple times, and the current Airport terminal building and conference center were opened in 2005.

Today, Dallas Executive Airport serves a wide array of GA traffic including jets, turboprops, and piston aircraft and is home to multiple fixed base operators (FBOs), maintenance, repair and overhaul (MRO) service providers, flight schools and other aeronautical businesses. The Airport is also the national headquarters for the Commemorative Air Force (CAF) and regularly supports the operation of historic aircraft.

Airport Role

Dallas Executive Airport's role within the state and national aviation system is set forth in the FAA's National Plan of Integrated Airport Systems (NPIAS) and the Texas Airport System Plan (TASP). Each of these publications defines Dallas Executive Airport's role as follows:

- NPIAS Role Designation – Dallas Executive Airport is designated as a "National" airport in the 2025-2029 NPIAS published by the FAA. Dallas Executive Airport is also considered a "Reliever" airport to Dallas Love Field. According to NPIAS, National airports are typically located in metropolitan areas and have high levels of aeronautical activity. Reliever airports are typically located in close proximity to primary commercial service airports and provide an alternative operating location for non-commercial service aircraft.
- TASP Role Designation – Dallas Executive Airport is designated as a "Reliever" Airport in the 2010 TASP published by TxDOT Aviation.

The FAA NPIAS is updated biannually, and state system plans are updated as needed.

Airside Facilities and Airspace Inventory

Some of the primary airside facilities at an airport include runways, taxiways, navigational aids (NAVAIDs), and weather observation systems. Additionally, there are various protected surfaces necessary for some of these facilities to be operated safely. Protected surfaces are generally defined as areas surrounding an airside facility that are restricted from certain types of development or that must be maintained in a specific condition.

Figure 2-1, *RBD Airside Infrastructure*, provides an overview of the existing airside facilities present at Dallas Executive Airport. Each of these airside infrastructure elements are further described in subsections of this Chapter.

Figure 2-1 - RBD Airside Infrastructure



Source: Garver, 2025

Runway Design Overview

The FAA identifies design standards for airports and their operating pavements based on FAA Advisory Circular (AC) 150/5300-13B (current edition), *Airport Design*. Pavement categorization is provided for runways through the Runway Design Code (RDC) classification system while taxiway pavements are classified separately through the Taxiway Design Group (TDG) classification system.

A runway's RDC is defined by two variables related to the designated critical design aircraft for the runway and the lowest approach visibility minimums for the runway. The critical design aircraft is the largest single aircraft or classification of aircraft the runway is expected to serve on a regular basis (500 operations per year or more).

The critical design aircraft variables used to establish a runway's RDC include:

- Aircraft Approach Category (AAC) – Based on landing approach speed of the aircraft.
- Airplane Design Group (ADG) – Based on aircraft wingspan and tail height.

The tables below further define the variables utilized to establish the RDC for a runway. **Table 2-1** defines the AAC categories. **Table 2-2** documents the ADG categories. **Table 2-3** describes the various visibility minimum categories.

Table 2-1 - Aircraft Approach Category (AAC)

AAC	V_{REF}/Approach Speed [1]
A	Approach speed less than 91 knots
B	Approach speed 91 knots or more but less than 121 knots
C	Approach speed 121 knots or more but less than 141 knots
D	Approach speed 141 knots or more but less than 166 knots
E	Approach speed 166 knots or more

Source: FAA Advisory Circular 150/5300-13 (current edition), *Airport Design*
[1] VREF = Landing Reference Speed or Threshold Crossing Speed

Table 2-2 - Airplane Design Group (ADG)

Group #	Tail Height (ft. [m])	Wingspan (ft. [m])
I	< 20′ (< 6.1 m)	< 49′ (< 14.9 m)
II	20′ to < 30′ (6.1 m to < 9.1 m)	49′ to < 79′ (14.9 m to < 24.1 m)
III	30′ to < 45′ (9.1 m to < 13.7 m)	79′ to < 118′ (24.1 m to < 36 m)
IV	45′ to < 60′ (13.7 m to < 18.3 m)	118′ to < 171′ (36 m to < 52.1 m)
V	60′ to < 66′ (18.3 m to < 20.1 m)	171′ to < 214′ (52.1 m to < 65.2 m)
VI	66′ to < 80′ (20.1 m to < 24.4 m)	214′ to < 262′ (65.2 m to < 79.9 m)

Source: FAA Advisory Circular 150/5300-13 (current edition), Airport Design

Table 2-3 - Visibility Minimums

RVR (ft. [m]) *	Instrument Flight Visibility Category (statute mile)
5000' (1,524 m)	Not lower than 1 mile (1.6 km)
4000' (1,219 m)	Lower than 1 mile (1.6 km) but not lower than ¾ mile (1.2km)
2400' (732 m)	Lower than ¾ (1.2 km) mile but not lower than ½ mile (0.8 km)
1600' (488 m)	Lower than ½ (0.8 km) mile but not lower than ¼ mile (0.4 km)
1200' (366 m)	Lower than ¼ mile (0.4 km)

Source: FAA Advisory Circular 150/5300-13 (current edition), Airport Design
* RVR values are not exact equivalents

Table 2-4 and **Table 2-5** provide an overview the types of aircraft that represent various AAC and ADG categories.

Table 2-4 - AAC Example Aircraft and Descriptions

AAC	Aircraft Name	Photo	General Description of Aircraft
A	Cessna 172 Skyhawk		AAC A typically consists of small piston aircraft with low approach speeds.
B	Beechcraft Super King Air B200		AAC B typically consists of high performance piston, turbo-prop, and some jet aircraft.
C	Bombardier Challenger 300		AAC C typically consists of jet aircraft with mid-range approach speeds.
D	Gulfstream IV		AAC D typically consists of larger jet aircraft with high approach speeds.
E	McDonnell Douglas F-15E		AAC E typically consists of military jet aircraft with very high approach speeds.

Source: Garver, 2025

Table 2-5 - ADG Example Aircraft and Descriptions

ADG	Aircraft Name	Photo	General Description of Aircraft
I	Beech Bonanza 35		ADG I typically consists of small piston, turboprop, and jet aircraft with capacity for less than 8 passengers.
II	Cessna Citation Latitude		ADG II typically consists of turboprop and jet aircraft with capacity for 8 to 18 passengers.
II	Boeing 737-800		ADG III typically consists of large business jets and narrowbody commercial passenger/cargo aircraft.
IV	Boeing 767-300		ADG IV typically consists of large narrowbody commercial passenger/cargo aircraft and some widebody aircraft.
V	Airbus A350-900		ADG V typically consists of large widebody commercial passenger/cargo aircraft.
VI	Airbus A380-800		ADG VI typically consists of very large widebody commercial passenger/cargo aircraft.

Source: Garver, 2025

Dallas Executive Airport has two runways: Runway 13-31 and Runway 17-35. Based on RBD's current Airport Layout Drawing (ALD) and instrument approach procedures, the RDC for each runway is depicted in **Table 2-6**.

Table 2-6 - Runway Design Codes

RDC Variables	Runway 13-31	Runway 17-35
Aircraft Approach Category (AAC)	D	B
Airplane Design Group (ADG)	II	II
Approach Visibility Minimums	4,000 ft.	5,000 ft.
RDC	D-IV-4000	B-II-5000

Source: 2019 RBD Airport Layout Drawing

Runway System Overview

As shown in **Figure 2-1**, the runway system at RBD consists of two runways (Runway 13-31 and Runway 17-35). Runway 13-31 is the primary runway and Runway 17-35 is the secondary runway. The primary runway at an airport is often the longest runway, with the highest weight bearing capacity, and the lowest approach minimums.

Table 2-7 provides an overview of the pavement dimensions, surface material, and condition of all runways at RBD.

Table 2-7 - Runway Pavement

Pavement Attribute	Runway 13-31	Runway 17-35
Length (feet)	7,136	3,800
Width (feet)	100	150
Surface Material	Concrete	Concrete
Grooved	Yes	No
Pavement Condition	Excellent	Good
Paved Shoulders	Yes	No
Paved Blast Pad	No	No

Source: FAA Aeronautical Information Services Website – Obtained 11/5/2025

Runway 13-31 is the longest runway at RBD with a total length of 7,136 feet. It has 25-foot paved shoulders on both sides as the runway was previously 150 feet in total width. Runway 17-35 is 3,800 feet long and 150 feet wide. Blast pads are not present on any of the runway ends. Blast pads are paved areas typically located at the end of a runway to prevent erosion related to jet blast from larger aircraft.

There are no "hot spots" at RBD as designated by the FAA. According to the FAA Hot Spot Standardized Symbology website, a hot spot is "a location on an airport movement area with a history of potential risk for a collision or runway incursion, and where heightened attention by pilots and drivers is necessary." While not designated as a "hot spot," the intersection of Taxiway A4, Taxiway B, and Runway 17-35 was identified by air traffic control tower personnel as an area that sometimes causes confusion for pilots.

Runway 13 – Approach End



Table 2-8 provides an overview of the weight bearing capacity of each runway at RBD based on landing gear configuration. This information indicates that the runways at RBD are capable of handling a wide array of aircraft including some narrowbody commercial passenger/cargo aircraft.

Table 2-8 - Runway Weight Bearing Capacity

Weight Bearing Capacity (lbs.) by Gear Configuration	Runway 13-31	Runway 17-35
Single Wheel (SW)	40,000 lbs.	35,000 lbs.
Double Wheel (DW)	90,000 lbs.	60,000 lbs.
Double Tandem (DT)	130,000 lbs.	110,000 lbs.

Source: FAA Aeronautical Information Services Website – Obtained 11/5/2025

Table 2-9 provides an overview of the declared distances for all runways at RBD. Declared distances are established to aid turbine-engine aircraft operators in assessing their performance related to takeoff and landing requirements.

Each declared distance category is defined as follows:

- Takeoff Run Available (TORA) – The runway length declared available and suitable for the ground run of an aircraft taking off.
- Takeoff Distance Available (TODA) – The TORA plus the length of any remaining runway or clearway beyond the far end of the TORA; the full length of the TODA may need to be reduced because of obstacles in the departure area.
- Accelerate-Stop Distance Available (ASDA) – The runway plus stopway length declared available and suitable for the acceleration and deceleration of an aircraft aborting a takeoff.
- Landing Distance Available (LDA) – The runway length declared available and suitable for landing an aircraft.

Declared distances are typically assumed to be the full length of a runway's usable pavement unless otherwise published. Declared distances less than the full length of Runway 13-31 are present to accommodate airspace and protected surface limitations. All declared distances for Runway 17-35 are the full length of the available runway.

Table 2-9 - Declared Distances

Declared Distance	Runway 13-31		Runway 17-35	
	13	31	17	35
Takeoff Run Available (TORA) (ft.)	6,766	6,051	3,800	3,800
Takeoff Distance Available (TODA) (ft.)	7,136	7,136	3,800	3,800
Accelerate-Stop Distance Available (ASDA) (ft.)	6,622	7,101	3,800	3,800
Landing Distance Available (LDA) (ft.)	5,537	6,601	3,800	3,800

Source: FAA Aeronautical Information Services Website – Obtained 11/5/2025

Table 2-10 provides an overview of the runway markings for each runway end. All markings are in good condition.

Table 2-10 - Runway Markings

Runway End	13	31	17	35
Runway Marking Pattern	Non-Precision	Precision	Non-Precision	Non- Precision

Source: FAA Aeronautical Information Services Website – Obtained 11/5/2025

Runway Protected Surfaces

Runway pavements have multiple protected surfaces that each have a unique purpose and function. Each of these surfaces and their primary purpose are discussed below:

- Runway Safety Area (RSA) – A defined area surrounding the runway consisting of a prepared surface suitable for reducing the risk of damage to aircraft in the event of an undershoot, overshoot, or excursion from the runway.
- Runway Object Free Area (ROFA) – A clear area limited to equipment necessary for air and ground navigation and providing wingtip protection in the event of an aircraft excursion from the runway.
- Runway Obstacle Free Zone (ROFZ) – A defined volume of airspace centered on the runway centerline that is clear of obstacles for the protection of aircraft landing or taking off from the runway, whose base elevation is that of the highest runway elevation at that particular location.

In addition to the ROFZ, there are other Obstacle Free Zone (OFZ) surfaces, which are dependent on the presence of an instrument approach, visibility minimums, and the approach lighting system (ALS) associated with a runway end. These other OFZ surfaces include:

- Inner Approach OFZ – Applies to runways with an ALS. The inner approach OFZ is the same width as the ROFZ and extends from the end of the ROFZ to 200 ft beyond the last light unit in the approach lighting system. It rises at a 50:1 slope beginning at the same elevation as the outer edge of the ROFZ.
- Inner-Transitional OFZ – Applies to runways with visibility minimums below ¾ statute mile. It extends from the sides of the ROFZ and the inner approach OFZ. The heights and slopes associated with the inner-transitional OFZ vary based on the type of aircraft the runway serves (e.g. small or large) and the runway's visibility minimums.
- Precision OFZ (POFZ) – Applies to runways with a precision instrument approach. It is a defined volume of airspace that begins at the end of the runway, extends 200 feet beyond the runway threshold, and extends 400 feet to each side of the extended runway centerline (800 feet in total width).

The primary purpose of each of these additional OFZ surfaces is to protect aircraft during their arrival or departure to a runway. **Table 2-11** and **Table 2-12** identify the protected surfaces applicable to each runway and runway end at RBD. Since Runway 13-31 is a D-II-4000 runway, its protected surfaces are generally larger than Runway 17-35 which is a B-II-5000 runway. A precision OFZ is only applicable to the landing threshold associated with Runway 31 due to the presence of an Instrument Landing System (ILS) approach on that runway end.

Table 2-11 - Runway Protected Surfaces

Protected Surfaces	Runway 13-31	Runway 17-35
Runway Safety Area (RSA)	500 ft. wide x 1,000 ft. beyond each runway end	150 ft. wide x 300 ft. beyond each runway end
Runway Object Free Area (ROFA)	800 ft. wide x 1,000 ft. beyond each runway end	500 ft. wide x 300 ft. beyond each runway end
Runway Obstacle Free Zone (ROFZ)	400 ft. wide x 200 ft. beyond each runway end	400 ft. wide x 200 ft. beyond each runway end

Source: 2019 RBD Airport Layout Drawing and Airfield Facilities Review

Table 2-12 - Obstacle Free Zone (OFZ) Surfaces - Per Runway End

OFZ Surface by Runway End	13	31	17	35
Inner Approach OFZ	No	No	No	No
Inner-Transitional OFZ	No	No	No	No
Precision OFZ	No	Yes	No	No

Source: 2019 RBD Airport Layout Drawing and Airfield Facilities Review

A full-length RSA/ROFA is not available on each end of Runway 13-31. Consequently, declared distances have been established for the ASDA and LDA to meet RSA/ROFA requirements. A full-length RSA/ROFA is available at each end of Runway 17-35.

Runway Protection Zones

The purpose of a Runway Protection Zone (RPZ) is to enhance the protection of people and property on the ground and to prevent developments that are incompatible with aircraft operations. The RPZ is a two-dimensional trapezoidal area that normally begins 200 feet beyond the paved runway end and extends along the runway centerline. There are two types of RPZs, approach and departure, and the approach RPZ is often the most stringent. In many instances, the approach and departure RPZs on a runway end overlap. However, when declared distances reduce the runway pavement available for operations, separate approach and departure RPZs are present. The dimensions of an RPZ are determined by the type/size of aircraft expected to operate at an airport and the type of instrument approach for each runway end (visual, precision, or non-precision). **Table 2-13** defines the approach RPZ dimensions for the four runway ends at RBD.

Table 2-13 - Runway Protection Zone Dimensions - Approach RPZ

Runway End	Approach Visibility Minimums	Length (ft.)	Inner Width (ft.)	Outer Width (ft.)
Runway 13	1 Mile	1,700	500	1,010
Runway 31	¾ Mile	1,700	1,000	1,510
Runway 17	1 Mile	1,000	500	700
Runway 35	1 Mile	1,000	500	700

Source: 2019 RBD Airport Layout Drawing and Airfield Facilities Review

Since displaced landing thresholds and a reduced TORA exist on each end of Runway 13-31, the approach and departure RPZs are not aligned with one another. **Table 2-14** identifies the dimension of the departure RPZs associated with Runway 13-31. There are no reduced declared distances on Runway 17-35, therefore, the departure RPZs overlap and exist as listed for the approach RPZ.

Table 2-14 - Runway Protection Zone Dimensions - Departure RPZ

Runway End	Length (ft.)	Inner Width (ft.)	Outer Width (ft.)
Runway 13	1,700	500	1,010
Runway 31	1,700	500	1,010

Source: 2019 RBD Airport Layout Drawing and Airfield Facilities Review

Runway Operational Patterns

Based on discussions with RBD Air Traffic Control Tower (ATCT) personnel, both runways are used interchangeably at the Airport. There is no runway designated specifically for arrivals or departures during most wind conditions. There are two general operating flows for aircraft traffic at RBD, and they are commonly referred to as a "south flow" and a "north flow." Based on seasonal wind patterns near RBD, a south flow is used the majority of the year. While on a south flow, Runways 13 and 17 are used for arriving and departing aircraft. When in the north flow, Runways 31 and 35 are used for are used for arriving and departing aircraft.

Aircraft operations data for Dallas Executive Airport was analyzed using Automated Dependent Surveillance – Broadcast (ADS-B) data from 2024. **Figure 2-2** depicts the share of aircraft traffic using each runway end for arrivals and **Figure 2-3** depicts the share of aircraft traffic using each runway end for departures over the year. A prevailing wind analysis will be completed as part of the facility requirements effort.

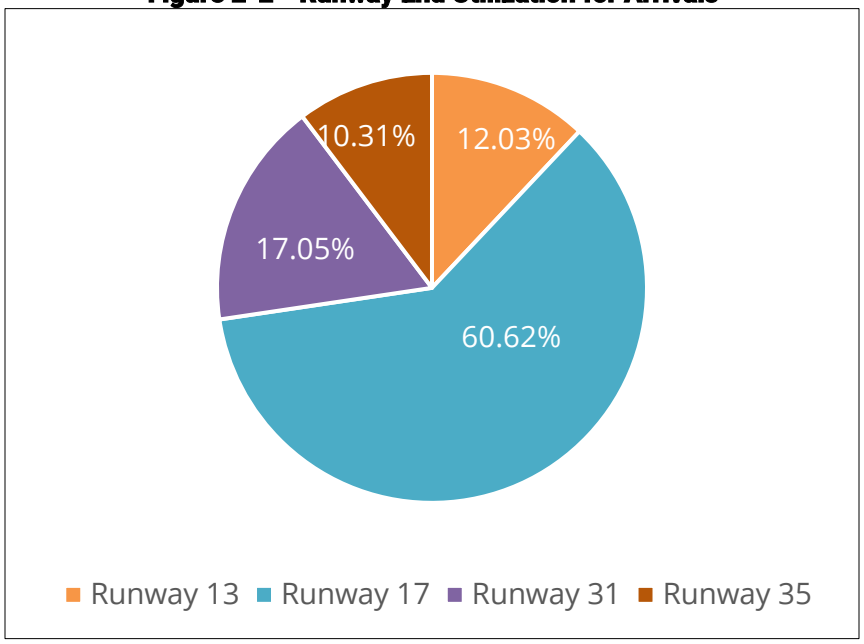
Many smaller aircraft use Runway 17-35 for arrivals and departures due to the runway's close proximity to the majority of the hangars located at the airport. Larger aircraft typically use Runway 13-31 due to its length.

ATCT personnel reported that when aircraft are arriving on Runway 13, the most common taxiways utilized for exiting the runway are Taxiways B1, A3, and A2. Taxiway A1 is rarely used by aircraft to exit Runway 13 after landing. When landing on Runway 31, the most common taxiways utilized for exiting the runway are Taxiways B1, B2, and B3. Aircraft rarely roll out long enough to use Taxiway B4 at the runway end.

When aircraft arrive on Runway 17, the most common taxiways utilized for exiting the runway are Taxiways A4 and D. Some aircraft will also turn off Runway 17-35 onto Runway

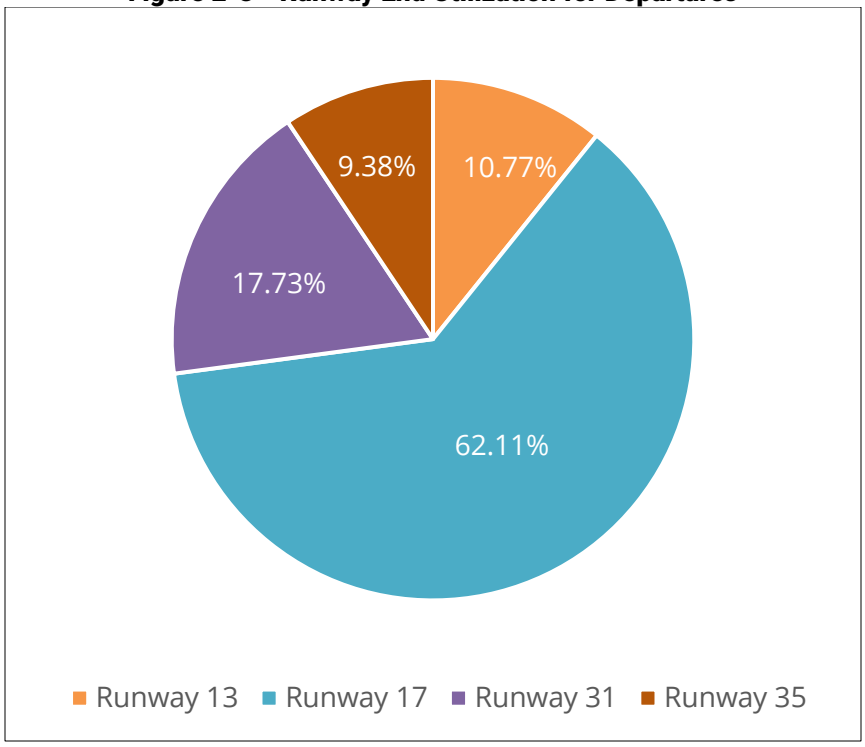
13-31 and utilize Taxiway A3 to access the hangar area. When aircraft arrive on Runway 35, the most common taxiways utilized for exiting the runway are Taxiways A4, A5, and A6.

Figure 2-2 - Runway End Utilization for Arrivals



Source: 1200.aero 2024 Flight Data for RBD

Figure 2-3 - Runway End Utilization for Departures



Source: 1200.aero 2024 Flight Data for RBD

Taxiway System

An airport's taxiway system plays a critical role in supporting the movement of aircraft from their parking locations at the Airport to/from the runway system. Both Runway 13-31 and Runway 17-35 have partial parallel taxiways that connect the ends of each runway.

Runway 13-31's northeastern parallel taxiway integrates portions of Taxiway B and Taxiway A. A partial parallel taxiway, identified as Taxiway E, is present on the southwest side of Runway 13-31. An extension project is currently underway for Taxiway E. This project will extend Taxiway E to intersect with Taxiway B2 on the northeast side of the runway.

Runway 17-35's parallel taxiway integrates portions of Taxiway A and Taxiway D. The separation distances for each runway centerline to its associated parallel taxiway centerlines are as shown in **Table 2-15**. Proper separation from runway to parallel taxiway centerlines is important for facilitating the safe and efficient flow of aircraft between the runway and parallel taxiway.

Table 2-15 - Runway to Parallel Taxiway Separation

Runway/Taxiway Pair	Centerline to Centerline Separation Distance (ft.)
Runway 13-31 Offset to Taxiway B	300
Runway 13-31 Offset to Taxiway A	530
Runway 13-31 Offset to Taxiway E	400
Runway 17-35 Offset to Taxiway A	300
Runway 17-35 Offset to Taxiway D	300

Source: 2019 RBD Airport Layout Drawing and Airfield Facilities Review

Based on discussions with ATCT, the capacity of the taxiway system is currently not an issue and minimal taxi delays occur. Engine run-up areas do not exist at the approach ends of Runway 17 and Runway 35. Adding these would accommodate engine run-ups for the significant amount of piston aircraft traffic at the Airport.

All of the taxiways are constructed of concrete. Similar to runways, taxiways have associated protected surfaces that are critical to the safe and efficient operation of aircraft. These surfaces include:

- Taxiway Safety Areas (TSA) – A defined surface on both sides of the taxiway prepared and suitable for reducing the risk of damage to aircraft deviating from the pavement and for supporting passage of aircraft rescue and firefighting (ARFF) equipment.

- Taxiway Object Free Areas (TOFA) – An area centered on the surface of a taxiway provided to enhance the safety of aircraft operations by remaining clear of objects, except for objects that need to be located ("fixed-by-function") in the TOFA for air navigation or aircraft ground maneuvering purposes.

Taxiway C – Looking East



Taxiways are also designated with a critical aircraft related to the taxiway's intended ADG as well as its Taxiway Design Group (TDG). A taxiway's ADG critical aircraft designation dictates the width of the TSA and TOFA for the taxiway. A taxiway's TDG is based on the landing gear dimensions of the taxiway's critical aircraft and dictates the taxiway's width and fillet (i.e., curvature where two taxiways intersect or curve) dimensions. **Table 2-16** identifies the general width of each taxiway at RBD in addition to the ADG, TDG, and total width of each taxiway's TSA and TOFA.

Table 2-16 - Taxiway Widths and Protected Surfaces

Taxiway Designation	Width (ft.)	Airplane Design Group	Taxiway Design Group	Taxiway Safety Area (ft.)	Taxiway Object Free Area (ft.)
A	60	II	3	79	124
A1	50	II	3	79	124
A2	50	II	3	79	124
A3	50	II	3	79	124
A4	60	II	3	79	124
A5	60	II	3	79	124
A6	60	II	3	79	124
B	60	II	3	79	124
B1	65	II	3	79	124
B2	60	II	3	79	124
B3	60	II	3	79	124
B4	60	II	3	79	124
C	60	II	3	79	124
D	60	II	3	79	124
E	60	III	3	118	171
E1	65	III	3	118	171

Source: 2019 RBD Airport Layout Drawing, Airfield Facilities Review, and FAA Airport Diagram

The width of all taxiways at RBD meet the taxiway width requirement for TDG 3 standards. However, many fillets associated with these taxiways were designed prior to current FAA fillet design standards. Consequently, the fillets for all taxiways other than Taxiway E and E1 do not meet current fillet design standards for TDG 3.

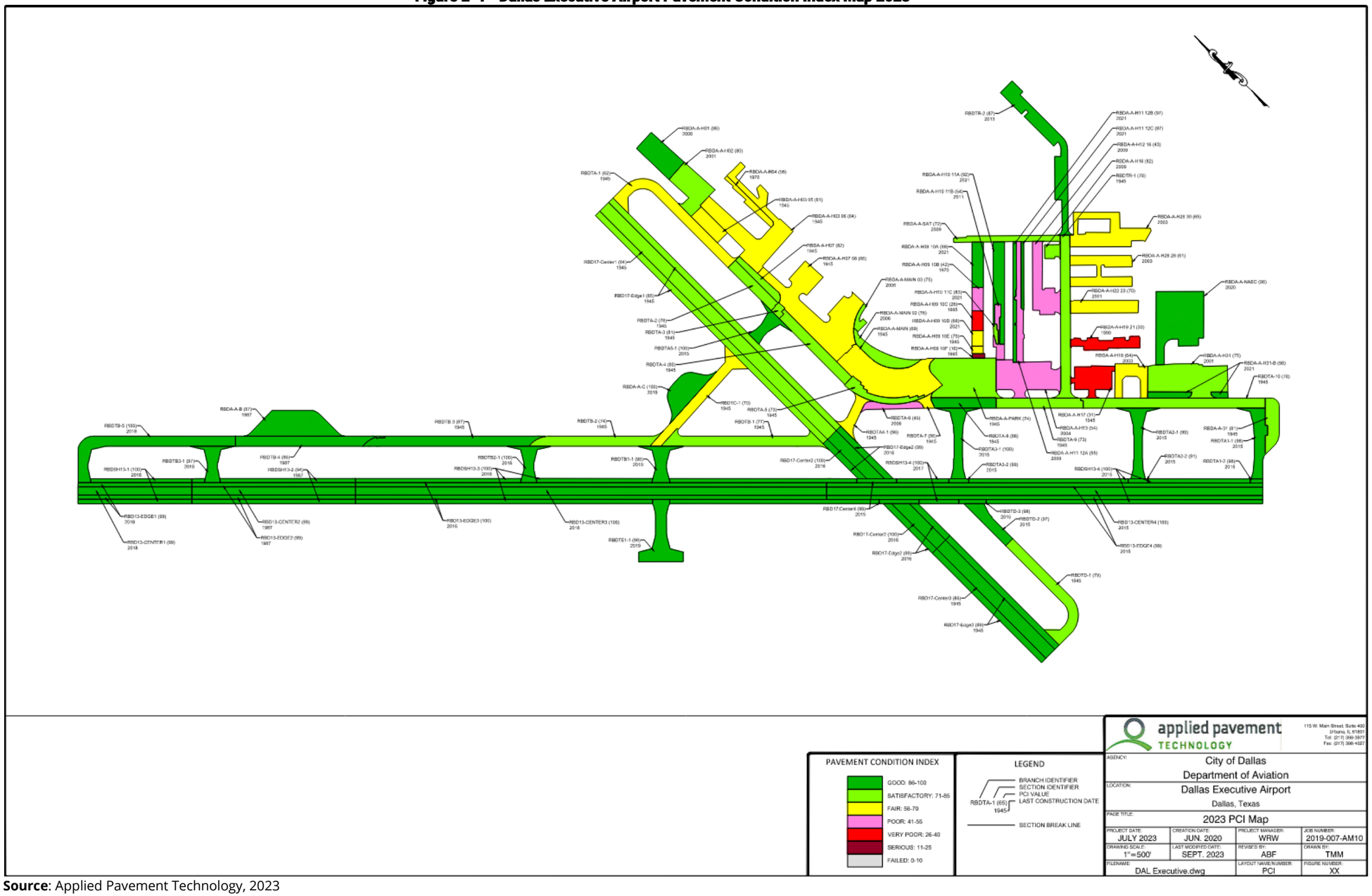
Airfield Pavement Condition

A pavement condition index (PCI) inspection was performed by Applied Pavement Technology for all airside pavements at RBD in 2023. According to the FAA's Advisory Circular 150/5320-6G, *Airport Pavement Design and Evaluation*, a pavement condition index is a numerical rating of the surface condition of pavement and indicates functional performance with implications of structural performance.

The PCI scale ranges from a value of 0 (representing a pavement in a completely failed condition) to a value of 100 (representing a pavement with no distress). In general terms, pavements in satisfactory to good condition that are not exhibiting significant amounts of load-related distress will benefit from preventive maintenance actions, such as joint and crack sealing and patching. Pavements with a PCI between 40 and 70 (i.e., fair to poor condition) are more likely candidates for major rehabilitation activities, such as Portland Cement Concrete (PCC) repairs, although preventive maintenance may still be beneficial. Often, when the PCI is less than 40, reconstruction is the most viable alternative due to substantial deterioration of the pavement structure. These guidelines are general PCI thresholds associated with the level of repair needed.

Figure 2-4 was developed to visually represent the results of the pavement study. The runway and taxiway system at RBD are generally in good or satisfactory condition. Taxiway C and A4 are classified as fair and a portion of Taxiway A, adjacent to Taxiway A4, is identified as being in poor condition.

Figure 2-4 - Dallas Executive Airport Pavement Condition Index Map 2023



Source: Applied Pavement Technology, 2023

Airfield Lighting, Signage, and Electrical Infrastructure

Airfield lighting, signage, and electrical infrastructure play an important role in providing a visual to pilots regarding their location on the airport. **Table 2-17** provides an overview of the existing runway lighting infrastructure at RBD.

Table 2-17 - Runway Lighting

Runway	Runway Edge Lighting	Runway Centerline Lighting	Touchdown Zone Lighting	Approach Lighting System
Runway 13-31	MIRL	None	None	None
Runway 17-35	MIRL	None	None	None

Source: 2019 RBD Airport Layout Drawing and Airfield Facilities Review

The Medium Intensity Runway Lights (MIRLs) on Runway 13-31 are Light-Emitting Diode (LED) fixtures (FAA-type L-861) that were installed in 2017 as part of the last runway extension project. The runway edge lights are located within the paved shoulders for the runway. Displaced threshold lights and runway end lights are present on each end of the runway.

The MIRLs on Runway 17-35 are incandescent fixtures that include a combination of FAA-type L-861 and L-862 lights. Based on historical grant documentation, it is estimated that the original fixtures (L-861) were installed in 2004. However, some fixtures have been replaced since that time. The lights are installed in the grass on both sides of the runway. Runway end/threshold lights are present on each end of the runway.

All taxiways at RBD are equipped with medium intensity taxiway edge lighting (MITL) and lighted runway/taxiway signage is present throughout the airfield. The MITLs are FAA-type L-861T lights and are a combination of LED and incandescent fixtures. The original incandescent fixtures were installed in 2004, and the LED fixtures were installed between 2014 and 2018. The current airfield signage is FAA-type L-858 with a curved face produced by Lumacurve. The face panels for several signs are beginning to fade.

Airfield Lighting Vault

The existing Airfield Lighting Vault (ALV) is an approximately 17-foot by 20-foot building located near the ATCT on the south side of the airfield. The ALV houses the airfield lighting constant current regulators (CCRs) that power the airfield series circuits, the relay-based lighting control system, a heating, ventilation, and air conditioning (HVAC) system for the vault, and an automatic transfer switch (ATS) as part of the emergency power system for the vault. The ALV and four (4) CCRs (the CCRs for Runways 13-31 and 17-35 and the CCRs

for Taxiways A and B) were constructed and installed in 2004. The regulator for the Runway 13-31 Precision Approach Path Indicators (PAPI) was installed in 2017 and the regulator for Taxiway E on the southwest side of Runway 13-31 was installed in 2019. There are no spare regulators present in the vault. The control system is connected to a remote-control panel consisting of selector switches in the cab of the ATCT.

Airfield Lighting Vault and Generator



The ALV also has a propane-powered backup generator located on the west side of the building. The generator is powered by a propane tank that has a 500-gallon capacity. The generator is located under an awning and within a concrete curbed enclosure. The generator has been set up with the intention of being connected to a permanent natural gas connection, when available, ultimately removing the need for the propane tank. The generator is a 200kW Kohler Model 200REZXB that was manufactured in 2020.

Navigational Aids (NAVAIDs)

Navigational Aids (NAVAIDs) are ground-based systems that provide information to pilots for navigational purposes. In general, NAVAIDs can be segmented into two categories: visual and electronic. Visual NAVAIDs provide visual guidance to pilots to aid them in landing an aircraft, locating the airport, or locating a particular runway. Electronic NAVAIDs emit a signal that communicates with equipment in the cockpit of an aircraft that aids a pilot in navigating without using visual cues outside the aircraft. Electronic NAVAIDs are used for both enroute navigation and approaches to landing at an airport.

Visual NAVAIDS

The following visual NAVAIDS are present at RBD and are owned and maintained by the airport:

- Airport Beacon – The Airport beacon operates at night or during inclement weather to provide pilots with a visual signal identifying the location of RBD. It is located next to the terminal building and uses a fixture with an LED light that is approximately two years old.

- Precision Approach Path Indicators for Runway 13-31 – Precision approach path indicators (PAPIs) provide a visual indication to pilots regarding whether they are above, below, or on the intended glidepath for landing on a runway. Each end of Runway 13-31 is equipped with a four box PAPI system. Both PAPIs are calibrated for a 3-degree glidepath angle and were installed in 2017.
- Runway End Identifier Lights for Runway 13-31 – Runway end identifier lights (REILs) are sequenced flashing lights that provide a visual indication to pilots regarding the location of the landing threshold of a runway. REIL systems are located at the landing thresholds on each end of Runway 13-31 and were installed in 2017.

REIL for Runway 17



The following visual NAVAIDs at RBD are owned and maintained by the FAA:

- PAPI for Runway 17 – The PAPI is calibrated for a 3-degree glidepath angle.
- REILS for Runway 17-35 – Located at the landing threshold for each runway.

Electronic NAVAIDS

The primary electronic NAVAIDs at RBD are the glideslope and localizer systems associated with the Instrument Landing System (ILS) approach for Runway 31. The glideslope provides vertical guidance to instrumentation in the aircraft indicating whether the aircraft is above, below, or on the established glidepath to the runway. The localizer provides horizontal guidance to instrumentation in the aircraft, indicating whether the aircraft is in alignment with the extended runway centerline. Glideslopes are located near the approach end of the landing runway while localizers are located at the departure end.

Glideslope for Runway 31



The localizer for Runway 13 is a Mark 1F and the glideslope is a capture effect glideslope. The glideslopes and localizers have established critical areas that need to be protected from aircraft, vehicle parking, and any other objects that could potentially block the signals emitted by the equipment.

Airspace

All flight operations conducted at RBD are governed by FAA regulations established for the National Airspace System (NAS). The NAS is made up of airspace, navigation facilities, airports, regulations/procedures, and ATC facilities. The following sections describe the airspace system associated with Dallas Executive Airport.

National Airspace Structure

Airspace can be generally categorized as either controlled or uncontrolled. The area over and surrounding RBD is controlled airspace. Controlled airspace is defined as airspace with positive navigational control, meaning the pilot is communicating with the ATCT who is providing instructions to takeoff, land, or transition through the airspace. The different classes of controlled airspace are defined as follows:

- Class A Airspace – Generally includes all airspace between 18,000 feet Mean Sea Level (MSL) and 60,000 feet MSL. All operations in Class A airspace are conducted under Instrument Flight Rules (IFR) unless otherwise authorized.
- Class B Airspace – Generally consists of airspace from the surface to 10,000 feet MSL. The dimensions of this type of airspace are tailored to specific airport conditions based on the airport's environment. ATCT clearance is required to enter Class B airspace and all aircraft within it receive separation services. Class B airspace typically surrounds the nation's busiest airports.
- Class C Airspace – Generally consists of airspace from the surface to 4,000 feet above an airport's field elevation. The airspace usually consists of a surface area with a five nautical mile (NM) radius and an outer circle with a ten NM radius that extends from 1,200 feet to 4,000 feet above the airport's elevation. Two-way radio communication is required with the ATCT.
- Class D Airspace – Generally extends from the surface to 2,500 feet above an airport's elevation at airports with an operational ATCT. Each configuration is tailored to the specific airport but Class D airspace typically spans a five NM radius.
- Class E Airspace – Controlled airspace that is not defined as A, B, C, or D is Class E. Class E also typically surrounds many non-towered airports. Class E airspace extends up to, but not including, 18,000 feet MSL, and all airspace above 60,000 feet MSL is categorized as Class E.

RBD Airspace Structure

The airspace surrounding RBD is Class D when the ATCT is operational. The ATCT operates daily from 7:00 AM to 9:00 PM. During operational hours for the ATCT, all aircraft are required to obtain ATCT clearance prior to entering the Class D airspace. The Airport is also located underneath the Class B airspace associated with Dallas-Fort Worth International Airport (DFW). The airspace is depicted in **Figure 2-5**. The airspace surrounding RBD is complex, as multiple other airports including Dallas-Love Field (DAL) are located in close proximity to RBD.

The FAA requires aircraft operating in RBD's airspace to be equipped with an operable radar beacon transponder with automatic altitude reporting capability and operable Automatic Dependent Surveillance – Broadcast (ADS-B) Out at a minimum.

RBD Airspace Procedures

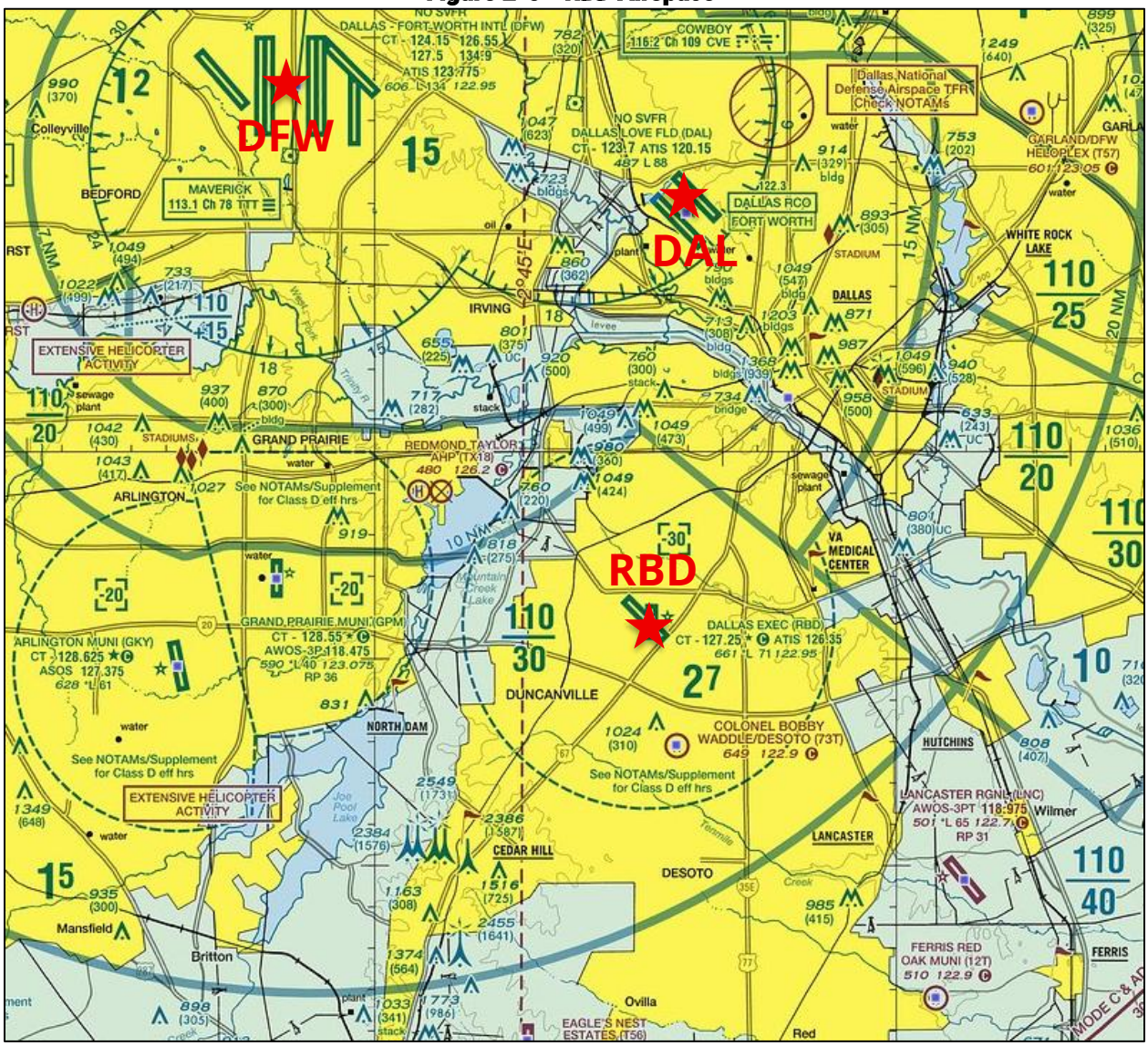
Aircraft approaching RBD during Instrument Flight Rule (IFR) conditions fly through the airspace to land on runways using predetermined routes called Instrument Approach Procedures (IAPs). **Table 2-18** summarizes the instrument approaches available at RBD and the minimum visibility and the DA (Decision Altitude)/DH (Decision Height) associated with each approach.

Table 2-18 - Instrument Approaches

Instrument Approaches	Visibility Minimums (statute miles)	Decision Height/Altitude (ft.) (AGL)
Runway 13-31		
Runway 13		
RNAV (GPS) Y	1	383′
RNAV (RNP) Z	1	363′
Runway 31		
ILS	3/4	200′
LOC	1	420′
RNAV (GPS)	3/4	200′
Runway 17-35		
Runway 17		
RNAV (GPS)	1	442′
VOR	1	462′
Runway 35		
RNAV (GPS)	1	621′

Source: FAA Aeronautical Information Services, Obtained 11/7/2025

Figure 2-5 - RBD Airspace



Source: FAA Sectional Chart, 2025. Obtained 11/7/2025

Due to the complexity of the airspace surrounding DFW, multiple Standard Terminal Arrival (STAR) and Departure Procedures (DP) exist for RBD. Based on discussions with RBD ATCT personnel, the existing STAR, DP, and instrument approach procedures meet the needs of the Airport.

Communication and Weather Facilities

Ground-to-air communication equipment and weather facilities are critical to supporting the safe operation of aircraft in and around airports.

Automated Surface Observing System

RBD has an Automated Surface Observing System (ASOS) that is the primary source of wind direction, velocity, and altimeter data for weather observation purposes for the Airport. The ASOS is an automated sensor suite that reports weather conditions over a discrete radio frequency for pilots to receive real time weather information. The RBD ASOS information can be received by turning to the RBD Automated Terminal Information Service (ATIS) frequency of 126.35 MHz or by calling 214-330-5317. The FAA owns the ASOS, but it is maintained by the National Weather Service (NWS).

The Office of the Federal Coordinator for Meteorological Services and Supporting Research FCM-S4-2019, *Federal Standard for Siting Meteorological Sensors at Airports,* provides guidance for critical areas for ASOS facilities. Within 100 feet of the visibility sensor, no grass or vegetation should be higher than 10 inches. The wind sensor should be at least 15 feet higher than any obstruction within 500 feet and 10 feet higher than any obstruction between 500 and 1,000 feet.

Windsock and Segmented Circle

RBD has a single windsock located north of the runway/runway intersection. The windsock is surrounded by a segmented circle constructed of concrete. The windsock is internally illuminated with an LED lighting array.

Remote Transmit/Receive Communication Array

RTR (Remote Transmitter/Receiver) towers are communication towers that can be used for ground-to-air communication. There is a single RTR tower site located at RBD. Based on discussions with RBD ATCT personnel, the RTR site includes communication equipment for the RBD tower as well as secondary communications equipment for DFW.

Air Traffic Control Tower

The current ATCT is located off Boulder Drive on the west side of the airport. It is a contract tower facility that was originally opened in 2007. The facility houses air traffic control services for RBD but does not include a Terminal Radar Approach Control (TRACON) facility. There are currently no line-of-sight issues from the ATCT cab to any portions of the movement area. The facility has its own access control infrastructure, including perimeter fencing, and a vehicle gate.

Air Traffic Control Tower



Airport Perimeter Road

A partial perimeter road exists along the outer limits of Airport property at RBD. The perimeter road needs to be extended southward from the CAF apron to where the perimeter road begins adjacent to the Marvin D. Love Freeway.

Terminal/Landside Facilities

An airport's terminal/landside facilities include the aprons, fixed base operators (FBOs), aeronautical businesses, terminal building, hangars, roadways, and other facilities that are essential for the integration of airside facilities into the local community. The terminal/landside facilities at RBD accommodate a wide range of aircraft including small piston engine aircraft to large corporate jets. The current based aircraft fleet mix at RBD is shown in **Table 2-19**.

Table 2-19 – Based Aircraft

Aircraft Type	Number
Single Engine	262
Multi-Engine	49
Jet	55
Helicopter	12
Total	**378**

Source: RBD Based Aircraft Count, 1-1-2025

Dallas Executive Airport has established a building numbering system used to identify facilities at the airport. The building numbers associated with each facility are identified in **Figure 2-6** and **Figure 2-7**. **Table 2-20** provides a list of facilities located at RBD including the building number, size, and facility type.

Airport Terminal and FBO Facilities

RBD has a general aviation (GA) terminal building located east of Runway 17-35 in the center of the eastern GA development area. The terminal opened in 2005 and is approximately 13,000 square feet. The terminal includes a lobby, office space, and area for a restaurant. Adjacent to the terminal is a conference center that is used for various activities including public meetings and events.

Ambassador Jet Center



RBD also has two FBOs: Ambassador Jet Center and Jet Access. Ambassador Jet Center was established in 2001 and is located on the east side of the airfield. The FBO includes multiple hangars and a terminal facility located within

Building 5435. The terminal facility includes a lobby, conference room, flight support areas, and office space. The terminal facility is two stories and is approximately 7,000 square feet.

Jet Access was established in 2024 and is located on the west side of the airfield. The FBO includes multiple hangars and a terminal facility located within Building 5535. The terminal facility includes a lobby, conference room, flight support areas, and office space. The terminal is a single story and is approximately 8,000 square feet.

Jet Access



Figure 2-6 - Hangars and Buildings - Eastside



Source: Garver, 2025

Figure 2-7 - Hangars and Buildings - Westside



Source: Garver, 2025

Table 2-20 - Terminal/Landside Facilities Inventory

Building Number	Hangar Type	Area (sq. ft.)	Utilization
4975	Box Hangar	8,500	Private Hangar
4985	Box Hangar	19,500	Private Hangar
5010	Box Hangar	14,000	Private Hangar
5015	Box Hangar	12,600	Private Hangar – Ambassador
5025	Box Hangar	24,500	Private Hangar – Ambassador
5110	Box Hangar	19,600	Private Hangar
5120	Office Space	7,200	Office Space
5125	Box Hangar	41,500	Private Hangar/Flight Schools
5223	Storage Building	70	Storage
5225	Box Hangar	25,500	Private Hangar – Jet Access
5303	Terminal Building	13,000	GA Terminal and Restaurant
5419	T-Hangar	32,400	25 T-Hangar Bays (Ambassador)
5423	T-Hangar	29,400	1 Box Hangar and 10 T-Hangar Bays (Ambassador)
5427	T-Hangar	34,000	32 T-Hangar Bays (Ambassador)
5431	T-Hangar	20,900	16 T-Hangar Bays (Ambassador)
5433	Box Hangar	13,40	Private Hangar – Ambassador
5435	Box Hangar/FBO	20,400	Ambassador Hangar and FBO Terminal
5439	Box Hangar	4,100	Private Hangar – Ambassador
5443	Box Hangar	4,100	Private Hangar – Ambassador
5478	Box Hangar	20,000	Private Hangar – Jet Access
5484	Box Hangar	18,000	Private Hangar – Jet Access
5490	Box Hangar	12,000	Private Hangar
5523	Box Hangar	40,000	Private Hangar – Jets MRO
5535	Box Hangar/FBO	36,500	Jet Access Hangar and FBO Terminal
5540	Box Hangar	17,000	Public Safety Hangar
5550	ATCT/Lighting Vault	N/A	Air Traffic Control Tower and Lighting Vault
5555	Box Hangar	15,000	Private Hangar – Dallas College/Jet Access
5661	Box Hangar	21,000	CAF Hangar
5673	Box Hangar	6,000	Private Hangar
5675	Box Hangar	6,000	Private Hangar
5676	Box Hangar	9,200	Private Hangar – Jet Access
5677	Box Hangar	3,600	Private Hangar
5681	Box Hangar	13,500	Private Hangar – Jet Access
5685	Box Hangar	13,500	Private Hangar

Source: Garver, 2025

TABLE 2-20 Terminal/Landside Facilities Inventory (Continued)

Building Number	Hangar Type	Area (sq. ft.)	Utilization
5689	Box Hangar	9,600	Private Hangar
5691	Box Hangar	10,000	Private Hangar
5693	Box Hangar	7,200	Private Hangar
5695	Box Hangar	10,200	Private Hangar
5697	Box Hangar	17,000	Private Hangar
5699	Box Hangar	16,000	Private Hangar
5701	Box Hangar	9,500	Private Hangar
5907	Airport Maintenance Facility	N/A	Airport Maintenance
CAF	Box Hangar	46,500	CAF Hangar

Source: Garver, 2025

Aircraft Storage/Hangar Facilities

Dallas Executive Airport has a wide range of hangar facilities from large box hangar complexes to T-hangars. In total, the Airport has 39 hangar buildings including four T-hangar facilities. Many of the box hangar facilities include multiple hangar bays. Additionally, some hangars have office space built into or immediately adjacent to the hangar. The total square footage of hangar space at RBD is approximately 681,300. There are currently no vacant hangars at the airport.

Commemorative Air Force



Hangars at the airport are occupied by a myriad of aeronautical businesses including FBOs, MROs, and other aeronautical service providers. The Airport is also home to the national headquarters for the Commemorative Air Force (CAF). Dallas College also occupies a hangar where they conduct training for individuals seeking to obtain their Airframe and Powerplant (A&P) maintenance license. The Airport is also home to two flight schools: Parrish Aviation Flight Academy and Coast Flight Training.

Aircraft Parking Apron

East Apron



Dallas Executive Airport has approximately 1,500,000 square feet of apron space used for parking and maneuvering of aircraft. The majority of the apron space is constructed of concrete. The apron area has a total of 25 designated aircraft tie-down spaces, all of which are located on the east apron. Within the contiguous apron area on the east side of the Airport there are many areas shared by both vehicle and aircraft traffic.

Terminal Parking and Roadway Access

The GA terminal facility located on the east side of the airport has a large parking lot around it that includes 75 parking spaces including six Americans with Disabilities Act (ADA)-accessible parking spaces. The parking lot is constructed of concrete and is in good condition. Vehicle parking for hangars on the eastern side of the Airport is limited and will need to be expanded as part of future development planning to reduce the need for vehicles to utilize the apron to access hangars within the area. Vehicle parking on the western side of the Airport is generally sufficient to accommodate existing demand. Additionally, vehicle access on the west side of the Airport is separated from airside access.

Roadway access to the eastern side of the Airport is via Challenger Drive and Mariner Drive which connect to South Hampton Road. Both access roads are constructed of concrete and are generally in good condition. Saturn Drive and Voyager Drive both connect from Challenge Drive into the eastern development area at the Airport. Controlled access points are present where both roadways intersect the perimeter fence. Saturn Drive and Voyager Drive are constructed of concrete and are generally in good condition.

Roadway access to the western development area is available via Boulder Drive which connects to West Red Bird Lane. Boulder Drive is constructed of concrete and is generally in good condition. A controlled access point is present where Boulder Drive intersects with West Red Bird Lane.

Security

Dallas Executive Airport has a chain-link fence with three strands of barbed wire surrounding the majority of the airfield. The type of fencing varies around the GA terminal building where some wrought iron fencing is present. Multiple controlled access vehicle gates exist along the fence line. The primary gates use a common access control system. The configuration of the perimeter fence in the western development area will likely need to be reconfigured as additional development occurs in the area to provide improved separation of airside and terminal/landside facilities and to support additional vehicle traffic.

Fuel Storage Facility

Dallas Executive Airport has two fuel farms present on Airport property. The largest fuel farm includes four above ground storage tanks and is located adjacent to the terminal building. The tanks are utilized by Ambassador Jet Center and Jet Access. This fuel farm is referred to as the northern fuel farm. The smaller fuel farm is located by CAF and is used by Jet Access. This fuel farm is referred to as the southern fuel farm. A summary of the fuel farm infrastructure used by both Ambassador Jet Center and Jet Access is provided in **Table 2-21**. The northern fuel farm is pictured here.

Northern Fuel Farm



Table 2-21 - RBD Fuel Farms

FBO	Fuel Farm Assets
Ambassador Jet Center	Northern Fuel Farm 1. Jet A – 20,000 gallons 2. 100LL – 12,000 gallons
Jet Access	Northern Fuel Farm 1. Jet A – 20,000 gallons 2. 100LL – 12,000 gallons Southern Fuel Farm 1. Jet A – 16,000 gallons 2. 100LL – 16,000 gallons

Source: Tenant Interviews, October 2025

Both FBOs have multiple fuel trucks. Only full service fueling is available at both FBOs. As development on the west side of the Airport increases, a fuel farm on the west side of the airport will likely be needed to minimize fuel truck movements along the perimeter road. Both fuel farms are in good condition based on discussions with airport and FBO staff.

Existing Environmental Overview

This section provides an overview of the known environmental factors that should be considered as part of the ALP with Narrative process. Multiple environmental investigations and analysis reports have been completed at RBD over the past 10 years including the reports identified and described in **Table 2-22**. In addition to the reports identified in the table, multiple environmental reports have been issued related to the removal and closure of underground storage tank sites at RBD.

Table 2-22 - Previous Environmental Investigation and Analysis Reports

Report Title	Description	Report Date
Phase I – Site Investigation Report (Western Development Area)	This analysis included a Phase 1 Environmental Site Assessment (ESA) for approximately 170 acres on the western side of the airport reviewing historical soil filling activities conducted in the area. The report recommended the completion of a Phase II ESA for the area.	December 19, 2018
Phase II – Site Investigation Report (Western Development Area)	This analysis included soil borings for approximately 170 acres on the western side of the airport analyzing for soil contaminants as part of a Phase II ESA. The report identified that no further action was needed at this time.	March 19, 2019
Affected Property Assessment Report (Wings over Dallas Crash Event)	This report analyzed the environmental impacts of fluids released during the Wings Over Dallas Crash (2022). A subsequent report was completed on October 28, 2024, that summarized the actions taken by the City of Dallas to mitigate environmental impacts. Contaminated soil in the area was removed and the Texas Commission on Environmental Quality (TCEQ) issued a letter on December 17, 2024, stating no additional action is necessary.	August 14, 2023
Environmental Assessment (EA) on Runway Shift and Other Improvements	The Texas Department of Transportation – Aviation Division conducted an EA related to the extension and shift of Runway 13-31.	August 4, 2016

Source: Environmental reports provided by City of Dallas. Reviewed 11-14-25

Historical, Architectural, Archaeological, and Cultural Resources

The National Historic Preservation Act of 1966 requires that an initial review be made to determine if any properties in or eligible for inclusion in the National Register of Historic Places are within the area of a proposed action's potential environmental impact. The Archaeological and Historic Preservation Act of 1974 provides for the survey, recovery, and preservation of significant scientific, pre-historic, historical, archaeological, or paleontological data when such data may be destroyed or irreparably lost due to a federal, federally funded, or federally licensed project.

An online query through the National Registry of Historic Places and Texas Historical Commission website revealed that there are no historic site locations in the immediate vicinity of the Airport. The closest historical site that the query identified was the Monroe Shops located 4.5 miles northeast of the Airport. A historical marker is located close to the Airport for the Oak Cliff Presbyterian Church located at 6000 South Hampton Road. However, the church is not a designated historical site.

Fish, Wildlife, and Plants

The Endangered Species Act requires each federal agency to ensure that any action authorized, funded, or carried out by such agency is not likely to jeopardize the continued existence of any endangered or threatened species nor result in the destruction or adverse modification of the habitat of such species. An online query was completed utilizing the Texas Parks and Wildlife Department's (TPWD) Rare, Threatened, and Endangered Species of Texas database for Dallas County. **Table 2-23** lists the threatened and endangered species identified through the online query using the database. Future coordination with the United States Fish and Wildlife Service (USFWS) and TPWD may be necessary prior to commencing any major construction project at RBD to confirm that no hazard to an endangered or threatened species is being created.

Table 2-23 - Dallas County Threatened and Endangered Species

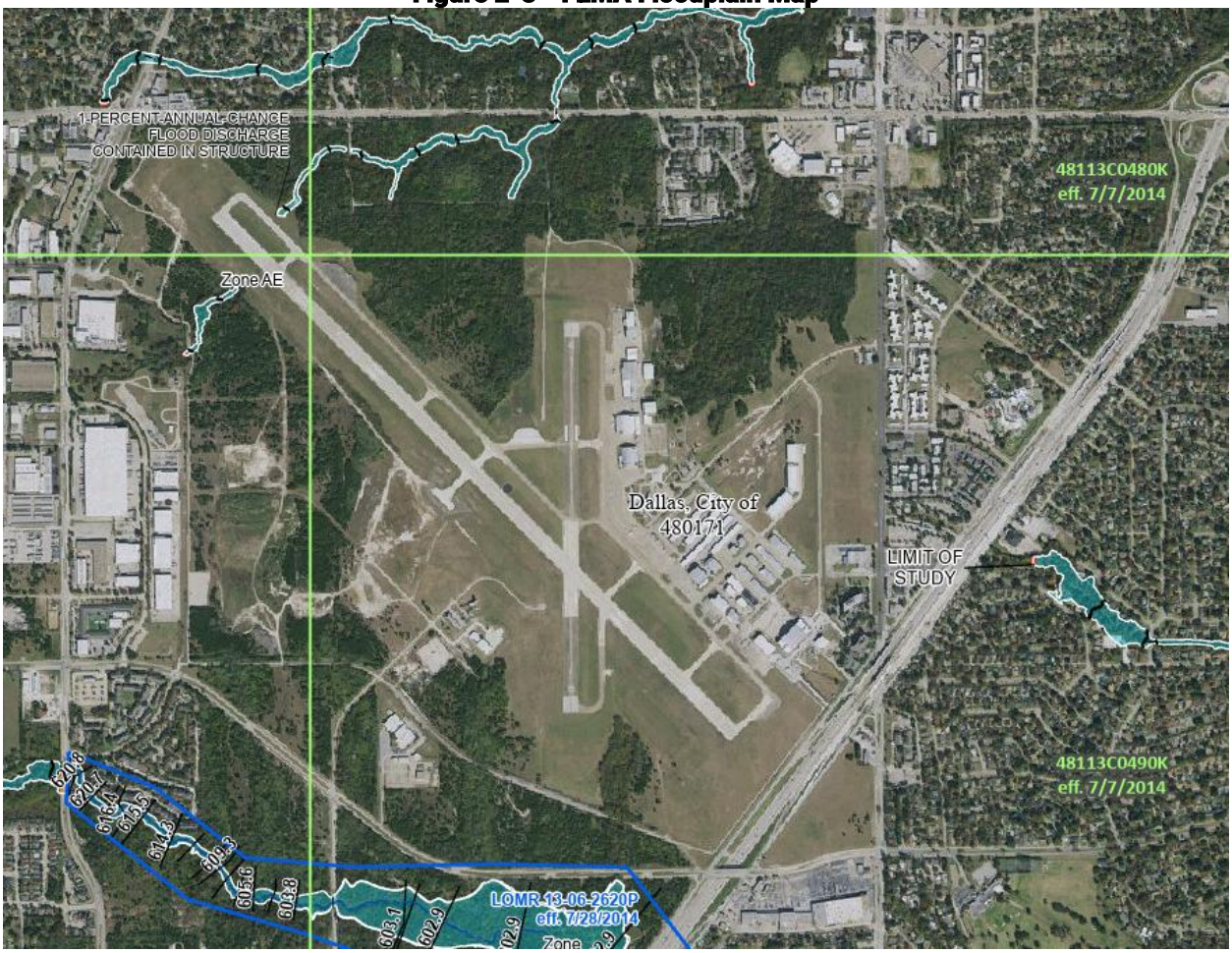
Common Name	Guenus/Species	Status
Black Rail	Laterallus jamaicensis	LT
Whooping Crane	Grus americana	LE
Piping Plover	Charadrius melodus	LT
Rufa Red Knot	Calidris canutus rufa	LT
Yellow-Billed Cuckoo	Coccyzus americanus	LT
Golden-Cheeked Warbler	Setophaga chrysoparia	LE
Texas Fawnsfoot	Truncilla macrodon	LT
White-Faced Ibis	Plegadis chihi	State Listed
Wood Stork	Mycteria americana	State Listed
Interior Least Tern	Sternula antillarum athalassos	State Listed
Alligator Snapping Turtle	Macrochelys temminckii	State Listed
Texas Horned Lizard	Phrynosoma cornutum	State Listed
Sandbank Pocketbook	Lampsilis satura	State Listed
Louisiana Pigtoe	Pleurobema riddellii	State Listed
Texas Heelsplitter	Potamilus amphichaenus	State Listed

Source: USFWS and TPWD. LE = Federally Listed Endangered; LT = Federally Listed Threatened

FEMA Floodplain Map

Flooding can hamper the safe operation of an airport and make it difficult to develop property on or around an airport. As part of this study, an online inquiry was completed through the FEMA Flood Map Service Center to identify areas on or around RBD affected by the existing floodplain. According to the results of the query, the Airport lies in an area of minimal flood hazard as shown as in **Figure 2-8.** Airport staff reported that there have not been any previous flooding issues at RBD within recent history. One significant drainage tributary is located along the northern portion of the Airport that is designated as being within the 100-year floodplain.

Figure 2-8 - FEMA Floodplain Map

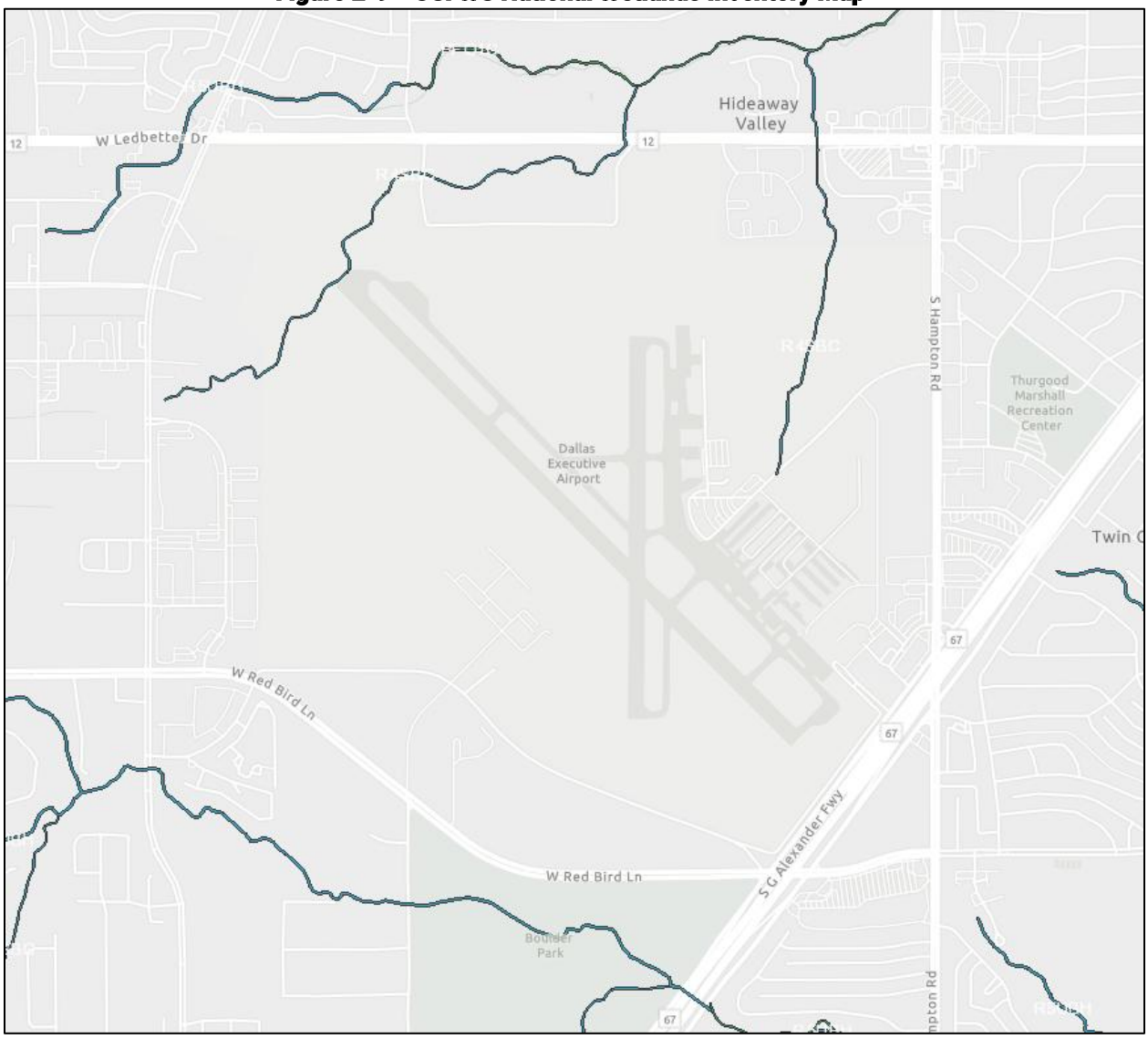


Source: FEMA Flood Map Service Center, 2025

Wetlands

Similar to floodplains, wetlands can present a challenge for future developments on airport property. As part of this ALP with Narrative Report, an online inquiry was completed using the U.S. Fish & Wildlife Service National Wetlands Inventory online database. The result is shown in **Figure 2-9.** Two riverines exist on the north side of the Airport's property. One riverine is in the same general area as the 100-year floodplain. The second riverine is on the east side of Airport property and is generally shown in the same location as a significant drainage tributary.

Figure 2-9 - USFWS National Wetlands Inventory Map

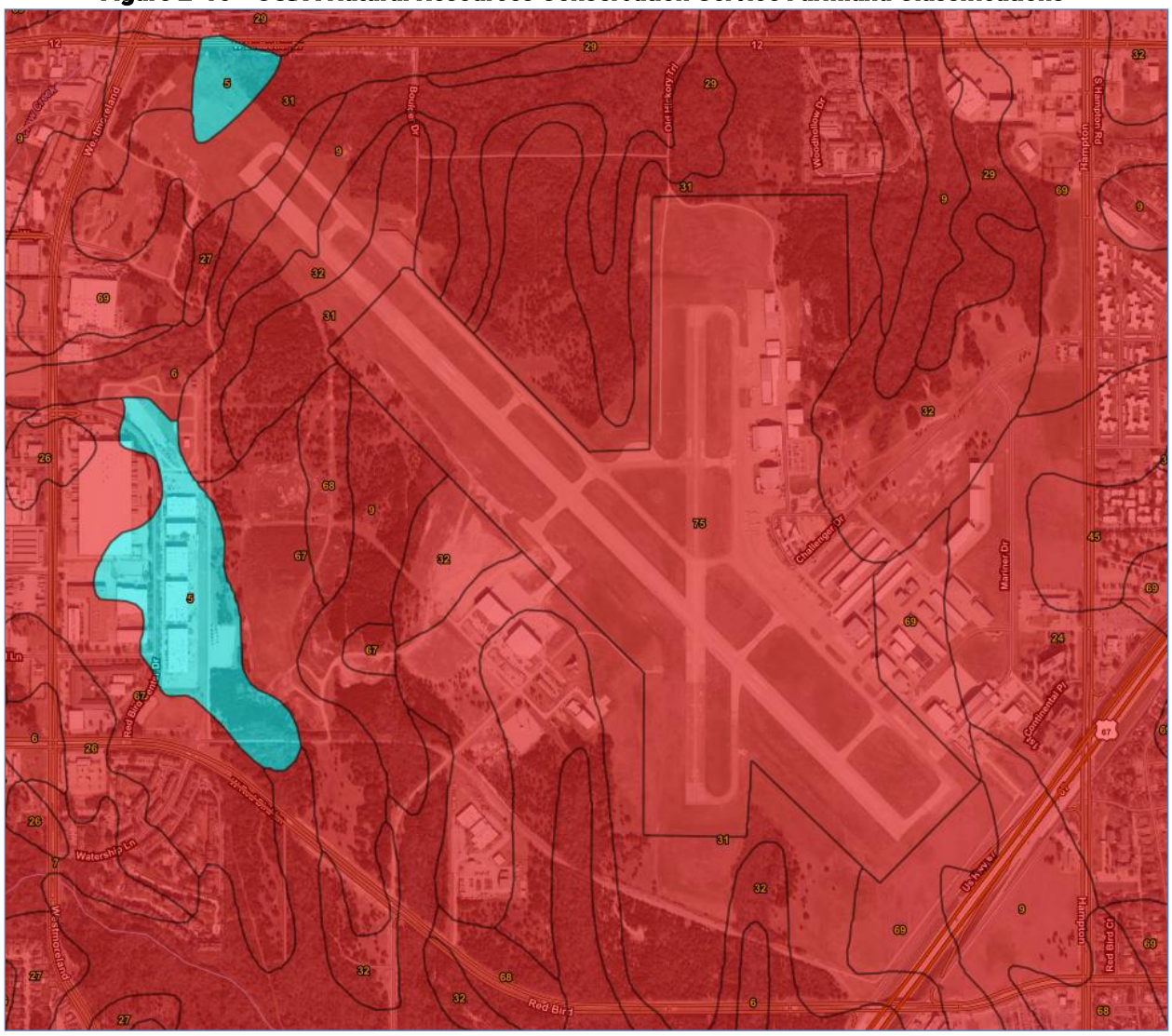


Source: USFWS National Wetlands Inventory, 2025

Farmlands

The Farmland Protection Policy Act (FPPA) regulates federal actions with the potential to convert farmland into non-agricultural uses. The FPPA is intended to minimize the impact that federal programs have on the unnecessary and irreversible conversion of farmland to non-agricultural uses. According to the USDA Web Soil Survey System in **Figure 2-10**, almost the entirety of the Airport property as well as its surroundings are considered “not prime farmland” colored in red. A small area of “farmland of statewide importance” exists on the west side of the airport (shown in light blue).

Figure 2-10 - USDA Natural Resources Conservation Service Farmland Classifications



Source: USDA Web Soil Survey System, 2025

Hazardous Materials, Solid Waste, and Pollution

Hazardous materials, solid waste, and other pollutants can present a challenge to future airport development. There are currently no identified municipal solid waste (MSW) sites located on or adjacent to RBD property according to the TCEQ MSW Facility Viewer. Additionally, there are no industrial or hazardous waste sites located on or adjacent to RBD property according to the TCEQ Industrial and Hazardous Waste (IHW) Facility Viewer.

Noise

Noise created by arriving and departing aircraft has the potential to create environmental impacts on communities living in close proximity to an airport. Dallas Executive Airport has a noise monitoring system installed around the Airport to aid in monitoring aircraft noise impacts. Additionally, in 2021, HMMH completed a noise contour map for RBD. The 2020 estimated noise contours are shown in **Figure 2-11**. As shown in the exhibit, the 75-, 70-, and 65-Day Night Average Sound Level (DNL) contours are fully contained on Airport property. The 60 DNL at the approach end of Runway 35 extends into an undeveloped area off of Airport property.

Land Use and Controls

The City of Dallas has established land-use zoning requirements throughout the city. The majority of the Airport's property is currently zoned "IR – Industrial Research" with the surrounding area primarily zoned as residential. **Figure 2-12** shows the current zoning map for the City of Dallas for the area surrounding RBD. The City has established a height hazard zoning (HHZ) ordinance related to RBD.

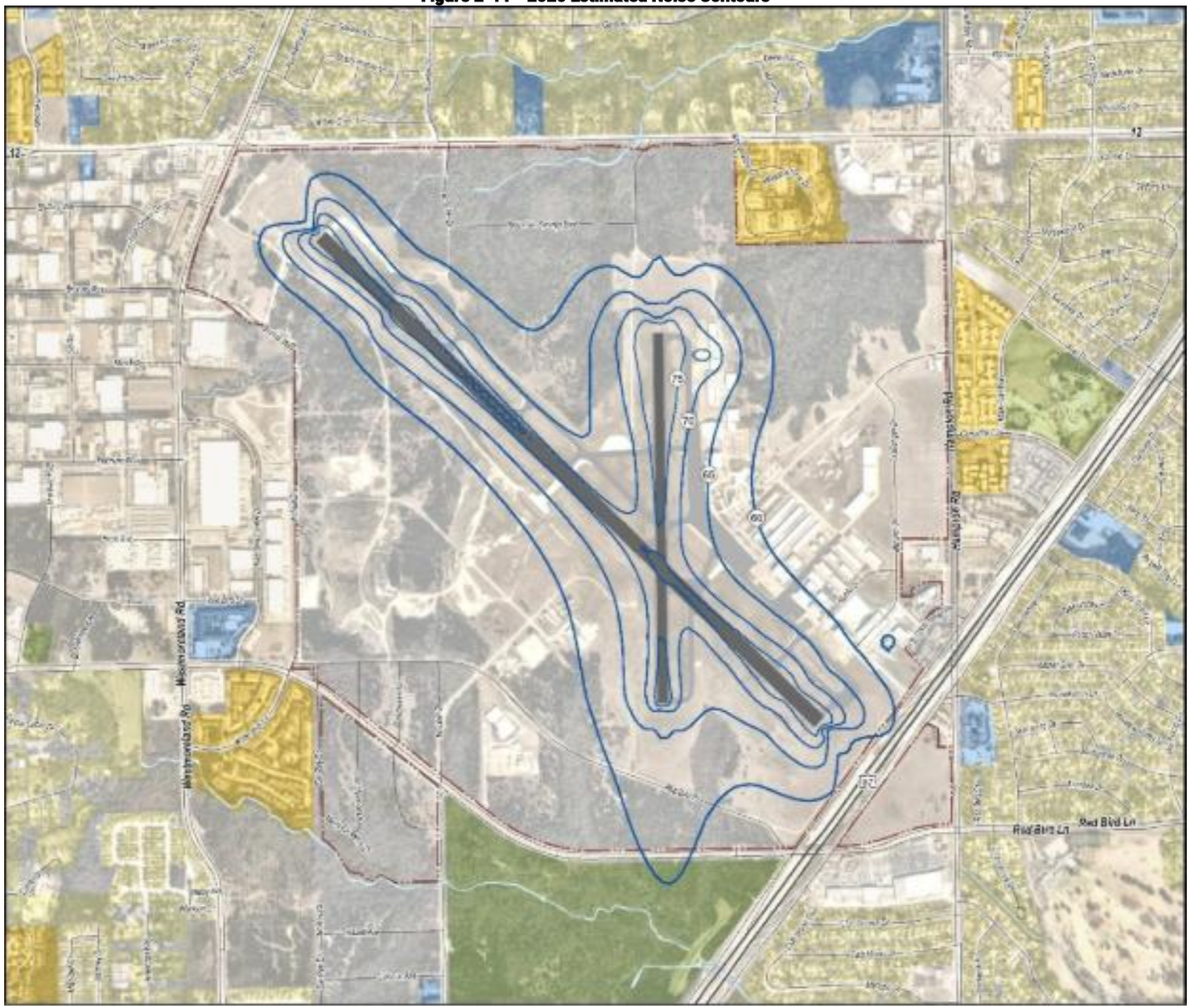
Utilities

As part of the scope of this ALP with Narrative Report, research was conducted to document underground utility lines located within Airport property. **Figure 2-13** depicts the utilities that were identified as part of this process. Underground utility lines were identified on Airport property based on documentation provided by the City of Dallas. No underground utility investigation was completed as part of this project. Underground utility information is missing for some portions of RBD property.

Historical Development

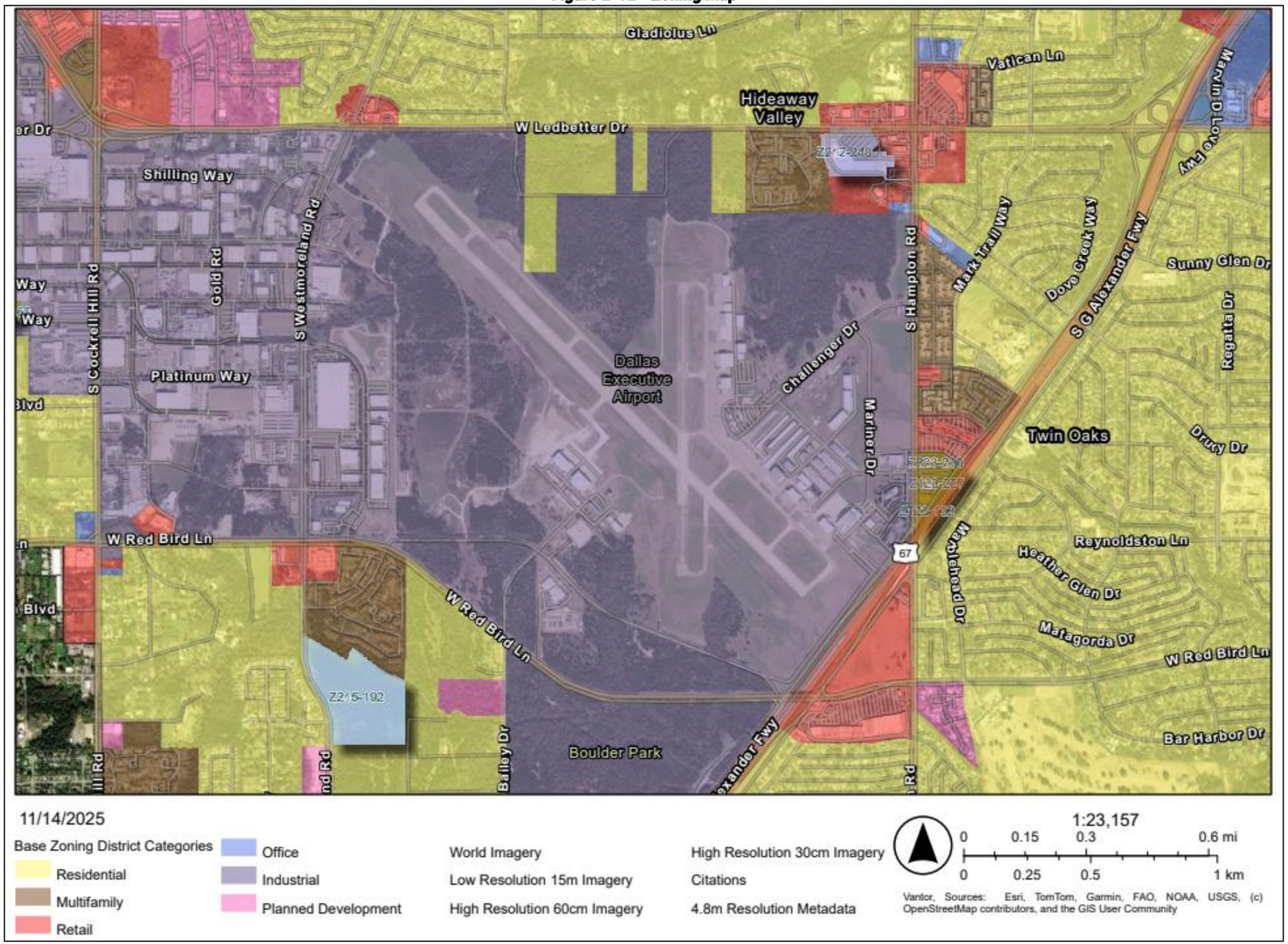
Table 2-24 provides an overview of historical development projects completed at the Airport since 1974 that involved state or federal funding through TxDOT Aviation or the FAA. Projects funded by sources outside the TxDOT state block grant program or the FAA Airport Improvement Program (AIP) are not shown.

Figure 2-11 - 2020 Estimated Noise Contours



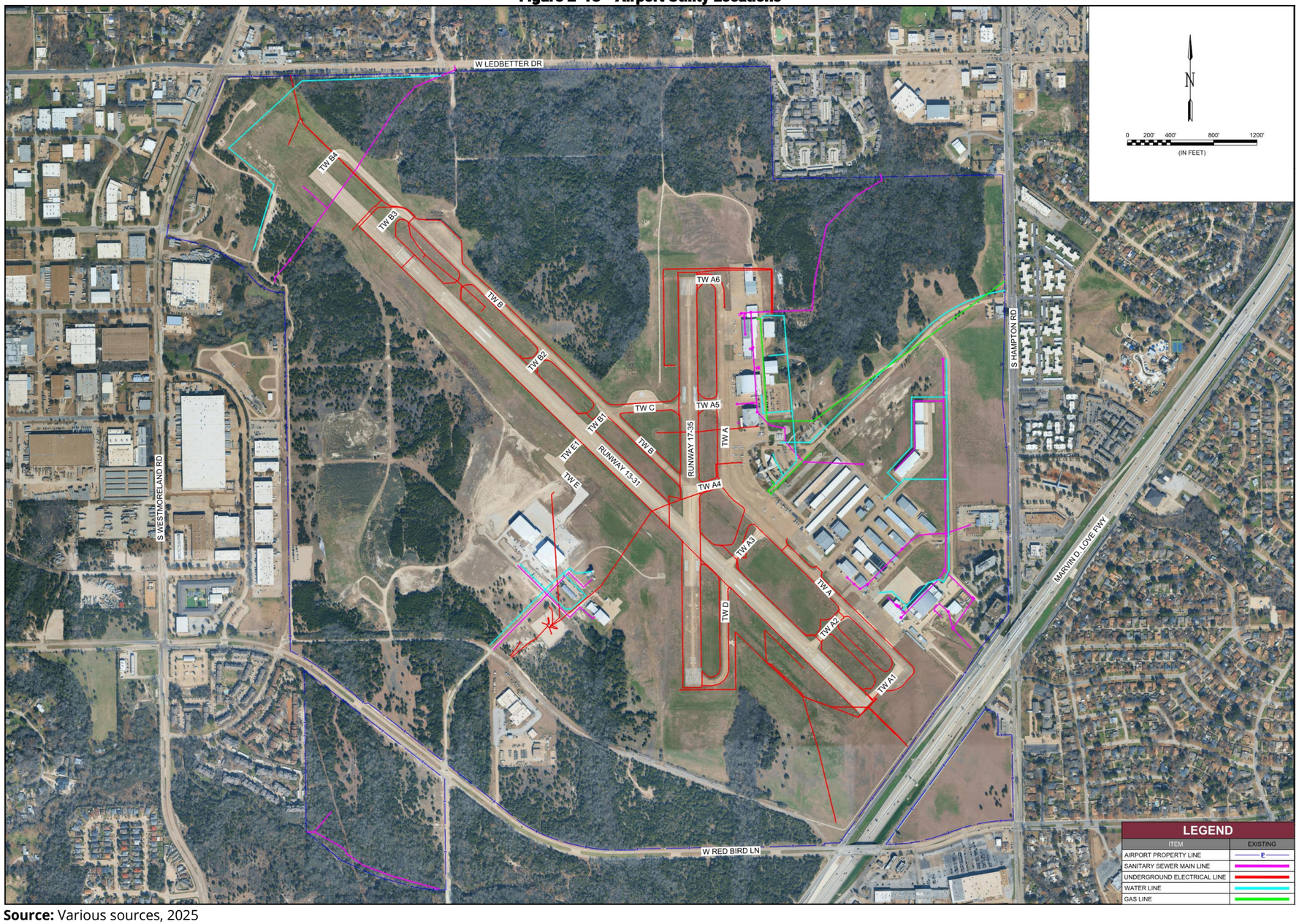
Source: HMMH, 2021

Figure 2-12 - Zoning Map



Source: City of Dallas, 2025

Figure 2-13 - Airport Utility Locations

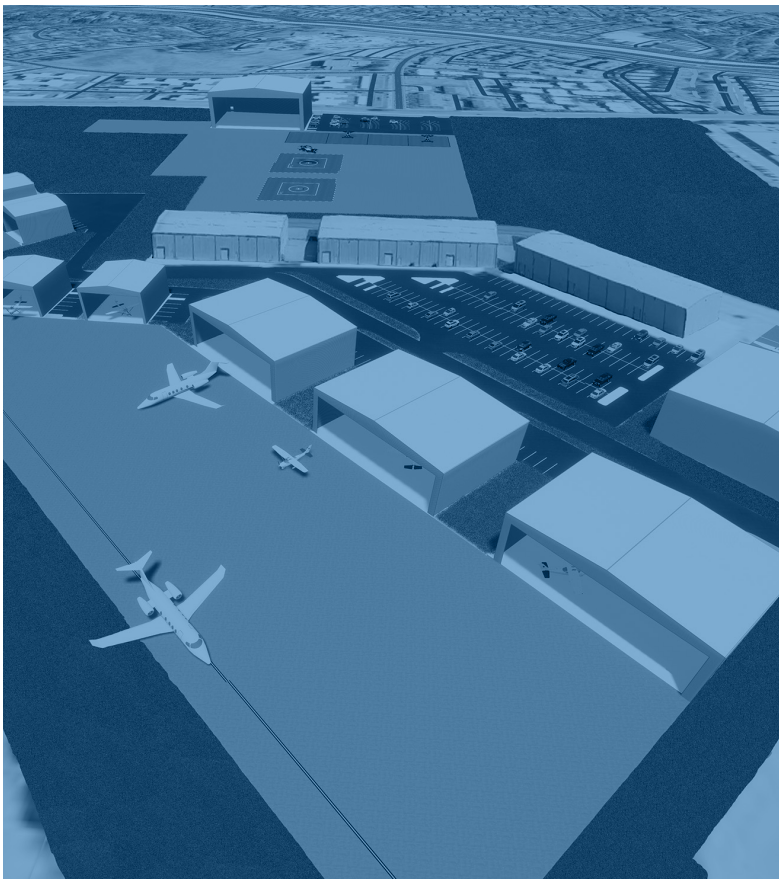


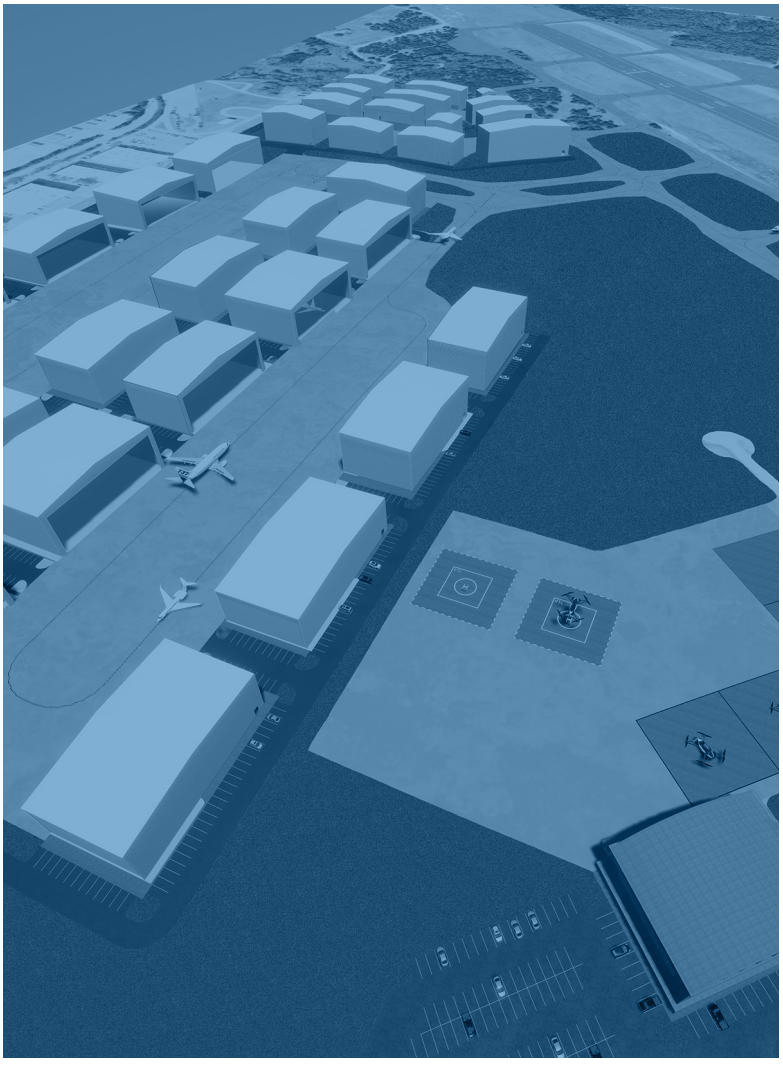
Source: Various sources, 2025

Table 2-24 - Historical Grant Funded Projects

Description	Year	State Total ($)	Federal Total ($)	Local Total ($)	Total ($)
Construct and light TW S (approx. 1200' x 60').	**1982**	$0	$450,000	$50,000	$500,000
Construct and light TW S (1200' x 60').	**1983**	$0	$775,000	$86,111	$861,111
Relocate localizer; extend RW 13-31 (1000') including parallel TW and lighting extension.	**1987**	$0	$3,192,749	$354,750	$3,547,499
Update Airport Master Plan.	**2000**	$0	$124,245	$13,805	$138,050
Engineering/design for RW.	**2003**	$0	$146,350	$16,261	$162,611
Construction services to reprofile intersection of RW 13-31 and RW 17-35; replace medium intensity runway lights and taxiway lights RW 13-31 and RW 17-35; upgrade signage and construct an electrical vault.	**2004**	$0	$1,257,307	$139,701	$1,397,008
Design and construction of a terminal building and auto parking lot.	**2004**	$400,000	$0	$0	$400,000
Design and construction of an air traffic control tower.	**2004**	$0	$1,100,000	$0	$1,100,000
reimbursement for and design and construction for apron.	**2004**	$378,977	$0	$42,107	$421,084
Prepare airport strategic business plan NPE 2006.	**2009**	$0	$50,000	$50,000	$100,000
Design to Install fencing east/west perimeter (13, 050 lf) clearing, 3 gates; Install fencing north perimeter (7250 lf), 2 gates; Install fencing south perimeter (5700 lf) w/ clearing, 2 gates; Clear brush along north perimeter (20 ac); Construct asphalt airfield service road (6450 x 12) w/ culverts & ditches; Extend TXWY Romeo; Construct light duty perimeter road (13,200 x 12) w/ culverts & ditch.	**2011**	$0	$280,296	$31,140	$311,436
Engineering: Evaluation & Design for Pavement Rehabilitation; Conduct airfield pavement evaluation (including dynamic deflection testing).	**2011**	$0	$1,053,608	$117,068	$1,170,676
Update Airport Master Plan.	**2011**	$93,062	$86,938	$20,000	$200,000
Install fencing north perimeter (7250 lf), 2 gates; Construct new hangar access TW (1300 x 50); Install fencing south perimeter (5700 lf) w/ clearing, 2 gates; Install fencing east/west perimeter (13, 050 lf) clearing, 3 gates; Clear brush along north perimeter (20 ac); Construct asphalt airfield service road (6450 x 12) w/ culverts & ditches; Construct light duty perimeter road (13,200 x 12) w/ culverts & ditch.	**2012**	$0	$1,804,385	$558,943	$2,363,328
Environmental Assessment RW 13-31 Extension.	**2014**	$0	$46,620	$5,180	$51,800
FAA required Wildlife Hazard Assessment and Management Plan.	**2014**	$0	$83,102	$9,234	$92,336
Obstruction Survey for RW 13 RW Extension.	**2014**	$0	$49,451	$5,495	$54,946
Reconstruct RW 13-31 shoulders (100% Sponsor); Construction Engineering Services (admin, RPR, testing, closeout, etc.); Runway shoulder compression join sealant (100% Sponsor); LED Electrical Improvement (100% Sponsor); Recon. 2,650' RW 13-31@ 100' width [from north of RW 17-35 intersection to RW 31 end]; recon. RW 17-35 at intersect w/13-31; recon. TXY A1 & A5; realign TXY A3; recon. portions TXY A & D; demo TXY A2; install new electrical components for replacement MIRL.	**2014**	$0	$6,652,731	$1,567,251	$8,219,982
Engineering & Design RW 13-31 Shift (Phase III); MOA w/FAA for Equipment Relocation.	**2015**	$0	$453,043	$50,338	$503,381
LED electrical improvement (100% Sponsor); Recon. RW 13-31 @ 100' width [2,850' nw of RW 17-35]; rehab concrete (joint & crack seal) 1,000' at RW 13 end; regrade runway safety area; improve drainage along runway; recon. TXY B-2; demo TXY B-1& B-3; demo pvmt. west of RW 13 - near end; Reconstruct RW 13-31 shoulders (100% Sponsor); Construction Contingency; Construction Engineering Services (admin, RPR, testing, closeout, etc.); Runway shoulder compression joint sealant (100%).	**2015**	$0	$4,147,887	$1,563,665	$5,711,552
RAMP: Sponsor to perform airport general maintenance.	**2015**	$33,687	$0	$33,687	$67,374
RAMP: Sponsor to perform airport general maintenance.	**2016-21**	$248,654	$0	$248,654	$497,308
Extend TXWY B [985 x 50]; Extend RW 13-31 [685 x 100]; Contingency -; Install drainage box culverts for RW 13-31 shift; Mobilization, RPR, Testing, Closeout, etc.; Construct runway shoulders (685' x 50) (100% sponsor); Runway shoulder compression joint sealant (100% sponsor); LED electrical improvement (100% Sponsor); Relocate RW 13 Localizer, Glideslope, ASOS, RW 31 Threshold, Extend MIRL RW 13.	**2017**	$0	$7,141,377	$1,118,786	$8,260,163

Source: TxDOT Aviation Grant Histories, 2025





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2 Inventory and Description of Existing Facilities

3 Forecast of Aviation Activity

4 Facility Requirements

5 Alternative Analysis

6 Capital Improvement Program and Financial Plan

A Forecast Approval Letter

B Public Open House Sign-In Sheets

C Sustainability and Waste Reduction

D Drainage Report

E Airport Layout Plan

CHAPTER 3: FORECAST OF AVIATION ACTIVITY

Introduction

The Forecast of Aviation Activity is an essential component for the development of the Dallas Executive Airport (RBD or Airport) Airport Layout Plan with Narrative Report (ALP with Narrative). The forecast follows guidance set forth in the Federal Aviation Administration (FAA) *Memorandum for Forecast Review and Approval Instructions (August 2024)*.

This 20-year outlook for aeronautical demand provides essential inputs to be used in the Airport's facility requirement analysis, development of alternatives, and strategy for a financially feasible capital improvement program (CIP). The forecast is intended to provide realistic projections for various RBD operational and based aircraft metrics using the latest available data, as well as local and national trends. However, the actual trajectory of growth experienced by the Airport may occur differently than anticipated in the forecast.

Forecast Overview

Timeframe

The 20-year timeframe of the forecast extends from 2025-2045, with a near-term forecast period of 2025-2030; a mid-term forecast period of 2030-2035; and a long-term forecast period of 2035-2045. The forecast includes a baseline forecast which is the preferred forecast to be used in comparison with the FAA Terminal Area Forecast (TAF) 2024, (published January 2025). This forecast also includes an alternative high-growth forecast which provides a "what-if" scenario to better prepare RBD for growth that exceeds the baseline forecast.

Aviation Activity Metrics

The 2025-2029 National Plan of Integrated Airport Systems (NPIAS) classifies Dallas Executive Airport as a "reliever" airport. As a reliever airport, RBD provides capacity relief for general aviation traffic at Dallas Love Field Airport (DAL) and Dallas Fort Worth International Airport (DFW). Given this role, this forecast focuses on annual aircraft operations and based aircraft projections that consider broader trends in the Dallas-Fort Worth area. Aircraft operations are defined as aircraft takeoffs or landings. A based aircraft is defined as an aircraft that is based at a given airport for the majority of the year.

Methodologies

The RBD ALP Forecast of Aviation Activity uses an unconstrained, bottom-up forecasting approach that leverages multiple methodologies including market share analysis, trend analysis, and regression analysis.

- Market Share Analysis – The market share analysis methodology identifies the historical ratio of an aviation metric (i.e., itinerant operations, local operations, based aircraft, etc.) at RBD compared to other larger relevant groupings of airports (i.e., state, region, etc.). It may maintain a historically consistent share or modify it if there is reason to do so. For this analysis, RBD was compared to airports within the State of Texas; airports within the FAA Southwest Region (ASW); and airports within the United States of America (U.S.) using projections from the FAA TAF.
- Trend Analysis – The trend analysis methodology reviews annual rates of growth from various sources such as the Airport's historical records or historical and forecast trends from the FAA Aerospace Forecast for Fiscal Years 2025-2045. It applies selected growth rates to RBD based on relevance to the Airport and consistency with previous activity levels.
- Regression Analysis – The regression analysis methodology, compares the relationship between a dependent variable, and one or more independent variables. For this forecast, the independent variables came from a variety of sources including but not limited to:
    - Socioeconomic data for Dallas County, the Dallas-Fort Worth area, the State of Texas, and the U.S.;
    - General aviation related statistics such as GA fuel consumption, active aircraft within the GA fleet, pilot certificates, and GA hours flown; and
    - Other indicator variables relevant to the economy or activity levels at RBD.

  The regression analysis used in this forecast tested over 150 models using a large number of variables against the selected metric and evaluated the significance of the statistics to select a model that best fits the data with a high confidence level.

Airport Setting

Dallas Executive Airport is located approximately 10 miles south of the Dallas Central Business District (CBD) in downtown Dallas. This proximity makes RBD an ideal site for corporate based tenants as well as other transient aircraft visiting the city.

Historical and forecasted socioeconomic data often provides a strong correlation with past and future aviation activity levels. When there are multiple active airports within a region, potential airport users may have varying preferences for which airport to use based on

numerous factors. For GA airports like RBD, some of these factors may include the presence of aviation facilities, proximity to other businesses, convenience, cost, and available amenities.

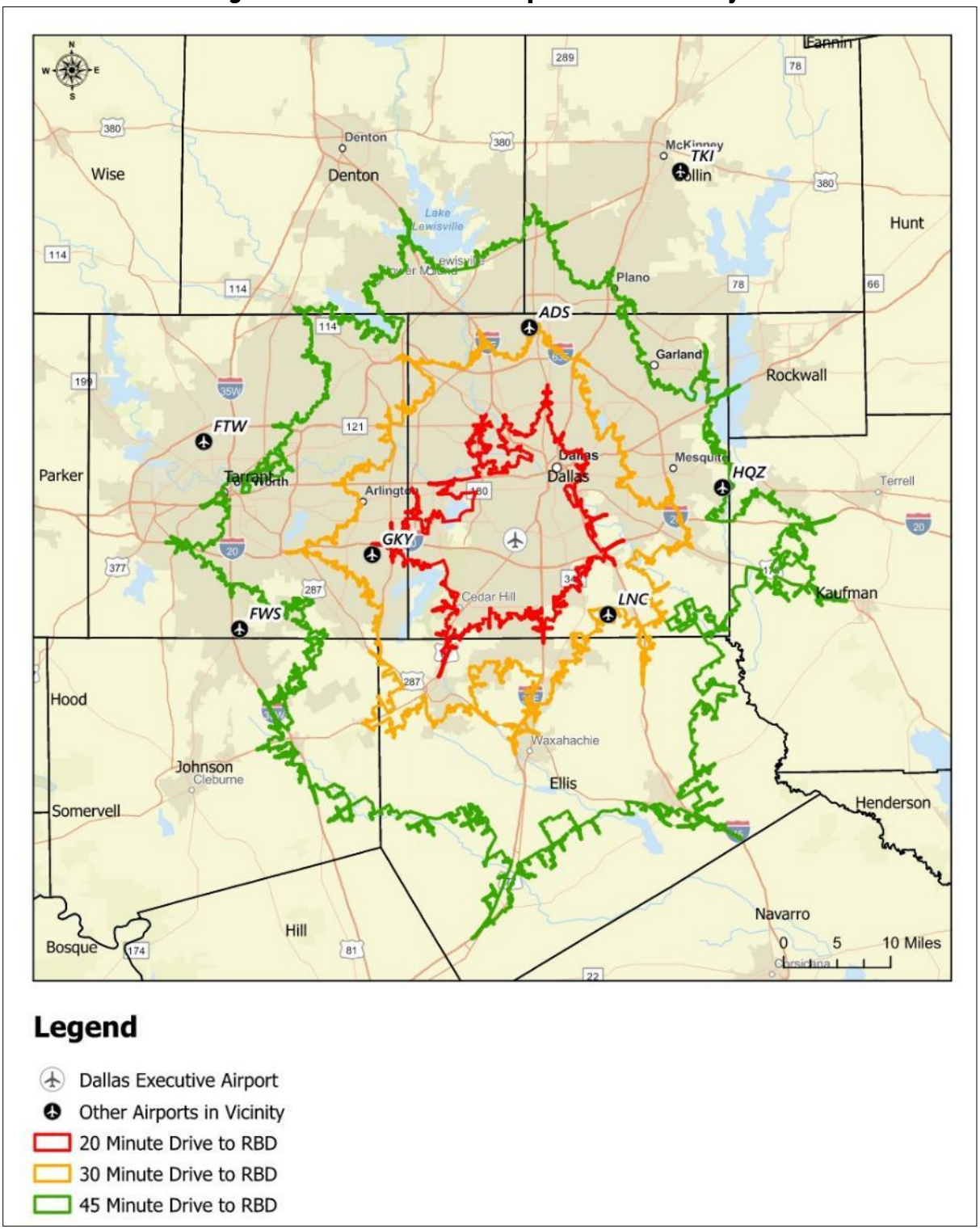
Airport Service Area

The RBD service area represents the geographic area from which Airport users are typically expected to originate from to utilize aviation facilities and services available at RBD. For based aircraft, tenants, or transient aircraft customers, proximity to the airport from a residence or business may play a role in selecting RBD over other comparable airports. Some of the other GA airports in the Dallas area with similar activity levels and distances from the CBD are shown below.

- Addison Airport (ADS) – Located approximately 15 miles north of downtown Dallas.
- Mesquite Metro Airport (HQZ) – Located approximately 18 miles east of downtown Dallas.
- Lancaster Regional Airport (LNC) – Located approximately 20 miles southeast of downtown Dallas.
- Arlington Municipal Airport (GKY) – Located approximately 24 miles southwest of downtown Dallas.
- McKinney National Airport (TKI) – Located approximately 33 miles north of downtown Dallas.
- Fort Worth Meachem International Airport (FTW) – Located approximately 37 miles west of downtown Dallas.
- Fort Worth Spinks Airport (FWS) – Located approximately 44 miles southwest of downtown Dallas.

To more accurately define RBD's service area, a drive-time analysis (DTA) was completed, as shown in **Figure 3-1**. It was assumed that most individuals with based aircraft at RBD would drive up to 45 minutes one way. Therefore, the DTA establishes three perimeter polygons around RBD showing the distance one could be from RBD if driving 20-minutes or less, 30-minutes or less, or 45-minutes or less, under normal traffic conditions on a weekday at 8:00 AM. As shown in the analysis, the majority of the service area for RBD resides within Dallas County. However, a portion of the 30-minute and 45-minute drive time polygons extend into Collin, Denton, Tarrant, Johnson, Ellis, Kaufman, and Rockwall counties.

Figure 3-1 - Dallas Executive Airport Drive Time Analysis



Source: Garver, 2025; Esri, 2025

Socioeconomic Data Review

Socioeconomic characteristics such as population, employment, and income show the vitality of an area/region and can provide insight into an airport's potential for growth. Typically, there is a correlation between these socioeconomic factors and demand for aviation goods and services at an airport. Therefore, population, personal income per capita (PIPC) and gross regional product (GRP) for the area; and gross domestic product (GDP) for the U.S., were analyzed as part of this forecasting analysis.

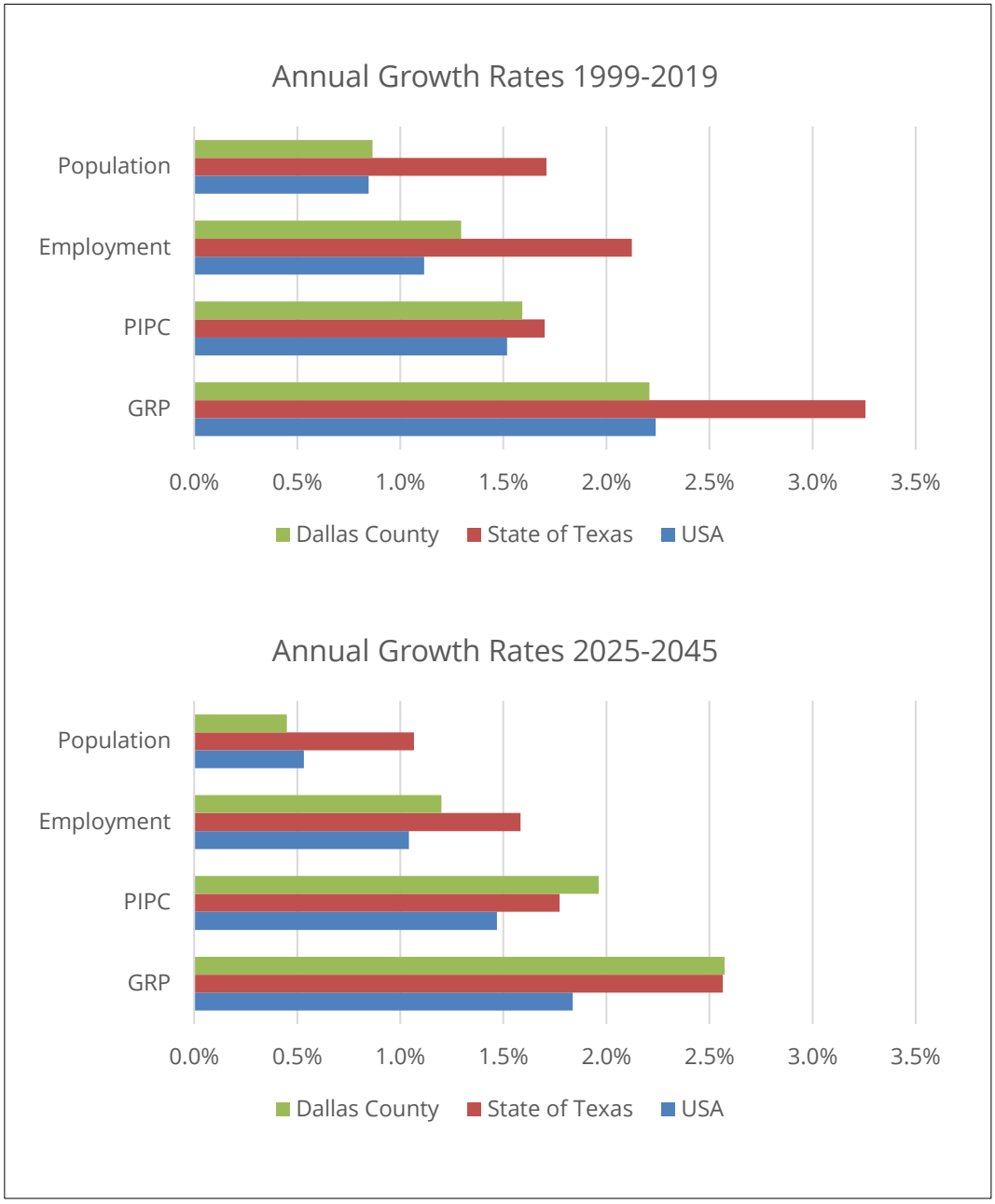
Table 3-1 and **Figure 3-2** show the annual growth rates of socioeconomic characteristics for Dallas County, the State of Texas, and the U.S. historically from 1999-2019 and over the planning horizon from 2025-2045. The data shows that Dallas County is anticipated to see gains in employment, PIPC, and GRP similar to the State of Texas and beyond the average increases anticipated for the U.S.

Table 3-1 - Socioeconomic Characteristics - Dallas County, State of Texas, and USA

	1999-2019	2025-2045
Dallas County		
Population	0.9%	0.5%
Employment	1.3%	1.2%
PIPC	1.6%	2.0%
GRP	2.2%	2.6%
State of Texas		
Population	1.7%	1.1%
Employment	2.1%	1.6%
PIPC	1.7%	1.8%
GRP	3.3%	2.6%
United States of America		
Population	0.8%	0.5%
Employment	1.1%	1.0%
PIPC	1.5%	1.5%
GDP	2.2%	1.8%

Source: Woods & Poole, 2025; Garver, 2025

Figure 3-2 - Socioeconomics Comparison - Dallas County, State of Texas, and U.S.



Source: Woods & Poole, Inc, 2025; Garver, 2025

Dallas Regional Economic Development

The Dallas region is home to many successful businesses, some of which were on the 2024 Forbes Fortune 1000 list.

1. AT&T
2. Energy Transfer
3. HF Sinclair
4. CBRE Group
5. Southwest Airlines
6. Tenet Healthcare
7. Texas Instruments
8. Jacob Solutions
9. AECOM
10. Enlink Midstream
11. Frontier Communications
12. Primoris Services
13. Comerica
14. Atmos Energy
15. ATI
16. Brinker International
17. Copart
18. AMN Healthcare Services
19. Match Group
20. Trinity Industries
21. Matador Resources
22. Mckesson
23. Caterpillar
24. Kimberly-Clark
25. Pioneer Natural Resources
26. Builders FirstSource
27. Fluor
28. Vistra
29. Celanese
30. Commercial Metals
31. Darling Ingredients
32. D.R. Horton
33. Yum China Holdings
34. Upbound Group
35. Cinemark Holdings
36. Globe life
37. Encore Wire

The success of these and other businesses shows great promise for the local economy and may entice other businesses to locate in the region.

The Dallas regional economy is growing rapidly, led by corporate and financial services, as well as logistics and manufacturing. While some of the more prominent growth in the region is found north of Dallas, there is continued interest in large scale offices and other industrial services in many of the areas near RBD. The south Dallas area currently has some of the greatest potential, with substantial amounts of land available for development.

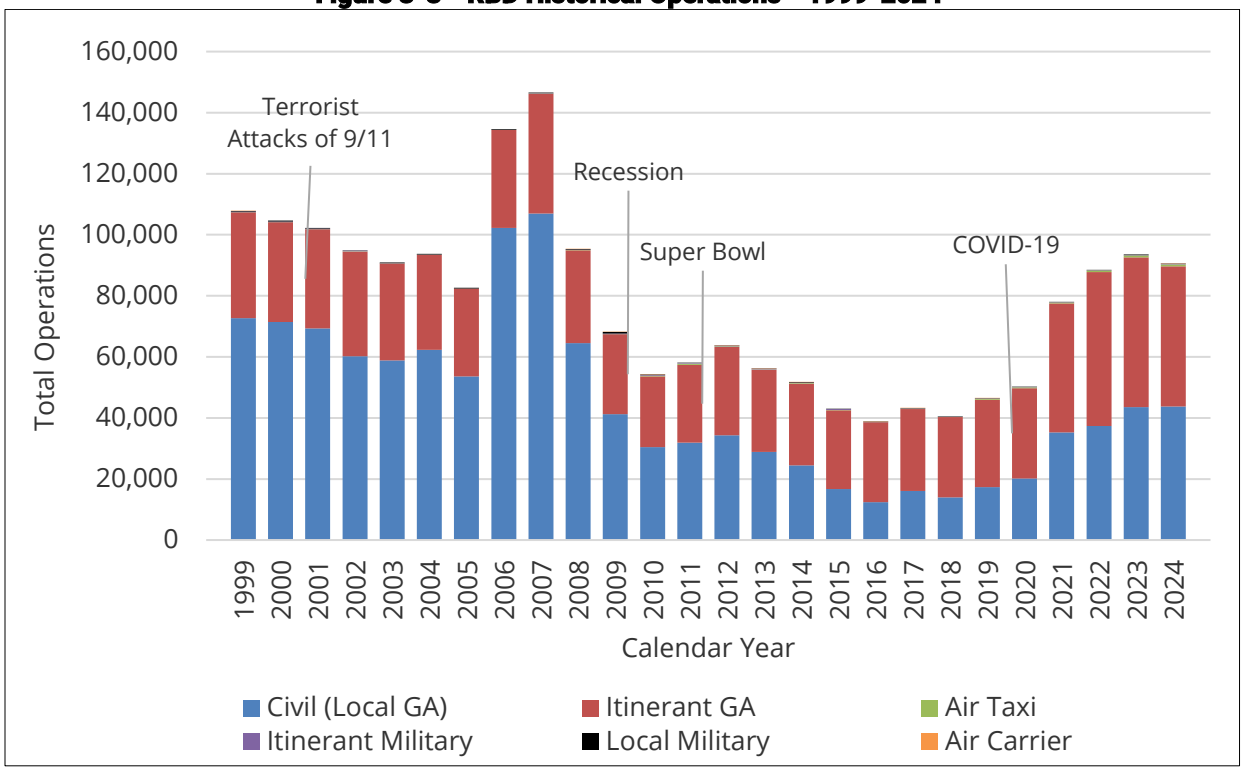
Historical Activity

Aircraft Operations

Figure 3-3 shows historical aircraft operations at RBD over the past 25 years. Based on the data, it is clear that Dallas Executive Airport has consistently maintained its role as an essential GA airport for the Dallas region. During that time, many notable events have occurred throughout the nation, and locally in Dallas, yet, RBD has maintained an average of 77,500 total operations from 1999-2024.

After the terrorist attacks of 9/11 in 2001, operations decreased slightly for two years. Then in 2006 and 2007, the Airport had its highest two years of activity with 134,627 and 146,570 operations, respectively. Following this period of growth, RBD decreased to 68,182 operations in 2009, likely due to the economic fallout of the Recession. Dallas hosted the Super Bowl in 2011; however, the increase in aircraft operations at RBD was minimal with an increase of only 5,000 operations compared to the previous year. As Dallas and the rest of the world coped with the impacts of the COVID-19 Coronavirus pandemic (public health emergency), the Airport experienced strong growth through the nation's period of recovery with 78,000 operations in 2020 and increasing to over 90,000 operations in 2024.

Figure 3-3 - RBD Historical Operations - 1999-2024



Source: FAA OPSNET, 2025; Garver, 2025

Based Aircraft

Historical based aircraft records from RBD, shown in **Table 3-2**, indicate that the Airport has increased its based aircraft over the past ten years in every category, more than doubling the 2016 totals for some aircraft types in 2025.

Dallas Executive Airport has maintained a large number of single-engine piston (SEP) based aircraft over the past 25 years, and while there are some projections for SEP aircraft to decrease or grow minimally over the next 20 years, the number of SEP aircraft at RBD will likely continue to increase based on the flight training and future hangar development anticipated at the airport. The most noteworthy historical increase in based aircraft outside of SEP was jets. From 2016 to 2025, the number of based jets increased by 30, or an average of three per year.

Table 3-2 - Historical Based Aircraft - RBD

Year	Single Engine	Multi-Engine	Jets	Helicopters	Total
2016	121	34	25	6	186
2017	117	33	21	6	177
2018	171	47	26	12	256
2019	181	48	29	12	270
2020	189	44	33	16	282
2021	213	42	39	19	313
2022	227	48	50	18	343
2023	232	49	55	23	359
2024	269	54	58	16	397
2025	262	49	55	12	378
Annual Growth Rates					
2016-2020	11.8%	6.7%	7.2%	27.8%	11.0%
2020-2025	6.8%	2.2%	10.8%	-5.6%	6.0%

Source: Dallas Executive Airport, 2025; Garver, 2025

Other Forecast Reviews

FAA Aerospace Forecast FY 2025-2045

The FAA Aerospace Forecast offers national projections on aviation trends. While the majority of the forecast uses the FAA fiscal year (FY) format which goes from October 1, through September 30, the general aviation projections use a calendar year (CY) format. Specific national GA forecasts include: the active GA fleet; GA hours flown; pilot certificates; and GA fuel consumption.

Active GA Fleet

The active GA fleet of the U.S. is forecasted to see declines in the number of fixed-wing piston aircraft over the next 20 years. However, this decrease will be offset by increases in fixed wing turboprops, jets, and rotorcraft, as well as other aircraft including light sport aircraft (LSA) and experimental aircraft (included in the "Other" category). In full, the active GA fleet will still increase by 0.4% annually from 2025-2035, and 0.5% from 2025-2045.

Table 3-3 shows the 20-year forecast of the active GA fleet from the FAA Aerospace Forecast for FY 2025-2045.

Table 3-3 – Active GA Fleet - FAA Aerospace Forecast FY 2025-2045

Year	Pistons	Turbo Props	Jets	Rotorcraft	Other	Total GA Fleet
2025	138,270	11,100	17,505	10,420	38,305	215,600
2030	136,540	11,425	20,235	11,440	39,765	219,405
2035	135,425	11,935	23,335	12,520	41,590	224,805
2040	134,750	12,660	26,565	13,620	43,455	231,050
2045	134,850	13,540	29,865	14,715	45,380	238,350
Annual Growth Rates						
2025-2035	-0.2%	0.7%	2.9%	1.9%	0.8%	0.4%
2025-2045	-0.1%	1.0%	2.7%	1.7%	0.9%	0.5%

Source: FAA Aerospace Forecast FY 2025-2045, Table 28; Garver, 2025

GA Hours Flown

The number of hours flown by GA aircraft types follows a somewhat similar trend to that of the active GA fleet. With an overall growth rate of 0.9% annually, the majority of the increase is expected to come from jets, turboprops, and rotorcraft, which will offset some of the declines anticipated in piston aircraft.

Table 3-4 shows the 20-year forecast of the hours flown by the GA fleet from the FAA Aerospace Forecast for FY 2025-2045.

Table 3-4 – GA Hours Flown (in Thousands) - FAA Aerospace Forecast FY 2025-2045

	Pistons	Turbo Props	Jets	Rotorcraft	Other	Total GA Hours
2025	15,079	2,994	5,085	3,036	2,033	28,227
2030	13,736	3,184	6,125	3,394	2,105	28,544
2035	13,488	3,347	7,186	3,771	2,251	30,044
2040	13,542	3,548	8,253	4,147	2,417	31,908
2045	13,771	3,782	9,320	4,528	2,590	33,991
Annual Growth Rates						
2025-2035	-1.1%	1.1%	3.5%	2.2%	1.0%	0.6%
2025-2045	-0.5%	1.2%	3.1%	2.0%	1.4%	0.9%

Source: FAA Aerospace Forecast FY 2025-2045, Table 29; Garver, 2025

Pilot Certificates

The FAA conducts a forecast of pilot certificates segmented by certificate type . The FAA has ceased its forecast on student pilots since 2018, due to student pilot certificates being affected by regulatory changes.

The number of active GA pilot certificates excluding students and Airline Transport Pilots (ATP) is anticipated to increase at an annual rate of 0.6% in the next ten years, before slowing to rate of 0.4%, which is representative of the entire 20-year planning horizon. A further breakdown of pilot certificates shows that recreational pilot certificates are phasing out by 2035. Meanwhile, sport pilot certificates will increase at the greatest rate (2.6% annually) from 2025-2045, with rotorcraft pilot certificates coming in second at 1.3% annually during that time. The number of GA pilots is anticipated to remain strong, increasing by 25,000 over the 20-year planning horizon.

Table 3-5 shows the 20-year forecast of pilot certificates from the FAA Aerospace Forecast for FY 2025-2045.

Table 3-5 – Pilot Certificates - FAA Aerospace Forecast FY 2025-2045

Pilot Certificates	2025	2030	2035	2040	2045	Annual Growth Rates 2025-35	Annual Growth Rates 2025-45
Recreational	50	5	0	0	0	-100.0%	-100.0%
Sport Pilot	7,560	8,815	10,090	11,405	12,530	2.9%	2.6%
Private	174,950	178,550	176,700	175,550	176,100	0.1%	0.0%
Commercial	112,200	120,000	123,150	124,300	124,750	0.9%	0.5%
Airline Transport	183,900	192,000	199,400	206,300	213,400	0.8%	0.7%
Rotorcraft	13,600	14,500	15,650	16,650	17,650	1.4%	1.3%
Glider	21,800	23,100	23,750	24,050	24,150	0.9%	0.5%
Total Less Student Pilots	514,060	536,970	548,740	558,255	568,580	0.7%	0.5%
GA Pilots (Excluding Students & ATPs)	330,160	344,970	349,340	351,955	355,180	0.6%	0.4%

Source: FAA Aerospace Forecast FY 2025-2045, Table 30; Garver, 2025

GA Fuel Consumption

Trends in GA fuel consumption can be reviewed to understand trends in general aviation operations. AVGAS (also referred to as 100LL) is typically associated with smaller aircraft such as fixed wing-pistons, while jet fuel is used by turbine engine aircraft including jets, turboprops, and some helicopters. Based on these general uses, the reduction in AVGAS consumption nationwide over the forecast horizon (-0.4% annually) suggests a reduced level of activity by piston aircraft, and the increase of jet fuel by 2.2% annually suggests an increase in jets, turboprops, and helicopter activity.

Table 3-6 shows the 20-year forecast of GA fuel consumption from the FAA Aerospace Forecast for FY 2025-2045.

Table 3-6 – GA Fuel Consumption (Millions of Gallons) – FAA Aerospace Forecast FY 2025-2045

Year	AVGAS Consumed	Jet Fuel Consumed	Total GA Fuel Consumed
2025	242	1,904	2,147
2030	225	2,178	2,403
2035	221	2,443	2,665
2040	221	2,695	2,916
2045	225	2,933	3,157
Annual Growth Rates			
2025-2035	-0.9%	2.5%	2.2%
2025-2045	-0.4%	2.2%	1.9%

Source: FAA Aerospace Forecast FY 2025-2045, Table 31; Garver, 2025

Advanced Air Mobility

The FAA Aerospace Forecast defines Advanced Air Mobility (AAM) to include aircraft that are highly automated, utilize electrical power propulsion, and that have vertical take-off and landing capabilities. Multiple uses for AAM services have been identified including passenger and cargo transportation in the form of air taxis, as well as cargo and emergency transport services in and around urban areas.

Table 3-7 shows the National Airspace System (NAS) – Wide AAM Demand Forecast for the first six years after entry into service (EIS). The actual EIS nationwide could occur next year (2026), or sometime later. The forecast determines daily activity as an average over the course of a year, without defining any periods of peak activity.

Table 3-7 – NAS-Wide AAM Demand Forecast - FAA Aerospace Forecast

Year	Annual Trips	Daily Trips
Year 1 (EIS)	42,405	116
Year 2	323,038	885
Year 3	616,115	1,688
Year 4	1,029,883	2,822
Year 5	1,826,525	5,004
Year 6	2,820,956	7,729
Annual Growth Rates		
Year 1-2	661.8%	
Year 3-4	90.7%	
Year 4-5	67.2%	
Year 5-6	77.4%	

Source: FAA Aerospace Forecast FY 2025-2045

Without any confirmed dates for initiation of AAM in the U.S. or Dallas, this forecast cannot say with any certainty when AAM EIS will occur nationally or within the Dallas region. However, given the Dallas-Fort Worth region's population and economy, there is a high likelihood that AAM could be initiated within the first five years of this forecast. The FAA's forecast above shows notable growth on an annual basis. Since AAM and Urban Air Mobility (UAM) are centered around the convenience of moving goods and services within urban areas and in some instances out to remote rural areas, when EIS occurs, there will need to be multiple facilities (vertiports) within the area and region.

From a facilities planning perspective, AAM operations are anticipated at RBD within the planning horizon. Consequently, discussions with fixed-base operators (FBOs) and potential users should occur regularly to ensure there are facilities to accommodate these aircraft as demand increases.

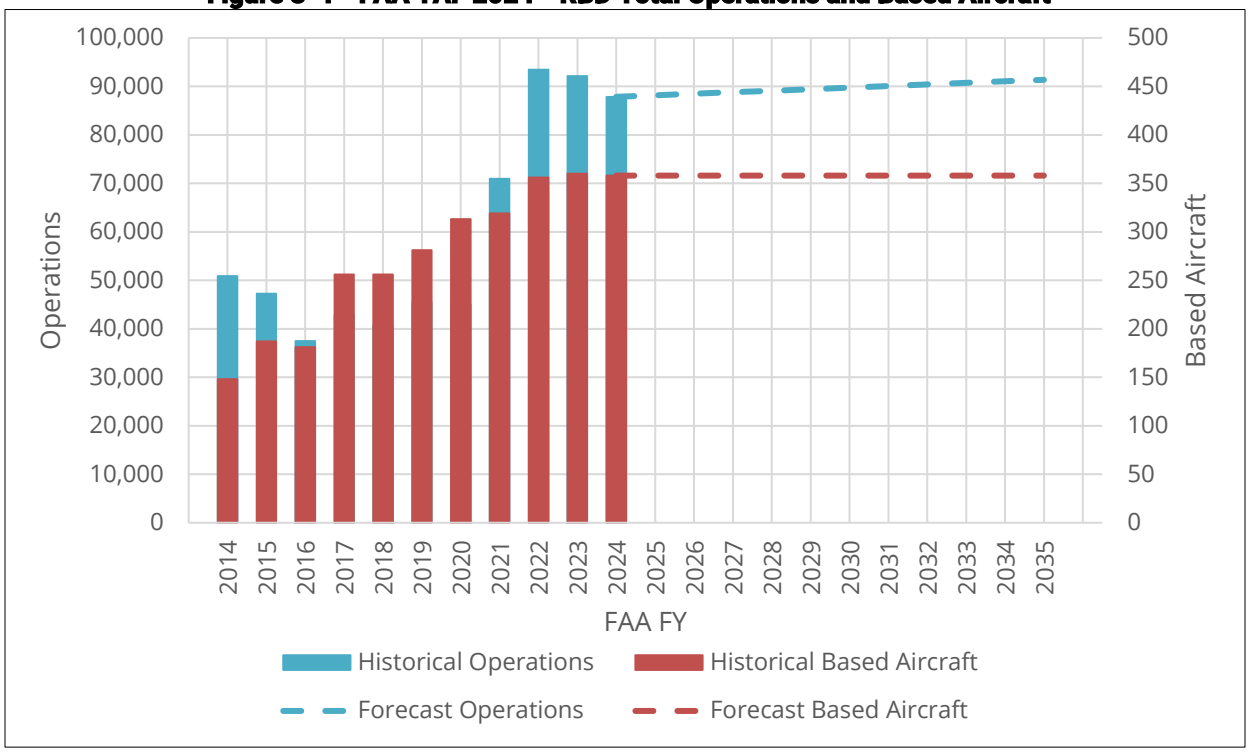
FAA TAF 2024

The FAA TAF 2024 provides forecasts for each NPIAS airport facility; total NPIAS airports within a state; total NPIAS airports within an FAA region; and total NPIAS airports within the U.S. Historical and forecast aviation activity metrics include breakdowns of enplanements, operations, and based aircraft using the FAA FY format. While RBD does not have any enplanements, it has historical and forecast operations data for total itinerant and local operations including the subcategories of each and based aircraft.

From 2025-2035, the TAF projects minimal increases in the Airport's total operations with an annual growth rate of 0.4%, versus the historical growth rate from 2014-2024 where they increased at an annual growth rate of 5.6%. Based aircraft also increased notably from 2014-2024 at an annual growth rate of 9.2% but was left constant over the 10-year forecast period from 2025-2035 with a 0.0% annual growth rate.

Ten years of RBD historical operations and based aircraft from 2014-2024 are compared with their TAF 2024 forecasts from 2025-2035 in **Figure 3-4**.

Figure 3-4 - FAA TAF 2024 - RBD Total Operations and Based Aircraft



Source: FAA TAF 2024; Garver, 2025

Forecast Analyses

The development of the Airport's total operations forecast utilizes a bottom-up approach, where multiple analyses are conducted to select a preferred baseline forecast for itinerant GA; local GA; air taxi and commuter; and air carrier operations.

Because the FAA's guidance for forecasts states that only the first 10 years are to be reviewed for consistency with the FAA TAF, the following tables summarize each of the analyses with a focus on years 2025-2035. However, the preferred baseline forecasts and the alternative high growth scenario forecasts that are selected will include the entire 20-year projections.

Itinerant GA Operations

Itinerant GA operations reflect all GA aircraft takeoffs and landings that occur outside of local operations. From 1999-2009, itinerant GA operations averaged 32.3% of total Airport operations, then from 2009-2024 they increased to an average of 53.7% annually.

Itinerant GA Operations - Market Share Analysis

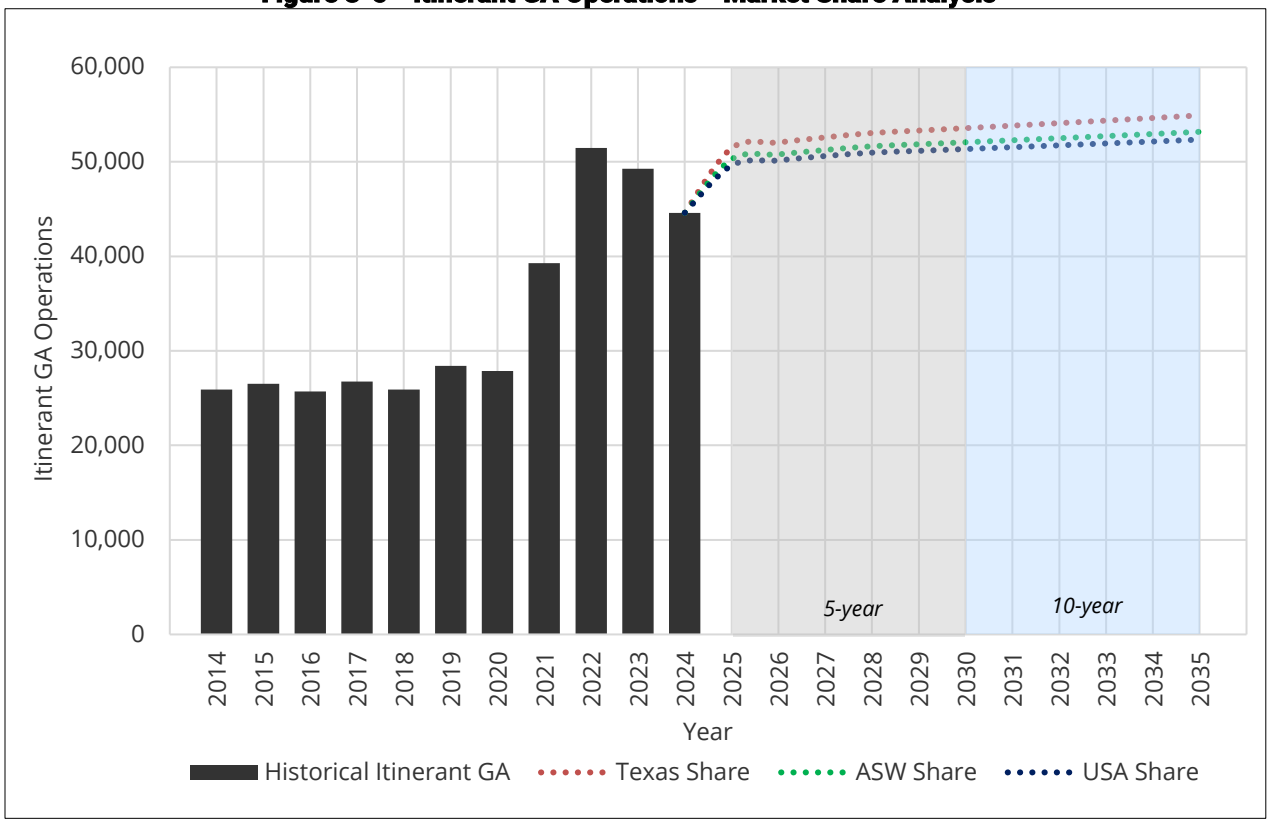
The market share analysis takes an approach where the forecast of RBD itinerant GA traffic is related to a larger group of airports. Using this method, the share of the Airport to the whole can remain constant or change over time. This analysis maintained RBD's recent historical share of activity with the State of Texas (2.0%); FAA Southwest Region (ASW) (1.2%); and the U.S. (0.2%) based on totals from the FAA TAF 2024. It then used the projections for Texas; the ASW region, and the U.S. from the TAF, while maintaining those shares over the 20-year forecast horizon.

A review of the analysis showed that all three shares had some level of growth over the forecast horizon, but the State of Texas had the strongest growth during that time, yielding a 1.4% annual growth rate over the 20-year planning horizon, which was greater than the ASW and U.S. which both have an anticipated 0.9% annual growth rate.

The various forecast models developed for itinerant GA operations ranged from 51,400-53,600 in 2030, to 52,400-55,000 in 2035.

Figure 3-5 and **Table 3-8** compare the itinerant GA operations forecasts using the market share analysis as described above.

Figure 3-5 - Itinerant GA Operations - Market Share Analysis



Source: FAA TAF 2024; Garver, 2025

Table 3-8 - Itinerant GA Operations - Market Share Analysis

Year	Texas Share	ASW Share	USA Share
2014	25,890	25,890	25,890
2019	28,416	28,416	28,416
2024	44,598	44,598	44,598
2025	51,446	50,264	49,608
2030	53,563	52,067	51,351
2035	54,910	53,171	52,351
Annual Growth Rates			
2014-2019	1.9%	1.9%	1.9%
2019-2024	9.4%	9.4%	9.4%
2025-2030	0.8%	0.7%	0.7%
2030-2035	0.5%	0.4%	0.4%

Source: Garver, 2025; FAA OPSNET, 2025; W&P 2025
Note: Historical differences with the TAF and the trend lines are due to CY and FY formats.

Itinerant GA Operations - Trend Analysis

Multiple trends related to RBD operations as well as national trends in general aviation were analyzed for their relevance to RBD itinerant GA activity.

From a historical perspective, itinerant GA activity at RBD has been strong over the past ten years, including during the public health emergency. From 2014-2019 RBD increased at 1.4% annual rate, and from 2019-2024 it increased at a 9.9% annual rate.

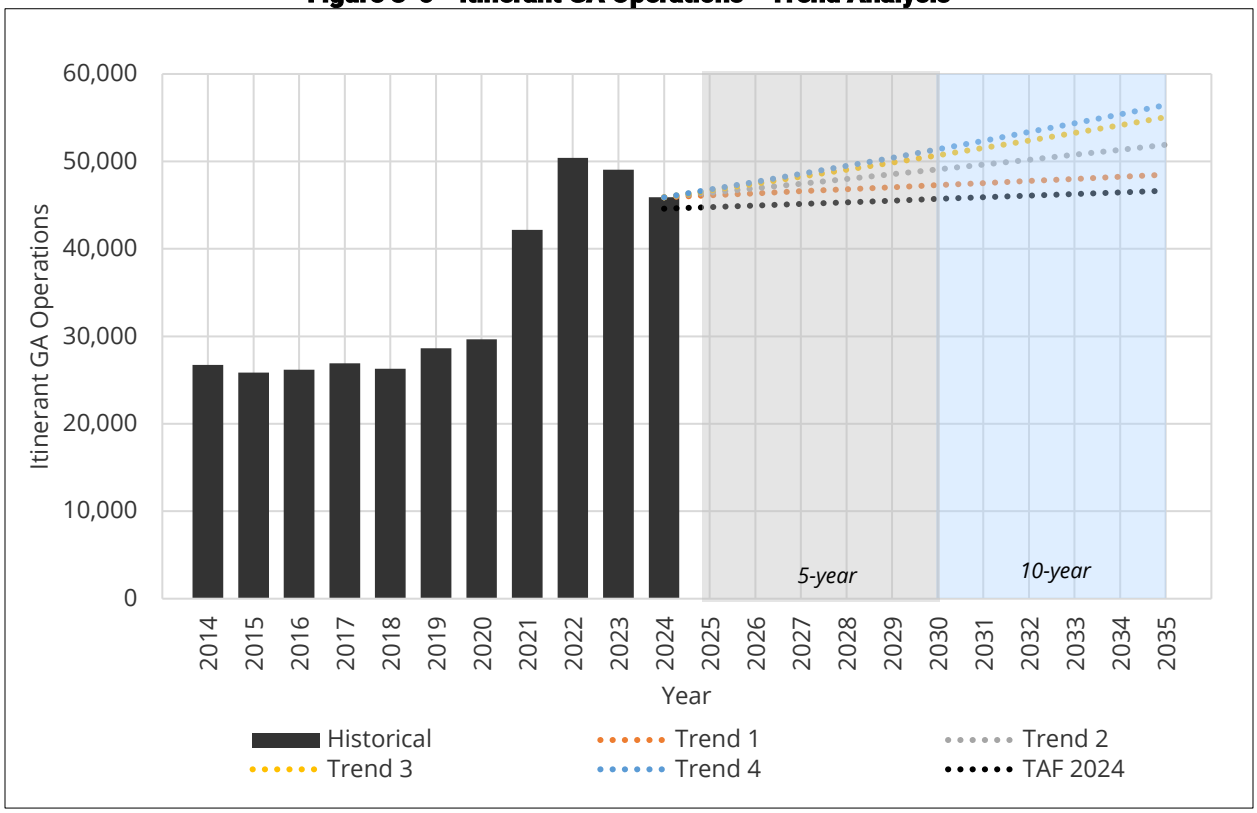
With the FAA TAF 2024 providing an annual growth rate of 0.4% for the next 20 years, the trends below were considered based on their relevance but also on their alignment to this rate.

- Trend 1 – Adopts the forecasted annual rate of growth for the active GA fleet (0.5%) from 2025-2045, based on the FAA Aerospace Forecast for FY 2025-2045.
- Trend 2 – Adopts the historical annual growth rate for itinerant GA operations (1.1%) at RBD from 1999-2024.
- Trend 3 – Adopts the historical annual growth rate for Instrument Flight Rules (IFR) itinerant operations (1.7%) at RBD from 2009-2019.
- Trend 4 – Adopts the forecasted annual rate of growth for GA fuel consumed (1.9%) from 2025-2045, based on the FAA Aerospace Forecast for FY 2025-2045. This includes total gallons of AVGAS and jet fuel.

Comparatively, the four trends were all greater than the TAF's five- and 10-year projections, with a range of 47,300-51,400 operations in 2030, and 48,500-56,500 in 2035.

Figure 3-6 and **Table 3-9** compares the trend analysis forecasts for itinerant GA operations as described above.

Figure 3-6 - Itinerant GA Operations - Trend Analysis



Source: FAA OPSNET 2025; FAA TAF 2024; Garver, 2025

Table 3-9 - Itinerant GA Operations - Trend Analysis

Year	Trend 1	Trend 2	Trend 3	Trend 4	TAF 2024
2014	26,718	26,718	26,718	26,718	25,890
2019	28,623	28,623	28,623	28,623	28,416
2024	45,894	45,894	45,894	45,894	44,598
2025	46,123	46,410	46,660	46,766	44,781
2030	47,288	49,081	50,687	51,381	45,708
2035	48,482	51,905	55,060	56,451	46,653
Annual Growth Rates					
2014-2019	1.4%	1.4%	1.4%	1.4%	1.4%
2019-2024	9.9%	9.9%	9.9%	9.9%	9.9%
2025-2030	0.5%	1.1%	1.7%	1.9%	0.4%
2030-2035	0.5%	1.1%	1.7%	1.9%	0.4%

Source: FAA OPSNET 2025; FAA TAF 2024; Garver, 2025
Note: Historical differences with the TAF and the trend lines are due to CY and FY formats.

Itinerant GA Operations – Regression Analysis

The regression analyses forecasts considered various socioeconomic characteristics of different RBD services areas; other variables related to national GA characteristics focusing on turboprop and jets aircraft; and other indicator variables reflecting notable events nationally and regionally.

The analyses performed tested numerous models and utilized alpha p-values for rejecting the null hypothesis at 0.05. Each of the models listed below differed from one another by the counties included, as well as the selected independent variables and indicator variables that produced the best fit.

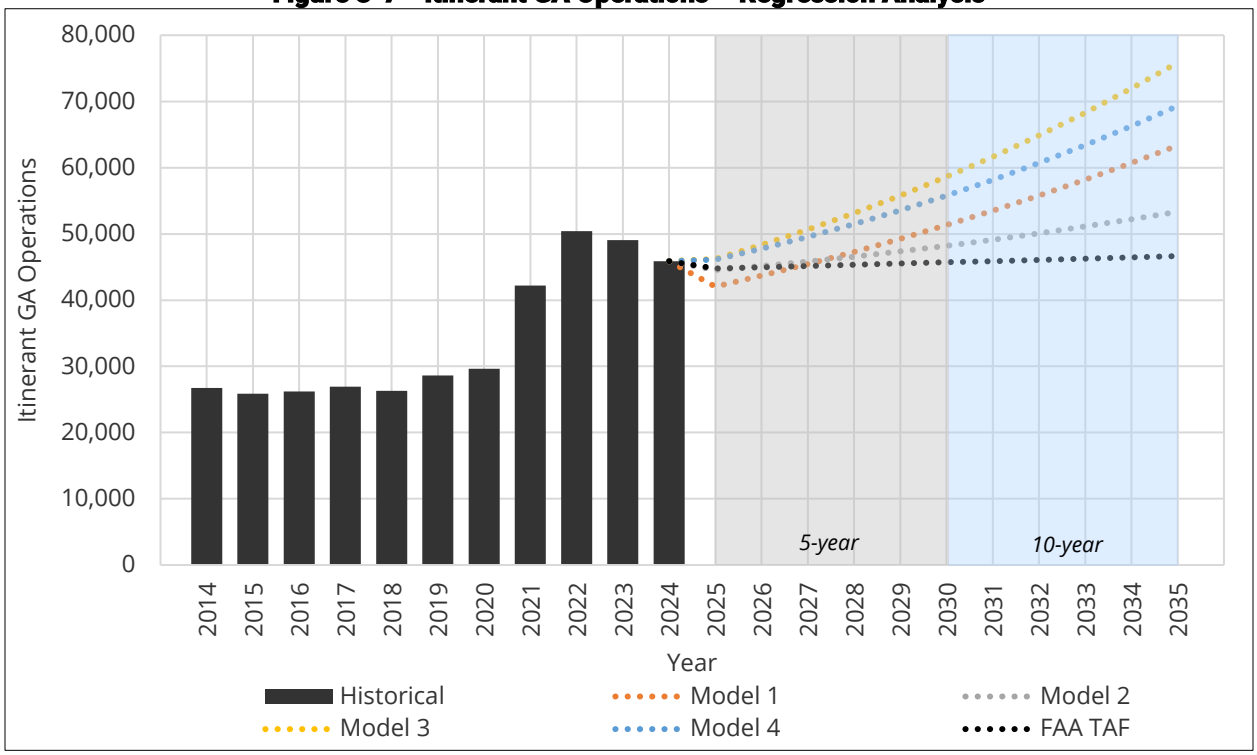
- Model 1 – Used an RBD service area made up of Dallas, Kaufman, and Ellis Counties. The model had an R Square value of 0.850 and used population, GRP, and an indicator variable for the public health emergency that began in 2020.
- Model 2 – Used an RBD service area made up of Dallas, Kaufman, Ellis, and Johnson Counties. The model had an R Square value of 0.741 and used population and employment.
- Model 3 – Used an RBD service area made up of Dallas and Ellis Counties. The model had an R Square value of 0.907 and used population, employment, PIPC, and an indicator variable for the public health emergency in 2020.
- Model 4 – Used an RBD service area made up of Dallas County only. The model had an R Square value of 0.909 and used population, employment, PIPC, and an indicator variable for the public health emergency in 2020.

With the exception of Model 2, the R Square values of each model produced are a good fit with the data.

Comparatively, the four models were all much greater than the TAF's five- and 10-year projections, with a range of 48,200-58,600 operations in 2030, and 53,300-75,900 in 2035.

Figure 3-7 and **Table 3-10** compare the regression analysis forecasts for itinerant GA operations as described above.

Figure 3-7 - Itinerant GA Operations – Regression Analysis



Source: FAA OPSNET 2025; Garver, 2025.

Table 3-10 - Itinerant GA Operations – Regression Analysis

Year	Model 1	Model 2	Model 3	Model 4	TAF 2024
2014	26,718	26,718	26,718	26,718	25,890
2019	28,623	28,623	28,623	28,623	28,416
2024	45,894	45,894	45,894	45,894	44,598
2025	42,033	44,546	46,193	46,129	44,781
2030	51,330	48,213	58,615	55,778	45,708
2035	63,345	53,341	75,857	69,324	46,653
Annual Growth Rates					
2014-2019	1.4%	1.4%	1.4%	1.4%	1.4%
2019-2024	9.9%	9.9%	9.9%	9.9%	9.9%
2025-2030	4.1%	1.6%	4.9%	3.9%	0.4%
2030-2035	4.3%	2.0%	5.3%	4.4%	0.4%

Source: FAA OPSNET 2025; FAA TAF 2024; Garver, 2025
Note: Historical differences with the TAF and the trend lines are due to CY and FY formats.

Local GA Operations

The Airport's local GA (Civil) operations reflect all GA aircraft takeoffs and landings that occur at the Airport, but the aircraft does not leave the vicinity of RBD. Although the share of local GA operations decreased from 67.3% in 1999-2009, to an average of 45.4% from 2009-2024, the average number of total local GA operations was 40,000 from 2021 to 2024, which had not been achieved since 2009.

Local GA Operations - Market Share Analysis

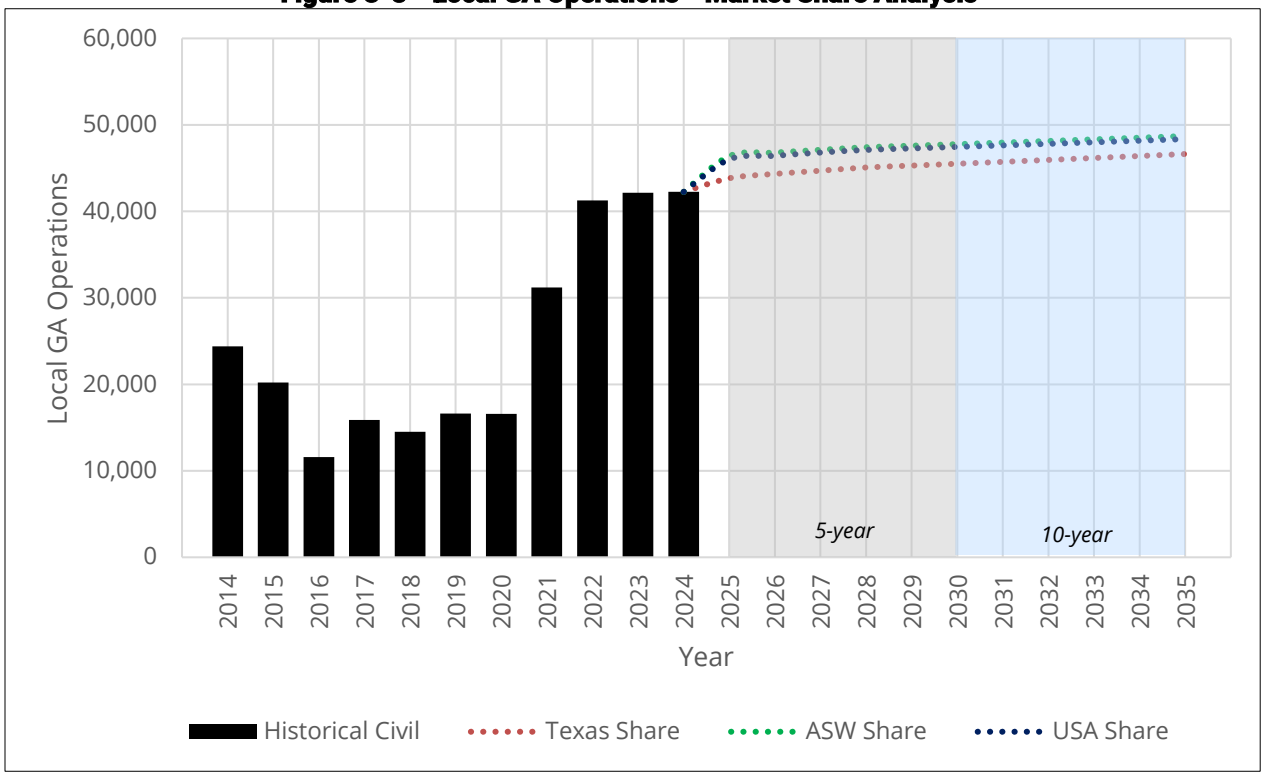
The market share analysis takes an approach where the forecast of local GA operations is related to a larger group of airports. Using this method the share of the Airport to the whole can remain constant or change over time. This analysis maintained RBD's recent historical share with the State of Texas (1.5%); FAA Southwest Region (ASW) (0.8%); and the U.S. (0.1%) based on local GA totals from the FAA TAF 2024. It then used the projections for Texas; the ASW region, and the U.S. from the TAF, while maintaining those shares over the 20-year forecast horizon.

A review of the analysis showed that all three shares had growth over the forecast horizon, but the State of Texas had the strongest growth during that time, yielding a 0.6% annual growth rate over the 20-year planning horizon, slightly greater than the ASW and U.S. 0.5% annual growth rates.

Comparatively, the three market shares had a range of 45,500-47,800 operations in 2030, and 46,700-48,800 in 2035.

Figure 3-8 and **Table 3-11** compare the local GA operations forecasts using a market share analysis as described above.

Figure 3-8 - Local GA Operations - Market Share Analysis



Source: FAA TAF 2024; Garver, 2025

Table 3-11 - Local GA Operations - Market Share Analysis

Year	Texas Share	ASW Share	USA Share
2014	24,396	24,396	24,396
2019	16,603	16,603	16,603
2024	42,247	42,247	42,247
2025	43,829	46,393	46,017
2030	45,506	47,775	47,452
2035	46,633	48,714	48,357
Annual Growth Rates			
2014-2019	-7.4%	-7.4%	-7.4%
2019-2024	20.5%	20.5%	20.5%
2025-2030	0.8%	0.6%	0.6%
2030-2035	0.5%	0.4%	0.4%

Source: FAA OPSNET 2025; FAA TAF 2024; Garver, 2025
Note: Historical differences with the TAF and the trend lines are due to CY and FY formats.

Local GA Operations - Trend Analysis

Multiple trends related to RBD operations as well as national trends in general aviation were analyzed for the relevance to RBD's local GA activity.

From a historical perspective, local GA activity at RBD has fluctuated over the past ten years, with an annual decrease -6.7% or -7,000 total operations from 2014-2019. It then increased by 20.3% or by 25,000 annual operations from 2019-2024.

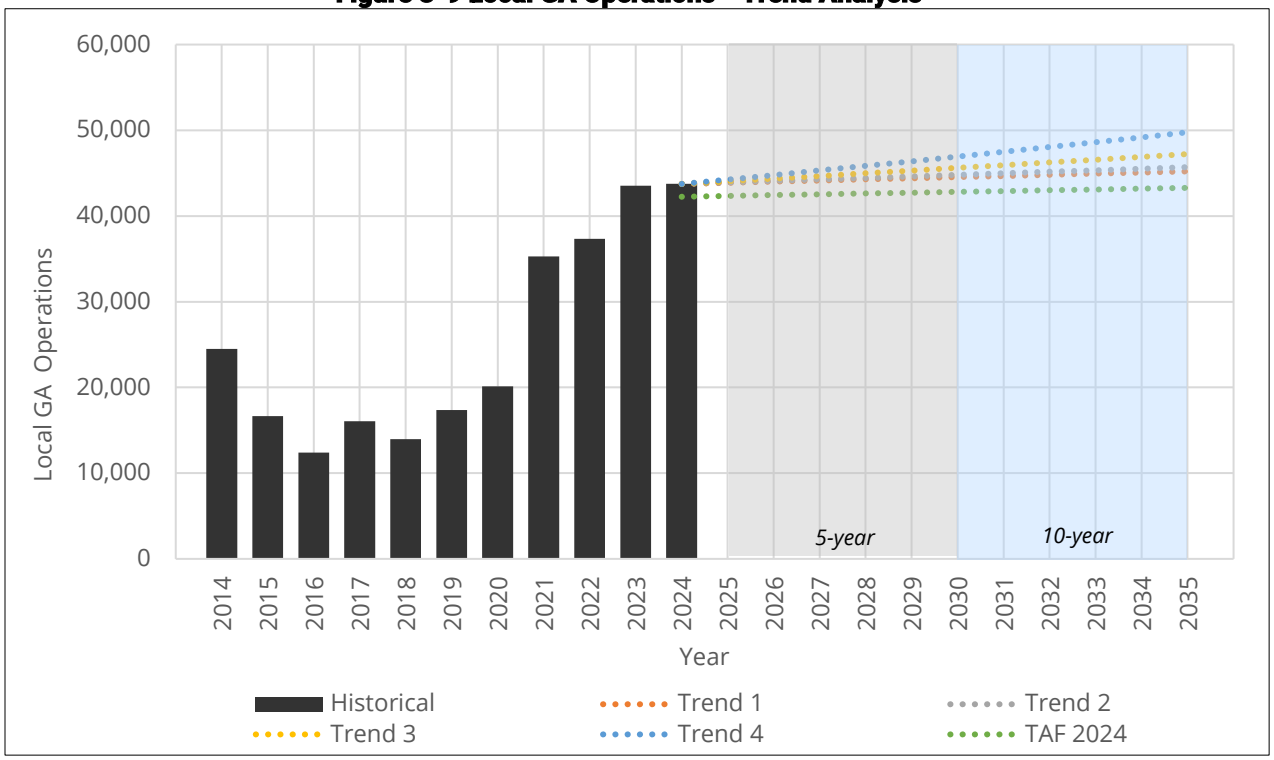
With the FAA TAF 2024 providing an annual growth rate of 0.2% for the next 20 years, the trends below were considered based on their relevance but also on their alignment to this rate.

- Trend 1 – Adopts the forecast annual rate of growth for the total active GA fleet (0.3%) from 2024-2025, based on the FAA Aerospace Forecast for FY 2025-2045.
- Trend 2 – Adopts the forecast annual rate of growth for the number of total GA pilots excluding students (0.4%) from 2025-2035, based on the FAA Aerospace Forecast for FY 2025-2045.
- Trend 3 – Adopts the historical annual rate of growth for the number of hours flown by piston fixed-wing aircraft (0.7%) from 2010-2024, based on the FAA Aerospace Forecast for FY 2025-2045.
- Trend 4 – Adopts the historical annual growth rate for total RBD operations (1.2%) from 2022-2024.

Comparatively, the four trends were greater than the TAF's five- and 10-year projections, with a range of 44,500-47,000 operations in 2030, and 45,200-49,800 in 2035.

Figure 3-9 and **Table 3-12** compares the trend analysis forecasts for local GA operations as described above.

Figure 3-9 Local GA Operations - Trend Analysis



Source: FAA OPSNET 2025; FAA TAF 2024; Garver, 2025

Table 3-12 Local GA Operations - Trend Analysis

Year	Trend 1	Trend 2	Trend 3	Trend 4	TAF 2024
2014	24,486	24,486	24,486	24,486	26,268
2019	17,354	17,354	17,354	17,354	16,603
2024	43,739	43,739	43,739	43,739	42,247
2025	43,870	43,914	44,045	44,256	42,340
2030	44,532	44,799	45,608	46,932	42,809
2035	45,204	45,702	47,227	49,770	43,283
Annual Growth Rates					
2014-2019	-6.7%	-6.7%	-6.7%	-6.7%	-6.7%
2019-2024	20.3%	20.3%	20.3%	20.3%	20.3%
2025-2030	0.3%	0.4%	0.7%	1.2%	0.2%
2030-2035	0.3%	0.4%	0.7%	1.2%	0.2%

Source: FAA OPSNET 2025; FAA TAF 2024; Garver, 2025
Note: Historical differences with the TAF and the trend lines are due to CY and FY formats.

Local GA Operations – Regression Analysis

The regression analyses compared the various socioeconomic characteristics of different RBD services areas; other variables related to national GA trends of piston and turboprop fixed wing aircraft; as well as other indicator variables reflecting notable events nationally and regionally.

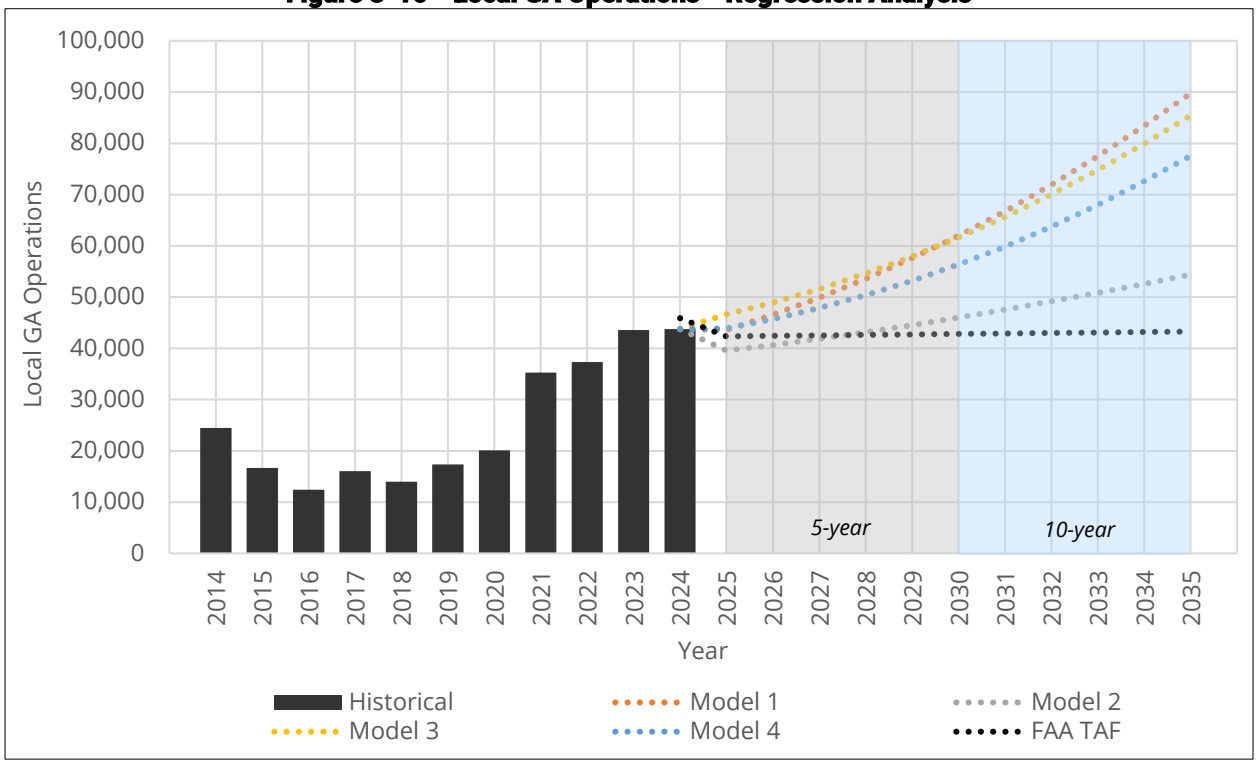
The analyses performed tested numerous models and utilized alpha p-values for rejecting the null hypothesis at 0.05. Each of the models listed below differed from one another by the counties included, as well as the selected independent variables and indicator variables that produced the best fit.

- Model 1 – Used an RBD service area made up of Dallas, Kaufman, and Ellis Counties. The model had an R Square value of 0.818 and used population, GRP, and total earnings. However, one of the model's coefficients failed to meet the alpha p-value.
- Model 2 – Used an RBD service area made up of Dallas, Kaufman, Ellis, and Johnson Counties. The model had an R Square value of 0.708 and used GRP, manufacturing income, and active fixed-wing piston activity nationwide from the FAA Aerospace Forecast. Additionally, two of the coefficients failed to meet the alpha p-value.
- Model 3 – Used an RBD service area made up of Dallas and Ellis Counties. The model had an R Square value of 0.803 and used population, GRP, and an indicator variable for the public health emergency in 2020. Additionally, one of the coefficients failed to meet the alpha p-value.
- Model 4 – Used an RBD service area made up of Dallas County only. The model had an R Square value of 0.808 and used population, employment, GRP, and manufacturing income. However, one coefficient failed to meet the alpha p-value.

While there were models with R squared values that indicated the model fit the data well, each of the four candidate models above had at least one or more coefficients that did not meet the alpha p-value.

Figure 3-10 and **Table 3-13** compare the regression analysis forecasts for local GA operations as described above.

Figure 3-10 - Local GA Operations - Regression Analysis



Source: FAA OPSNET 2025; Garver, 2025

Table 3-13 - Local GA Operations - Regression Analysis

Year	Model 1	Model 2	Model 3	Model 4	TAF 2024
2014	24,486	24,486	24,486	24,486	24,486
2019	17,354	17,354	17,354	17,354	17,354
2024	43,739	43,739	43,739	43,739	43,739
2025	43,582	39,582	46,660	43,896	42,340
2030	62,016	46,003	61,598	56,351	42,809
2035	89,711	54,402	85,422	77,552	43,283
Annual Growth Rates					
2014-2019	-6.7%	-6.7%	-6.7%	-6.7%	-6.7%
2019-2024	20.3%	20.3%	20.3%	20.3%	20.3%
2025-2030	7.3%	3.1%	5.7%	5.1%	0.2%
2030-2035	7.7%	3.4%	6.8%	6.6%	0.2%

Source: FAA OPSNET 2025; FAA TAF 2024; Garver, 2025
Note: Historical differences with the TAF and the trend lines are due to CY and FY formats.

Air Taxi and Commuter Operations

Since 2014, air taxi and commuter operations at RBD have represented an average of 0.5% of the annual share of total operations. Today, air taxi and commuter operations are still less than 1,000 annually, however, the total has quadrupled since 2014.

With the number of air taxi and commuter operations beginning to increase over the past few years, larger aircraft, including jets, are becoming more prominent as noted by Airport tenants, users, and fixed base operators (FBOs).

Air Taxi and Commuter Operations – Trend Analysis

Multiple trends related to RBD operations as well as national trends in general aviation were analyzed for their relevance to RBD air taxi and commuter activity.

From a historical perspective, air taxi and commuter activity at RBD has fluctuated over the past ten years, with an annual growth rate of 11.6% from 2014-2019, and then again in 2019-2024 as it increased 20.2% annually.

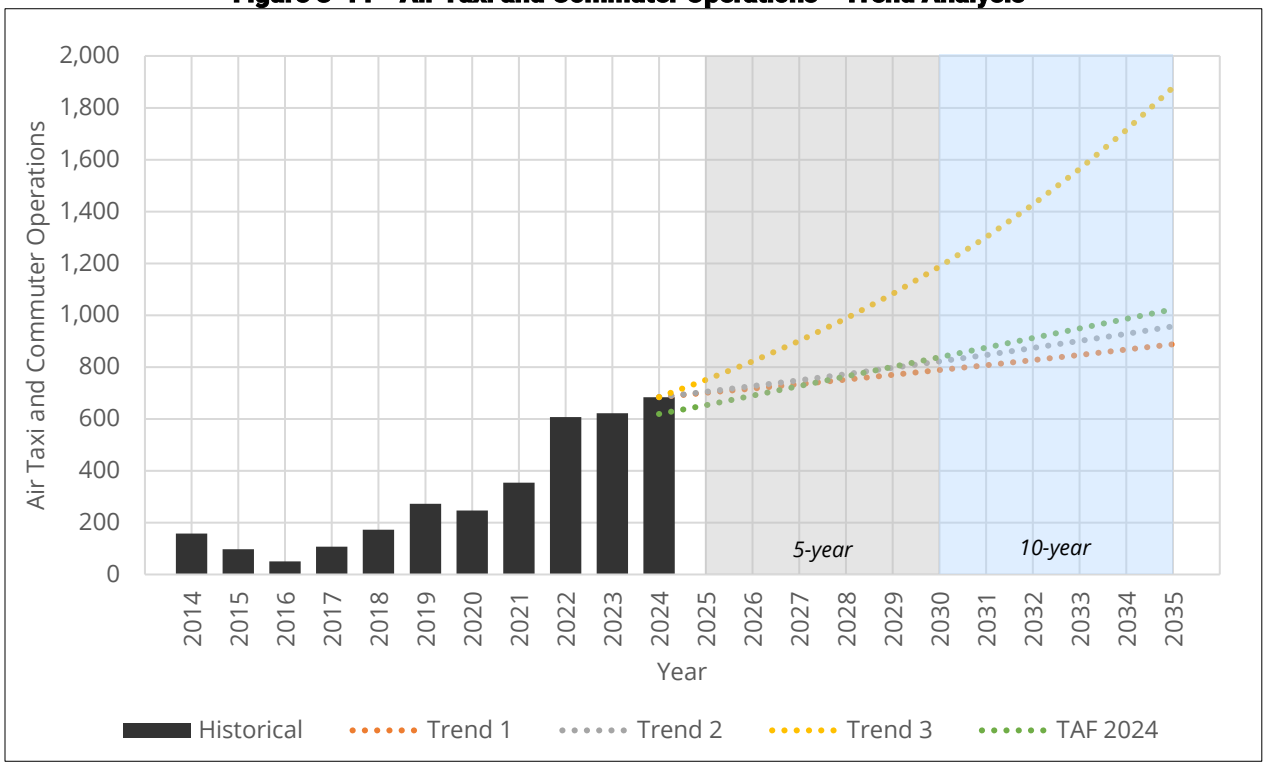
Considering the growth exhibited in the FAA TAF 2024 over the next 20 years is 3.9% annually, the trends below were considered based on their relevance but also on their alignment to this rate.

- Trend 1 – Adopts the forecast annual rate of growth for hours flown by the GA fleet of turbine fixed-wing aircraft, which includes turboprops and turbojets, at 2.4% annually from 2025-2045 based on the FAA Aerospace Forecast for FY 2025-2045.
- Trend 2 – Adopts the historical annual growth rate for RBD air taxi and commuter operations (3.1%) from 1999-2009.
- Trend 3 – Adopts the historical annual growth rate for RBD air taxi and commuter operations (9.6%) from 2019-2024.

Comparatively, two of the three trends were greater than the TAF's five- and 10-year projections, with a range of 800-1,200 operations in 2030, and 900-1,900 in 2035.

Figure 3-11 and **Table 3-14** compares the trend analysis forecasts for air taxi and commuter operations as described above.

Figure 3-11 - Air Taxi and Commuter Operations - Trend Analysis



Source: FAA OPSNET 2025; FAA TAF 2024; Garver, 2025

Table 3-14 - Air Taxi and Commuter Operations - Trend Analysis

Year	Trend 1	Trend 2	Trend 3	TAF 2024
2014	158	158	158	159
2019	273	273	273	238
2024	684	684	684	619
2025	700	705	750	653
2030	789	822	1,187	838
2035	888	957	1,879	1,023
Annual Growth Rates				
2014-2019	11.6%	11.6%	11.6%	11.6%
2019-2024	20.2%	20.2%	20.2%	20.2%
2025-2030	2.4%	3.1%	9.6%	5.1%
2030-2035	2.4%	3.1%	9.6%	4.1%

Source: FAA OPSNET 2025; FAA TAF 2024; Garver, 2025

Military Operations

Military operations are broken into itinerant and local categories similar to how GA operations are classified. Over the past 10 years, the Airport's military activity has averaged 148 itinerant military operations and 81 local military operations annually. Because military aircraft operations are independent of civilian aircraft operations, they are held constant from their base year totals over the duration of the forecast horizon.

Therefore, the annual growth rate for all military operations is 0.0%. Itinerant military operations will have an annual total of 235, and local military operations will have an annual total of 20 from 2025-2045.

Air Carrier Operations

Air carrier operations are the least common type of operation at RBD, where they have occurred minimally since 1999, never totaling more than 20 annually. As a result, the projections in this forecast are expected to remain at two annually.

Based Aircraft

The FAA defines based aircraft as an aircraft that is operational and airworthy and typically based at an airport for the majority of the year. The FAA TAF 2024 shows a 0.0% annual growth rate, keeping the number of based aircraft constant at RBD from 2025-2045. However, Dallas Executive Airport has provided facilities for large increases in the number of based aircraft over the past 25 years, specifically seeing notable growth from 2016-2025.

Further discussions with airport tenants and stakeholders indicate that RBD's centralized location along with competitive costs for hangar space may be some of the factors driving increased levels of interest from aircraft owners in the Dallas community.

Table 3-15 shows a based aircraft benchmark analysis, comparing some of the other notable airports in the Dallas region with large numbers of based aircraft.

Table 3-15 – Based Aircraft Benchmark Analysis - Dallas GA Airports

Year	RBD	ADS	FTW	FWS	TKI	GKY	HQZ	LNC
2016	186	550	382	261	286	255	173	135
2017	177	621	354	241	274	142	167	119
2018	256	621	444	241	274	191	187	119
2019	270	613	444	161	211	206	180	86
2020	282	609	316	169	202	231	184	78
2021	313	560	316	232	227	247	187	78
2022	343	550	312	236	219	247	183	78
2023	359	553	313	240	220	249	183	81
2024	397	589	299	279	203	200	186	68
2025	378	592	300	283	205	203	186	71
2016-2025	+192	+42	-82	+22	-81	-52	+13	-64
Annual Growth Rates								
2016-2020	11.0%	2.6%	-4.6%	-10.3%	-8.3%	-2.4%	1.6%	-12.8%
2020-2025	6.0%	-0.6%	-1.0%	10.9%	0.3%	-2.6%	0.2%	-1.9%

Source: FAA TAF 2024; RBD Airport Records, 2025; Garver, 2025

Notes: 1) – RBD based aircraft counts provided by Dallas Executive Airport records. All other based aircraft counts in this table show totals within the FAA TAF 2024. 2) RBD records are shown in calendar year format, all other airports in this table are shown in FAA FY format. 3) Airport Abbreviations: ADS – Addison Airport; FTW – Fort Worth Meachem International Airport; FWS – Fort Worth Spinks Airport; TKI – McKinney National Airport; GKY – Arlington Municipal Airport; HQZ – Mesquite Metro Airport; LNC – Lancaster Regional Airport.

Based Aircraft – Market Share Analysis

The market share analysis takes an approach where the based aircraft forecast is related to a larger group of airports. Using this method the share of the Airport to the whole can remain constant or change over time. This analysis maintained RBD's recent historical share with the State of Texas (2.8%); FAA Southwest Region (ASW) (1.6%); and the U.S. (0.2%) based on totals from the FAA TAF 2024. It then used the FAA TAF projections for Texas; the ASW region, and the U.S., while maintaining those shares over the 20-year forecast horizon.

A review of the analysis showed that while all three shares had growth over the forecast horizon, the State of Texas once again had the strongest growth during that timeframe, yielding a 1.1% annual growth rate over the 20-year planning horizon, slightly greater than the ASW at 1.0% and U.S. at 0.8%, respectively.

Table 3-16 compares the based aircraft forecasts using a market share analysis as described above.

Table 3-16 - Based Aircraft - Market Share Analysis

Year	Texas Share	ASW Share	U.S. Share
2014	148	148	148
2019	270	270	270
2024	397	397	397
2025	378	378	378
2030	400	397	395
2035	421	416	411
Annual Growth Rates			
2014-2019	12.8%	12.8%	12.8%
2019-2024	8.0%	8.0%	8.0%
2025-2030	1.2%	1.0%	0.9%
2030-2035	1.0%	0.9%	0.8%

Source: FAA TAF 2024; Garver, 2025

Based Aircraft – Aerospace Forecast

Based aircraft projections for RBD were also projected using a bottom-up approach where the distribution of based aircraft by type was increased using national trends associated with the FAA Aerospace Forecast FY 2025-2045 for the active GA fleet, summarized in **Table 3-3**.

As of 2025, the Airport's distribution of based aircraft by type was:

- Single Engines – 262 single engine fixed-wing aircraft representing approximately 69.3% of the RBD based aircraft fleet.
- Multi-Engines – 49 multi-engine fixed-wing aircraft representing approximately 13.0% of the RBD based aircraft fleet.
- Jets – 55 jets representing approximately 14.6% of the RBD based aircraft fleet.
- Helicopters – 12 helicopters representing approximately 3.2% of the RBD based aircraft fleet.

Because single engine and multi-engine fixed wing aircraft were not distinguished as pistons or turboprops, it was assumed that the single engine aircraft would follow the trend for single engine pistons, and the multi-engine aircraft would follow the trend for turboprops. Jets would follow the trend for turbojets, and helicopters would follow the trend for all rotorcrafts.

Table 3-17 shows the forecast of based aircraft using the FAA Aerospace Forecast for FY 2025-2045, using trends for the active GA fleet.

Table 3-17 - Based Aircraft – Active GA Fleet Increases

Year	Single Engine	Multi-Engine	Jet	Helicopter	Total	TAF 2024
2019	181	48	29	12	270	281
2024	269	54	58	16	397	358
2025	262	49	55	12	378	358
2030	261	51	63	13	388	358
2035	259	54	72	14	400	358
Annual Growth Rate						
2019-2024	8.2%	2.4%	14.9%	5.9%	8.0%	5.0%
2025-2030	-0.1%	1.0%	2.7%	1.7%	0.5%	0.0%
2030-2035	-0.1%	1.0%	2.7%	1.7%	0.6%	0.0%
2025-2035	-0.1%	1.0%	2.7%	1.7%	0.6%	0.0%

Source: Dallas Executive Airport, 2025; Garver, 2025

Forecast Summary

After comparing and reviewing all of the forecasts for operations by type and based aircraft, two combined forecasts were selected. The baseline forecast is identified as the preferred forecast which will be submitted to the FAA for review and approval. Because this forecast is for a general aviation airport in Texas, the Texas Department of Transportation (TxDOT) Aviation Division has authority to review and approve this forecast in lieu of the FAA.

The second forecast presented is an alternative high growth scenario forecast. This forecast was developed to support aggressive planning for future growth and development at RBD and will be used extensively in the facility requirements analysis.

Table 3-18 shows a summary of the baseline and high growth scenario forecasts for based aircraft at Dallas Executive Airport.

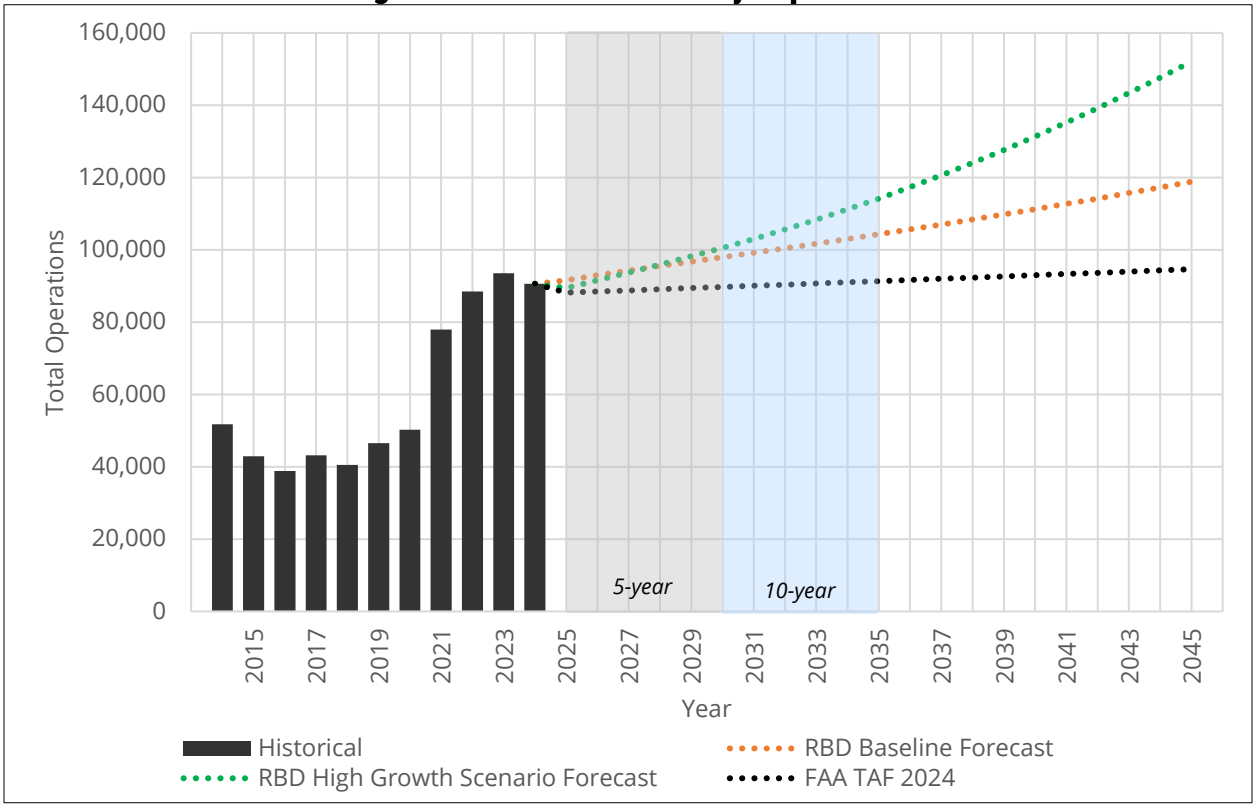
Table 3-18 - Forecast Summaries - Based Aircraft

Year	Baseline Forecast	High Growth Scenario Forecast	FAA TAF 2024
2025	378	378	358
2030	388	400	358
2035	400	421	358
2040	412	444	358
2045	427	468	358
Annual Growth Rates			
2025-2030	0.5%	1.2%	0.0%
2030-2035	0.6%	1.0%	0.0%
2035-2045	0.7%	1.1%	0.0%
2025-2045	0.6%	1.1%	0.0%

Source: Garver, 2025, FAA TAF 2024

Table 3-19 shows a summary of the baseline and high growth scenario forecasts for total operations at Dallas Executive Airport.

Figure 3-12 - Forecast Summary - Operations



Source: Garver, 2025, FAA TAF 2024

Table 3-19 - Forecast Summaries - Operations

Year	Baseline Forecast	High Growth Scenario Forecast	FAA TAF 2024
2025	91,556	89,432	88,172
2030	97,965	100,548	89,753
2035	104,298	114,194	91,357
2040	111,237	131,347	92,987
2045	118,841	152,088	94,642
Annual Growth Rates			
2025-2030	1.4%	2.4%	0.4%
2030-2035	1.3%	2.6%	0.4%
2035-2045	1.3%	2.9%	0.4%
2025-2045	1.3%	2.7%	0.4%

Source: Garver, 2025, FAA TAF 2024

Baseline Forecast

The baseline forecast selected the following models for operations and based aircraft projections over the 20-year planning horizon.

- Operations Models
  - Itinerant Operations
    - Air Carrier – Trend Analysis: Historical RBD 1999-2009 (4.1%)
    - Air Taxi and Commuter – Trend Analysis: Historical RBD 1999-2009 (3.1%)
    - Itinerant GA – Trend Analysis: FAA Aerospace Forecast Total GA Aircraft Fuel Consumption 2025-2045 (1.9%)
    - Itinerant Military – FAA TAF: Held constant (0.0%)
  - Local Operations
    - Civil (Local GA) – Market Share Analysis: Texas (0.6%)
    - Local Military – FAA TAF: Held constant (0.0%)
- Based Aircraft Model – FAA Aerospace 2025-2045 Active Fleet Forecast (0.6%)

High Growth Scenario Forecast

The high growth scenario forecast selected the following models for operations and based aircraft projections over the 20-year planning horizon.

- Operations Models
  - Itinerant Operations
    - Air Carrier – Trend Analysis: Historical RBD 1999-2009 (4.1%)
    - Air Taxi and Commuter – Trend Analysis: Historical RBD 2019-2024 (9.6%)
    - Itinerant GA – Regression Analysis: Service Area 1 Model (4.2%)
    - Itinerant Military – FAA TAF: Held constant (0.0%)
  - Local Operations
    - Civil (Local GA) – Market Share Analysis: ASW (0.5%)
    - Local Military – FAA TAF: Held constant (0.0%)
- Based Aircraft Model – Market Share Analysis: Texas (1.1%)

Derivative Forecasts

The derivative forecasts provide added details to other specific distributions of the operations forecasts. Using the total operations forecasts, projections were calculated for aircraft operating under instrument flight rules (IFR) and visual flight rules (VFR). Additionally, the number of annual instrument approaches was calculated. Planning for the number of aircraft flying under IFR or VFR may drive the pursuit of navigational aids (NAVAIDs) and other air traffic control facilities. Similarly, the number of transient aircraft annually can be calculated to determine whether transient apron space is adequate to accommodate existing and future peak demand.

Table 3-20 shows the derivative forecast of operations using the baseline forecast.

Table 3-20 - Derivative Forecasts - Operations

Year	Annual Itinerant Operations	Annual Instrument Approaches	Itinerant IFR Operations	Itinerant VFR Operations	Annual Transient Operations
2014	51,766	2,870	5,740	21,334	17,238
2019	46,503	2,766	5,532	23,513	15,485
2024	90,573	4,693	9,386	37,428	30,161
2025	47,707	4,373	8,746	38,961	30,488
2030	52,439	4,807	9,613	42,825	32,622
2035	57,645	5,284	10,568	47,077	34,731
Annual Growth Rates					
2014-2019	-2.12%	-0.74%	-0.74%	1.96%	-2.12%
2019-2024	14.26%	11.15%	11.15%	9.74%	14.26%
2025-2030	1.91%	1.91%	1.91%	1.91%	1.36%
2030-2035	1.91%	1.91%	1.91%	1.91%	1.26%

Source: Garver, 2025, FAA TAF 2024

Peaking Forecasts

Projections of peak activity levels at an airport play an important role in facility requirements. Even though an airport may experience an absolute peak day and peak hour, these occurrences are often random and infrequent. Therefore, facilities are not commonly planned to accommodate such extreme totals. Instead, it is often a best practice to plan for an average day of the peak month (ADPM). **Table 3-21** shows the distribution of Dallas Executive Airport's total operations for each calendar year from 2014-2024. The table highlights the month with the greatest share of a year in orange and transitions to the lowest share in blue.

Table 3-21- Distribution of Operations by Month 2014-2024

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Jan.	7.8%	10.2%	8.5%	7.1%	8.2%	6.8%	6.3%	7.0%	9.1%	7.3%	6.6%
Feb.	6.7%	9.8%	8.3%	7.9%	6.6%	5.7%	7.5%	4.6%	6.8%	7.2%	8.0%
Mar.	7.4%	6.4%	6.5%	9.1%	9.4%	8.1%	5.1%	7.8%	8.5%	9.2%	8.1%
Apr.	8.6%	9.7%	7.7%	7.3%	9.1%	8.3%	4.3%	6.4%	7.3%	9.1%	6.6%
May	7.5%	9.0%	7.5%	10.0%	10.4%	8.8%	6.8%	8.1%	8.5%	10.4%	6.7%
Jun.	8.4%	8.7%	8.7%	8.1%	8.9%	9.1%	7.2%	8.9%	10.3%	7.7%	9.4%
Jul.	8.9%	8.4%	8.6%	7.7%	6.3%	9.3%	8.3%	8.9%	9.6%	8.7%	9.5%
Aug.	9.2%	7.7%	7.4%	8.1%	7.3%	9.3%	12.0%	8.1%	9.0%	9.8%	10.1%
Sep.	9.3%	8.3%	9.4%	9.1%	7.1%	8.9%	8.5%	9.0%	9.2%	8.4%	9.2%
Oct.	10.9%	8.0%	11.4%	9.4%	9.3%	9.5%	10.8%	10.0%	8.6%	6.9%	9.7%
Nov.	8.6%	6.3%	8.4%	9.2%	9.1%	7.5%	12.4%	10.9%	6.2%	7.3%	8.5%
Dec.	6.8%	7.3%	7.6%	6.9%	8.3%	8.6%	10.8%	10.2%	6.9%	7.9%	7.7%

Source: FAA OPSNET, 2025; Garver, 2025

Utilizing the base year's 10.1% share of operations to represent the peak month of each forecast year, the ADPM is calculated using the average number of operations based on the number of days in August. Finally, to determine the average number of operations per hour on an ADPM, the ADPM operations are averaged by the hours that the RBD Airport Traffic Control Tower is attended (07:00 to 21:00 daily).

Table 3-22 shows the baseline and high growth scenario forecast of total annual operations, peak month, ADPM, and average hour of the ADPM operations from 2025-2045.

Table 3-22 - Peak Operations Forecasts

Year	Total Annual Operations	Peak Month Operations	Average Day Peak Month Operations	Average Hour - ADPM Operations
Baseline Forecast				
2025	91,556	9,288	300	21
2030	97,965	9,938	321	23
2035	104,298	10,580	341	24
2040	111,237	11,284	364	26
2045	118,841	12,056	389	28
High Growth Scenario Forecast				
2025	89,432	9,072	293	21
2030	100,548	10,200	329	24
2035	114,194	11,584	374	27
2040	131,347	13,324	430	31
2045	152,088	15,428	498	36

Source: FAA OPSNET, 2025; Garver, 2025

Baseline Forecast - FAA TAF Comparison

Per FAA guidance, one of the factors needed for gaining FAA approval is whether the variance of the baseline forecast with the FAA TAF is met. In this forecast, the baseline forecast is compared with the FAA TAF 2024. Under this requirement, the forecast should differ from the current TAF baseline scenario by less than 10% in year 5, and 15% at year 10.

Table 3-23 shows that the baseline forecast meets the less than 10% variance in five years, as well as the less than 15% variance in ten years. The base year or last year of historical data is 2024, and the 20-year forecast horizon includes the years 2025-2045.

Table 3-23 - FAA TAF - Baseline Forecast Comparison

Description	Year	Baseline Forecast	FAA TAF 2024	Percent Higher/Lower
Operations				
Base Year	2024	91,556	88,172	3.8%
Base Year +5 Years	2030	97,965	89,753	9.1%
Base Year +10 Years	2035	104,298	91,357	14.2%
Based Aircraft				
Base Year	2024	397	358	10.9%
Base Year +5 Years	2030	388	358	8.4%
Base Year +10 Years	2035	400	358	11.6%

Source: FAA TAF 2024; Garver, 2025

Critical Aircraft

Dallas Executive Airport regularly has a diverse fleet of aircraft that utilizes its facilities over the course of a year. In base year 2024, RBD had at least 489 different aircraft models documented by 1200.aero recorded operations.

The Airport's full data set listed a total of 74,864 total operations that were recorded using 1200.aero during 2024. Of those operations, 28,670 were identified as touch-and-go's. Comparatively, the FAA's OPSNET database for operations, listed a total of 90,573 operations for RBD in 2024. Because of the variance between the two sources, the 1200.aero dataset was scaled up by adding the difference as A-I Small SEP aircraft, as it was assumed that these aircraft were omitted during the recording process. Additionally, the 28,670 touch-and-go's were scaled up to 34,686 reflecting the ratio of operations under this classification. Because touch-and-go's are not permitted to be used in the determination of a critical aircraft they were not included in the analysis.

FAA Advisory Circular 150/5000-17, *Critical Aircraft and Regular Use Determination*, defines a critical aircraft as the most demanding aircraft type, or grouping of aircraft with similar characteristics, which make regular use of the airport. Regular use is defined as 500 annual operations, made up of itinerant and local operations but excluding touch-and-go's. When an airport has a diverse fleet like RBD, the Aircraft Approach Category (AAC) and Airplane Design Group (ADG) of each aircraft are totaled to select the critical aircraft category.

Table 3-24 shows a summary of the operations by aircraft and grouped by AAC and ADG.

Table 3-24 - Critical Aircraft - Operations by Aircraft

Aircraft Group	2024	2035	2045
A-I	45,627	50,062	57,043
A-II	478	666	759
A-III	6	8	10
B-I	966	1,346	1,533
B-II	2,534	3,530	4,023
B-III	29	40	46
C-I	312	435	495
C-II	640	892	1,016
C-III	14	20	22
C-V	1	1	2
D-I	9	13	14
D-II	41	57	65
D-III	8	11	13
Touch and Go's (not counted for Critical Aircraft)	*34,686*	*39,942*	*45,512*
Other / Helicopter	5,222	7,275	8,290
Total	90,573	104,298	118,841
AAC			
A	46,111	50,736	57,811
B	3,529	4,916	5,602
C	967	1,347	1,535
D	58	81	92
Other / Helicopter	5,222	7,275	8,290
ADG			
I	46,914	51,855	59,086
II	3,693	5,145	5,862
III	57	79	90
IV			
V	1	1	2
Other / Helicopter	5,222	7,275	8,290

Source: Garver 2025; 1200 Aero, 2025

Critical Aircraft – Runway 13-31

Runway 13-31 is 7,136 feet long by 100 feet wide, and is considered the Airport's primary runway, allowing it to accommodate the entire fleet that operates out of RBD. Because the most demanding aircraft with 500 or more annual operations is a C-II, the Gulfstream III (GLF3) which operates at RBD, has been designated to represent the existing critical aircraft of Runway 13-31. The GLF3 also has a Taxiway Design Group (TDG) of TDG-2A. For uniformity, the entire airfield will be planned to meet TDG-2A standards in the existing condition.

Nationally, there is a growing trend in jet activity anticipated over the 20-year planning horizon. The FAA Aerospace Forecast for FY 2025-2045 shows the following GA projections related to jets:

- Jets in the active GA fleet are forecast to increase at a rate of 2.7% annually.
- GA hours flown by jets are forecast to increase at a rate of 3.1% annually.
- GA jet fuel consumed is forecast to increase at a rate of 2.2% annually.

For these reasons, and input from multiple Airport interviews during the inventory stage of this project, it is reasonable to believe that C-III jet activity will achieve 500 annual operations over the planning horizon. Therefore, the future critical aircraft for Runway 13-31 is the Gulfstream G600 (G-7) (GA6C) jet, which is a C-III, with a TDG-2B. For uniformity, the entire airfield will be planned for TDG-2B standards.

Critical Aircraft – Runway 17-35

Runway 17-35 is 3,800 feet long by 150 feet wide and is considered the Airport's secondary runway. Because of its shorter length, some of the larger aircraft within RBD's fleet may not be able to operate on it regularly. Based on these details, the most demanding type of aircraft with 500 or more annual operations is a B-II, the Beech King Air 200 (BE20), which operates regularly at RBD, has been designated to represent the existing critical aircraft for Runway 17-35. Due o the limited ability to extend the runway, it is anticipated that B-II will remain the critical aircraft during the forecast horizon.

Critical Aircraft Summary

The future critical aircraft for a runway cannot be changed until a total of 500 AAC and ADG operations confirming its designation are recorded on a respective runway. This includes any project that would require funding to develop facilities needed for accommodating a larger critical aircraft. However, by proactively planning for larger more demanding aircraft,

Dallas Executive Airport will position itself to secure and preserve the space needed for larger aircraft facilities and protected when it is achieved.

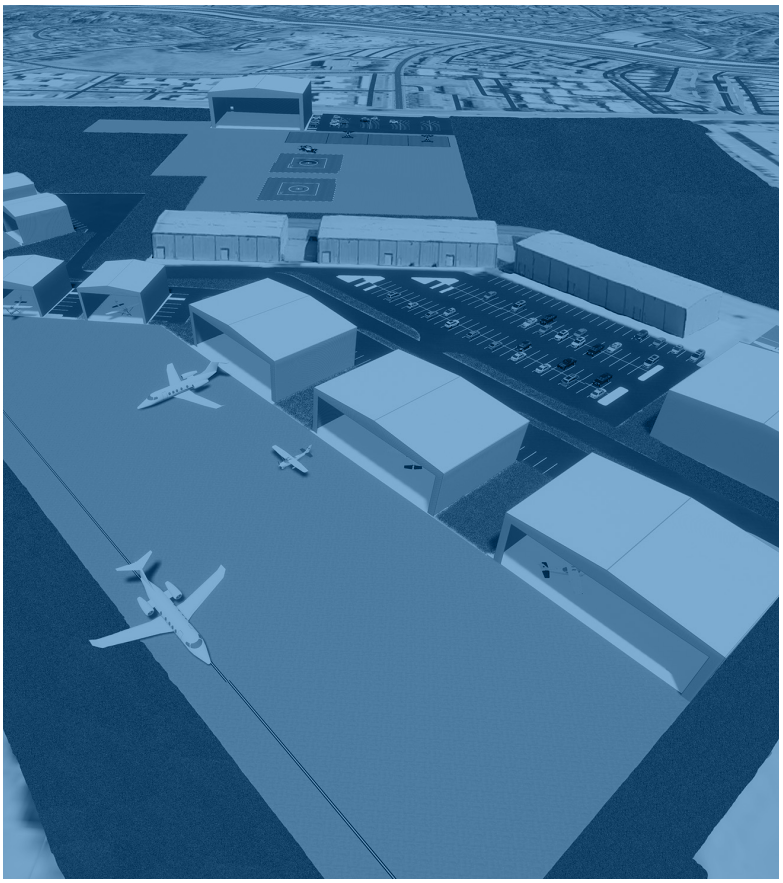
Table 3-25 shows a summary of the existing and future critical aircraft for each runway at RBD.

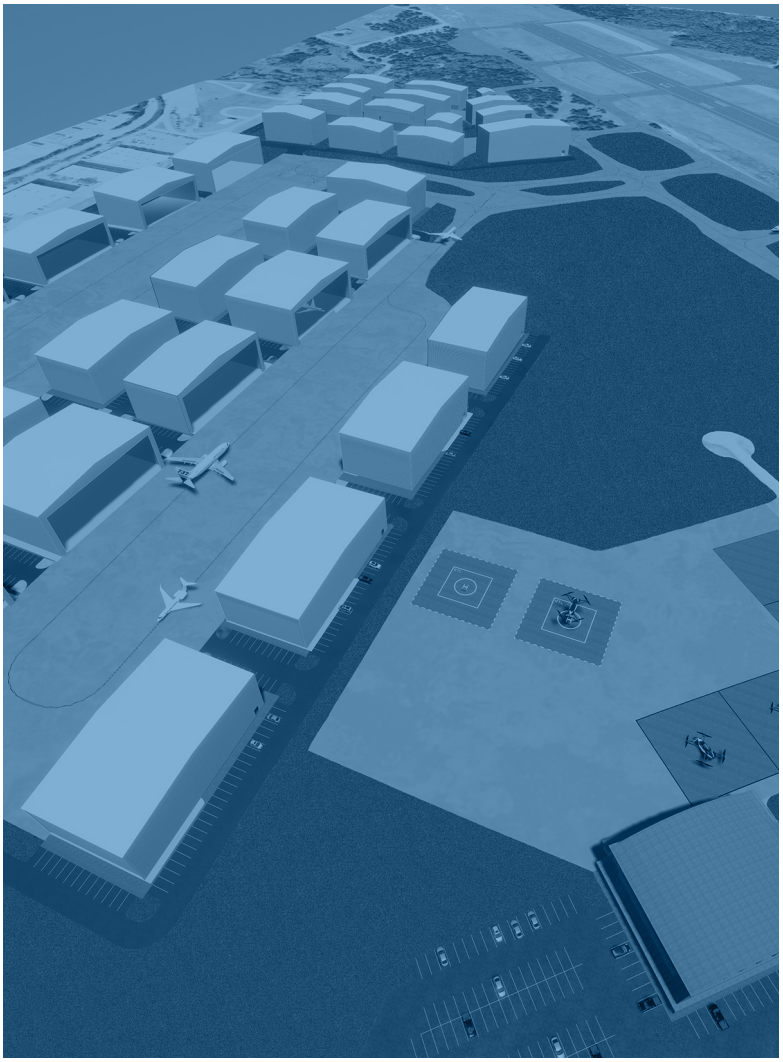
Table 3-25 - Critical Aircraft Summary

Runway	Aircraft Name / Model	AAC	ADG	TDG
Runway 13-31				
Existing Critical Aircraft	Gulfstream III (GLF3)	C	II	2A
Future Critical Aircraft	Gulfstream G600 (G-7) (GA6C)	C	III	2B
Runway	Aircraft Name / Model	AAC	ADG	TDG
Runway 17-35				
Existing Critical Aircraft	Beech King Air 200 (BE20)	B	II	2A
Future Critical Aircraft	Beech King Air 200 (BE20)	B	II	2A

Source: Garver 2025; 1200 Aero, 2025

Note: The TDG differs between Runway 13-31 and Runway 17-35. For uniformity, all taxiways will follow the design standards of the most stringent critical aircraft TDG, which will be Runway 13-31.





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2 Inventory and Description of Existing Facilities

3 Forecast of Aviation Activity

4 Facility Requirements

5 Alternative Analysis

6 Capital Improvement Program and Financial Plan

A Forecast Approval Letter

B Public Open House Sign-In Sheets

C Sustainability and Waste Reduction

D Drainage Report

E Airport Layout Plan

CHAPTER 4: FACILITY REQUIREMENTS

Introduction

This chapter evaluates the existing facilities at Dallas Executive Airport (RBD or Airport) and identifies improvements, referred to as "facility requirements," needed to effectively meet the forecasted demand described in the *Forecast of Aviation Activity Chapter (Chapter 3).* The identified facility requirements are used to inform the alternatives development and analysis process discussed in Chapter 5.

Facility requirements are sometimes established based on Planning Activity Levels (PAL) that correlate to the forecast intervals defined in Chapter 3. The relationship between the identified forecast intervals and PALs are shown below:

- PAL 1 – Forecast Year 2025
- PAL 2 – Forecast Year 2030
- PAL 3 – Forecast Year 2035
- PAL 4 – Forecast Year 2040
- PAL 5 – Forecast Year 2045

The facility requirements described in this chapter should only be enacted based on demonstrated demand as seen in the airport's current activity levels and approved FAA forecast projections. Consequently, the realization of the activity levels associated with the PALs described above should be used to guide the implementation of future development projects at RBD. The passage of time should not be used to guide the implementation of future improvement projects at RBD unless the implementation of the improvement is directly related to the infrastructure element's useful life.

For the facility requirements analysis, an airport's infrastructure is divided into airside and terminal/landside categories. The airside facilities include but are not limited to runways, taxiways, protected surfaces, airspace, navigational aids (NAVAIDs), Advanced Air Mobility (AAM) infrastructure, and airfield markings, signage, and lighting. The terminal/landside facilities include but are not limited to hangars, aprons, terminal buildings, fixed base operator (FBO) facilities, fuel storage and delivery, vehicular parking, and airport access roads.

Airside Facility Requirements

This section provides an overview of the facility requirements established to inform the short (0-5 years), mid (6-10 years), and long-term (11+ years) development of airside facilities at RBD. Airside facility requirements are typically based on forecasted aircraft operations activity levels and the current and anticipated critical aircraft for each runway which is used to establish a runway's Runway Design Code (RDC). Based on the *Forecast of Aviation Activity Chapter*, the existing and ultimate critical aircraft for each runway at RBD is shown in **Table 4-1**.

Table 4-1 - Runway Critical Aircraft

RDC Variables	Runway 13-31		Runway 17-35	
	Existing	Ultimate	Existing	Ultimate
Aircraft Approach Category (AAC)	C	C	B	B
Airplane Design Group (ADG)	II	III	II	II
Approach Visibility Minimums	4,000 ft.	4,000 ft.	5,000 ft.	5,000 ft.
Critical Aircraft/RDC	C-II-4000	C-III-4000	B-II-5000	B-II-5000

Source: Garver Forecast Analysis, 2025

As shown in the table, the ultimate critical aircraft for Runway 13-31 is anticipated to shift into from Airplane Design Group (ADG) II to ADG III during the forecast period (20 years). No change is anticipated to the critical aircraft for Runway 17-35.

As discussed in the *Forecast of Aviation Activity Chapter,* a baseline and high-growth scenario were created for the aircraft operations forecast at RBD to better evaluate the impact of potential changes in aircraft operations levels during the 20-year forecast period. The forecast years and corresponding PAL, baseline scenario, and high-growth scenario are shown in **Table 4-2**.

Table 4-2- Forecast Summaries - Operations

PAL - Year	Baseline Aircraft Operations Forecast	High Growth Aircraft Operations Forecast
PAL 1 – 2025	91,556	89,432
PAL 2 – 2030	97,965	100,548
PAL 3 – 2035	104,298	114,194
PAL 4 – 2040	111,237	131,347
PAL 5 – 2045	118,841	152,088

Source: Garver Forecast Analysis, 2025

Runway Facility Requirements

The primary runway at RBD is Runway 13-31 which is 7,136 feet long and 100 feet wide and is served by RNAV/GPS approaches to both runway ends and an ILS approach to Runway 31. The secondary runway at RBD is Runway 17-35 which is 3,800 feet long and 150 feet wide and is served by RNAV/GPS approaches to each runway end.

Runway Length

FAA AC 150/5325-4B, *Runway Length Requirements for Airport Design*, provides guidance in determining the recommended length for a runway. The process for determining a runway's recommended length includes the evaluation of the performance characteristics of various groups and specific models of aircraft expected to use the runway, the common mission requirements of aircraft using the runway (e.g., payload, distance flown, etc.), and airport attributes that impact aircraft performance (e.g., weather, elevation, runway grade, etc.).

For the RBD runway length evaluation, a generalized runway length analysis was conducted using the process set forth in Chapters 2 and 3 of AC 150/5325-4B. For this analysis, site specific considerations related to RBD were considered including airport field elevation, average high temperature, weather conditions, and aircraft stage length (e.g., non-stop flight distance). As temperatures, density altitude, weather, and aircraft stage length change, the runway length requirements change accordingly. Consequently, if a runway is designed to accommodate 75% of the fleet at 60% useful load, this does not prevent larger aircraft at certain times and during specific conditions from utilizing the runway. However, the amount of time such operations can safely occur is limited.

Runway length calculations were based on an airport elevation of 660.5 feet above Mean Sea Level (MSL), a mean maximum daily temperature of 94.6˚F, and a maximum difference in runway end elevation of 6.5 feet for Runway 13-31 and 8.6 feet for Runway 17-35.

Table 4-3 summarizes the runway length requirements established for Runway 13-31 based on the nomographs contained in AC 150/5325-4B.

Table 4-4 summarizes the runway length requirements established for Runway 17-35 based on the nomographs contained in AC 150/5325-4B.

In addition to this analysis, historical flight data for RBD was reviewed to aid in analyzing the sufficiency of the existing length of each runway. Based on historical flight data from 2025, RBD had departures to San Jose Mineta International Airport (SJC) which is 1,259

nautical miles (NM) from RBD in July 2025 and King County International Airport/Boeing Field (BFI) which is 1,457 NM from RBD in November 2025. The completion of these flights indicates that the existing length of Runway 13-31 is sufficient to serve the needs of most domestic aircraft operations.

Table 4-3 – RBD Runway Length Requirements for Runway 13-31

Aircraft Category Small Aircraft: 12,500 pounds or less:	Runway Designation	Current Runway Length (ft.)	Runway Length Requirement (ft.)	Deficiency/ Surplus
95% GA Fleet	13-31	7,136	**3,500**	3,636
100% GA Fleet	13-31	7,136	**4,000**	3,136
100% GA Fleet with 10 or more passenger seats	13-31	7,136	**4,450**	2,686
Large Aircraft between 12,500 and 60,000 pounds:				
75% of fleet at 60% useful load	13-31	7,136	**5,500**	1,636
75% of fleet at 90% useful load	13-31	7,136	**7,315**	-179
100% of fleet at 60% useful load	13-31	7,136	**5,965**	1,171
100% of fleet at 90% useful load	13-31	7,136	**9,465**	-2,329

Source: Garver, 2026; AC 150/5325-4B, *Runway Length Requirements for Airport Design*, Figures 2-1, 2-2, 3-1, and 3-2

Note: Red text indicates a deficiency, and green text indicates a surplus. Analysis reflects generalized length requirements only. Actual lengths should be calculated based on a specific aircraft's operational nomographs. Useful load refers to all usable fuel, passengers, and cargo.

Table 4-4 – RBD Runway Length Requirements for Runway 17-35

Aircraft Category Small Aircraft: 12,500 pounds or less:	Runway Designation	Current Runway Length (ft.)	Runway Length Requirement (ft.)	Deficiency/ Surplus
95% GA Fleet	17-35	3,800	**3,500**	300
100% GA Fleet	17-35	3,800	**4,000**	-200
100% GA Fleet with 10 or more passenger seats	17-35	3,800	**4,450**	-650
Large Aircraft between 12,500 and 60,000 pounds:				
75% of fleet at 60% useful load	17-35	3,800	**5,500**	-1,700
75% of fleet at 90% useful load	17-35	3,800	**7,336**	-3,536
100% of fleet at 60% useful load	17-35	3,800	**5,986**	-2,186
100% of fleet at 90% useful load	17-35	3,800	**9,486**	-5,686

Source: Garver, 2026; AC 150/5325-4B, *Runway Length Requirements for Airport Design*, Figures 2-1, 2-2, 3-1, and 3-2
Note: Red text indicates a deficiency, and green text indicates a surplus. Analysis reflects generalized length requirements only. Actual lengths should be calculated based on a specific aircraft's operational nomographs. Useful load refers to all usable fuel, passengers, and cargo.

Feedback was also collected on the existing runway length available at RBD through interviews with various airport businesses and users as part of the inventory data collection effort. The majority of airport users/businesses identified that the length of Runway 13-31 is sufficient to meet their typical needs. However, challenges arise if Runway 13-31 is closed and only Runway 17-35 is available. Consequently, based on the results of the analysis, it is recommended to plan for the ultimate extension of Runway 17-35 by 1,000 feet to reach 4,800 feet in length. The existing length of Runway 13-31 is sufficient.

Runway Alignment

The primary runway at an airport should be aligned with the airport's prevailing winds to limit crosswind conditions for arriving and departing aircraft. FAA AC 150/5300-13B, *Airport Design*, provides guidance regarding the allowable crosswind tolerance for a runway based on the runway's critical design aircraft. In general, an airport's primary runway should meet the crosswind coverage tolerance for its critical aircraft category for at least 95% of an average year. If this requirement cannot be met, the airport may need to consider the establishment of a crosswind runway to better accommodate aircraft operations when the crosswind component of the primary runway would be exceeded.

Table 4-5 shows the critical aircraft category and the applicable crosswind tolerance at RBD in the existing and ultimate condition for each runway.

Table 4-5 – RBD Runway Crosswind Coverage

Runway	Existing/Ultimate Condition	Critical Aircraft	Crosswind Component
13-31	Existing	C-II	16 knots
	Ultimate	C-III	16 knots
17-35	Existing	B-II	13 knots
	Ultimate	B-II	13 knots

Source: RBD Forecast 2025, FAA Advisory Circular 150/5300-13B, Airport Design

Based on this information, a wind analysis was completed using historical wind data available from the ASOS system at RBD. **Table 4-6** shows the analysis.

Table 4-6 – RBD Wind Coverage Analysis

Runway	All Weather Wind Coverage %			IFR Wind Coverage %			VFR Wind Coverage %		
	10.5 Knots	13 Knots	16 Knots	10.5 Knots	13 Knots	16 Knots	10.5 Knots	13 Knots	16 Knots
17-35	96.55%	98.39%	99.58%	95.60%	97.70%	99.24%	96.72%	98.52%	99.65%
13-31	90.96%	96.23%	99.28%	93.86%	97.33%	99.32%	90.46%	96.05%	99.28%
Combined	98.68%	99.53%	99.92%	98.24%	99.27%	99.81%	98.75%	99.58%	99.93%

Source: RBD ASOS Data 2015-2024

The results of the analysis show that Runway 17-35 has better wind coverage than Runway 13-31. However, Runway 13-31 meets the 95% crosswind requirement in the 13 knot and 16 knot categories. This means that most large turboprop and jet aircraft should be able to use Runway 13-31 based on wind coverage for more than 95% of an average year. However, some single-engine piston and light twin-engine aircraft, that are within the 10.5 knot crosswind category, may not be able to use Runway 13-31 for 95% of an average year. Based on this analysis, a crosswind runway at RBD is not justified.

Table 4-7 shows an analysis of wind data at RBD by runway end. Based on the results of the analysis, Runway 17 and Runway 13 are the preferred runway ends for aircraft operations for the majority of the year.

Table 4-7 – RBD Wind Coverage Analysis by Runway End

Runway	All Weather Wind Coverage %			IFR Wind Coverage %			VFR Wind Coverage %		
	10.5 Knots	13 Knots	16 Knots	10.5 Knots	13 Knots	16 Knots	10.5 Knots	13 Knots	16 Knots
17	65.39%	66.14%	66.62%	51.98%	52.75%	53.30%	67.72%	68.47%	68.93%
35	36.63%	37.72%	38.44%	49.28%	50.62%	51.63%	34.43%	35.47%	36.14%
13	63.33%	67.02%	69.05%	57.75%	59.39%	60.26%	64.39%	68.45%	70.68%
31	33.11%	34.70%	35.73%	41.78%	43.62%	44.75%	31.51%	33.05%	34.05%

Source: RBD ASOS Data 2015-2024

Airfield Capacity

At airports with current or anticipated activity levels exceeding 100,000 aircraft operations annually, it is important to holistically analyze the capacity of the runway and taxiway system. Airfield capacity-related improvements should be planned at airports that are anticipated to reach at least 60% of their identified Annual Service Volume (ASV). Based on AC 150/5060-5, *Airport Capacity and Delay*, ASV is defined as "a reasonable estimate of an airport's annual capacity. It accounts for differences in runway use, aircraft mix, weather conditions, etc., that would be encountered over a year's time."

To analyze airfield capacity at RBD, three different airfield capacity models were used:

1. AC 150/5060-5 Chapter 2 – Capacity and Delay Calculations for Long Range Planning: This analysis method considers general runway configuration and fleet mix but excludes considerations such as taxiway exit locations and the location where runways cross which can significantly impact an airport's ASV. In general, this model is very conservative in estimating an airport's ASV as it typically provides an ASV calculation that is higher than other more detailed models.
2. Airport Cooperative Research Program (ACRP) Report 79 – Airfield Capacity Model: This analysis method is an Excel spreadsheet model based on the procedures described in Chapter 3 of AC 150/5060-5 for analyzing airfield capacity and estimating an airport's ASV. This model is more detailed and integrates considerations such as runway configuration, runway crossing point location, weather conditions, fleet mix, and the general number of taxiway exit locations. However, the specific location of taxiway exits for each runway are not integrated into the analysis as well as specific air traffic procedures in place for RBD. This model typically calculates ASVs that are lower than those calculated using the methodology described in Chapter 2 of AC 150/5060-5.
3. MITRE runwaySimulator Model: MITRE Corporation developed a simulation-based tool called runwaySimulator to aid the FAA in analyzing airfield capacity. This

simulation-based software provides capacity curves for an airfield system that integrate detailed information such as runway configuration, runway crossing point location, weather conditions, fleet mix, local air traffic procedures, and specific runway exit points. This model does not directly calculate ASV but provides a robust analysis of hourly airfield capacity.

Table 4-8 shows the results of the AC 150/5060-5 Chapter 2 and the ACRP Report 79 airfield capacity models for RBD and compares the ASV calculations to the baseline and high-growth aircraft operations forecasts.

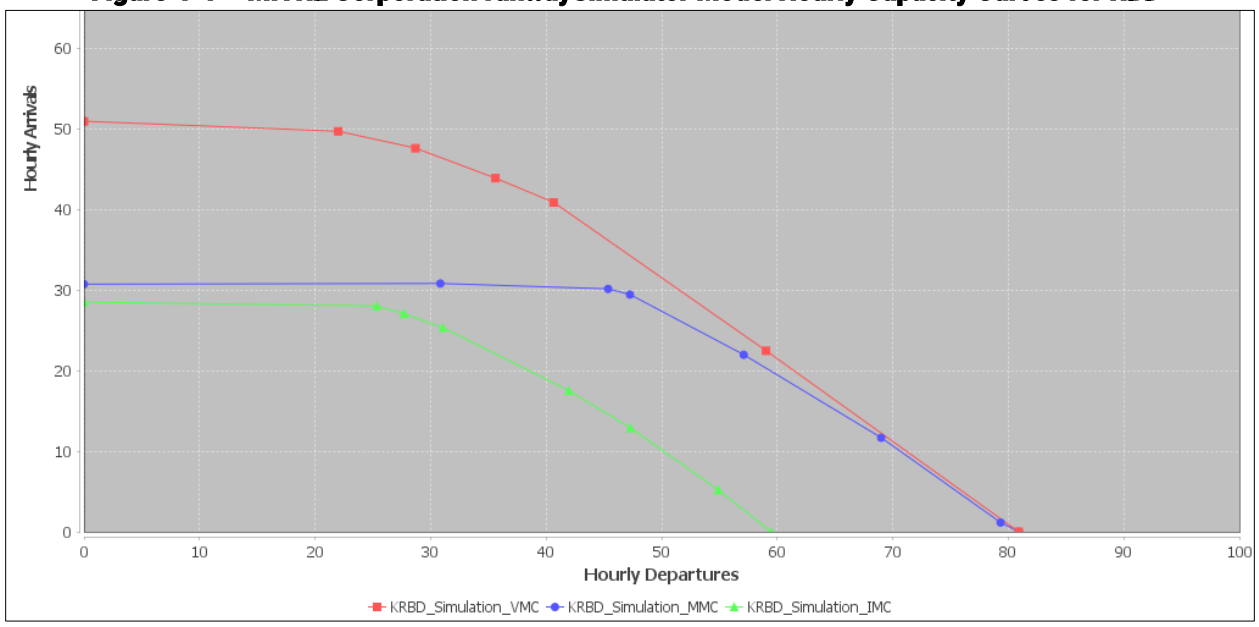
Figure 4-1 shows the hourly capacity curves calculated for RBD using the MITRE Corporation's runwaySimulator model.

Table 4-8 – AC 150/5060-5 Chapter 2 and ACRP Report 79 Airfield Capacity Models for RBD

		ACRP Report 79 Capacity Methodology		AC 150/5060-5 Long-Range Methodology	
Planning Activity Level	Baseline Forecast Annual Operations	Calculated Annual Service Volume (ASV)	Operations % of Annual Service Volume (ASV)	Estimated Annual Service Volume (ASV)	Operations % of Annual Service Volume (ASV)
PAL 1	91,556	154,400	59.30%	230,000	39.81%
PAL 2	97,965	154,400	63.45%	230,000	42.59%
PAL 3	104,298	154,400	67.55%	230,000	45.35%
PAL 4	111,237	154,400	72.04%	230,000	48.36%
PAL 5	118,841	154,400	76.97%	230,000	51.67%
Planning Activity Level	High Growth Forecast Annual Operations	Calculated Annual Service Volume (ASV)	Operations % of Annual Service Volume (ASV)	Estimated Annual Service Volume (ASV)	Operations % of Annual Service Volume (ASV)
PAL 1	89,432	154,400	57.92%	230,000	38.88%
PAL 2	100,548	154,400	65.12%	230,000	43.72%
PAL 3	114,194	154,400	73.96%	230,000	49.65%
PAL 4	131,347	154,400	85.07%	230,000	57.11%
PAL 5	152,088	154,400	98.50%	230,000	66.13%

Source: AC 150/5060-5 Chapter 2 and ACRP Report 79 models calculated by Garver, 2026
Note: Green cells indicate that the forecasted annual aircraft operations figure is less than 60% of the ASV. Yellow cells indicate that the forecasted annual aircraft operations figure is at least 60% but less than 80% of the ASV. Red cells indicate that the forecasted annual aircraft operations figure is 80% or more of the ASV.

Figure 4-1 – MITRE Corporation runwaySimulator Model Hourly Capacity Curves for RBD



Source: MITRE Corporation runwaySimulator modeling performed by Garver, 2026
Note: The red line shows hourly capacity during visual flight rule (VFR) conditions. The blue line shows hourly capacity during marginal visual flight rule conditions (MVFR). The green line shows hourly capacity during instrument flight rule (IFR) conditions.

Both the AC 150/5060-6 Chapter 2 model and the ACRP Report 79 model indicate that RBD could exceed 60% of the airport's ASV by the end of the forecast period. While the results of the MITRE Corporation runwaySimulator model do not calculate an ASV, the hourly capacity rates calculated indicate that RBD's actual ASV is likely between the ASVs calculated using the other two models. **Table 4-9** shows a comparison of the hourly IFR and VFR capacities calculated using each model.

Table 4-9 – Hourly Airfield Capacity Model Comparison

Hourly Rate	FAA AC 150/5060-5 Chapter 2	MITRE runwaySimulator	ACRP 79 Model
VFR Hourly Capacity	98	81	58-59
IFR Hourly Capacity	59	57	45-46

Source: Garver, 2026

Based on this analysis, it is estimated that the ASV using the MITRE runwaySimulator hourly capacity curves would be approximately 190,000 annual operations. Using this estimate, RBD would reach 60% of its ASV in PAL 5 of the baseline aircraft operations forecast scenario and 80% of its ASV in PAL 5 of the high-growth forecast scenario.

Based on this analysis, it is recommended that RBD continue to maintain Runway 17-35 as a secondary runway to support potential increases in operational activity.

Runway Strength

The published weight bearing capacity of a runway is a significant factor that dictates the ability of larger jet and turboprop aircraft to use the runway. FAA AC 150/5320-6G, *Airport Pavement Design and Evaluation*, provides guidance on the structural design of airport pavements. The FAA requires the use of the pavement design program, FAARFIELD, to determine the pavement section that should be established to support the airport's anticipated fleet mix of aircraft. The design is based on a 20-year pavement life cycle. FAARFIELD analyzes the damage to the pavement done by each aircraft operation and determines the final pavement thickness/structure based on the total cumulative damage of all aircraft.

Table 4-10 shows the existing weight bearing capacity of the runways at RBD.

Table 4-10 - Runway Weight Bearing Capacity

Weight Bearing Capacity (lbs.) by Gear Configuration	Runway 13-31	Runway 17-35
Single Wheel (SW)	40,000 lbs.	35,000 lbs.
Double Wheel (DW)	90,000 lbs.	60,000 lbs.
Double Tandem (DT)	130,000 lbs.	110,000 lbs.

Source: FAA Aeronautical Information Services Website – Obtained 11/5/2025

Table 4-11 identifies some of the larger aircraft that operated at RBD in 2025 and their maximum take-off weights (MTOW).

Based on the results of the analysis, RBD had more large jet aircraft operating at the airport in 2025 compared to 2023 and 2024. However, the weight bearing capacity for the runways is generally sufficient to meet the needs of the existing and forecasted fleet mix. Consequently, runway strengthening is not anticipated to be needed during the forecast horizon.

Magnetic Declination

As the magnetic poles of the Earth shift over time, the magnetic headings used to establish the designation of a runway can change. The existing magnetic declination for RBD is 2.53° E with an annual rate of change of 0.083° W annually according to the National Oceanic and Atmospheric Administration (NOAA) Magnetic Declination Estimated Value Calculator (calculated in February 2026).

The true bearing of Runway 13-31 is 135.1° and 315.1°. Based on the airport's existing magnetic declination and the aforementioned rate of change, it is not expected that Runway 13-31 will need to be redesignated during the planning horizon.

The true bearing of Runway 17-35 is 180.1° and 00.1°. Based on the airport's existing magnetic declination and the aforementioned rate of change, Runway 17-35 could currently be redesignated to Runway 18-36. Runway 17-35 should be redesignated to Runway 18-36 as part of an upcoming airfield project.

Table 4-11 – RBD 2025 Large Aircraft Operations

Aircraft	Gear Type	Maximum Takeoff Weight (MTOW)	Number of Operations 2025	Number of Operations 2023-2025	Percentage of Operations in 2025	Within Weight Limits for Runway 17-35	Within Weight Limits for Runway 13-31
Dassault Falcon 900	DW	49,000	184	287	64.11%	Yes	Yes
Dassault Falcon 50	DW	39,700	94	263	35.74%	Yes	Yes
Hawker 800	DW	28,000	87	339	25.66%	Yes	Yes
Bombardier Challenger 600/601/604	DW	47,600	351	819	42.86%	Yes	Yes
Cessna Citation Latitude	DW	30,800	67	192	34.90%	Yes	Yes
Cessna Citation X	DW	36,100	55	121	45.45%	Yes	Yes
Gulfstream IV	DW	73,200	22	94	23.40%	No	Yes
Gulfstream V	DW	79,600	13	29	44.83%	No	Yes
Bombardier Global 7500	DW	114,480	16	19	84.21%	No	No

Source: FAA TFMSC Data, 2023-2025

Note: Green cells indicate that a higher percentage of operations of this aircraft type occurred in 2025 compared to 2023 and 2024. Red cells indicate that a lower percentage of operations of this aircraft type occurred in 2025 compared to 2023 and 2024.

Runway Design Standards

The FAA has established detailed standards regarding runway pavements, protected surfaces, and setbacks/offsets to other facilities. These design standards are described in AC 150/5300-13B, *Airport Design.* The dimension and application of various runway design standards are typically based on the RDC for the runway.

Table 4-12 provides a summary of Runway 17-35's alignment with current B-II-5,000 design standards. **Table 4-13** provides a summary of Runway 13-31's alignment with current C-II-4,000 design standards and ultimate C-III-4,000 design standards.

Figure 4-2 depicts the Runway Safety Area (RSA), Runway Object Free Area (ROFA), and Runway Obstacle Free Zone (ROFZ) surfaces applicable to Runway 17-35. **Figure 4-3** depicts the RSA, ROFA, and ROFZ surfaces applicable to Runway 13-31.

In general, the design of an airport should conform to FAA airport design criteria without requiring a Modification to Standards (MOS). Compliance with each applicable design standard is discussed further in subsequent sections of this report.

Runway Width

FAA AC 150/5300-13B, *Airport Design*, delineates the requirements for runway width. Currently, Runway 17-35 is 150 feet wide and Runway 13-31 is 100 feet wide. The width of Runway 13-31 meets existing and ultimate design standards for a runway with an RDC of C-II-4,000 (existing) and C-III-4,000 (ultimate).

The width of Runway 17-35 exceeds the existing and ultimate design standards for a runway with an RDC of B-II-5,000. The runway is currently 150 feet wide but only 75 feet in width is needed per standard. However, based on the condition of the pavement and the cost associated with relocating the medium intensity runway edge lights (MIRLs), it is recommended that Runway 17-35 be maintained at 150 feet in width.

Table 4-12 – Runway 17-35 Design Standard Compliance

Item	Existing/Ultimate Condition	
	FAA Design Standard: B-II-5,000	Runway 17-35
Runway Safety Areas:		
RSA Length beyond R/W end (ft.)		
- Runway 17	300	300
- Runway 35	300	300
RSA Width (ft.)	150	150
Runway Object Free Areas:		
OFA Length beyond R/W end (ft.)		
- Runway 17	300	300
- Runway 35	300	300
OFA Width (ft.)	500	500
Runway Obstacle Free Zone:		
ROFZ Length beyond R/W end (ft.)		
- Runway 17	200	200
- Runway 35	200	200
ROFZ Width (ft.)	400	400
Runway Setbacks -Runway Centerline to:		
Parallel Taxiway Centerline (ft.)	240	300
Holdline (ft.)	200	200
Runway Width:		
Required Width (ft.)	75	150

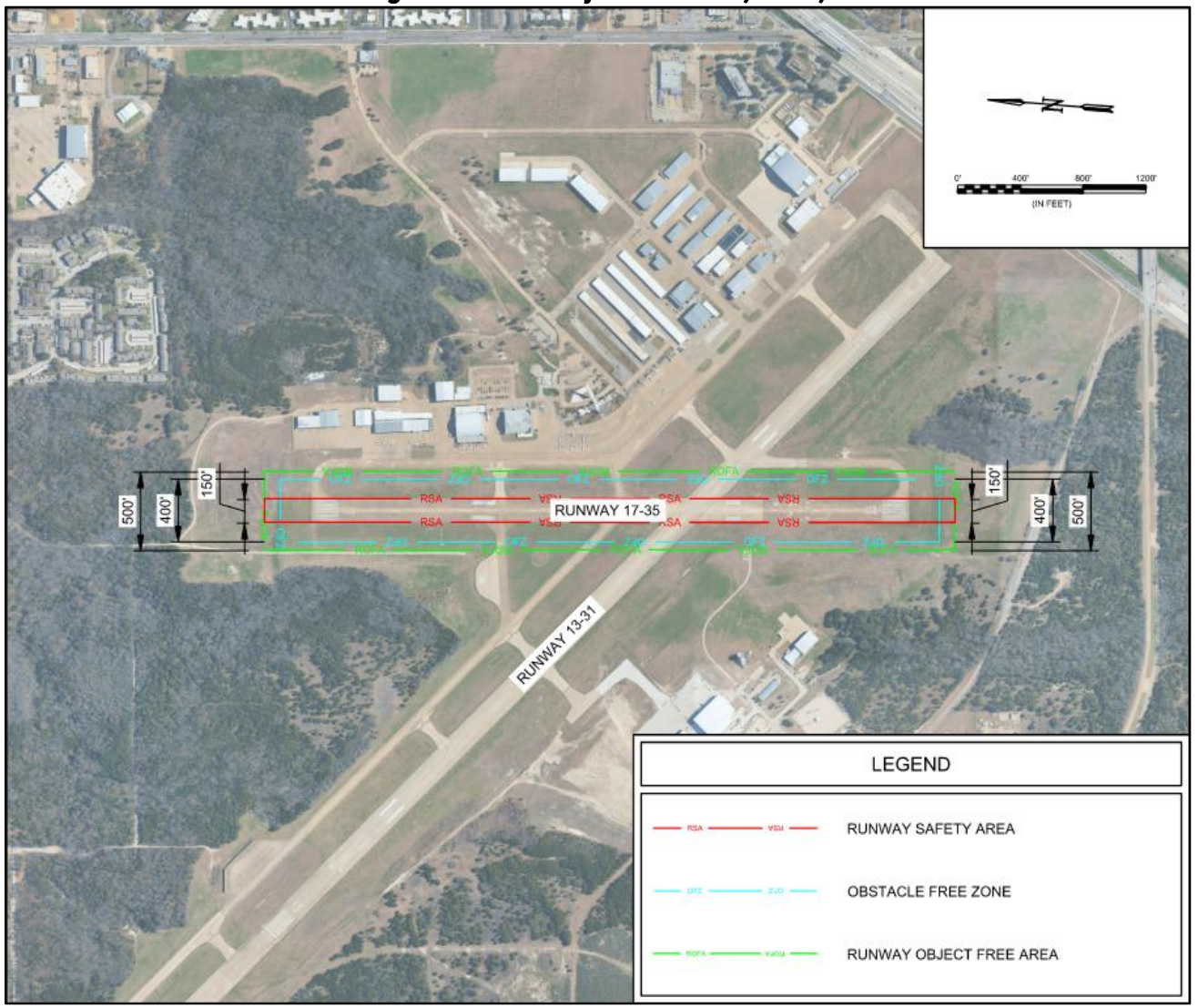
Source: Garver, 2026; FAA Advisory Circular 150/5300-13B, *Airport Design*
Note: Red cells indicate a deficiency in design standards while green cells indicate that design standards are exceeded.

Table 4-13 – Runway 13-31 Design Standard Compliance

Item	Existing Condition		Ultimate Condition	
	FAA Design Standard: C-II-4,000	Runway 13-31	FAA Design Standard: C-III-4,000	Runway 13-31
Runway Safety Areas:				
RSA Length beyond R/W end (ft.)				
- Runway 13	1,000	1,000	1,000	1,000
- Runway 31	1,000	982	1,000	982
RSA Width (ft.)	500	500	500	500
Runway Object Free Areas:				
OFA Length beyond R/W end (ft.)				
- Runway 13	1,000	1,000	1,000'	1,000
- Runway 31	1,000	963	1,000'	963
OFA Width (ft.)	800	777	800’	777
Runway Obstacle Free Zone:				
ROFZ Length beyond R/W end (ft.)				
- Runway 13	200	200	200’	200’
- Runway 31	200	200	200’	200’
ROFZ Width (ft.)	400	400	400’	400’
Runway Setbacks -Runway Centerline to:				
Parallel Taxiway Centerline (ft.)	300	300	400	300
Holdline (ft.)	250	250	250	250
Runway Width:				
Required Width (ft.)	100	100	100*	100

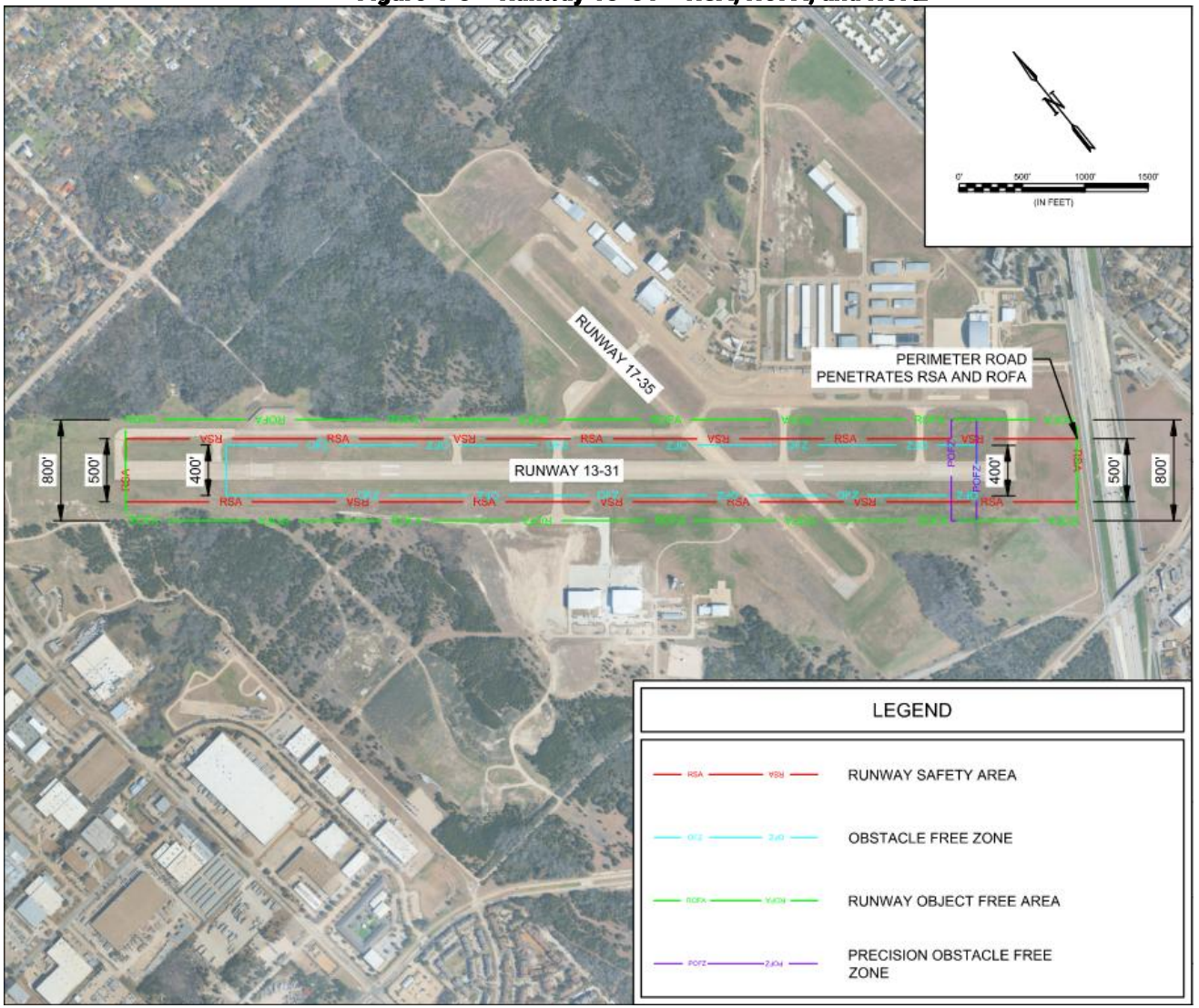
Source: Garver, 2026; FAA Advisory Circular 150/5300-13B, *Airport Design*
Note: Red cells indicate a deficiency in design standards while green cells indicate that design standards are exceeded.
***** - Standard changes to 150 feet in runway width if the critical aircraft is over 150,000 pounds certified maximum takeoff weight (MTOW). This is not anticipated for RBD.

Figure 4-2 – Runway 17-35 – RSA, ROFA, and ROFZ



Source: Garver, 2026

Figure 4-3 – Runway 13-31 – RSA, ROFA, and ROFZ



Source: Garver, 2026

Runway Safety Area

A Runway Safety Area (RSA) is a two-dimensional area surrounding and extending beyond the paved surface of the runway. The RSA is provided to reduce the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway pavement. In addition, it must be free of objects, except those required for air navigation, and be graded to transverse and longitudinal standards to prevent water accumulation. Objects located in the RSA over three (3) inches above grade must be constructed, to the extent practical, on frangible mounted structures with a frangible point no higher than three (3) inches above grade. All non-frangible items located in the RSA must have a top elevation that is between flush with the grade and a height of one (1) inch above the immediate surrounding grade. Under dry conditions, the RSA must support Aircraft Rescue and Fire Fighting (ARFF) and snow removal equipment (if applicable), along with the occasional passage of aircraft without causing damage to the aircraft. The Airport should own all the property inside the limits of the RSA.

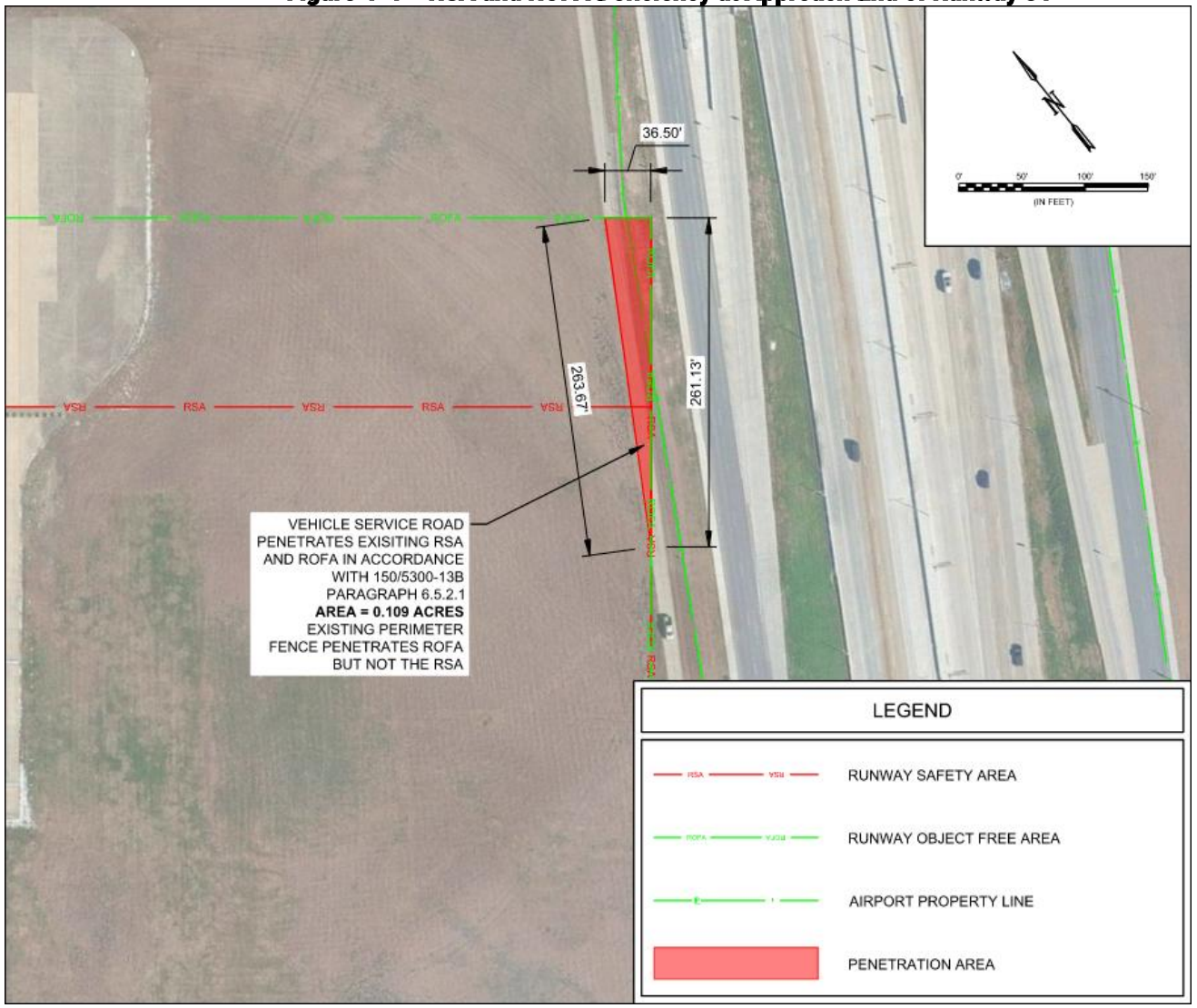
Based on available data, the RSA associated with Runway 17-35 meets current FAA standards. The RSA associated with Runway 13-31 also meets FAA standards with the exception of a RSA penetration located at the approach end of Runway 31. This deficiency is shown in **Figure 4-4**. Currently, the RSA extends over the vehicle service road (VSR) at the south end of the airfield. A Runway Object Free Area (ROFA) penetration also exists in this area and is discussed in the next section. The RSA deficiency will need to be addressed in the ultimate development plan.

Runway Object Free Area

A Runway Object Free Area (ROFA) is a two-dimensional area surrounding a runway. It must remain clear of objects except those used for air navigation or aircraft ground maneuvering purposes and requires clearing of above-ground objects protruding higher than the elevation of the RSA at the closest adjacent point. An object is considered any terrain, structure, navigational aid, person, equipment, or parked aircraft. The Airport should own all the property inside the limits of the ROFA.

Currently, the ROFA associated with the approach end of Runway 31 is penetrated by the VSR and the airport perimeter fence. This area is shown in **Figure 4-4**. Additionally, a small portion of the blast fence associated with Taxiway B at the approach end of Runway 13 penetrates the lateral limits of the ROFA. These ROFA deficiencies will need to be addressed in the ultimate development plan.

Figure 4-4 – RSA and ROFA Deficiency at Approach End of Runway 31



Source: Garver, 2026

Obstacle Free Zone

An Obstacle Free Zone (OFZ) is a volume of airspace above and centered along the runway centerline. The OFZ precludes taxiing and parked airplanes and object penetrations except for objects required to be located in the OFZ due to their function. An OFZ can have a number of different components including a Runway Obstacle Free Zone (ROFZ), inner-transitional OFZ, inner approach OFZ, and a Precision Obstacle Free Zone (POFZ). The ROFA is applicable to both Runway 17-35 and Runway 13-31 at RBD. A POFZ is also applicable to the landing threshold associated with Runway 31 as the Decision Altitude (DA) for the ILS and RNAV/GPS approaches to that runway end are less than 250 feet. Currently, no penetration exists to the ROFZ or POFZ for the runways at RBD.

Runway Separation Distances

Standard separation distances should exist from runway centerlines to parallel taxiways and runway hold position markings to facilitate the safe and efficient movement of aircraft to and from the runway environment. The placement of runway hold position markings ensure that aircraft remain clear of the runway's RSA and ROFZ until it is safe to enter the runway environment. The separation from the runway centerline to a parallel taxiway centerline provides sufficient wing tip clearance for arriving and departing aircraft while also protecting the runway's RSA and ROFZ.

Currently, the distance from the Runway 17-35 centerline to its parallel taxiway (Taxiways A and D) centerlines is 300 feet. This is 60 feet more than the minimum distance of 240 feet required under B-II-5,000 design standards.

The current distance from the Runway 13-31 centerline to Taxiway B (the northern parallel taxiway) centerline is 300 feet which meets the existing C-II-4,000 design standard. However, when the critical aircraft for Runway 13-31 increases to C-III-4,000, the separation between the Runway 13-31 centerline and Taxiway B will need to be increased to 400 feet. The distance from the Runway 13-31 centerline to the centerline of Taxiway E (the southern parallel taxiway) is 400 feet which meets the ultimate C-III-4,000 design standard for the runway.

Runway Protection Zone

The purpose of a Runway Protection Zone (RPZ) is to enhance the protection of people and property on the ground and to prevent developments that are incompatible with aircraft operations. The FAA recommends that airports own the entire RPZ in "fee simple" title and that the RPZ be clear of any non-aeronautical structure or object that would interfere with the arrival and departure of aircraft. However, if "fee simple" interest is unachievable, the next option is controlling the height of objects through an avigation easement or zoning

ordinance and keeping the area clear of any facilities that would support an incompatible activity (e.g., places of public assembly, etc.).

The RPZ is a two-dimensional trapezoidal area that normally begins 200 feet beyond the paved runway end and extends along the runway centerline. The approach RPZ begins 200 feet from the runway landing threshold and the departure RPZ begins 200 feet beyond the end of the Takeoff Run Available (TORA) for the runway.

AC 150/5190-4B, *Airport Land Use Compatibility Planning*, addresses acceptable property uses within an RPZ. The RPZ dimensions for each runway are determined by the RDC for each runway end. **Table 4-14** delineates the existing and ultimate RPZ dimensions for RBD. Approach and departure RPZs are identified separately for Runway 13-31 since declared distances are in place for the runway. The approach and departure RPZs overlap for Runway 13 in the existing and ultimate condition.

It should be noted that RPZ dimensions do not change when comparing C-II-4,000 and C-III-4,000 design standards. Consequently, the RPZs associated with Runway 13-31 don't change based on the anticipated shift in the ultimate critical aircraft.

Table 4-14 – Runway Protection Zones

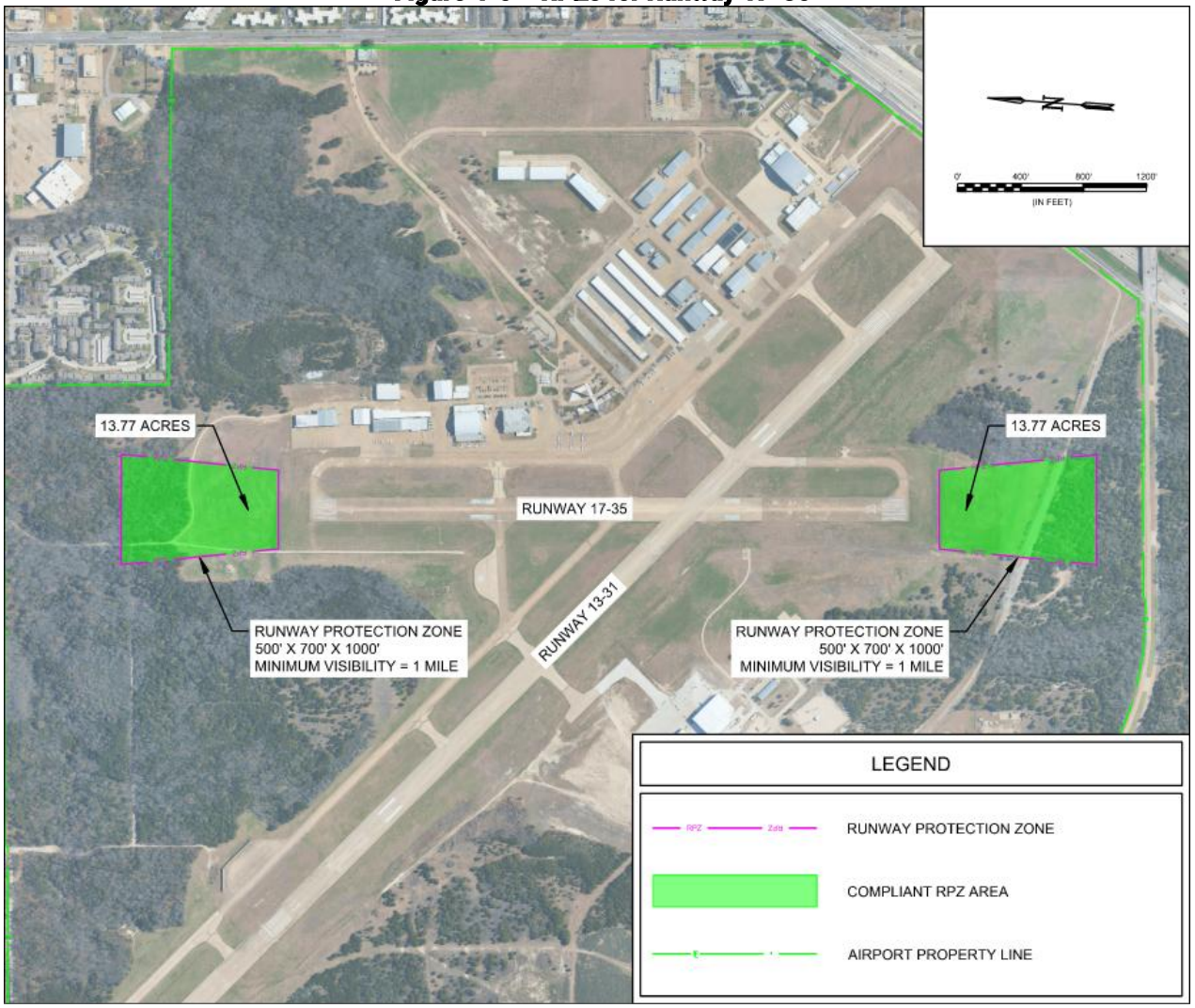
Runway End	RDC	Inner Width (ft.)	Outer Width (ft.)	Length (ft.)
Runway 13 - Approach	C-II/III-4,000	500	1,010	1,700
Runway 13 - Departure	C-II/III-4,000	500	1,010	1,700
Runway 31 – Approach	C-II/III-4,000	1,000	1,510	1,700
Runway 31 - Departure	C-II/III-4,000	500	1,010	1,700
Runway 17 – Approach/Departure	B-II-5,000	500	700	1,000
Runway 35 – Approach/Departure	B-II-5,000	500	700	1,000

Source: FAA Advisory Circular 150/5300-13B, *Airport Design*

The RPZs associated with Runway 17-35 are shown in **Figure 4-5**. The RPZs associated with Runway 13 are shown in **Figure 4-6**. The RPZs associated with Runway 31 are shown in **Figure 4-7**.

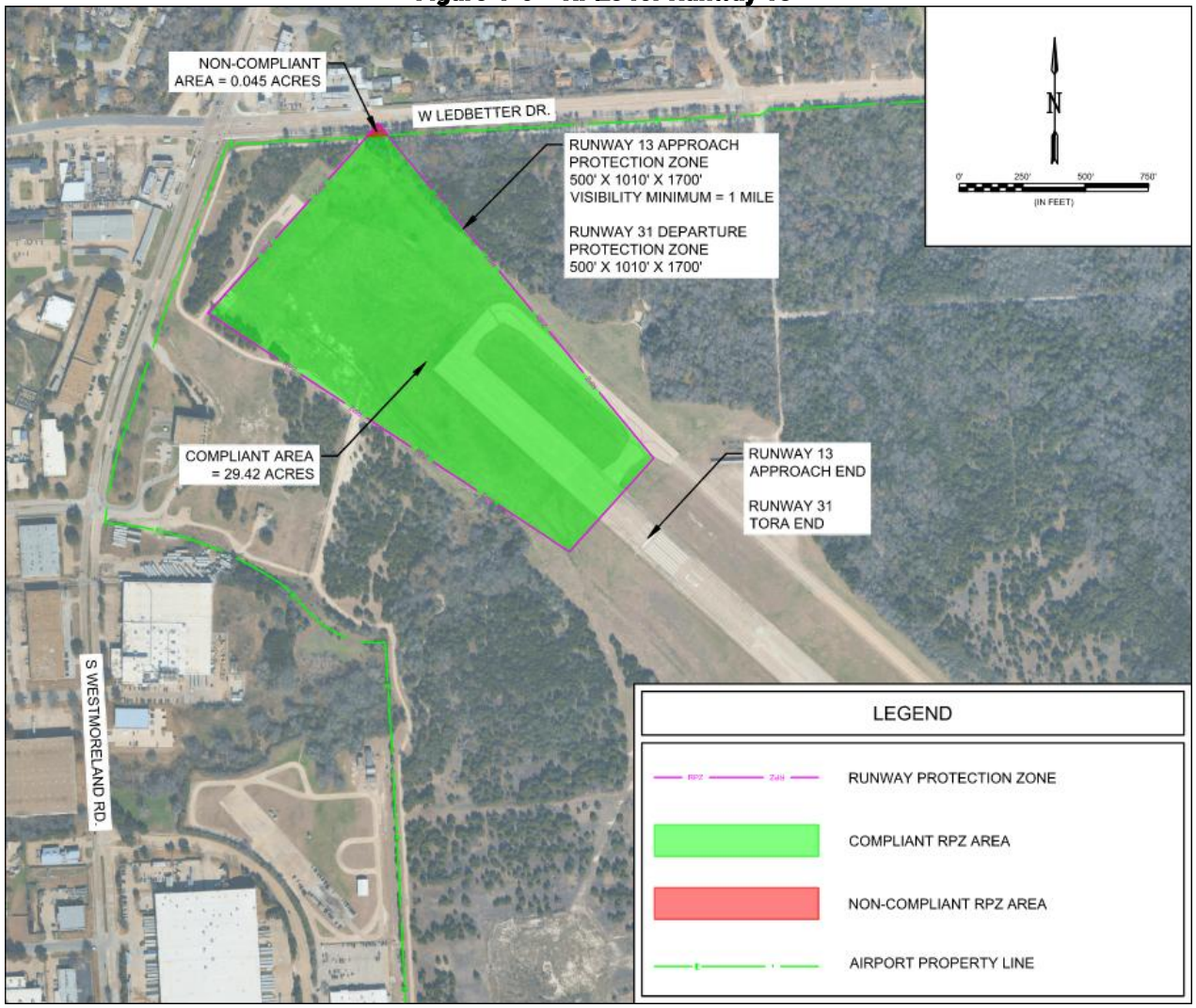
No non-compliant conditions exist within the limits of the RPZs associated with Runway 17-35. The only non-compliant conditions noted within the limits of the RPZs for Runway 13 and Runway 31 are vehicle roadways and parking lots. No buildings are located within any RPZ associated with Runway 13 or Runway 31. The compliance of the RPZs associated with Runway 13 and Runway 31 were improved when the runway was extended in 2017. Consequently, no further improvements are anticipated to be necessary.

Figure 4-5 – RPZs for Runway 17-35



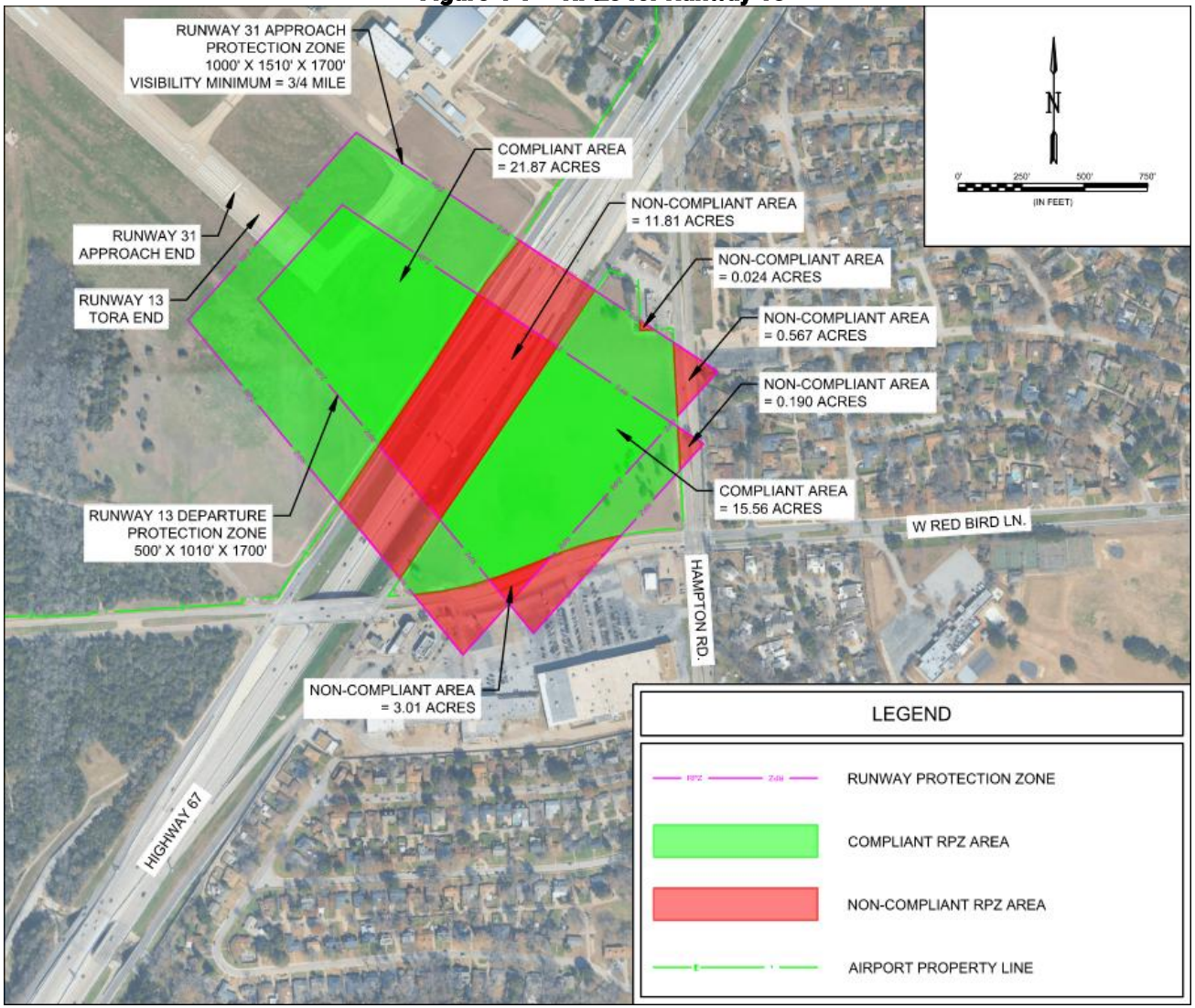
Source: Garver, 2026

Figure 4-6 – RPZs for Runway 13



Source: Garver, 2026

Figure 4-7 – RPZs for Runway 13



Source: Garver, 2026

Runway Lighting, Signage, and Markings

Runway lighting, signage, and markings play a significant role in supporting a pilot's situational awareness when using an airport. Currently, Runway 13-31 and Runway 17-35 are equipped with Medium Intensity Runway Lights (MIRLs). Runways 13, 17, and 35 have non-precision approach markings and Runway 31 has precision approach markings. Other than general maintenance and rehabilitation, no improvements are anticipated to be required for runway lighting, signage, and markings.

Airport Navigational Aids and Instrument Approaches

Airport Navigation Aids (NAVAIDs) are installed on or near an airport to increase the airport's usability and to provide electronic guidance and visual references for executing an approach to the airport or runway. As discussed in the Inventory Chapter, RBD has the visual and electronic NAVAIDs associated with each runway shown in **Table 4-15**.

Table 4-15 – Airport NAVAIDS

Runway End	Visual NAVAIDs	Electronic NAVAIDs
Runway 13	PAPL-4L, REILS	None
Runway 31	PAPL-4R, REILS	ILS
Runway 17	PAPL-4R, REILS	None
Runway 35	REILS	None
Non-Runway NAVAIDS	Airport Beacon	None

Source: FAA Aeronautical Information System (AIS), pulled 4-22-2026

Instrument Approach Procedures (IAPs) currently exist to all runway ends at RBD. The ILS and RNAV/GPS approach for Runway 31 provide visibility minimums of ¾ statue mile and a Decision Altitude (DA) of 200 feet. The IAPs to the other runway ends provide visibility minimums of no lower than 1 mile and DAs of no lower than 363 feet.

To evaluate the need for lower IAP minimums and additional NAVAIDs at RBD, an analysis of historical weather data was conducted. The analysis reviewed approximately 10 years of hourly ASOS observations at RBD to identify the amount of time in an average year that weather is at or below the lowest existing IAP minimums at RBD. The results of the analysis are shown in **Table 4-16**.

Based on the results of the analysis, IAP minimums at RBD are sufficient. Lowering the instrument approach minimums below ¾ statue mile would provide minimal benefit and would have a substantial cost as an approach lighting system (ALS) would be required. Consequently, no additional NAVAIDs are anticipated to be needed except for adding a PAPI system to Runway 35. The PAPI would provide a visual reference to pilots using the runway for landing which enhances safety.

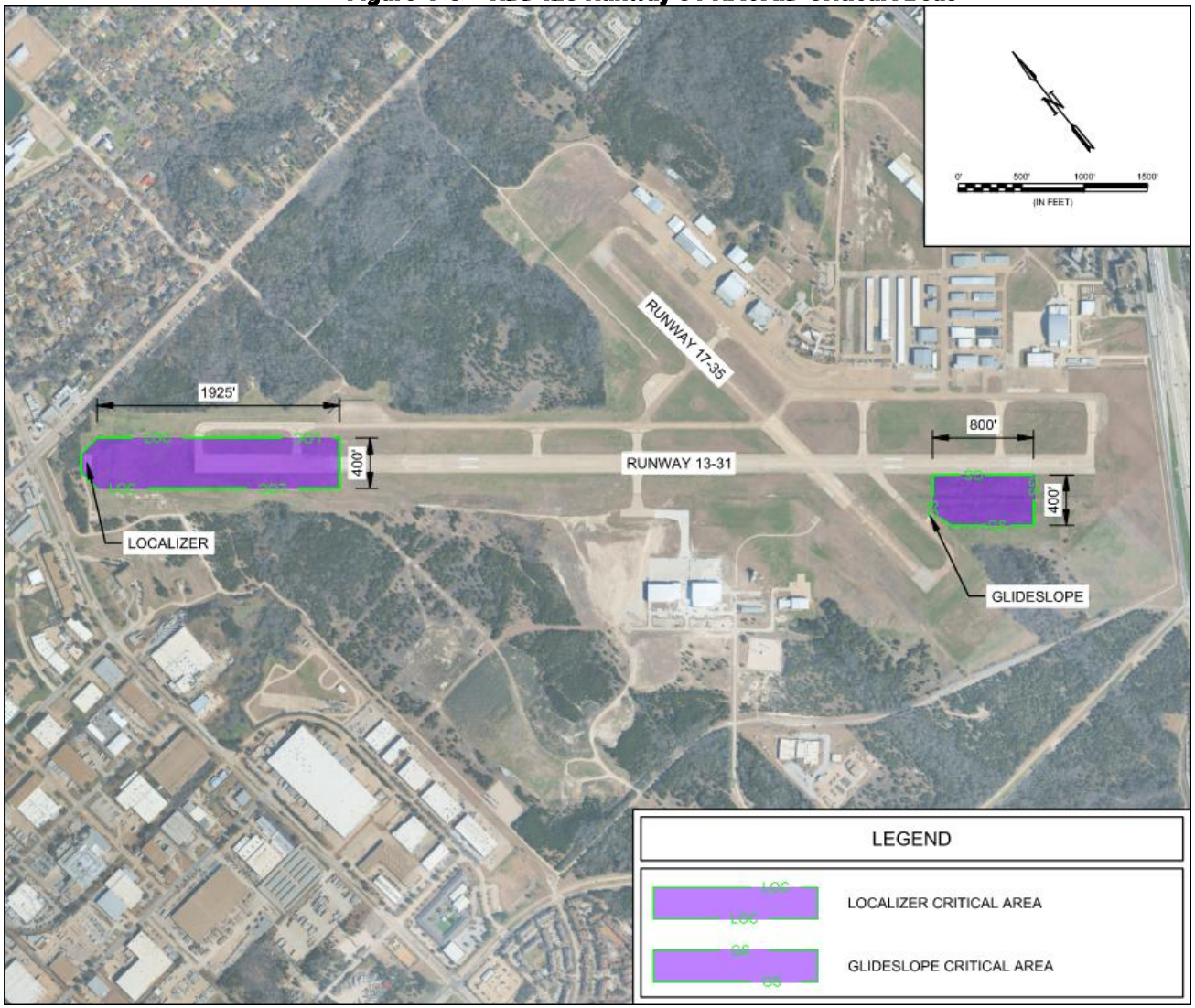
Table 4-16 – RBD Weather Analysis

Visibility Minimums	Total Hourly Weather Observations at or Below Level	Average Number of Hours Per Year with Minimums at or Below Level
Visibility Below 1 Mile	516	53.44
Visibility Below 3/4 Mile	372	38.53

Source: RBD ASOS Data, 2016-2025

Additionally, the critical areas associated with the Instrument Landing System (ILS) for Runway 31 were reviewed. The critical areas associated with the Localizer (LOC) and Glideslope (GS) portions of the ILS system are shown in **Figure 4-8.** No deficiencies were noted.

Figure 4-8 – RBD ILS Runway 31 NAVAID Critical Areas



Source: Garver, 2026

Taxiway Facility Requirements

Taxiways serve an essential function for aircraft operations, as they are the primary surface that aircraft utilize to transition to and from the runway(s) to aircraft parking facilities. There are numerous factors that must be considered when evaluating an airport's existing taxiway system including traffic volume, traffic patterns, and critical aircraft.

Runway Exit Taxiways

The proper location of taxiway exits from a runway is a critical function of reducing Runway Occupancy Time (ROT) and improving runway capacity. The best location for exit taxiways from a runway is a function of the runway's length, fleet mix, and weather conditions.

For this analysis, the existing exit taxiways for each runway end were evaluated using the Runway Exit Design Interactive Model (REDIM) Version 4.0.2 published by the Air Transportation Systems Laboratory at Virginia Tech University. Dallas Executive Airport's ADS-B data from 2025 for each runway was used to establish the fleet mix used for taxiway exit modeling using REDIM for each runway end.

Using REDIM, the existing ROT was identified for each runway and additional analysis was completed, were appropriate, to identify opportunities to reduce ROT. **Table 4-17** identifies the estimated ROT in the existing condition for each runway end. In the existing condition models, it was assumed that the crossing runway would not be used as a taxiway for exiting the runway. For example, for the ROT analysis of landings on Runway 17, aircraft were assumed not to use Runway 13-31 as a surface to exit Runway 17. This approach was taken in accordance with guidance set forth in AC 150/5300-13B Paragraph I.4 which states that ideally runways should not be used as taxiways. However, it is a local practice for aircraft to use Runway 13-31 as an exit when landing on Runway 17 at RBD.

Table 4-17 – RBD Runway Occupancy Tim – Existing Condition

Runway End	Existing ROT
Runway 13	55.7 seconds
Runway 31	60.4 seconds
Runway 17	51.1 seconds
Runway 35	45.1 seconds

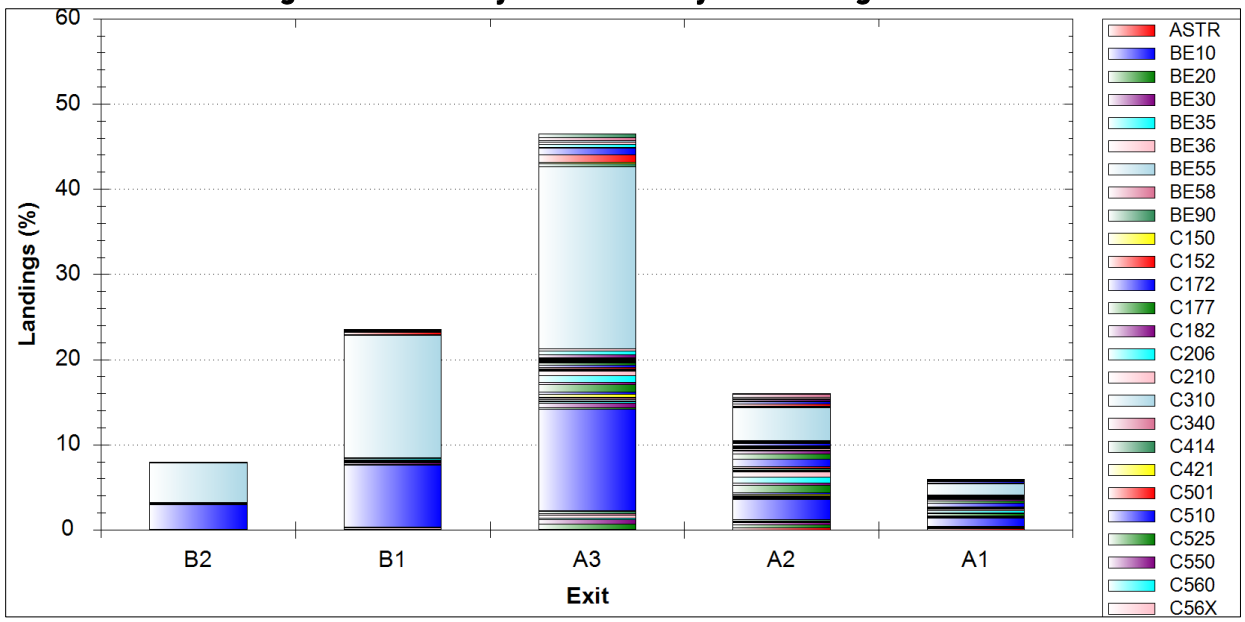
Source: REDIM 4.0.2, Garver Analysis, 2026

The results of the analysis and potential improvements are discussed in the following subsections.

Runway 13 – Taxiway Exits

The existing condition ROT analysis for Runway 13 identified ROT to be approximately 55.7 seconds. The analysis identified that the majority of aircraft landing on Runway 13 would exit the runway using Taxiway A3 followed by Taxiways B1 and then A2. The result of this analysis is shown in **Figure 4-9.** Based on this analysis, the best opportunity to reduce ROT would be to locate a taxiway between Taxiways B1 and A3 to allow aircraft to exit the runway before reaching Taxiway A3. This will be considered in the alternatives analysis. Adding an exit taxiway in this area is estimated to improve ROT by approximately 2-3 seconds based on the exact location of the new taxiway.

Figure 4-9 – Runway 13 REDIM Analysis – Existing Condition



Source: REDIM 4.0.2, Garver Analysis, 2026

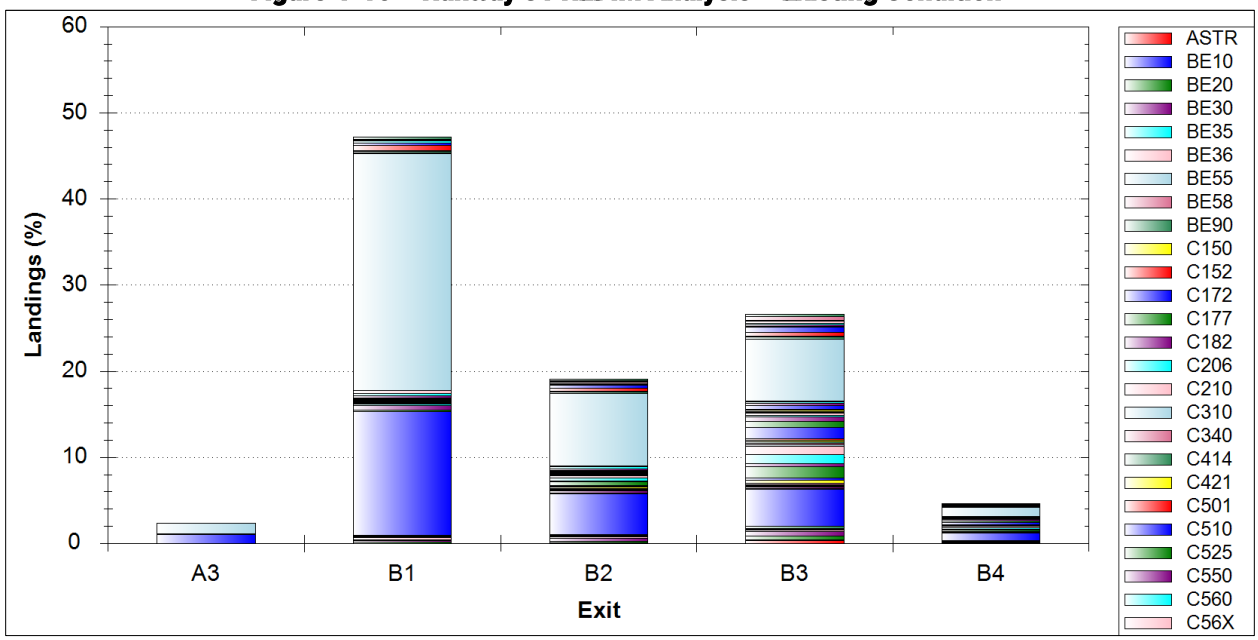
Runway 31 – Taxiway Exits

The existing condition ROT analysis for Runway 31 identified ROT to be approximately 60.4 seconds. The analysis identified that the majority of aircraft landing on Runway 31 would exit the runway using Taxiway B1 followed by Taxiways B3 and then B2. The result of this analysis is shown in **Figure 4-10.** Based on this analysis, the best opportunities to reduce ROT would be:

- To locate a taxiway between Taxiways B2 and B3 to allow aircraft to exit the runway before reaching Taxiway B3.
- To locate a taxiway between Taxiways A3 and B1 to allow aircraft to exit the runway before Taxiway B1.

This will be considered in the alternatives analysis. Adding exit taxiways in these areas is estimated to improve ROT by approximately 2-3 seconds based on the exact location of the new taxiways.

Figure 4-10 – Runway 31 REDIM Analysis – Existing Condition



Source: REDIM 4.0.2, Garver Analysis, 2026

Runway 17 – Taxiway Exits

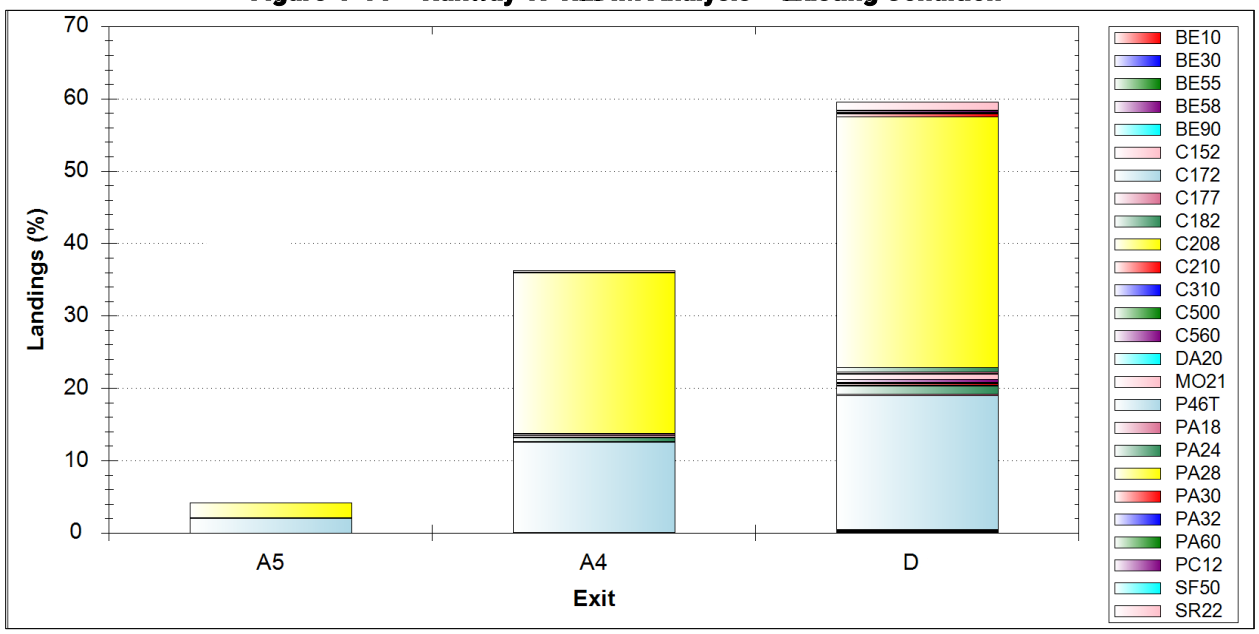
The existing condition ROT analysis for Runway 17 identified ROT to be approximately 51.1 seconds assuming that Runway 13-31 is not used to exit the runway. The analysis identified that the majority of aircraft landing on Runway 17 would exit the runway using Taxiway D followed by Taxiways A4 and then A3. The result of this analysis is shown in **Figure 4-11.** Based on this analysis, the best opportunity to reduce ROT would be to locate a taxiway between Taxiways A4 and D to allow aircraft to exit the runway before reaching Taxiway D. This will be considered in the alternatives analysis. Adding an exit taxiway in this area is estimated to improve ROT by approximately 5-6 seconds based on the exact location of the new taxiway.

Runway 35 – Taxiway Exits

The existing condition ROT analysis for Runway 35 identified ROT to be approximately 45.1 seconds. The analysis identified that the majority of aircraft landing on Runway 35 would exit the runway using Taxiway A5 followed by Taxiways A4 and then A6. The result of this analysis is shown in **Figure 4-12.** As the estimated ROT is below 50 seconds, no additional

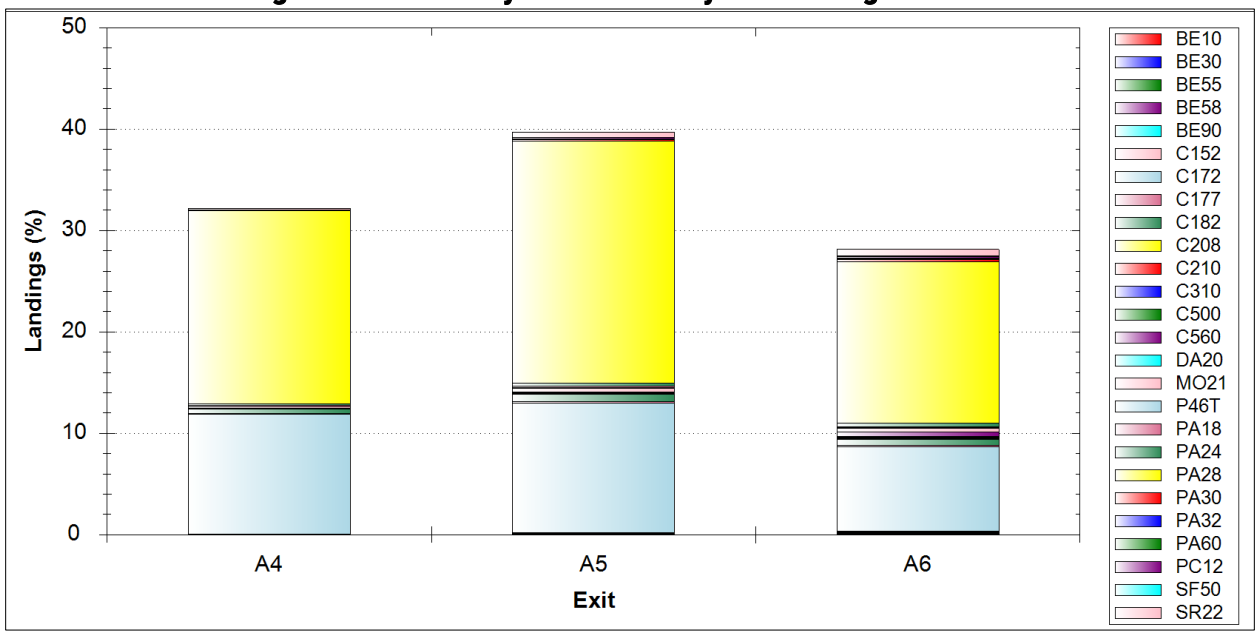
taxiway exits are anticipated to be needed for aircraft landing Runway 35 at the existing runway's length.

Figure 4-11 – Runway 17 REDIM Analysis – Existing Condition



Source: REDIM 4.0.2, Garver Analysis, 2026

Figure 4-12 – Runway 35 REDIM Analysis – Existing Condition



Source: REDIM 4.0.2, Garver Analysis, 2026

Taxiway Design Group Considerations

Taxiway pavement design is complex because it is largely based on landing gear configurations which vary widely between different aircraft types. The FAA has classified the numerous variations of aircraft landing gear configurations into Taxiway Design Groups (TDG) standards that guide taxiway pavement design. Based on the forecast, the existing critical aircraft for taxiway pavement design is TDG-2A. **Table 4-18** identifies some of the TDG-2A aircraft and larger that operated at RBD in 2025. The ultimate critical aircraft is expected to be in the TDG-2B category as discussed in the forecast chapter. However, it is recommended that RBD plan and develop specific taxi routes to TDG III standards to support larger jet aircraft.

Table 4-18 – RBD 2025 TDG Operations

Aircraft	Taxiway Design Group	Operations 2025
Cessna Citation V/Ultra/Encore	2A	502
Dassault Falcon 900	2A	184
Beech King Air 200	2A	201
Pilatus PC-12	2A	355
Bombardier Global 7500	2B	16
Gulfstream V/500	2B	13
Gulfstream G600	2B	8

Source: FAA TFMSC Data, 2025

Table 4-19 compares the width of the taxiways at RBD to existing FAA standards. It should be noted that the prescribed width for TDG 2A and 2B taxiways are both 35 feet. The prescribed width for TDG 3 taxiways is 50 feet.

All taxiways at RBD currently meet TDG taxiway width design standards for TDG 2A and 2B. Additionally, all taxiways are wide enough to meet TDG 3 taxiway width standards.

Most taxiways at RBD were designed prior to the establishment of the FAA's TDG based taxiway pavement design standards that were implemented in 2014. As a result, many of the existing taxiway fillets (e.g., pavement layout where the taxiways curve) do not meet FAA design standards. These fillets should be improved as taxiways at RBD are reconstructed or rehabilitated.

Table 4-19 – Taxiway Design Group Width Standards

Taxiway Designation	Taxiway Design Group	Standard Width (ft)	Actual Width (ft)	Standard Met
A	2A	35	60	Yes
A1	2A	35	50	Yes
A2	2A	35	50	Yes
A3	2A	35	50	Yes
A4	2A	35	60	Yes
A5	2A	35	60	Yes
A6	2A	35	60	Yes
B	2A	35	60	Yes
B1	2A	35	65	Yes
B2	2A	35	60	Yes
B3	2A	35	60	Yes
B4	2A	35	60	Yes
C	2A	35	60	Yes
D	2A	35	60	Yes
E	2A	35	60	Yes
E1	2A	35	65	Yes

Source: Garver, 2026, FAA Advisory Circular 150/5300-13B, *Airport Design*

ADG Based Taxiway Design Standards

While taxiway pavement design is based on an aircraft's TDG, the Taxiway Safety Areas (TSA), Taxiway Object Free Areas (TOFAs), and taxiway separation standards are based on the Airplane Design Group (ADG) for a given taxiway. Unlike a taxiway's TDG, a taxiway's ADG is based on aircraft wingspan and tail height and not its landing gear configuration. **Table 4-20** and **Table 4-21** provide an overview of how RBD's existing taxiways align with current ADG-based taxiway design standards established by the FAA in the existing (ADG II) and ultimate (ADG III) condition.

In general, all existing taxiways meet ADG II design standards for the TSA and TOFA. In the ultimate condition, two penetrations are noted related to ADG III TOFA standards:

- Taxiway B TOFA Penetration – The blast fence located at the approach end of Runway 13 will slightly penetrate the ADG III TOFA associated with Taxiway B.
- Taxiway D TOFA Penetration – The glide slope for Runway 31 will penetrate the ADG III TOFA associated with Taxiway D.

Additional grading may be necessary on the northern side of Taxiway B to provide an ADG III compliant TSA. Additional ground survey will be needed to verify if this is needed.

Table 4-20 – ADG Based Taxiway Design Standards – Existing Condition ADG II

Taxiway Designation	Existing TSA Standard (ft.)	Standard Met	Existing TOFA Standard (ft.)	Standard Met
A	79	Yes	124	Yes
A1	79	Yes	124	Yes
A2	79	Yes	124	Yes
A3	79	Yes	124	Yes
A4	79	Yes	124	Yes
A5	79	Yes	124	Yes
A6	79	Yes	124	Yes
B	79	Yes	124	Yes
B1	79	Yes	124	Yes
B2	79	Yes	124	Yes
B3	79	Yes	124	Yes
B4	79	Yes	124	Yes
C	79	Yes	124	Yes
D	79	Yes	124	Yes
E	79	Yes	124	Yes
E1	79	Yes	124	Yes

Source: Garver, 2026, FAA Advisory Circular 150/5300-13B, *Airport Design*

Table 4-21 – ADG Based Taxiway Design Standards – Ultimate Condition ADG III

Taxiway Designation	Existing TSA Standard (ft.)	Standard Met	Existing TOFA Standard (ft.)	Standard Met
A	118	Yes	171	Yes
A1	118	Yes	171	Yes
A2	118	Yes	171	Yes
A3	118	Yes	171	Yes
A4	118	Yes	171	Yes
A5	118	Yes	171	Yes
A6	118	Yes	171	Yes
B	118	Yes*	171	No
B1	118	Yes	171	Yes
B2	118	Yes	171	Yes
B3	118	Yes	171	Yes
B4	118	Yes	171	Yes
C	118	Yes	171	Yes
D	118	Yes	171	No
E	118	Yes	171	Yes
E1	118	Yes	171	Yes

Source: Garver, 2026, FAA Advisory Circular 150/5300-13B, *Airport Design*

***** - Additional grading may be necessary to provide an ADG III compliant TSA. Survey is necessary.

Taxiway Lighting, Signage, and Markings

Taxiway lighting, signage, and markings are critical to maintaining a pilot's situational awareness when operating on an airfield. Currently, all taxiways at RBD have taxiway centerline markings and medium intensity taxiway edge lights (MITL). The current airfield signage is FAA-type L-858 with a curved face produced by Lumacurve. Other than general maintenance and rehabilitation, no significant improvements are anticipated to be needed regarding taxiway marking, signage, and lighting.

Airfield Configuration

Through research, the FAA has identified various airfield pavement configurations that sometimes cause pilot confusion and may become a contributing factor to an aircraft incident or accident. As part of this facility requirements analysis, the existing airfield configuration at RBD was analyzed to identify any potential configuration deficiencies. The identified configuration deficiencies are discussed in the following subsections.

Taxiway A4, Taxiway B, and Runway 17-35 Intersection

During discussions with RBD Air Traffic Control Tower (ATCT) personnel, it was noted that pilots sometimes lose situational awareness when crossing Runway 17-35 at the Taxiway A4 and Taxiway B intersection. This runway crossing point is not at a 90-degree angle per the guidance set forth in AC 150/5300-13B Paragraph 4.8.1.1. This area is shown in **Figure 4-13**. Mitigation strategies for this area should be considered as part of the alternatives analysis.

Taxiway D, Taxiway A3, and Runway 13-31 Intersection

This runway crossing point is not at a 90-degree angle per the guidance set forth in AC 150/5300-13B Paragraph 4.8.1.1. This area is shown in **Figure 4-13**. Mitigation strategies for this area should be considered as part of the alternatives analysis.

Middle Third Runway Crossings

AC 150/5300-13B Paragraph 4.8.1.2, Item 3, recommends that runway crossing points be limited to the outer thirds of a runway. This should be done to reduce the potential for a catastrophic result from a runway incursion as the middle third of a runway is typically where an aircraft that is arriving or departing, is still on the ground and traveling at a high speed. **Figure 4-14** shows the current taxiway crossing points at RBD that are in the middle third of Runway 17-35 or Runway 13-31.

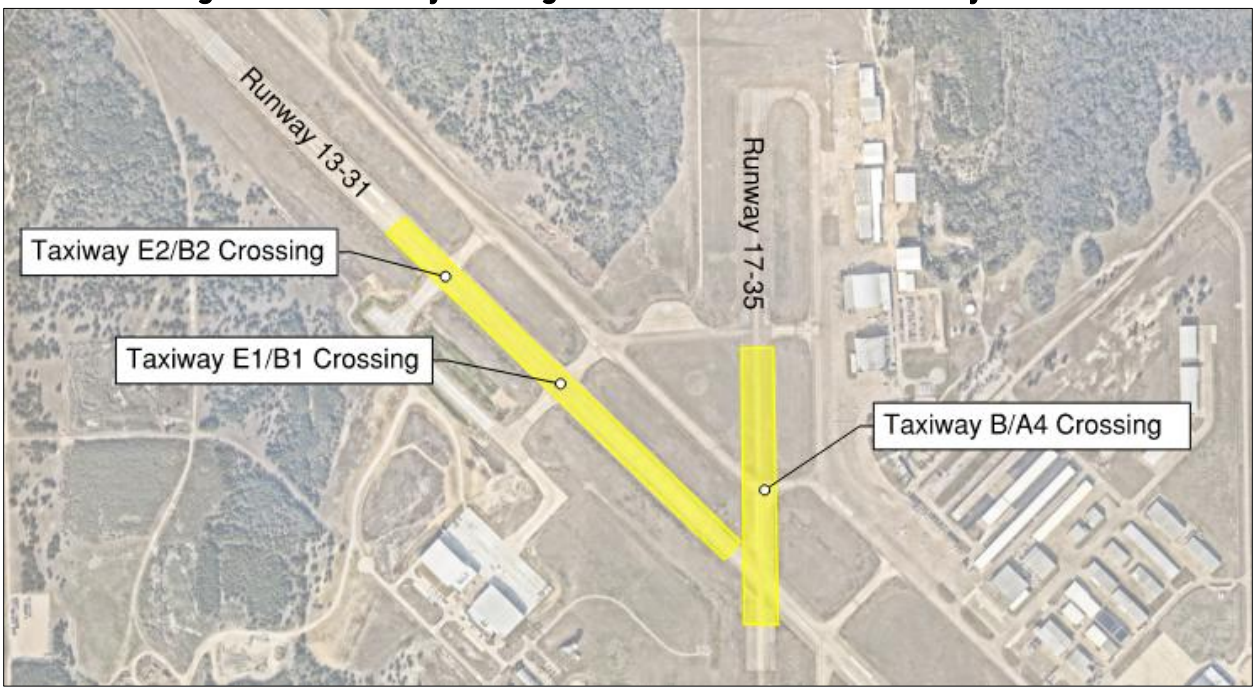
It should be noted that runway crossings in the middle third of a runway are not prohibited by FAA standards. The elimination of runway crossings in the middle third of a runway are considered a “recommended practice” under AC 150/5300-13B. It is recommended that the potential for eliminating crossing in the middle third of Runway 17-35 and Runway 13-31 be considered as part of the alternatives analysis.

Figure 4-13 – Runway Crossings Not At A 90 Degree Angle



Source: Garver, 2026

Figure 4-14 – Runway Crossings in the Middle Third of the Runway at RBD



Source: Garver, 2026

Direct Apron to Runway Access

According to AC 150/5300-13B, Paragraph 4.3.5.1, direct access should not be provided from an aircraft parking apron to a runway without requiring a turn of at least 75 to 90 degrees. Currently, this standard is not met for Taxiways A5, A4, and A3 at RBD. However, a project is currently underway to resolve this deficiency.

Wind Indicator and Segmented Circle

RBD has a primary lighted wind cone and segmented circle that are located north of the runway/runway intersection. The windsock is internally illuminated with an LED lighting array. No additional wind indicators are anticipated to be needed at RBD.

Weather Observing System

Automated Weather Observing Systems (AWOS) and Automated Surface Observing Systems (ASOS) consist of various types of sensors, a processor, a computer-generated voice subsystem, and a transmitter to broadcast minute-by-minute weather data from a fixed location directly to pilots. The information is transmitted over the voice portion of a local NAVAID (VOR or DME) or a discrete radio frequency.

RBD currently has an ASOS located southwest of the runway/runway intersection. No necessary improvements have been identified related to the existing ASOS.

Airspace and Air Traffic Control Tower

Dallas Executive Airport is surrounded by Class D airspace. Currently, the ATCT is located off Boulder Drive on the west side of the airport. The tower facility opened in 2007. There are currently no line-of-sight issues from the ATCT cab to any portions of the movement area.

The 14 CFR Part 77 imaginary surfaces for the RBD are defined below. These surfaces are depicted in the Airspace Drawing that is included as part of the Airport Layout Plan (ALP) as well as known obstructions to these surfaces. An 18B aeronautical survey was not completed for this ALP project.

- Runway 13-31
  - Primary Surface – 1,000 feet wide x 200 feet past each runway end.
  - Approach Surface – 34:1 slope for 10,000 feet on Runway 13 and 50:1 slope for the first 10,000 feet then and 40:1 for 40,000 feet on Runway 31.
- Runway 17-35
  - Primary Surface – 500 feet wide x 200 feet past each runway end.
  - Approach Surface – 34:1 slope for 10,000 feet on Runway 17 and 34:1 slope for 10,000 feet on Runway 35.
- Non-Runway Specific Surfaces
  - Horizontal Surface – Flat surface established at an elevation of 810.5 feet (150 feet above field elevation). The perimeter is based on 10,000 feet arcs from each end of Runway 13-31 and Runway 17-35.
  - Conical Surface – Extends from the edges of the horizontal surface for a horizontal distance of 4,000 feet at a 20:1 slope.
  - Transitional Surface – Extends from the edges of the primary surface at a 7:1 slope until it reaches the horizontal surface and from the edges of the approach surfaces at a 7:1 slope until it reaches the horizontal surface or for a horizontal distance of 5,000 feet.

Emerging Technology Facility Requirements

The aviation industry is changing with the continued development of unmanned aerials systems (UAS), vertical takeoff and landing aircraft (VTOL), and alternative fuels such as Sustainability Aviation Fuel (SAF), electric aircraft, and hydrogen powered aircraft. Consequently, as part of planning efforts, it is important that airports identify and analyze

various use cases for these emerging technologies and establish plans for supporting those use cases.

A key focus in large metropolitan areas like the DFW metroplex is understanding the role that airports may play in establishing an Advanced Air Mobility (AAM) network that could be used to transport goods and personnel across the metropolitan area quickly and efficiently. Through the North Central Texas Council of Governments (NCTCOG), planning has already begun on what the AAM network within the DFW metroplex could look like.

At this time, it is still unclear what the exact use cases are for these emerging technologies that may be applicable to Dallas Executive Airport. Consequently, it is recommended that the following strategies be implemented to support the airport's readiness as these new technologies develop and proliferate:

- Dallas Executive Airport should identify vertiport sites on airport property that could support a diverse array of AAM use cases including passenger/air taxi, cargo, and general aviation.
- Dallas Executive Airport should reserve areas for emerging fuel types (i.e., SAF, electric aircraft, and hydrogen).

Additional analysis will be needed as part of a separate study to analyze the potential upstream electrical improvements that may be needed to support electric aircraft operations at RBD.

Other Airside Facility Requirements

In addition to the other airside facility requirements identified through this analysis, the following improvements are recommended based on interviews with airport staff and tenants:

- Establish a perimeter road connecting the Commemorative Air Force (CAF) apron to where the perimeter road begins adjacent to the Marvin D. Love Freeway.
- Add engine run-up areas on each end of the parallel taxiways supporting Runway 17-35 to provide locations for engine run-ups for small single engine piston aircraft.

Airside Facility Requirements Summary

Based on the airside facility requirements analysis, the following development objectives have been established for the alternatives process:

- Extend Runway 17-35 to 4,800 feet in total length
- Redesignate Runway 17-35 to Runway 18-36
- Retain Runway 17-35 to support future operational capacity needs
- Resolve RSA and ROFA deficiencies with the perimeter fence and VSR at the approach end of Runway 31
- Resolve the ROFA deficiency for Runway 13-31 associated with the blast fence northeast of Taxiway B
- Add a PAPI-4 system to Runway 35
- Relocate Taxiway B to be 400 feet from the Runway 13-31 centerline when the critical aircraft shifts to C-III-4,000 for the runway
- Add a runway exit taxiway between Taxiways A4 and Taxiway D to improve runway capacity for landings on Runway 17
- Add a runway exit taxiway between Taxiways B1 and A3 to improve runway capacity for landings on Runway 13 and Runway 31
- Add a runway exit taxiway between Taxiways B2 and B3 to improve runway capacity for landings on Runway 31
- Realign the intersection of Taxiway A4, Taxiway B, and Runway 17-35
- Realign the intersection of Taxiway D, Taxiway A3, and Runway 13-31
- Analyze the ability to eliminate runway crossings in the middle third of Runway 13-31 and Runway 17-35
- Resolve ultimate TOFA penetrations associated with ADG III aircraft using Taxiway B and Taxiway D
- Identify vertiport sites on airport property that could support a diverse array of AAM use cases including passenger/air taxi, cargo, and general aviation
- Reserve areas for emerging fuel types (i.e., SAF, electric aircraft, and hydrogen)
- Establish a perimeter road connecting the CAF apron to where the perimeter road begins adjacent to the Marvin D. Love Freeway
- Add engine run-up pads to each end of Runway 17-35 to support engine run-ups for small single engine piston aircraft

Terminal/Landside Facility Requirements

Terminal and landside area facilities play an important role in enabling the transition of pilots, passengers, and goods to and from the airside facilities at the airport. Terminal and landside area facilities include FBO/terminal buildings, hangars, apron space, vehicle parking areas, and roadway access.

Key terminal/landside area facility requirements are developed in consideration of the following general planning practices:

- Future development should typically be centralized to minimize development cost.
- Future developments should be grouped based on the size of the aircraft expected to use the development to minimize wasted space and reduce costs.
- Planned development should allow for the incremental linear expansion of facilities and services in a modular fashion so development can easily scale to demand.
- Major design considerations include minimizing earthwork/grading, avoiding flood-prone areas, and integrating existing paved areas to reduce costs.
- Future apron expansion should allow sufficient maneuverability and accessibility for the airport's anticipated mix of aircraft.

These general planning concepts are integrated into this terminal and landside facilities analysis.

The terminal/landside facility requirements analysis leverages information contained in the *Forecast of Aviation Activity* chapter to establish projections for additional FBO terminal building, apron, vehicle parking, and hangar space during the 20-year planning horizon. For this analysis, the baseline and high-growth scenarios contained in the *Forecast of Aviation Activity* chapter were used. The results of this analysis provide minimum facility planning thresholds that will be used in the alternatives effort. For example, if the facility requirements analysis shows demand for approximately 300,000 square feet of additional hangar space, the alternatives analysis will include planning for that amount of additional hangar space at a minimum.

The analysis techniques used to establish terminal/landside facility requirements blend industry best practices established by the Airport Cooperative Research Program (ACRP), FAA guidance materials, and Garver's professional experience.

FBO Terminal Building Requirements

Currently, there are two FBO terminal buildings at RBD – Ambassador Jet Center and Jet Access. Each facility provides a pilot lounge, flight planning facilities, lobby, conference

rooms, office space, and restrooms. The existing facilities were analyzed based on factors described in ACRP Report 113 – *Guidebook on General Aviation Facility Planning*. **Table 4-22** provides an overview of the anticipated FBO terminal buildings space requirements over the 20-year planning period for both the baseline and high-growth forecast scenarios.

Table 4-22 – FBO Terminal Building Space Requirements

	Baseline Forecast				
	PAL 1	PAL 2	PAL 3	PAL 4	PAL 5
Formula Factors					
- Peak Hour Operations	21	23	24	26	28
- % of Aircraft Using FBO Facilities	50%	50%	55%	55%	60%
- Peak Hour Multiplier	3.5	3.5	3.5	3.5	3.5
- Sq. Ft. Per Person	150	150	150	150	150
Total FBO Sq. Ft. Requirement	5,513	6,038	6,930	7,508	8,820
Current FBO Sq. Ft.	11,400	11,400	11,400	11,400	11,400
Surplus/Deficiency (Sq. Ft.)	**5,888**	**5,363**	**4,470**	**3,893**	**2,580**
	High Growth Forecast				
	PAL 1	PAL 2	PAL 3	PAL 4	PAL 5
Formula Factors					
- Peak Hour Operations	21	24	27	31	36
- % of Aircraft Using FBO Facilities	50%	50%	55%	55%	60%
- Peak Hour Multiplier	3.5	3.5	3.5	3.5	3.5
- Sq. Ft. Per Person	150	150	150	150	150
Total FBO Sq. Ft. Requirement	5,513	6,300	7,796	8,951	11,340
Current FBO Sq. Ft.	11,400	11,400	11,400	11,400	11,400
Surplus/Deficiency (Sq. Ft.)	**5,888**	**5,100**	**3,604**	**2,449**	**60**

Source: Garver, 2026; ACRP Guidebook for GA Facility Planning
Note: Green text indicates a spatial surplus while red text indicates a spatial deficiency.

Based on this analysis, the existing amount of FBO terminal building space is anticipated to be sufficient during the planning horizon. This surplus is likely due to the recent construction of the Jet Access FBO facility which greatly increased FBO terminal building capacity.

An expansion of the terminal building the City of Dallas owns at RBD is not anticipated to be needed during the planning horizon.

Aircraft Storage

Establishing requirements for future hangar space is a critical component of terminal/landside facility planning. In general, future hangar areas should achieve a balance between maintaining an unobstructed expansion area, minimizing pavement development, and allowing convenient airside and landside access.

To evaluate future hangar space requirements, general parking area needs must be established for different types of aircraft. For this analysis it was assumed that:

- A single-engine piston aircraft demands approximately 1,250 square feet of parking space,
- A twin-engine propeller aircraft requires approximately 3,000 square feet of parking space,
- A business turboprop/jet aircraft requires approximately 3,000 to 5,000 square feet of parking space; and,
- A helicopter requires approximately 1,500 square feet.

Based on these spatial requirements, a formula was used to calculate future hangar space requirements that incorporate considerations for based aircraft, itinerant aircraft operations, and common aircraft storage practices. Based on the forecast, it is presumed that hangar space at RBD will need to grow as described in **Table 4-23** to accommodate the demand shown in the baseline forecast scenario and as described in **Table 4-24** to accommodate the demand shown in the high-growth scenario.

Currently, RBD has box hangars and T-hangar storage totaling 681,300 square feet and the hangars are at capacity. Based on the analysis, the alternatives effort will include planning for at least 321,000 square feet of additional hangar space.

Table 4-23 – Hangar Space Requirements – Baseline Forecast

Facility	PAL 1	PAL 2	PAL 3	PAL 4	PAL 5
Based Aircraft - Single Engine Piston	262	261	259	258	257
% of Based SE Aircraft Utilizing Hangar Space	90%	90%	90%	90%	90%
Total Based SE Aircraft Placed in Hangar	236	235	233	232	231
Estimated Hangar Space per Aircraft	1,250	1,250	1,250	1,250	1,250
Total Hangar Space Required (sq. ft.)	294,750	293,625	291,375	290,250	289,125
Based Aircraft - Multi-Engine/Turboprop	49	51	54	57	60
% of Based ME/TP Aircraft Utilizing Hangar Space	100%	100%	100%	100%	100%
Total Based ME/TP Aircraft Placed in Hangar	49	51	54	57	60
Estimated Hangar Space per Aircraft	2,500	2,500	2,500	2,500	2,500
Total Hangar Space Required (sq. ft.)	122,500	127,500	135,000	142,500	150,000
Based Aircraft - Turbo-Jet	55	63	72	82	94
% of Based Jet Aircraft Utilizing Hangar Space	100%	100%	100%	100%	100%
Total Based Jet Aircraft Placed in Hangar	55	63	72	82	94
Estimated Hangar Space per Aircraft	3,500	3,500	3,500	3,500	3,500
Total Hangar Space Required (sq. ft.)	192,500	220,500	252,000	287,000	329,000
Based Aircraft - Helicopters	12	13	14	15	17
Estimated Hangar Space per Aircraft	1,500	1,500	1,500	1,500	1,500
Total Hangar Space Required (sq. ft.)	18,000	19,500	21,000	22,500	25,500
Annual Transient Operations	30,488	32,622	34,731	37,042	39,574
Maintenance/Transient Hangar Area Demand (ft^2)	60,976	65,244	69,462	74,084	79,148
Total Based Aircraft	378	388	399	412	428
Total Hangar Space Required (sq. ft.)	688,726	726,369	768,837	816,334	872,773
Hangar Space Lost to Exclusive Use/Office Space (estimated at 5%) (sq. ft.)	34,436	36,318	38,442	40,817	43,639
Hangar Space Required + Space Lost to Exclusive Use/Office Space (sq. ft.)	723,162	762,687	807,279	857,151	916,412
Current Total Hangar Space (sq. ft.)	681,300	681,300	681,300	681,300	681,300
Surplus/Deficiency (sq. ft.)	**-41,862**	**-81,387**	**-125,979**	**-175,851**	**-235,112**

Source: Garver, 2026
Note: Green text indicates a spatial surplus while red text indicates a spatial deficiency.

Table 4-24 – Hangar Space Requirements – High-Growth Forecast

Facility	PAL 1	PAL 2	PAL 3	PAL 4	PAL 5
Based Aircraft - Single Engine Piston	262	268	273	278	283
% of Based SE Aircraft Utilizing Hangar Space	90%	90%	90%	90%	90%
Total Based SE Aircraft Placed in Hangar	236	241	246	250	255
Estimated Hangar Space per Aircraft	1,250	1,250	1,250	1,250	1,250
Total Hangar Space Required (sq. ft.)	294,750	301,500	307,125	312,750	318,375
Based Aircraft - Multi-Engine/Turboprop	49	52	55	59	62
% of Based ME/TP Aircraft Utilizing Hangar Space	100%	100%	100%	100%	100%
Total Based ME/TP Aircraft Placed in Hangar	49	52	55	59	62
Estimated Hangar Space per Aircraft	2,500	2,500	2,500	2,500	2,500
Total Hangar Space Required (sq. ft.)	122,500	130,000	137,500	147,500	155,000
Based Aircraft - Turbo-Jet	55	66	77	90	104
% of Based Jet Aircraft Utilizing Hangar Space	100%	100%	100%	100%	100%
Total Based Jet Aircraft Placed in Hangar	55	66	77	90	104
Estimated Hangar Space per Aircraft	3,500	3,500	3,500	3,500	3,500
Total Hangar Space Required (sq. ft.)	192,500	231,000	269,500	315,000	364,000
Based Aircraft - Helicopters	12	14	16	17	19
Estimated Hangar Space per Aircraft	1,500	1,500	1,500	1,500	1,500
Total Hangar Space Required (sq. ft.)	18,000	21,000	24,000	25,500	28,500
Annual Itinerant Aircraft Operations	30,488	34,269	38,899	41,487	44,323
Maintenance/Transient Hangar Area Demand (ft^2)	60,976	68,538	77,797	82,974	88,646
Total Based Aircraft	378	400	421	444	468
Total Hangar Space Required (sq. ft.)	688,726	752,038	815,922	883,724	954,521
Hangar Space Lost to Exclusive Use/Office Space (estimated at 5%) (sq. ft.)	34,436	37,602	40,796	44,186	47,726
Hangar Space Required + Space Lost to Exclusive Use/Office Space (sq. ft.)	723,162	789,640	856,719	927,910	1,002,247
Current Total Hangar Space (sq. ft.)	681,300	681,300	681,300	681,300	681,300
Surplus/Deficiency (sq. ft.)	**-41,862**	**-108,340**	**-175,419**	**-246,610**	**-320,947**

Source: Garver, 2026
Note: Green text indicates a spatial surplus while red text indicates a spatial deficiency.

Vehicle Parking

Vehicle parking is an important consideration within the terminal/landside environment at an airport. Providing sufficient vehicle parking in areas adjacent to hangars or other aeronautical facilities allows for the efficient transition of personnel to/from the airside environment into the greater community.

Parking requirements at an airport are not uniform by area. The amount of parking needed in a specific area of the airport is highly dependent on the aeronautical activities of airport users and businesses located within the localized area. However, to estimate total parking space requirements for the airport as a whole the best practices established in the Airport Cooperative Research Program's (ACRP) *Guidebook for General Aviation Facility Planning* were used. Under the best practices established in the report a total of 2.5 to 3.5 spaces should be allocated for each peak hour aircraft operation and an additional one space for every 1,000 square feet of hangar space.

Table 4-25 shows the number of parking spaces for the baseline scenario while **Table 4-26** shows the number of parking spaces required for the high-growth scenario.

Table 4-25 – Vehicle Parking Space Requirements – Baseline Forecast

Facility	PAL 1	PAL 2	PAL 3	PAL 4	PAL 5
FBO Terminal Parking					
- Peak Hour Operations	21	23	24	26	28
- % of Aircraft Using FBO Terminal Facilities	50%	50%	55%	55%	60%
- Peak Hour Multiplier	3.5	3.5	3.5	3.5	3.5
Parking Space Need for Passenger/Pilot	37	40	46	50	59
Hangar Space Parking					
- Hangar Space Requirement	688,726	726,369	768,837	816,334	872,773
- Parking Allotment Based on Hangar Space (1 space per 1,000 sq. ft.)	689	726	769	816	873
- Reduction for Parking Inside Hangar	50.0%	50.0%	50.0%	50.0%	50.0%
Total Parking Needed for Hangar Space	344	363	384	408	436
Tie-Down Space Parking					
- Tie-Down Space Requirements	26	26	26	26	26
- % of A/C in Use at One-Time	10%	10%	10%	10%	10%
Total Parking Needed for Tie-Down Space	3	3	3	3	3
Total # of Spaces Currently	430	430	430	430	430
Total Number of Parking Spaces Needed	**384**	**406**	**433**	**461**	**498**
Total Deficiency/Surplus	**46**	**24**	**-3**	**-31**	**-68**

Source: Garver, 2026
Note: Green text indicates a spatial surplus while red text indicates a spatial deficiency

Table 4-26 – Vehicle Parking Space Requirements – Baseline Forecast

Facility	PAL 1	PAL 2	PAL 3	PAL 4	PAL 5
FBO Terminal Parking					
- Peak Hour Operations	21	24	27	31	36
- % of Aircraft Using FBO Terminal Facilities	50%	50%	55%	55%	60%
- Peak Hour Multiplier	3.5	3.5	3.5	3.5	3.5
Parking Space Need for Passenger/Pilot	37	42	52	60	76
Hangar Space Parking					
- Hangar Space Requirement	688,726	752,038	815,922	883,724	954,521
- Parking Allotment Based on Hangar Space (1 space per 1,000 sq. ft.)	689	752	816	884	955
- Reduction for Parking Inside Hangar	50.0%	50.0%	50.0%	50.0%	50.0%
Total Parking Needed for Hangar Space	344	376	408	442	477
Tie-Down Space Parking					
- Tie-Down Space Requirements	26	26	26	26	26
- % of A/C in Use at One-Time	10%	10%	10%	10%	10%
Total Parking Needed for Tie-Down Space	3	3	3	3	3
Total # of Spaces Currently	430	430	430	430	430
Total Number of Parking Spaces Needed	**384**	**421**	**463**	**504**	**555**
Total Deficiency/Surplus	**46**	**9**	**-33**	**-74**	**-125**

Source: Garver, 2026
Note: Green text indicates a spatial surplus while red text indicates a spatial deficiency

This analysis indicates that additional parking space will be needed in various areas of the airport as hangars or other aeronautical facilities are added. Furthermore, additional vehicle parking space is needed now in portions of the eastern development area where existing vehicle parking is limited. The addition of more vehicle parking will be a consideration in the alternatives analysis.

Vehicle Access

Vehicle access to Dallas Executive Airport is primarily via Challenger Drive on the east side of the airport and Boulder Drive on the west side of the airport. Based on interviews with tenants and airport personnel, the primary roadway access points to each side of the airport are sufficient.

To the extent practical, the existing roadway access via Saturn Drive in the eastern development area should be reconfigured to reduce the amount of vehicle traffic utilizing the taxilane system in this area.

Aircraft Parking Apron

Aircraft apron areas are provided for aircraft maneuvering and parking. Typically, aprons utilized for aircraft parking have a blend of based aircraft utilizing the apron as a permanent parking location and itinerant aircraft using the apron as a temporary parking location. Currently, the RBD aircraft parking aprons are used for a combination of tenant and itinerant aircraft parking.

Since the aprons at RBD are used for a combination of tenant and itinerant aircraft parking, the calculations regarding the need for future ramp space consider both current and future based aircraft demand as well as the space needed to park itinerant aircraft and the space needed for general aircraft movement.

To begin the analysis, a weighted average for the number of square feet of pavement needed to park an aircraft at RBD was calculated. The weighted average aircraft was determined based on the fleet mix of aircraft using the airport in 2025. Additionally, the weighted average aircraft parking area considers the movement of the aircraft into and out of the parking area, and the movement of other aircraft around the parked aircraft. This includes consideration for required clearances on all sides of the aircraft. **Table 4-27** provides a weighted average apron space requirement per aircraft for PAL1. The weighted average was increased by 50 square feet during each subsequent PAL to account for an increasing number of large aircraft using RBD.

Table 4-27 – Aircraft Apron Space Requirements (Weighted)

ADG	Average Length (ft.)	Average Wingspan (ft.)	Additional Clearance (ft.)	TLOFA Clearance (ft.)	Average Parking Area Required ($ft.^2$)	Fleet Mix	Weighted Average Parking Area ($ft.^2$)
I	26	35	7.50	79	6,000	94.14%	5,648
II	55	60	7.75	110	13,628	5.08%	692
III	100	100	10.00	158	33,360	0.08%	27
Helicopter	35	30	15.00	0	3,186	0.71%	23
						Weighted Average:	**6,390**

Source: Garver, 2026
Note: These calculations take into account the TOFA required for another aircraft to pass by the parked aircraft. The average parking area required was calculated by multiplying the average aircraft length plus 2 times the additional clearance margin by the average aircraft wingspan plus 2 times the additional clearance margin and then adding that number to the TOFA plus the aircraft's average wingspan plus 2 times the additional clearance margin.

Using this weighted average parking area, an analysis was completed estimating the amount of apron space needed based on the baseline and high-growth forecasts. The

results of this analysis are shown in **Table 4-28** and **4-29**. It should also be noted that a significant portion of the current aircraft parking apron at RBD is used as a taxilane and is not used for aircraft parking. This consideration is incorporated into the Aircraft Circulation Factor shown in the tables.

For the analysis, an assumption was made that no more than 50% of the total number of estimated itinerant operations during the peak hour would be on the ramp at the same time. The estimated parking apron required was calculated by multiplying the peak hour by the forecasted percentage of itinerant operations, then multiplying that result by the estimated percentage of itinerant operations on the apron at the same time and then multiplying that result by the weighted average aircraft parking area. It was also assumed that a total of 26 tie-down spaces would be occupied. A factor of ten was added to the apron space calculation to account for general aircraft circulation and movement and taxilanes on the apron. This high factor was utilized to account for the significant amount of apron space that is immediately in front of hangars and the high number of designated taxilanes that are only available for aircraft movement and not parking.

Based on the results of the analysis, the existing amount of apron space at RBD is sufficient. However, additional apron space is anticipated to be needed as hangars are added.

Fuel Storage Requirements

Airports should have sufficient fuel on hand to accommodate delays or interruptions in fuel service that could be reasonably anticipated. For example, if a fuel shipment is delayed for one to two days, an airport should ideally have enough fuel on hand to minimize any impacts to aircraft operations while waiting for the fuel shipment to be fulfilled.

Based on discussions with both Jet Access and Ambassador, the existing fuel farms at the airport are generally sufficient to support existing demand. However, as development increases on the west side of the airport, an additional 20,000-gallon Jet A fuel farm will be needed in that area.

Table 4-28 – Aircraft Apron Space Requirements – Baseline Forecast

Year	Peak Hour Operations	Forecasted % of Itinerant Operations Parking on Apron	Estimated Percentage of Itinerant Ops on Apron at Same Time	Permanent Tie-Down Aircraft	Weighted Average Aircraft Parking Area (ft.^{2})	Estimated Parking Apron Required	Aircraft Circulation Factor	Total Apron Area Required (ft.^{2})	Current Apron Area (ft.^{2})	Surplus/ Deficiency Based on Current Apron Size (ft.^{2})
PAL 1	21	50%	50%	26	6,390	77,748	777,475	855,223	1,500,000	**644,778**
PAL 2	23	50%	50%	26	6,440	81,230	812,300	893,530	1,500,000	**606,470**
PAL 3	24	50%	50%	26	6,490	83,140	831,400	914,540	1,500,000	**585,460**
PAL 4	26	50%	50%	26	6,540	86,710	867,100	953,810	1,500,000	**546,190**
PAL 5	28	50%	50%	26	6,590	90,330	903,300	993,630	1,500,000	**506,370**

Source: Garver, 2026

Table 4-29 – Aircraft Apron Space Requirements – High-Growth Forecast

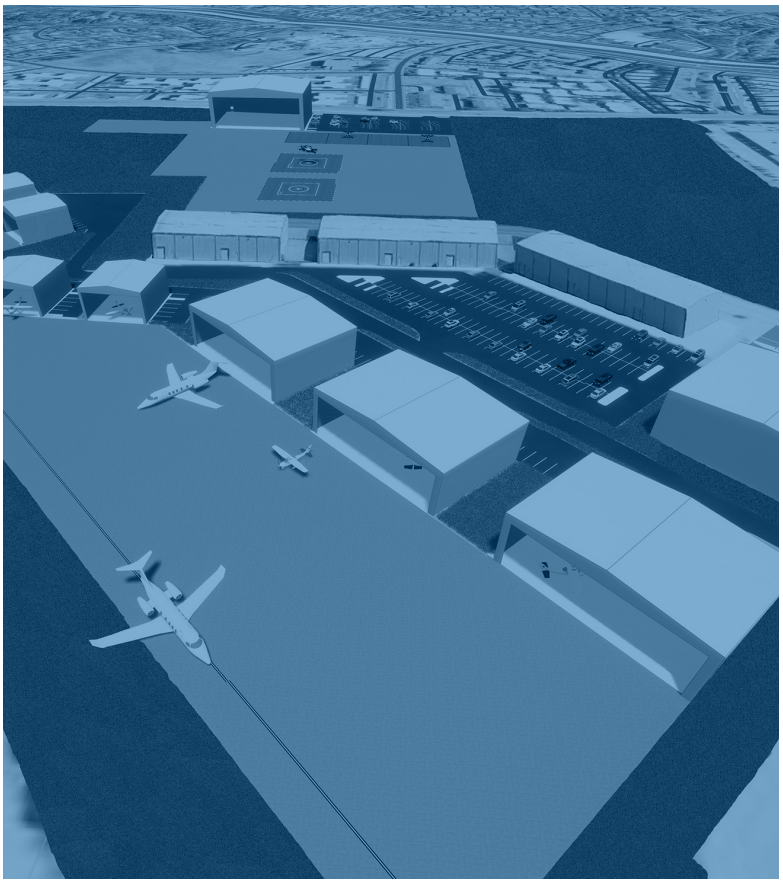
Year	Peak Hour Operations	Forecasted % of Itinerant Operations Parking on Apron	Estimated Percentage of Itinerant Ops on Apron at Same Time	Permanent Tie-Down Aircraft	Weighted Average Aircraft Parking Area (ft^2)	Estimated Parking Apron Required	Aircraft Circulation Factor	Total Apron Area Required (ft^2)	Current Apron Area (ft^2)	Surplus/ Deficiency Based on Current Apron Size (ft^2)
PAL 1	21	50%	50%	26	6,390	77,748	777,475	855,223	1,500,000	**644,778**
PAL 2	24	50%	50%	26	6,440	82,840	828,400	911,240	1,500,000	**588,760**
PAL 3	27	50%	50%	26	6,490	88,007	880,075	968,082	1,500,000	**531,918**
PAL 4	31	50%	50%	26	6,540	94,885	948,850	1,043,735	1,500,000	**456,265**
PAL 5	36	50%	50%	26	6,590	103,510	1,035,100	1,138,610	1,500,000	**361,390**

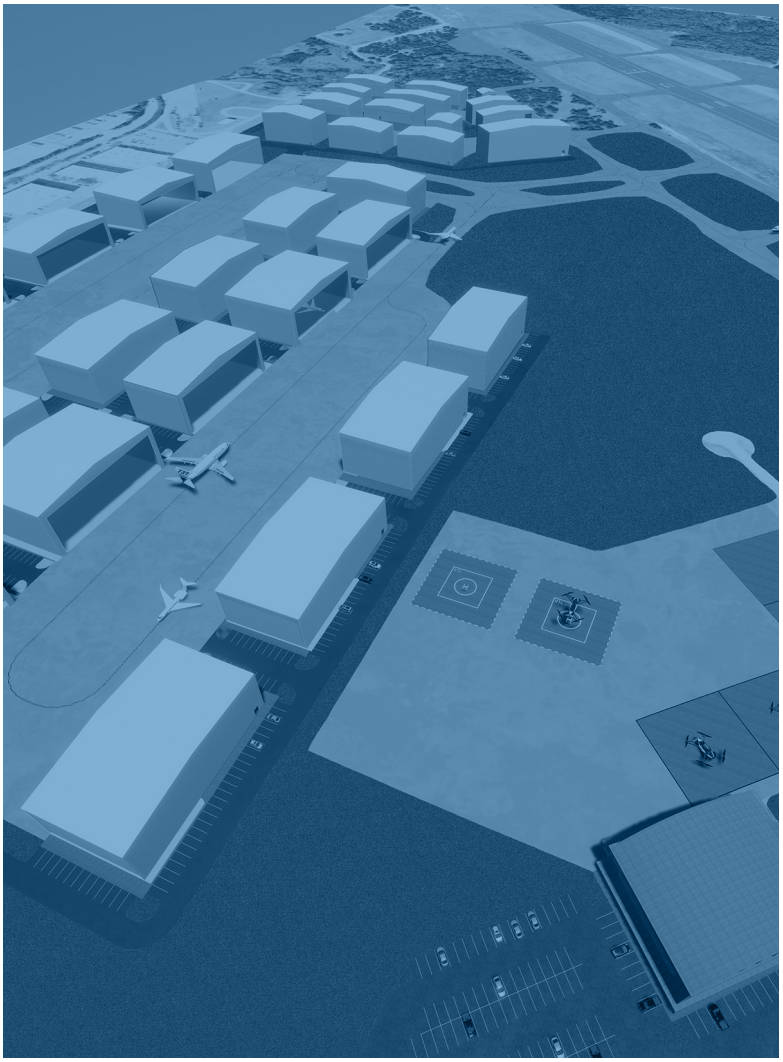
Source: Garver, 2026

Terminal/Landside Facility Requirements Summary

Based on the terminal/landside facility requirements analysis, the following development objectives have been established for the alternatives process:

- An additional 321,000 square feet of hangar space will be needed
- Aircraft apron space will need to be added to support hangar development
- Additional FBO terminal space may be needed when PAL 5 is reached
- Vehicle parking needs to be added in the eastern development areas and as new hangars or aeronautical facilities are added
- An additional 20,000-gallon Jet A fuel farm is needed in the western development area





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CHAPTER 5: ALTERNATIVES ANALYSIS

Introduction

A key aspect of any Airport Layout Plan (ALP) project is the establishment of a preferred development plan that will guide future capital projects and development decisions. This chapter describes the various airside, land-use, and terminal/landside area development alternatives that were created based on the needs defined in the Facility Requirements Chapter. This chapter also discusses the evaluation process used to select the preferred developmental alternative for each area (e.g., airside, land-use, and terminal/landside), reviews the results of the evaluation process, and provides an overview of the anticipated environmental impacts of the combined preferred developmental plan.

Alternatives Development Process

The alternatives development process began with the review of the Dallas Executive Airport (RBD or Airport) facility requirements and devising numerous development options that could potentially satisfy those requirements. Those development options were then consolidated into three airside, three land-use, and seven terminal/landside alternatives that went through a formal evaluation/review process to select the preferred alternative(s) for each area.

Airside alternatives include airport facilities that support the active movement and circulation of aircraft including runways, taxiways, and approach facilities/equipment. Land-use alternatives review the airport's available land holdings to identify the potential highest and best development use (i.e., small/medium box hangar, large box hangar, non-aeronautical, Navigational Aid (NAVAID) protected areas, long-term development area, etc.) for undeveloped portions of airport property. Terminal/landside alternatives include Fixed Base Operator (FBO)/terminal buildings, aircraft fuel storage/delivery systems, aircraft parking aprons, hangars of various sizes/types, roadway access, and automobile parking.

Future development planning at an airport should initially focus on the airport's airside infrastructure as these facilities enable the core function of an airport which is supporting the safe and efficient movement of aircraft to/from the airport into the National Airspace System (NAS). Once a preferred development plan has been established for an airport's airside facilities, concepts regarding future land-use planning and terminal/landside development, can be considered. The preferred land-use plan is used to guide terminal/landside facility alternatives.

Airside Alternatives

As discussed in the forecast analysis, the critical aircraft for RBD is anticipated to shift from C-II to C-III during the planning horizon which impacts various aspects of the Airport's airside infrastructure. These impacts were further analyzed in the facility requirements analysis and used to establish the airside development objectives identified below:

- Extend Runway 17-35 to 4,800 feet in total length
- Redesignate Runway 17-35 to Runway 18-36
- Retain Runway 17-35 to support future operational capacity needs
- Resolve Runway Safety Area (RSA) and Runway Object Free Area (ROFA) deficiencies with the perimeter fence and vehicle service road (VSR) at the approach end of Runway 31
- Resolve the ROFA deficiency for Runway 13-31 associated with the blast fence northeast of Taxiway B
- Add a PAPI-4 system to Runway 35
- Relocate Taxiway B to be 400 feet from the Runway 13-31 centerline when the critical aircraft shifts to C-III-4,000 for the runway
- Add a runway exit taxiway between Taxiways A4 and Taxiway D to improve runway capacity for landings on Runway 17
- Add a runway exit taxiway between Taxiways B1 and A3 to improve runway capacity for landings on Runway 13 and Runway 31
- Add a runway exit taxiway between Taxiways B2 and B3 to improve runway capacity for landings on Runway 31
- Realign the intersection of Taxiway A4, Taxiway B, and Runway 17-35 to improve pilot situational awareness
- Realign the intersection of Taxiway D, Taxiway A3, and Runway 13-31 to provide a 90-degree crossing of Runway 13-31
- Analyze the ability to eliminate runway crossings in the middle third of Runway 13-31 and Runway 17-35
- Resolve ultimate Taxiway Object Free Area (TOFA) penetrations associated with Airplane Design Group (ADG) III aircraft using Taxiway B and Taxiway D
- Identify vertiport sites on airport property that could support a diverse array of Advanced Air Mobility (AAM) use cases including passenger/air taxi, cargo, and general aviation
- Reserve areas for emerging fuel types (i.e., sustainable aviation fuel, electric aircraft, and hydrogen)
- Establish a perimeter road connecting the Commemorative Air Force apron to where the perimeter road begins adjacent to the Marvin D. Love Freeway

- Add engine run-up pads to each end of Runway 17-35 to support engine run-ups for single engine piston aircraft

These development objectives informed the creation of the three identified airside alternatives for RBD. However, the following development objectives were integrated into the terminal/landside alternatives analysis as their development feasibility is closely integrated with other terminal/landside infrastructure elements such as hangars and roadways:

- Identify vertiport sites on airport property that could support a diverse array of AAM use cases including passenger/air taxi, cargo, and general aviation
- Reserve areas for emerging fuel types (i.e., SAF, electric aircraft, and hydrogen)
- Establish a perimeter road connecting the CAF apron to where the perimeter road begins adjacent to the Marvin D. Love Freeway

The following subsections summarize the improvements depicted in each airside alternative.

Since Runway 17-35 will ultimately be redesignated to Runway 18-36, the runway is most commonly referred to as Runway 18-36 in this chapter as the alternative exhibits reflect the ultimate designation. However, the runway is referred to as Runway 17-35 in some instances to acknowledge the designation in the existing condition.

Airside Alternative #1

Airside Alternative #1 includes the extension of Runway 18-36 to an ultimate length of 4,800 feet and numerous taxiway geometry changes to improve design standards compliance and airfield capacity. The plan assumes all future taxiways will be developed to TDG 2B design standards and does not eliminate crossings in the middle third of the runways. Airside improvements depicted in the alternative include:

- Runway Changes
  - Runway 17-35 extended to an ultimate length of 4,800 feet
  - Runway 17-35 redesignated to Runway 18-36
  - RSA and ROFA deficiencies at the approach end of Runway 31 resolved by reducing the accelerate stop distance available (ASDA) and landing distance available (LDA) for Runway 13 by 37 feet
- Taxiway Changes
  - Taxiway B relocated to 400 feet from the Runway 13-31 centerline
  - Taxiway A4 and B crossing of Runway 18-36 realigned to a 90-degree crossing

  - Taxiway D and A3 crossing of Runway 13-31 realigned to a 90-dgree crossing
  - Taxiway E extended to the approach ends of Runway 13 and Runway 36
  - Additional taxiway added at the departure end of Runway 31 to enhance runway capacity
  - Additional taxiway added for aircraft exiting Runway 13-31 to the south. Taxiway is west of the runway/runway intersection to enhance runway capacity
  - Additional taxiway added at the departure end of Runway 18 to enhance runway capacity
  - Engine run-up areas added to each end of Runway 18-36
- Instrument Approach/NAVAID Changes
  - No instrument approach changes
  - PAPI-4L added to Runway 36 (not visually shown)
  - Automated Surface Observing System (ASOS) remains in the existing location

Airside Alternative #1 is shown in **Figure 5-1.**

Airside Alternative #2

Airside Alternative #2 includes the extension of Runway 18-36 to an ultimate length of 4,800 feet and numerous taxiway geometry changes to improve design standards compliance and airfield capacity. The plan assumes all future taxiways will be developed to TDG 2B design standards except for Taxiway E which will be developed to TDG 3 design standards. This alternative eliminates crossings in the middle third of the runways. Airside improvements depicted in the alternative include:

- Runway Changes
  - Runway 18-36 extended to an ultimate length of 4,800 feet
  - Runway 17-35 redesignated to Runway 18-36
  - RSA and ROFA deficiencies at the approach end of Runway 31 resolved by reducing the ASDA and LDA for Runway 13 by 18 feet and establishing a frangible fence
- Taxiway Changes
  - Taxiway B relocated to 400 feet from the Runway 13-31 centerline
  - Taxiway A4 and B crossing of Runway 18-36 eliminated
  - Taxiway A5 and C crossing of Runway 18-36 eliminated
  - Taxiway D and A5 crossing of Runway 13-31 realigned to a 90-dgree crossing
  - Taxiway E extended to the approach ends of Runway 13 and Runway 36
  - Additional taxiway added at the departure end of Runway 31 to enhance runway capacity

  - Additional taxiway added for aircraft exiting Runway 13-31 to the south. Taxiway is west of the runway/runway intersection to enhance runway capacity
  - Additional taxiway added at the departure end of Runway 18 to enhance runway capacity
  - Engine run-up areas added to each end of Runway 18-36
- Instrument Approach/NAVAID Changes
  - No instrument approach changes
  - PAPI-4L added to Runway 36 (not visually shown)
  - ASOS relocated to the west to accommodate location of Taxiway E

Airside Alternative #2 is shown in **Figure 5-2.**

Airside Alternative #3

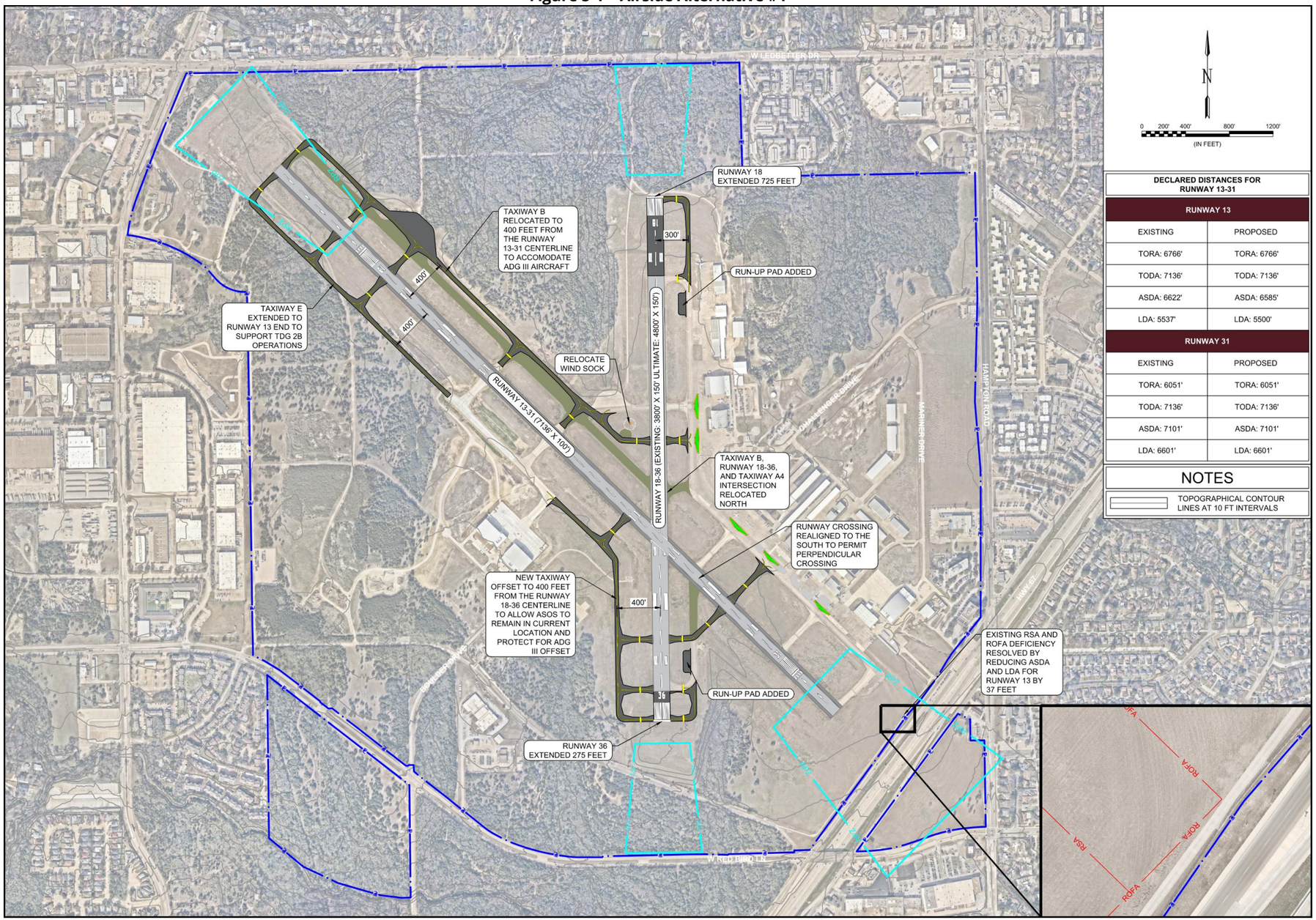
Airside Alternative #3 includes the extension of Runway 18-36 to an ultimate length of 4,800 feet and numerous taxiway geometry changes to improve design standards compliance and airfield capacity. The plan assumes all future taxiways will be developed to TDG 2B design standards except for Taxiway E and the realigned portion of Taxiway D which will be developed to TDG 3 design standards. This alternative provides TDG 3 taxiway infrastructure connecting the east and west sides of the airport. This alternative does not eliminate crossings in the middle third of the runways. Airside improvements depicted in the alternative include:

- Runway Changes
  - Runway 18-36 extended to an ultimate length of 4,800 feet
  - Runway 17-35 redesignated to Runway 18-36
  - RSA and ROFA deficiencies at the approach end of Runway 31 resolved by reducing the ASDA and LDA for Runway 13 by 37 feet
- Taxiway Changes
  - Taxiway B relocated to 400 feet from the Runway 13-31 centerline
  - Taxiway A4 and B crossing of Runway 18-36 realigned to a 90-degree crossing
  - Taxiway D and A3 crossing of Runway 13-31 realigned to a 90-dgree crossing
  - Taxiway E extended to the approach ends of Runway 13 and Runway 36
  - Additional taxiway added at the departure end of Runway 31 to enhance runway capacity
  - Additional taxiway added for aircraft exiting Runway 13-31 to the south. Taxiway is west of the runway/runway intersection to enhance runway capacity

  - Additional taxiway added at the departure end of Runway 18 to enhance runway capacity
  - Engine run-up areas added to each end of Runway 18-36
  - Engine run-up area added on Taxiway E
- Instrument Approach/NAVAID Changes
  - No instrument approach changes
  - PAPI-4L added to Runway 36 (not visually shown)
  - ASOS remains in the existing location

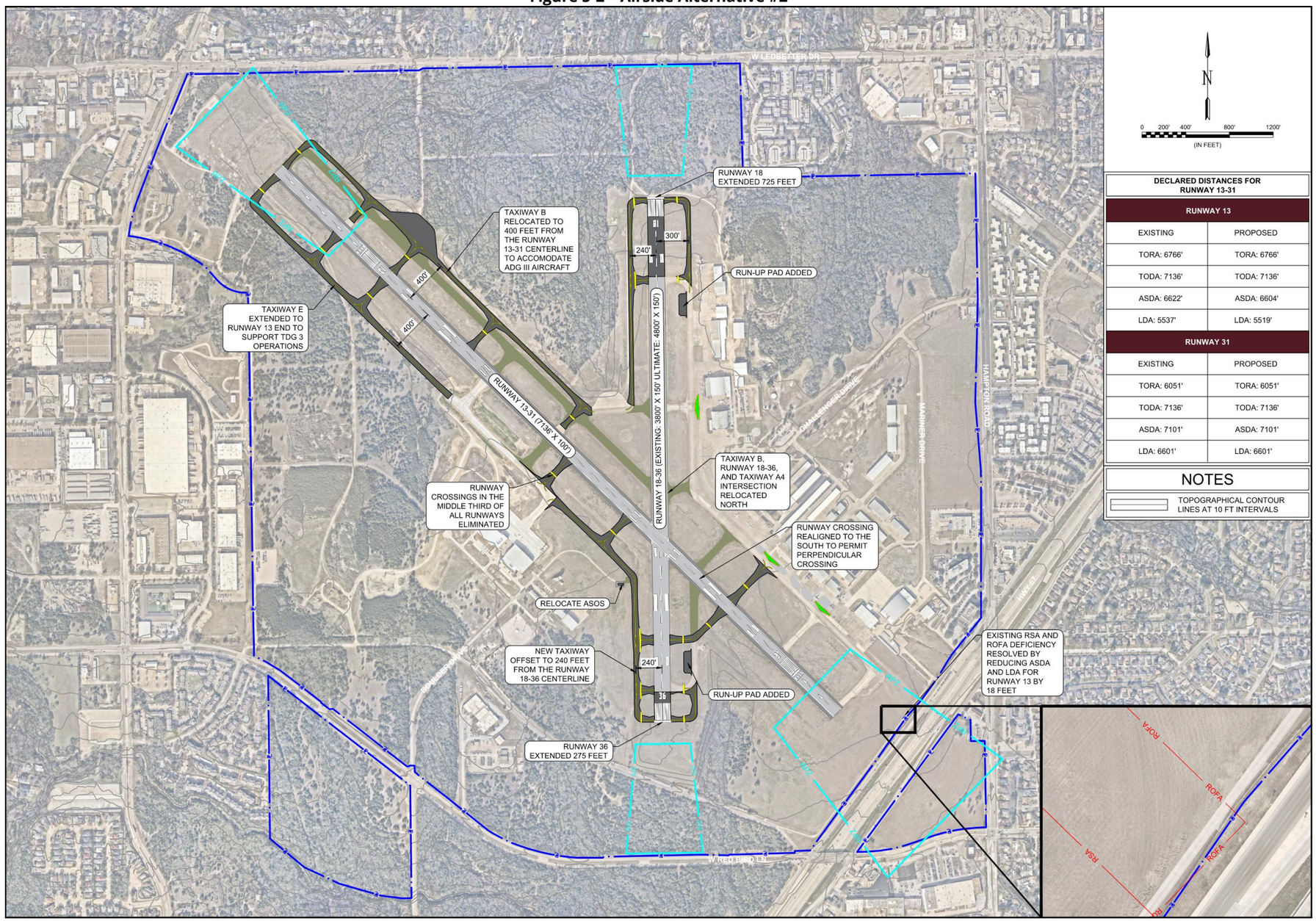
Airside Alternative #3 is shown in **Figure 5-3.**

Figure 5-1 – Airside Alternative #1



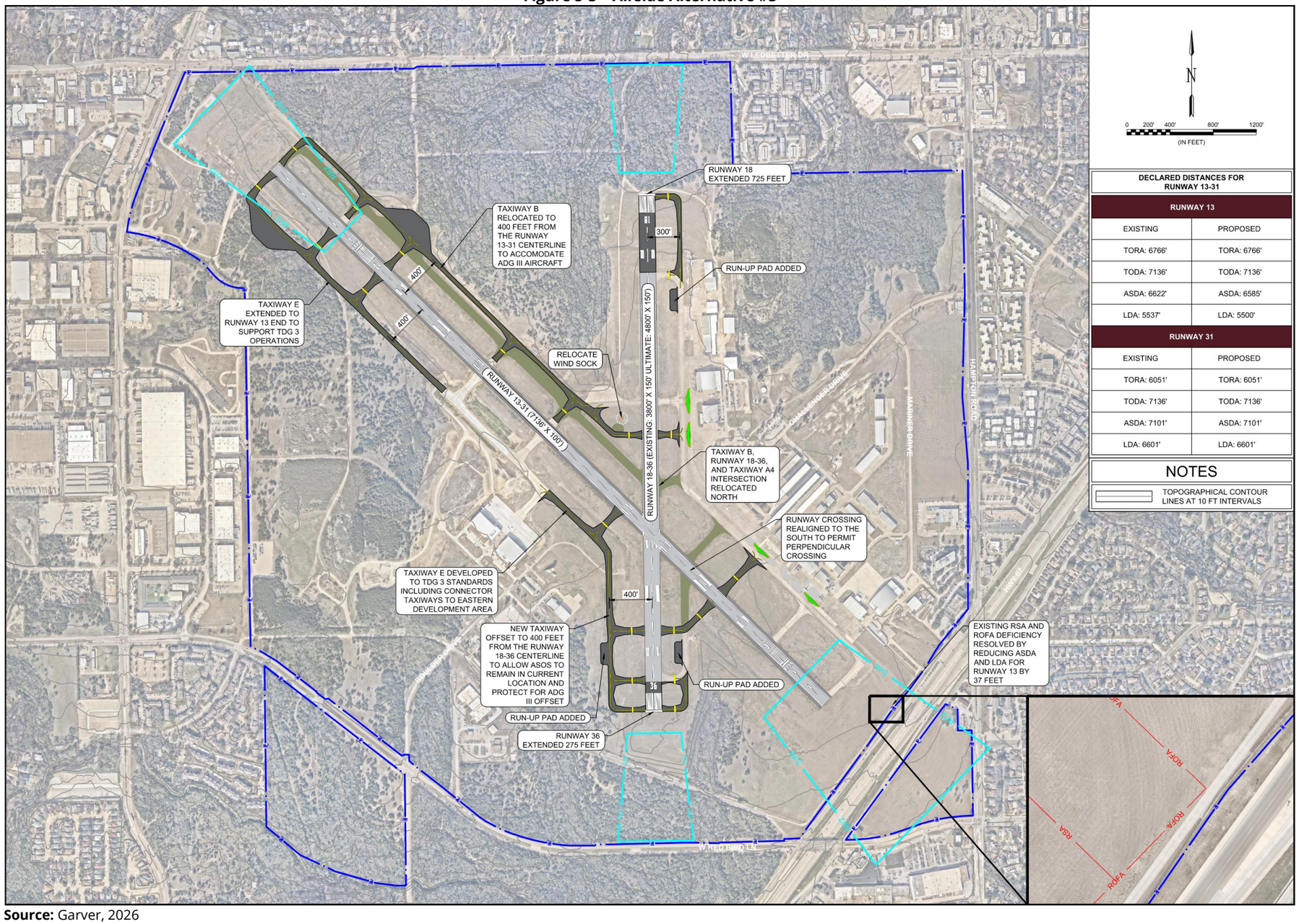
Source: Garver, 2026

Figure 5-2 – Airside Alternative #2



Source: Garver, 2026

Figure 5-3 – Airside Alternative #3



Source: Garver, 2026

Airside Alternatives Evaluation

One of the tasks of an ALP is to analyze airside alternatives to determine which alternative provides a realistic and feasible plan that will allow the airport to meet future demand in a safe and efficient manner. To facilitate this analysis, evaluation criteria were established, and an evaluation matrix was used to show how each airside alternative compared based on the evaluation criteria.

The evaluation criteria used for this analysis are discussed below:

- Support for Ultimate TDG 3 Operations – Does the alternative support the safe and efficient movement of TDG 3 aircraft through the airfield environment while minimizing capital costs? Ideally, the preferred alternative should facilitate the movement of TDG 3 aircraft to/from Runway 13-31 to the east and west sides of the airfield.
- ASOS Relocation Required – Does the alternative require the relocation of the ASOS? Ideally, the preferred alternative should enable the ASOS to stay in its current location to minimize development costs and impacts to existing development areas.
- Potential for Negative Security Impacts – Does the alternative create any potential negative impacts to airport security and public protection? Ideally, the preferred alternative will not contain any security vulnerabilities.
- Taxi Distances – Eastern Development Area to Runway 13 Approach End – What is the taxi distance for an aircraft moving from the eastern development area to the approach end of Runway 13? Ideally, the preferred alternative should minimize taxi distances from terminal/landside areas to/from the runways to reduce taxi times, aircraft emissions, and the potential for congestion. At RBD, the longest anticipated taxi route is to/from the eastern development area to the approach end of Runway 13.
- Elimination of Middle Third Runway Crossings – Does the alternative eliminate runway crossings in the middle third of the runway(s)? Ideally, the preferred alternative should eliminate runway crossings in the middle third of a runway(s) for FAA design standards.

Airside Evaluation Results

Based on the evaluation criteria, the following matrix (**Table 5-1**) was developed showing the proposed rating of each alternative.

Table 5-1 – Airside Evaluation

Criteria	Alternative 1	Alternative 2	Alternative 3
Support for Ultimate TDG 3 Operations			
ASOS Relocation Required			
Potential for Negative Security Impacts			
Taxi Distance - Eastern Development to Runway 13	4,980 ft.	7,120 ft.	4,980 ft.
Elimination of Middle Third Runway Crossings			

- Optimal Positive Effect and/or Limited Negative Impact

- Moderate Positive Effect and/or Moderate Negative Impact

- Limited Positive Effect and/or Significant Negative Impact

Source: Garver, 2026

Evaluation Commentary

Based on the evaluation criteria, several key factors were identified that guided the project steering committee in selecting the preferred alternative:

- Support for Ultimate TDG 3 Operations – Alternatives #1, 2 and 3 progressively expand the amount of pavement designed to TDG 3 standards. Alternative #3 provides taxiway connectivity from the approach end of Runway 13 to existing and proposed developments on the eastern and western sides of the airfield. Consequently, Alternative #3 received the highest rating.
- ASOS Relocation Required – Alternative #2 is the only alternative that requires the relocation of the ASOS. This alternative requires the ASOS relocation because the southern portion of Taxiway E, that is parallel with Runway 18-36, is only offset 240 feet from the Runway 18-36 centerline in alignment with RDC B-II-5,000 standards. Alternatives #1 and 3 maintain a 400-foot offset from Taxiway E to the centerline of Runway 18-36 which allows the ASOS to remain in place. Consequently, Alternatives #1 and 3 received higher ratings.
- Potential for Negative Security Impacts – Alternative #2 is the only alternative that includes the development of a frangible fenceline at the approach end of Runway 31 to reduce the ASDA and LDA offset needed to resolve the existing RSA and ROFA penetration at the approach end of the runway. The frangible fenceline creates a potential security vulnerability. Consequently, Alternatives #1 and 3 received higher ratings.
- Taxi Distances – Eastern Development Area to Runway 13 Approach End – Alternative #2 is the only alternative that eliminated runway crossings in the middle third of the runways. This change requires a parallel taxiway along the northwestern portion of Runway 18-36 to enable aircraft to taxi from portions of the eastern development area to the approach end of Runway 13 which increases taxi distances. The taxiway distances for Alternative #1 and 3 are identical and less than the taxi distances for Alternative #2. Consequently, Alternatives #1 and 3 received higher ratings.
- Elimination of Middle Third Runway Crossings – Alternative #2 is the only alternative that eliminated crossings in the middle third of the runways. Consequently, Alternative #2 received the highest rating. According to FAA AC 150/5300-13B, the elimination of runway crossings in the middle third of a runway is a “recommended practice” and not a “standard.”

Preferred Airside Developmental Alternative

The results of the alternative evaluation concluded that Alternative #3 is the preferred airside alternative for RBD.

Land-Use Alternatives

Land-use alternatives identify and evaluate the feasibility of using portions of the Airport's landholdings for various types of development. For this analysis, land-use at the Airport was segmented into the following categories:

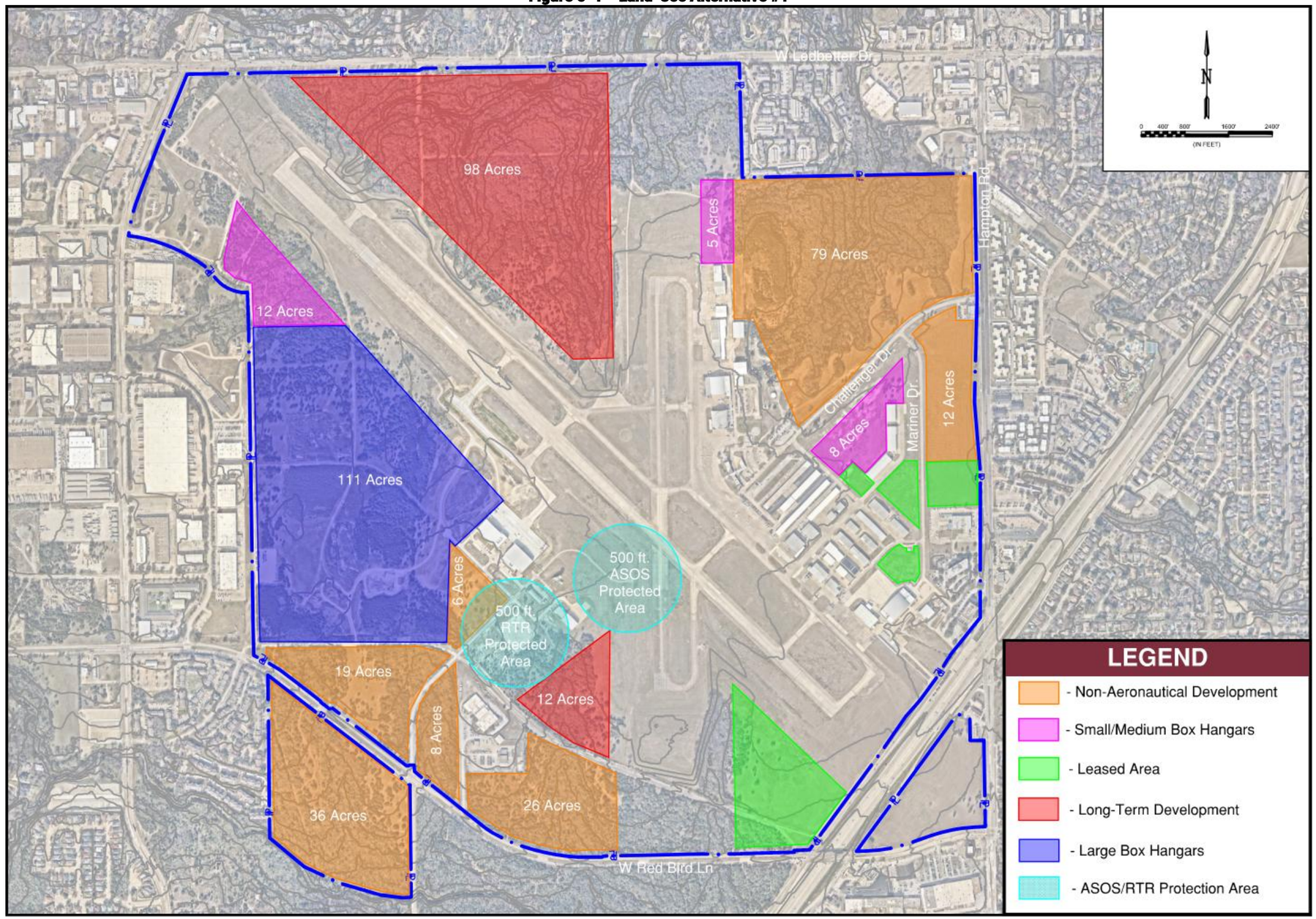
- Small/Medium Box Hangars – Land suited for small (50 feet x 50 feet) to medium (100 feet x 150 feet) box hangars. These hangars may be used for private use or for aeronautical business purposes.
- Large Box Hangars – Land suited for large box hangars (greater than 100 feet x 150 feet). These hangars may be used for private use or for aeronautical business purposes.
- Long-Term Development – The long-term development area is reserved for future airport development beyond the 20-year planning horizon.
- Non-Aeronautical Development – Non-aeronautical development includes the establishment of non-aeronautical facilities (e.g., commercial, storage, restaurants, industrial, etc.).
- Protected Areas – Protected areas surrounding the existing ASOS and Remote Transmit and Receiver (RTR) site.
- Existing Lease Areas – Areas subject to existing or pending lease agreements.

Based on interviews with existing tenants and a market review of recent hangars developments at RBD and other comparable general aviation airports in the DFW area, it is anticipated that most hangar development demand at RBD will be for hangars in the large box hangar category.

Based on the preferred airside alternative, the following land-use alternatives were established for RBD:

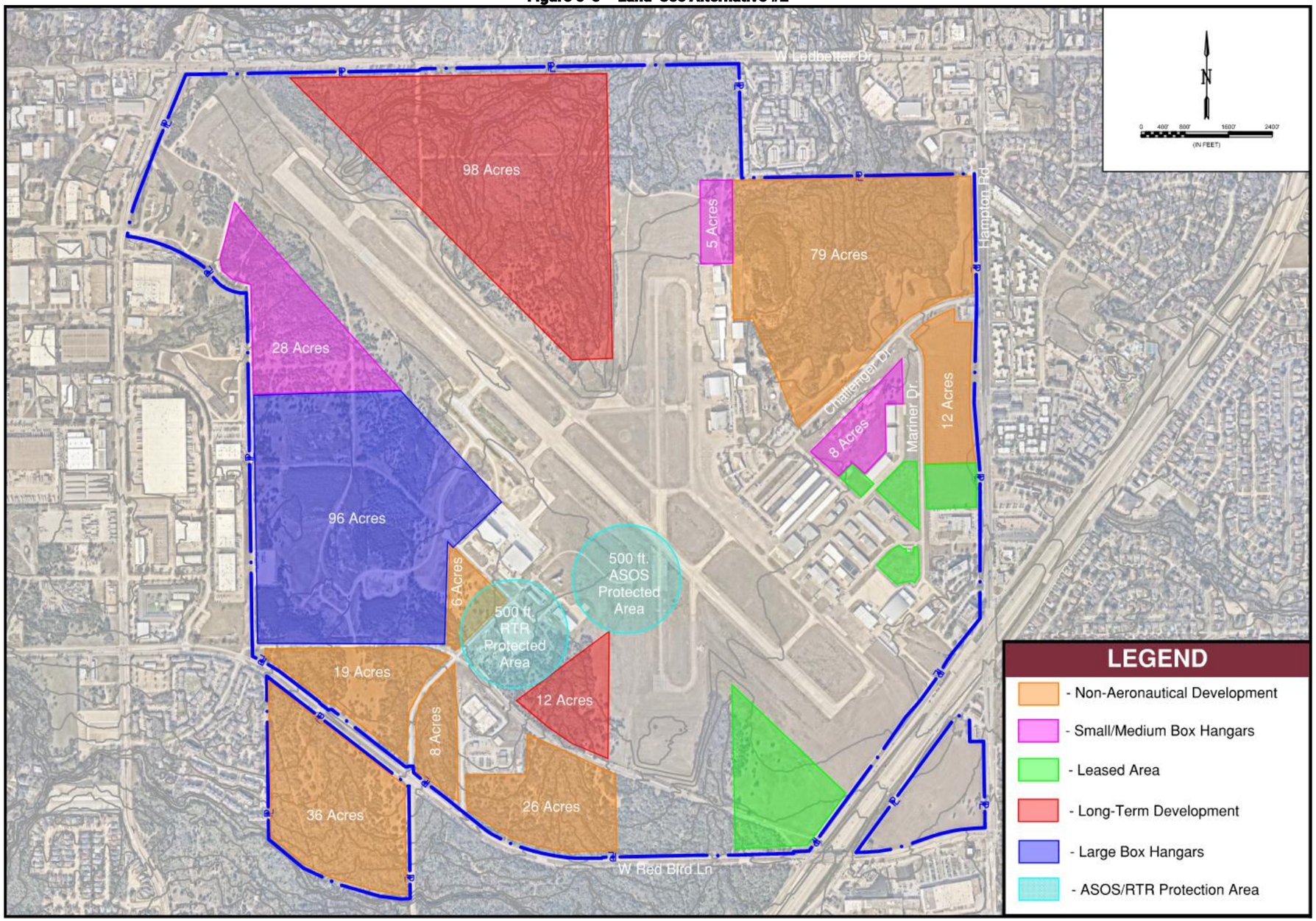
- Land-Use Alternative #1 – **Figure 5-4**
- Land-Use Alternative #2 – **Figure 5-5**
- Land-Use Alternative #3 – **Figure 5-6**

Figure 5-4 – Land-Use Alternative #1



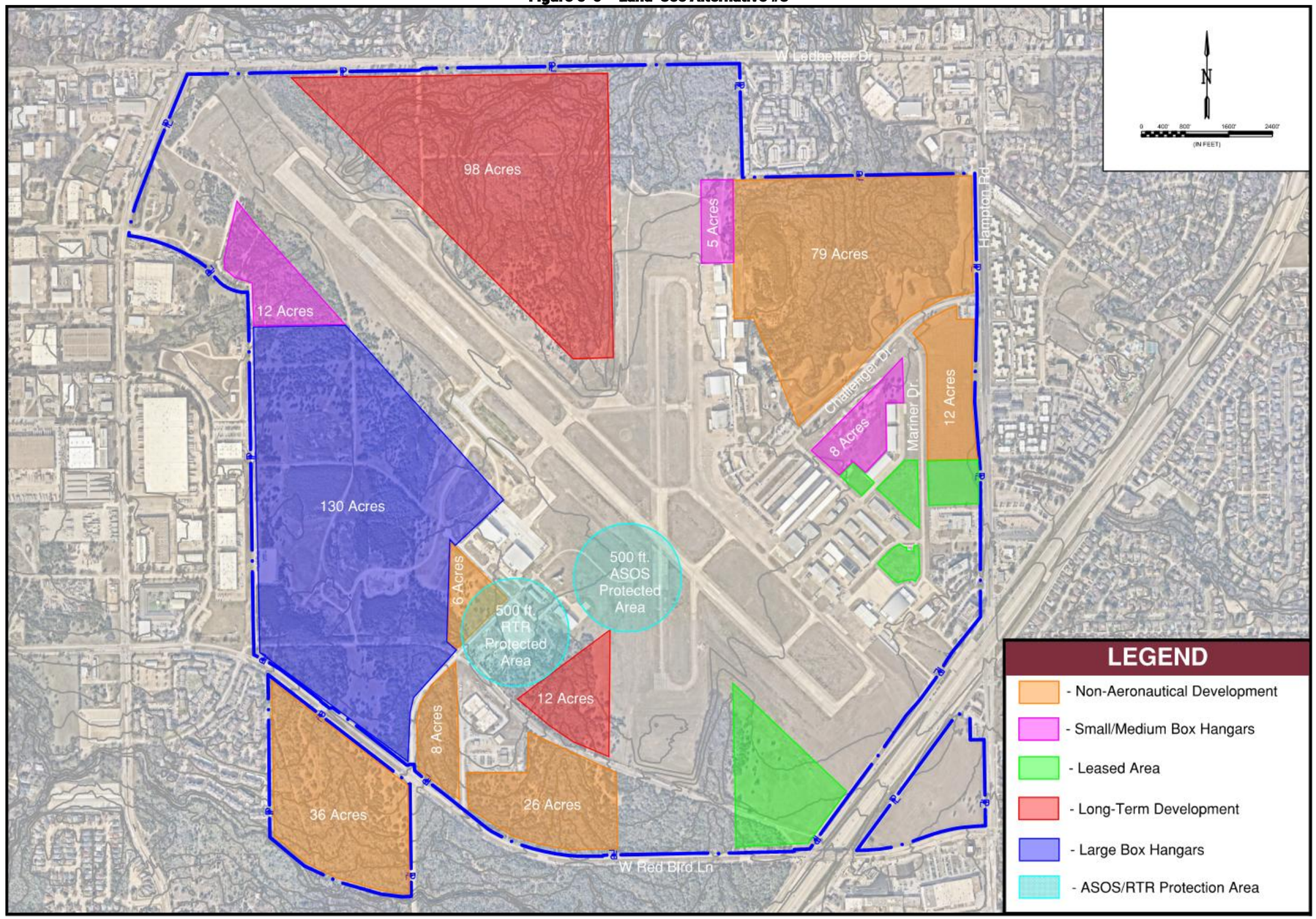
Source: Garver, 2026

Figure 5-5 – Land-Use Alternative #2



Source: Garver, 2026

Figure 5-6 – Land-Use Alternative #3



Source: Garver, 2026

After reviewing the land-use alternatives with the project steering committee, Land-Use Alternative #3 was selected as the preferred alternative. This alternative was selected as the preferred alternative as it provides the most space for the development of large box hangars. Additionally, it should be noted that some of the property identified for non-aeronautical development will be reviewed in the terminal/landside alternatives as a potential site to accommodate one or more vertiports.

Terminal/Landside Development Alternatives

With the framework of the Airport's ultimate airside infrastructure and the preferred land-use plan identified, concepts involving the placement of terminal/landside facilities were prepared and analyzed. The overall objective of terminal/landside development is to illustrate the highest and best use of existing land holdings and surrounding land for new development or redevelopment.

The primary objectives that were considered during the development of the terminal/landside alternatives were:

- At least an additional 321,000 square feet of hangar space will be needed by PAL 5
- Aircraft apron space will need to be added to support hangar development
- Additional FBO terminal space may be needed when PAL 5 is reached
- Vehicle parking needs to be added in the eastern development area and as new hangars or aeronautical facilities are added
- An additional 20,000-gallon Jet A fuel farm is needed in the western development area

These items were identified and discussed in depth in the Facility Requirements Chapter. Additionally, the following development objectives from the airside alternatives analysis were incorporated into the terminal/landside alternatives:

- Identify vertiport sites on airport property that could support a diverse array of AAM use cases including passenger/air taxi, cargo, and general aviation
- Reserve areas for emerging fuel types (i.e., SAF, electric aircraft, and hydrogen)
- Establish a perimeter road connecting the CAF apron to where the perimeter road begins adjacent to the Marvin D. Love Freeway (not visually shown)

Terminal/Landside Alternatives – Development Areas

For planning purposes, the available landholdings at RBD can be segmented into two general areas for terminal/landside planning:

1. Eastern Development Area – Includes all available property east of Runway 18-36
2. Western Development Area – Includes all available property west of Runway 18-36

Four terminal/landside alternatives were created for the eastern development area, and three terminal/landside alternatives were created for the western development area. Each of these alternatives are discussed in the following subsections.

Eastern Development Area - Terminal/Landside Alternative #1

Terminal/Landside Alternative #1 for the eastern development area includes the development of mid-sized hangars adjacent to the approach end of Runway 18. The area commonly referred to as the Taxilane J area also includes mid-sized hangars.

A mid-size (i.e., two takeoff and landing locations) standalone vertiport facility is located between South Hampton Road and Mariner Drive in an area designated for non-aeronautical use. The vertiport facility is oriented to support north/south flight paths to/from the vertiport facility. The vertiport area includes a proposed vertiport terminal and an alternative fuel farm facility. The alternative fuel farm facility may support sustainable aviation fuel (SAF), electric charging equipment, and hydrogen. The location of the vertiport would have impacts to existing leased areas.

Eastern Development Area - Terminal/Landside Alternative #1 is shown in **Figure 5-7**.

Eastern Development Area - Terminal/Landside Alternative #2

Terminal/Landside Alternative #2 for the eastern development area includes the development of mid-sized hangars adjacent to the approach end of Runway 18. The area commonly referred to as the Taxilane J area includes smaller hangars (75 feet x 75 feet).

A small (i.e., one takeoff and landing location) standalone vertiport facility is located between South Hampton Road and Mariner Drive in an area designated for non-aeronautical use. The vertiport facility is oriented to support north/south flight paths to/from the vertiport facility. The vertiport area includes a proposed vertiport terminal and an alternative fuel farm facility. The alternative fuel farm facility may support sustainable aviation fuel (SAF), electric charging equipment, and hydrogen. The location of the vertiport would require the closure of a portion of Mariner Drive leaving more non-aeronautical development space present along the property bordering South Hampton Road. The location of the vertiport would have impacts to existing leased areas.

Eastern Development Area - Terminal/Landside Alternative #2 is shown in **Figure 5-8**.

Eastern Development Area - Terminal/Landside Alternative #3

Terminal/Landside Alternative #3 for the eastern development area includes the development of mid-sized hangars adjacent to the approach end of Runway 18. The area commonly referred to as the Taxilane J area includes a blend of small and mid-sized box hangars.

A large (i.e., three takeoff and landing locations) standalone vertiport facility is located between South Hampton Road and Mariner Drive in an area designated for non-aeronautical use. The vertiport facility is oriented to support north/south flight paths to/from the vertiport facility. The vertiport area includes a proposed vertiport terminal and an alternative fuel farm facility. The alternative fuel farm facility may support sustainable aviation fuel (SAF), electric charging equipment, and hydrogen. The location of the vertiport would require the closure of a portion of Mariner Drive. The location of the vertiport would have impacts to existing leased areas.

Eastern Development Area - Terminal/Landside Alternative #3 is shown in **Figure 5-9**.

Eastern Development Area - Terminal/Landside Alternative #4

Terminal/Landside Alternative #4 for the eastern development area includes the development of mid-sized hangars adjacent to the approach end of Runway 18. The area commonly referred to as the Taxilane J area includes a blend of small and mid-sized box hangars.

A mid-size (i.e., two takeoff and landing locations) standalone vertiport facility is located between South Hampton Road and Mariner Drive in an area designated for non-aeronautical use. The vertiport facility is oriented to support north/south flight paths to/from the vertiport facility. The vertiport area includes a proposed vertiport terminal and an alternative fuel farm facility. The alternative fuel farm facility may support sustainable aviation fuel (SAF), electric charging equipment, and hydrogen. The location of the vertiport would require the closure of a portion of Mariner Drive. The location of the vertiport is anticipated to have limited impacts to existing leased areas.

Eastern Development Area - Terminal/Landside Alternative #4 is shown in **Figure 5-10**.

Western Development Area - Terminal/Landside Alternative #1

Terminal/Landside Alternative #1 for the western development area includes the development of small and mid-sized hangars at the north end of the development area. The remainder of the development area is primarily used for large box hangars. The hangars are arranged in a “pod” configuration with the hangars facing each other with a common apron in the middle. This alternative also includes the development of up to two additional fuel farms and an alternative fuel farm in the northern portion of the development area. The alternative fuel farm facility may support sustainable aviation fuel (SAF), electric charging equipment, and hydrogen.

A mid-size (i.e., two takeoff and landing location) standalone vertiport facility is located between Boulder Drive and the Texas Guard Armory facility in an area designated for non-aeronautical use. The vertiport facility is oriented to support north/south flight paths to/from the vertiport facility. The vertiport area includes a proposed vertiport terminal and an alternative fuel farm facility. The location of the vertiport is anticipated to have no impacts to existing leased areas.

Western Development Area - Terminal/Landside Alternative #1 is shown in **Figure 5-11**.

Western Development Area - Terminal/Landside Alternative #2

Terminal/Landside Alternative #2 for the western development area includes the development of small and mid-sized hangars at the north end of the development area. The remainder of the development area is primarily used for large box hangars. The hangars arrangements vary with some hangars arranged in a "pod" configuration while others are arranged in a "linear" configuration parallel to Runway 13-31. The large box hangar development includes substantial space for remain overnight (RON) parking for ADG III aircraft.

A mid-size (i.e., two takeoff and landing locations) standalone vertiport facility is located immediately west of Boulder Drive in an area designated for non-aeronautical use. The vertiport facility is oriented to support north/south flight paths to/from the vertiport facility. The vertiport area includes a proposed vertiport terminal, an alternative fuel farm facility, and a traditional fuel farm facility. The alternative fuel farm facility may support sustainable aviation fuel (SAF), electric charging equipment, and hydrogen. The location of the vertiport is anticipated to have no impacts to existing leased areas.

Western Development Area - Terminal/Landside Alternative #2 is shown in **Figure 5-12**.

Western Development Area - Terminal/Landside Alternative #3

Terminal/Landside Alternative #3 for the western development area includes the development of small and mid-sized hangars at the north end of the development area. The remainder of the development area is used for large box hangars. The hangars are arranged in a "pod" configuration with the hangars facing each other with a common apron in the middle.

A mid-size (i.e., two takeoff and landing locations) standalone vertiport facility is located immediately west of Boulder Drive in an area designated for non-aeronautical use. The vertiport facility is oriented to support north/south flight paths to/from the vertiport facility. The vertiport area includes a proposed vertiport terminal, an alternative fuel farm facility,

and a traditional fuel farm facility. The alternative fuel farm facility may support sustainable aviation fuel (SAF), electric charging equipment, and hydrogen. The location of the vertiport is anticipated to have no impacts to existing leased areas.

Western Development Area - Terminal/Landside Alternative #3 is shown in **Figure 5-13**.

Figure 5-7 – Eastern Development Area - Terminal/Landside Alternative #1



Source: Garver, 2026

Figure 5-8 – Eastern Development Area - Terminal/Landside Alternative #2



Source: Garver, 2026

Figure 5-9 – Eastern Development Area - Terminal/Landside Alternative #3



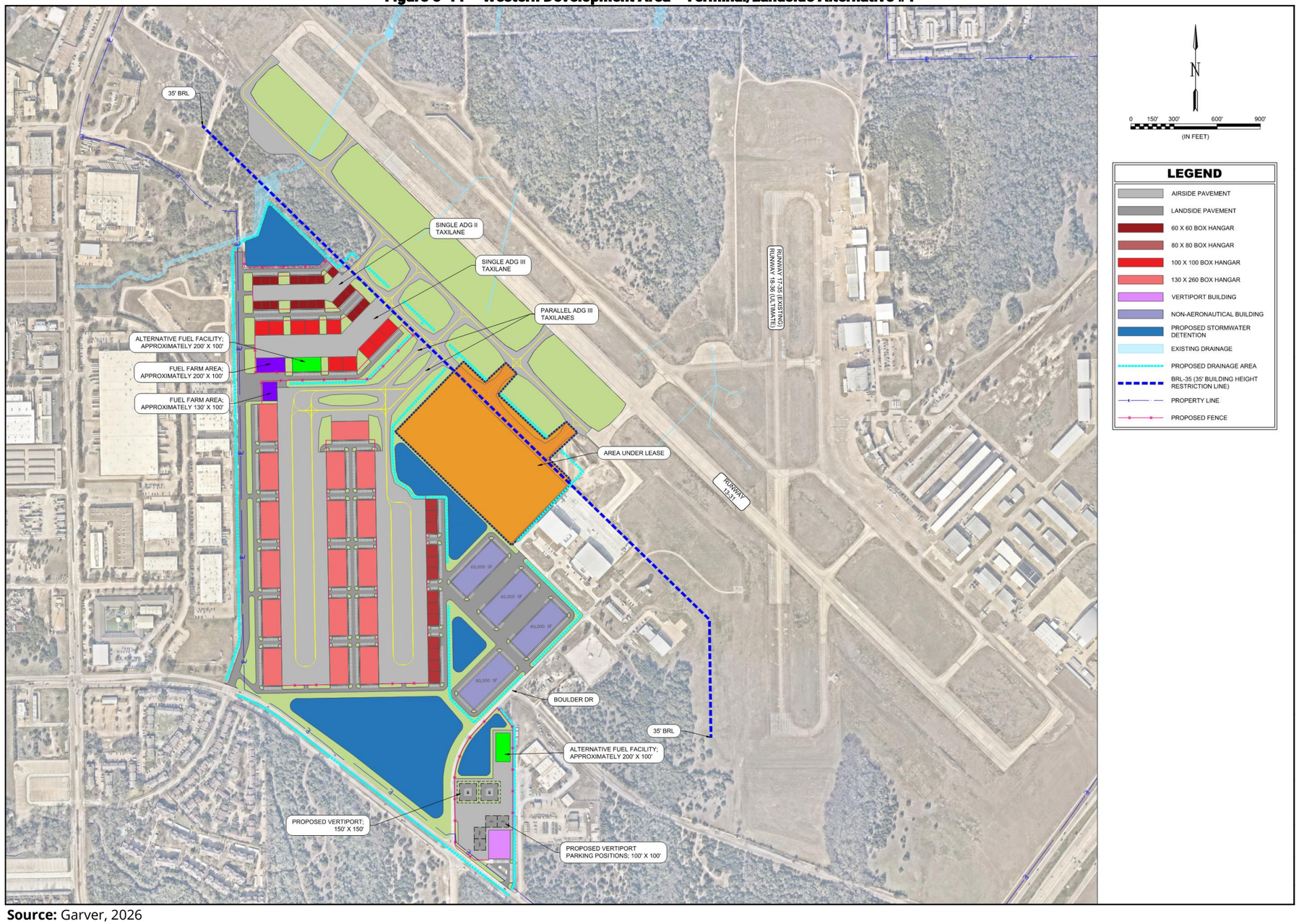
Source: Garver, 2026

Figure 5-10 – Eastern Development Area - Terminal/Landside Alternative #4



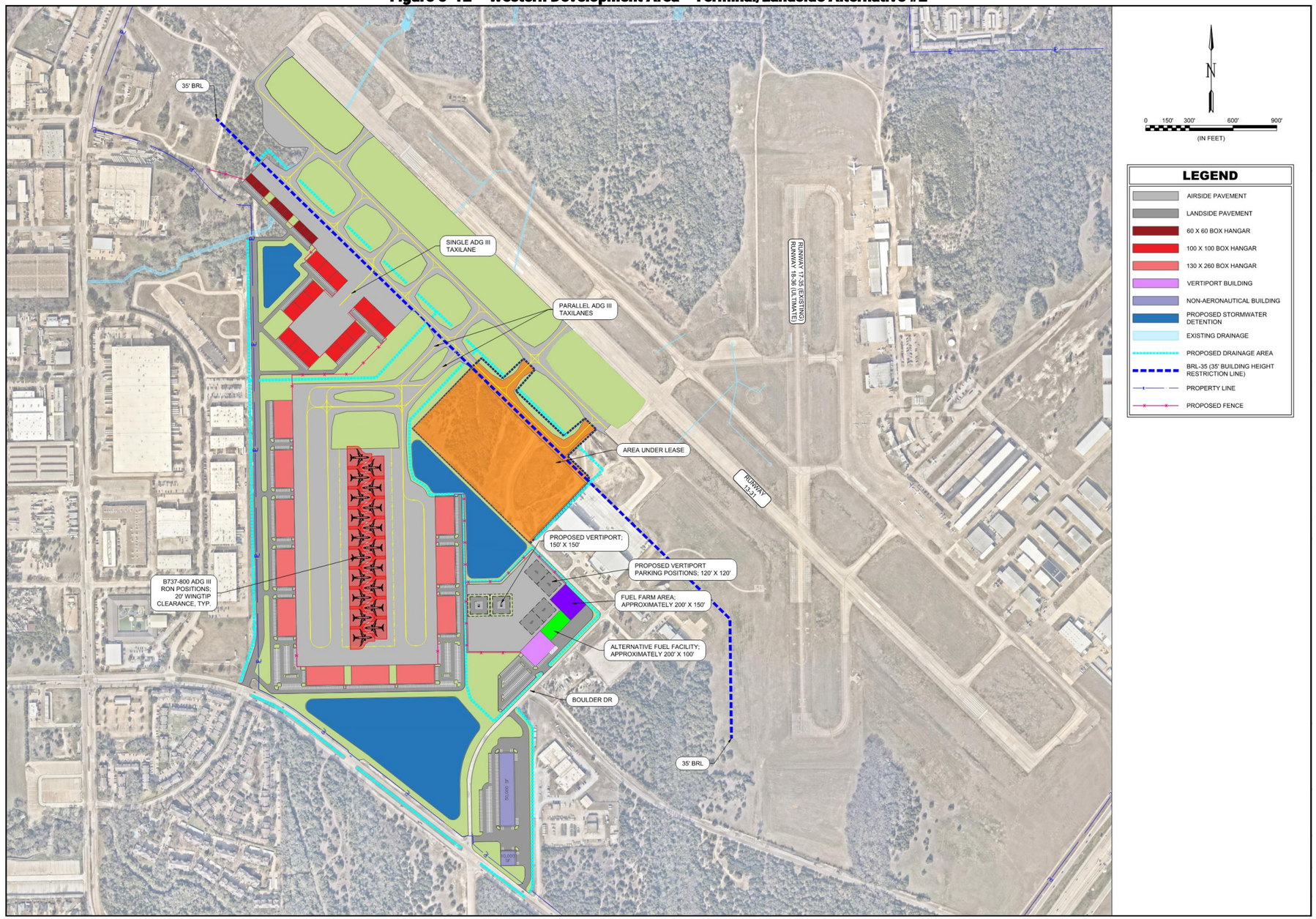
Source: Garver, 2026

Figure 5-11 – Western Development Area - Terminal/Landside Alternative #1



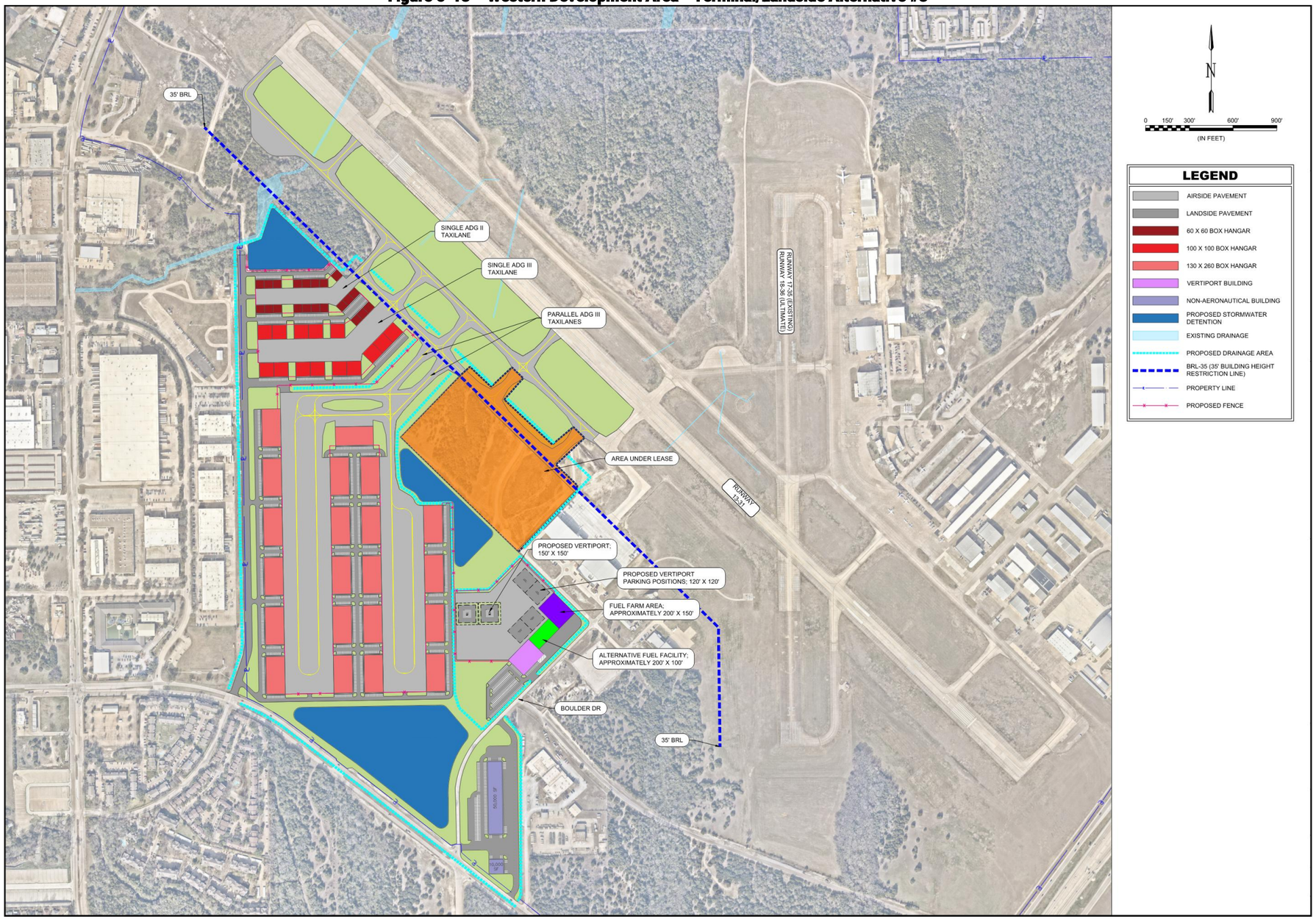
Source: Garver, 2026

Figure 5-12 – Western Development Area - Terminal/Landside Alternative #2



Source: Garver, 2026

Figure 5-13 – Western Development Area - Terminal/Landside Alternative #3



Source: Garver, 2026

Terminal/Landside Alternatives Evaluation and Results

Due to the similar nature of all the terminal/landside alternatives, a formal evaluation of each alternative was not performed as all the alternatives would have received very similar ratings. Consequently, the potential pros and cons of each alternative were discussed with the project steering committee. Based on the discussion, the following preferred alternatives were selected for each development area:

- Eastern Development Area – Terminal/Landside Alternative #4 – The project steering committee selected Terminal/Landside Alternative #4 as the preferred alternative for the eastern development area as the alternative has the least impact to existing leased areas. Additionally, the alternative provides a blend of small and mid-sized hangars in the Taxilane J area, which provides flexibility to support hangar development of different sizes.
- Western Development Area – Terminal/Landside Alternative #3 – The project steering committee selected Terminal/Landside Alternative #3 as the preferred alternative for the western development area as the alternative maximizes the amount of large box hangar space and supports the development of a traditional fuel farm in close proximity to existing hangar development.

Preferred Development Concept – Environmental Review

The combined preferred development concept, shown in **Figure 5-14**, has been reviewed to identify potential environmental factors that may influence the timing and environmental clearances required for future development.

Federal Aviation Administration (FAA) orders and policies related to the National Environmental Policy Act (NEPA) were used to conduct the analysis. In general, environmental factors are grouped based on their anticipated level of impact. These groupings are based on currently available information and are subject to change. Airport personnel should coordinate directly with TxDOT Aviation prior to any capital projects to determine the environmental clearances necessary to support a project's implementation.

Limited or No Environmental Impact Anticipated

The following environmental factors are anticipated to have no or limited impact on future development at RBD:

- Air Quality – Temporary impacts during construction are expected. An air emissions inventory may be required by the Texas Commission on Environmental Quality (TCEQ) and, if necessary, will be completed as part of the preliminary engineering/design processes prior to construction activities taking place.
- Coastal Barriers & Coastal Zone Barriers – The coast is over 250 miles from the Airport; therefore, these resources are not affected.
- Federally Listed Endangered and Threatened Species – There are no known protected species at the Airport. However, future coordination may be required with the U.S. Fish and Wildlife Service (USFWS) and the Texas Parks and Wildlife Department (TPWD) to confirm this as part of future projects.
- Energy Supplies, Natural Resources and Sustainable Design – The preferred development alternative is anticipated to have minimal impacts on the area's natural resources and energy supplies.
- Light Emissions and Visual Effects – The future development of RBD is not expected to have a significant impact on light emissions or other visual effects in the area.
- Historical and Archaeological – No previously recorded historical or archaeological sites were found to be located within the development area during a file search for cultural, historical, and archeological sites. The closest historical site is the Monroe Shops, located approximately 4.5 miles northeast of the Airport.
- Wild and Scenic Rivers – There are no wild and scenic rivers in the development area.
- Hazardous Materials – There are no known hazardous material sites in the area.

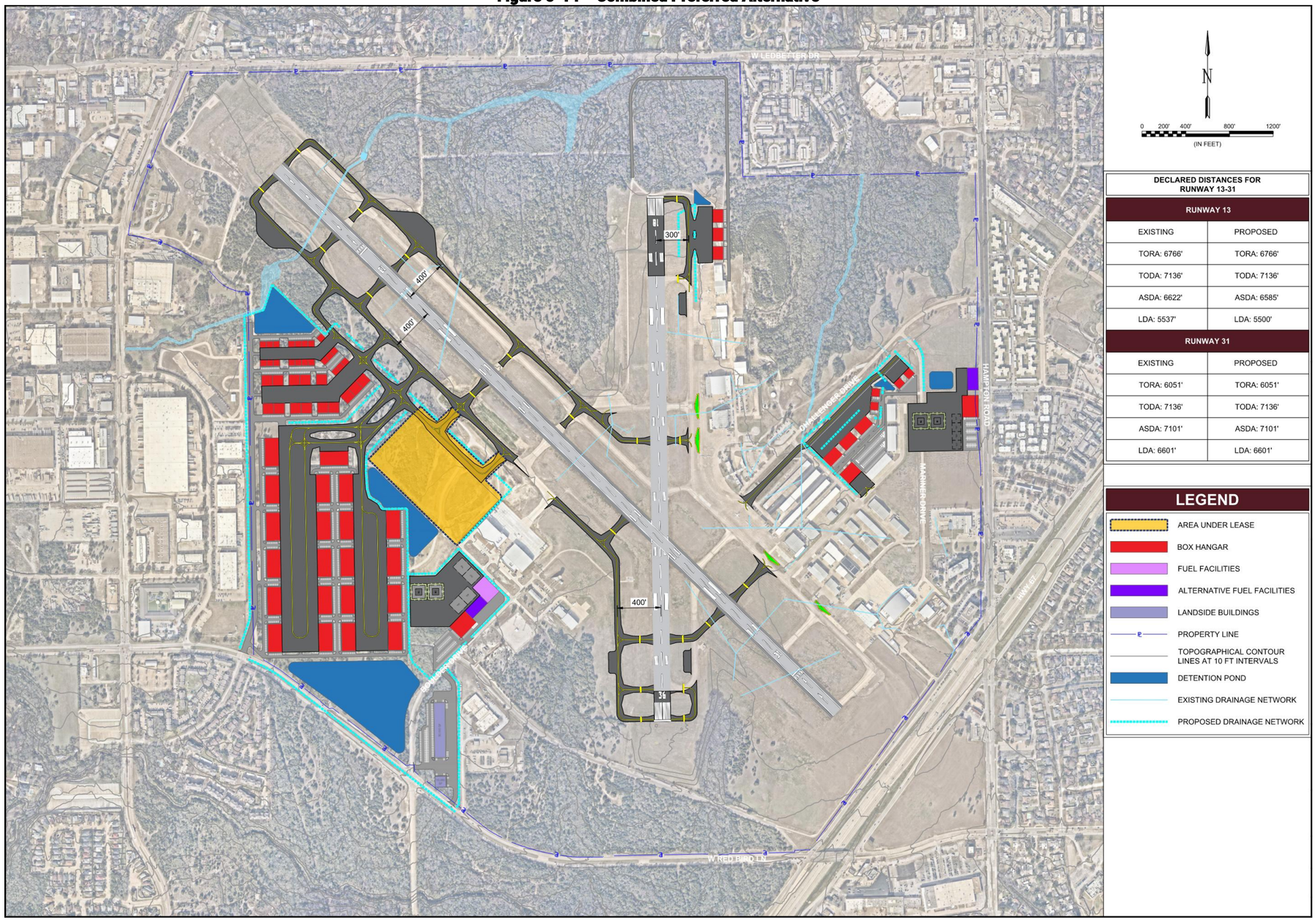
- Solid Waste – There are no known locations involved in the preferred development alternative where solid waste is present. An online inquiry was completed using the Texas Commission on Environmental Quality website.
- Water Quality – Water quality is not expected to be impacted by the development. However, a more in-depth review may be necessary for specific development projects.
- Biotic Resources – No new impacts to biotic resources are anticipated, however additional review may be necessary prior to project design.
- Department of Transportation Act, Section 4(f) – No Section 4(f) impacts are anticipated as part of the preferred development alternative.
- Induced Socioeconomic – No property is proposed to be acquired. Consequently, no socioeconomic impacts are expected as a result of the preferred development alternative.
- Social Impacts – The preferred development alternative is not expected to have any social impacts.
- Farmlands – All of airport property is classified as not prime farmland. Consequently, no farmland impacts are anticipated.
- Compatible Land-Use – No property is proposed to be acquired around the airport, and no new incompatible land-uses are expected to be introduced.

Anticipated Environmental Impacts

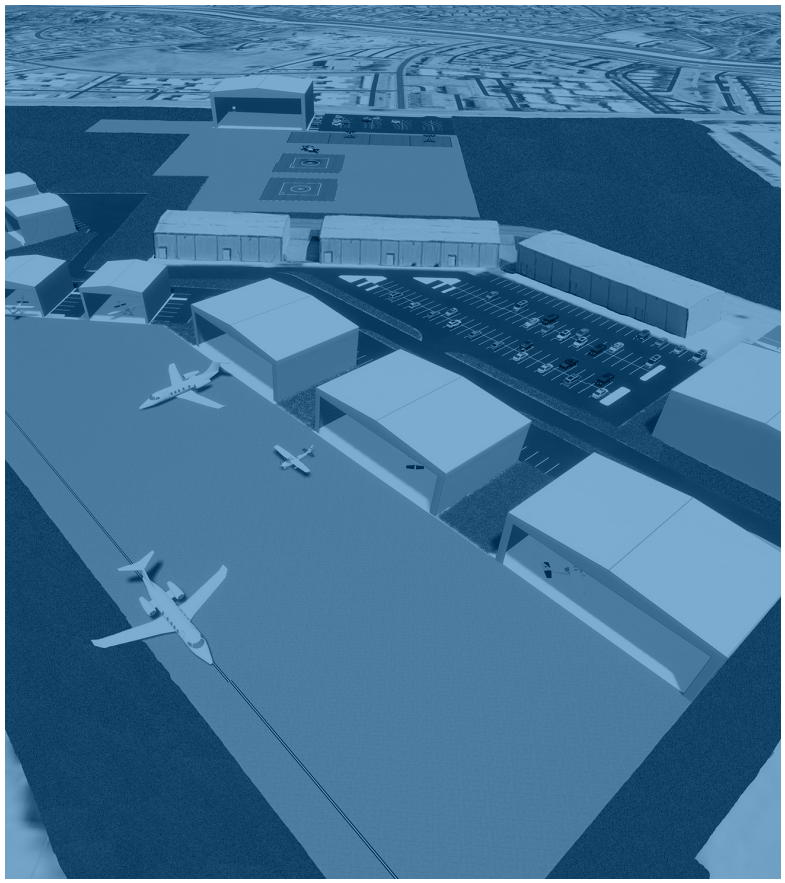
The following environmental factors are anticipated to have an impact on future development at RBD:

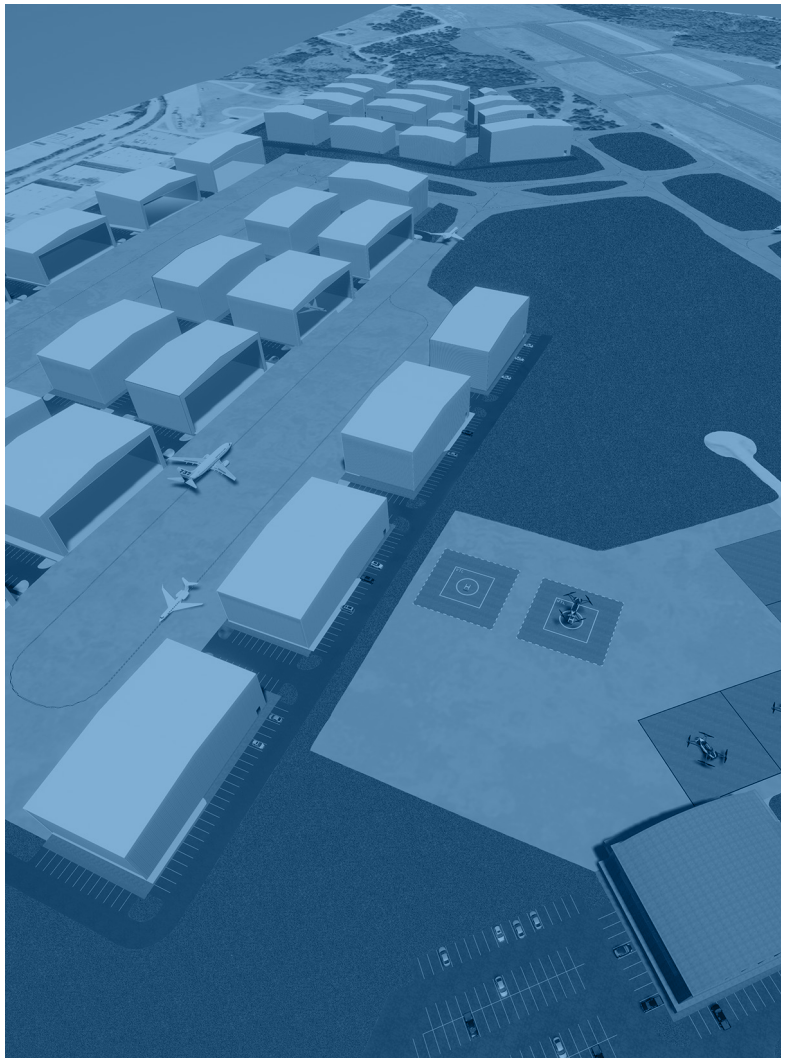
- Floodplains – An online query was completed through the Federal Emergency Management Agency (FEMA) Flood Map Service Center to identify areas on or around the Airport affected by the existing floodplain. Floodplains do exist on the northside of airport property and will need to be a consideration when Taxiway E is extended to the approach end of Runway 13.
- Wetlands – Existing wetlands are present on both the eastern and western sides of the Airport and may impact future developments. Wetland delineation work is anticipated to be required for development in the area north of Challenger Drive on the east side of the Airport and when Taxiway E is extended to the approach end of Runway 13.
- Noise – Multiple noise sensitive communities are present around RBD. Consequently, the extension of Runway 18-36 is anticipated to require additional analysis related to noise impacts on the surrounding community.

Figure 5-14 – Combined Preferred Alternative



Source: Garver, 2026





1 Introduction

2 Inventory and Description of Existing Facilities

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CHAPTER 6: CAPITAL IMPROVEMENT PROGRAM AND FINANCIAL PLAN

Introduction

The Capital Improvement Program (CIP) and Financial Plan Chapter segment the preferred development alternative into a series of capital projects for implementation and funding purposes. As a result, the chapter describes the phasing, planning level cost estimates, and trigger mechanisms associated with each capital project needed to achieve the preferred development concept and a proposed funding strategy for each project.

Capital planning and delivery at an airport is not meant to be static. An airport's CIP is anticipated to change over time based on changes in demand, changes in the condition of existing infrastructure, and federal, state, and local priorities. Consequently, the contents of this chapter should be reviewed annually to identify proposed projects that may need to be prioritized or delayed based on the aforementioned factors.

Additionally, at most airports, funding availability is a significant constraint in managing an airport's capital program. Sometimes this requires projects to be delayed, even if they are needed, until funding becomes available.

Capital Funding Sources

Airport capital projects can be funded by several sources. These sources include Federal Aviation Administration (FAA) Airport Improvement Program (AIP) and Infrastructure Investment and Jobs Act (IIJA) program grants, state aviation grants, private/third party financing, local funding, and other development grants. Each of these capital funding sources are described in the following sections.

FAA Airport Improvement Program

The FAA's grant program for improving, maintaining, and developing airport infrastructure is commonly referred to as the Airport Improvement Program (AIP). The program was originally established in the early 1980's when Congress passed the Airport and Airway Improvement Act of 1982. Under the AIP, the FAA provides grant funds to airports based on numerous factors including the airport's size, activity level, and development needs. The FAA typically provides 90% of the funding for AIP projects with the remainder of the funds supplied by the state aviation agency and the airport's sponsor.

Texas is a block grant state under the FAA's AIP. As a block grant state, the Texas Department of Transportation - Aviation Division (TxDOT) is responsible for administering AIP grants to general aviation airports within the State of Texas. In Texas, AIP grant funded capital projects at general aviation airports that are part of the National Plan of Integrated Airport Systems (NPIAS) are generally eligible for 90% federal funding with a 10% local match provided by the airport sponsor.

The FAA classifies airports with annual passenger enplanements of 10,000 or less as Non-Primary Airports for funding purposes. Currently, Dallas Executive Airport (RBD or Airport) qualifies as a Non-Primary Airport. As a Non-Primary Airport, RBD is eligible to receive Non-Primary Entitlement (NPE) funds that are appropriated on an annual basis. Non-Primary Entitlements were originally created as part of the Aviation Investment and Reform Act (AIR-21) that was passed by Congress in April 2000. Under the NPE Program, most Non-Primary Airports receive NPE funding equal to 20% of the eligible cost of their 5-year capital improvement program up to a maximum of $150,000 per year. Non-Primary Entitlements are available in the year granted and can be carried over for up to 3 additional years (e.g., 4 years of funding in total). Currently, RBD receives $150,000 annually in NPE funds. Unless modified by Congress, it is expected that RBD will continue to accrue NPE funds at a rate of $150,000 per year throughout the planning horizon. As of 2026, RBD has $0 in available NPE funds as the existing funds are anticipated to be applied toward the Taxiway E – Phase II project.

In addition to NPE funds, RBD is eligible to receive AIP discretionary grants. Airport Improvement Program discretionary funds are distributed based on a project prioritization process developed by the FAA. It is reasonable to assume that RBD will receive discretionary funding during the planning period for higher priority, eligible projects, such as runway, taxiway, safety, and security improvements. However, since the future availability of AIP discretionary grants is not certain until an actual grant is awarded, it should be noted that any future capital projects requiring AIP discretionary funds may need to be delayed until the funds become available.

Infrastructure Investment and Jobs Act Program

In 2021, Congress passed the Infrastructure Investment and Jobs Act (IIJA) which supplies additional capital funding opportunities for airports. The IIJA provides Airport Infrastructure Grants (AIG) for 5 years (FY22 – FY26) to airports listed in the NPIAS. This money can be used for runways, taxiways, safety, and sustainability projects, as well as terminal, airport-transit connections, and roadway projects. Dallas Executive Airport is classified as a "national" airport in the NPIAS and therefore received approximately $764,000 per year. Currently, all remaining IIJA funds for RBD are anticipated to be used to fund the design and construction of the Taxiway E – Phase II project. Additional IIJA grants are similar to AIP

discretionary grants, in that airports must compete for them. The IIJA also provides additional funding opportunities for the development of airport terminal building projects.

The CIP assumes the Airport will receive a combination of AIP/IIJA grants in the amount of $11.167 million in the short-term phase (0-5 years), $48.654 million in mid-term phase (6-10 years), and $83.452 million in long-term phase (11+ years). The CIP further assumes that the current AIP funding levels will continue to be extended during the planning horizon and that future program authorizations will provide similar funding levels. Infrastructure Investment and Jobs Act funding is assumed to only be available until FY26.

TxDOT Aviation Grants

The Texas Department of Transportation – Aviation Division sponsors multiple airport grant programs. The Routine Airport Maintenance Program (RAMP) provides partial funding for lower cost projects and airport maintenance activities. Routine Airport Maintenance Program funding is limited to $100,000 per year per airport. The airport sponsor is required to provide a 10% match for RAMP grant funds (i.e., $11,111) for a total of $111,111. The CIP assumes that the TxDOT RAMP grant program will continue during the planning horizon.

Texas Department of Transportation also provides partial funding for general aviation terminal building improvements and parking lots. The maximum grant available is $600,000 ($500,000 for the terminal building and $100,000 for the parking lot). Grants are limited to 50% of total project costs up to $1.2 million with costs over $1.2 million remaining the responsibility of the sponsor.

Additionally, TxDOT provides state grants, that are separate from the FAA AIP/IIJA programs, to support other aeronautical development needs at airports including items which may have limited eligibility under the FAA AIP/IIJA Programs (e.g., revenue producing facilities).

Texas airports can also seek state funding by obtaining direct allocations through the bi-annual state budgeting process. These funding allocations are commonly referred to as “state riders.” State riders can be an effective way to fund significant capital projects that may be difficult to obtain AIP funding for.

It is also assumed that most RAMP grant funds will be utilized for airport maintenance activities and will not be utilized for the development of new infrastructure. State grants, including state riders, may be received to replace or supplement AIP/IIJA funding for high-priority projects or for projects with limited AIP/IIJA eligibility.

Private/Third Party Financing

Many airports use private/third party financing when the planned improvements will be primarily used by a private business and/or are not grant eligible. Projects of this kind typically include private hangars, FBO facilities, exclusive use aircraft parking aprons, development areas, and non-aviation related commercial areas.

The AIP/IIJA eligibility of revenue-producing projects is very limited and typically comes with future funding restrictions. Consequently, the use of federal funds for revenue producing projects should only be considered under special circumstances.

The CIP assumes private/third parties will provide funding to support private aircraft hangar developments and related projects.

Other Development Grants

Sometimes airports are eligible to apply for economic development, community, or other development related grants that can be used to improve various airside and landside aspects of the airport. Additionally, depending on how an airport is used, the airport may be eligible for specific Federal Emergency Management Agency (FEMA) or Department of Homeland Security (DHS) grants to support national resiliency and readiness for emergency response. However, since airports commonly compete with non-aviation agencies for these grants, they are typically difficult to obtain. Consequently, the CIP assumes no grant funds will be received from non-aviation agencies. However, it is highly recommended that the Airport pursue non-aviation specific grants because, if successful, the awarding of these grants will reduce the Airport's dependence on aviation grant funds.

Local Funding

As previously discussed, airport capital projects funded under the FAA's AIP/IIJA grant programs and most state aviation grants typically require a local match that is funded by the airport's revenues or by the municipality that owns the airport. For projects that do not receive state or federal grant funding, airports are typically required to bear the full cost of the capital project unless another source of financing (e.g., private/third party financing or other non-aviation grant funds) can be secured. Since local funding is often constrained, it is generally recommended that other non-local funding sources should be pursued to the greatest extent possible for capital projects that are not eligible under aviation specific federal and state grant programs. As a result, the 20-year CIP set forth in this ALP project focuses on the use of local funds for federal and state grant matches and uses other funding sources for most non-federal/state aviation grant eligible projects. However, during the implementation of this CIP, it may become necessary to fund some non-

federal/state aviation grant eligible projects with local funds if other funding mechanisms are not available at the time the facility is needed.

Capital Improvement Plan (CIP)

The CIP and phased development plan establish an orderly series of improvements intended to support the growth and development of RBD in alignment with the preferred development alternative defined in the Alternatives Chapter.

It is important to note that market demand, instead of the passage of time, should be the driver for when new facilities are constructed, making this CIP flexible to changes that may occur during the 20-year planning horizon. Consequently, "trigger mechanisms" have been established to help guide RBD on when they should consider implementing the various improvement projects set forth in the CIP. These "trigger mechanisms" should be reviewed annually by TxDOT Aviation and the City of Dallas to determine if any of the project "triggers" could feasibly be reached in the next 1-5 years. If it is expected that a project trigger could be reached within the next 5 years, the project should be included in the Airport's 5-year CIP. This exercise will aid TxDOT Aviation and the City of Dallas in building and updating the rolling 5-year CIP for RBD based on market demand.

In developing RBD's CIP and phased development plan, the following guidelines were used:

- The proposed sequencing of projects is intended to support the execution of capital projects in a coordinated manner. The phasing and priority of each project have been determined with respect to airport safety, demand, compatibility with other airport projects, and FAA/TxDOT priorities and programming schedules.
- Overall, the CIP has been structured to provide flexibility to meet short and long-range goals.
- The CIP does not represent an obligation of any funds, nor does it imply a funding commitment without justification of sufficient demand or need.

The CIP is divided into the following phases:

- Short-Term Phase – 2027-2031
- Mid-Term Phase – 2032-2036
- Long-Term Phase – 2037+

Each phase consists of projects and improvements categorized by the following areas: 1) airside improvements and 2) terminal/landside improvements. The airside and terminal/landside development projects within each phase and their associated trigger mechanisms are shown in **Table 6-1** through **Table 6-5**. The majority of the grant funded

projects within the short-term phase of the CIP have also been segmented into separate "Design" and "Construction" projects to make them easier to program for future grant planning.

It should be noted that each project has a unique identifier that consists of the phase the project is associated with (e.g., S, M, or L) followed by a project number (e.g., 1, 2, 3, etc.). These project identifiers have been established to make it easier for users to reference specific projects. The project numbers (e.g., 1, 2, 3, etc.) do not provide an indication of a project's prioritization within each phase of the CIP.

Table 6-1 – Airside Projects – Short-Term

Project Reference #	Design/Construction/ Land Acquisition/ Easement/Other	Project Name/Description	Trigger Mechanism	Has Trigger Already Been Reached?
S1	**DESIGN/ CONSTRUCTION**	**Taxiway E (Phase II)** - This project includes the extension of Taxiway E to the northwest to the location of Taxiway B3. The taxiway is planned to be constructed to TDG 3 standards with the same weight bearing capacity as the initial construction of Taxiway E. Taxiway will have a 400 ft. offset from the Runway 13-31 centerline. The new pavement is anticipated to be constructed with concrete. New medium intensity taxiway edge lights will be added for the new taxiway.	Additional westside development requires a parallel taxiway to Runway 13 approach end to reduce the need for runway crossings.	Yes
S2	**DESIGN**	**Taxiway E (Phase III)** - This project includes the extension of Taxiway E to the northwest to the end of Runway 13. The taxiway is planned to be constructed to TDG 3 standards with the same weight bearing capacity as the initial construction of Taxiway E. Taxiway will have a 400 ft. offset from the Runway 13-31 centerline. This project also includes the development of an apron area at the approach end of Runway 13 for aircraft engine run-ups and holding. The new pavement is anticipated to be constructed with concrete. New medium intensity taxiway edge lights will be added for the new taxiway.	Additional westside development requires a parallel taxiway to Runway 13 approach end to reduce the need for runway crossings.	Yes
S3	**CONSTRUCTION**	**Taxiway E (Phase III)** - This project includes the extension of Taxiway E to the northwest to the end of Runway 13. The taxiway is planned to be constructed to TDG 3 standards with the same weight bearing capacity as the initial construction of Taxiway E. Taxiway will have a 400 ft. offset from the Runway 13-31 centerline. This project also includes the development of an apron area at the approach end of Runway 13 for aircraft engine run-ups and holding. The new pavement is anticipated to be constructed with concrete. New medium intensity taxiway edge lights will be added for the new taxiway.	Additional westside development requires a parallel taxiway to Runway 13 approach end to reduce the need for runway crossings.	Yes

Source: Garver, 2026

The airside projects within this phase of the CIP focus on the extension of Taxiway E to the approach end of Runway 13. These projects have reached their implementation trigger. No terminal/landside projects are included in this phase.

Table 6-2 – Airside Projects – Mid-Term

Project Reference #	Design/Construction/ Land Acquisition/ Easement/Other	Project Name/Description	Trigger Mechanism	Has Trigger Already Been Reached?
M1	**DESIGN/ CONSTRUCTION**	**Taxiway A4 and B Realignment and Runway 17-35 Redesignation** - This project includes the demolition of Taxiway A4 and portions of Taxiway B and the development of new taxiway infrastructure for crossing Runway 17-35. The new crossing taxiway will be located north of the existing crossing point. The taxiway is planned to be constructed to TDG 3 standards with the same weight bearing capacity as the remainder of Taxiway B. New medium intensity taxiway edge lights will be installed along the taxiway and the taxiway is expected to be constructed of concrete. This project will also include the redesignation of Runway 17-35 to Runway 18-36. This includes coordination with the FAA, repainting the runway, and updating all applicable airfield signage.	The current alignment of Taxiway B and Taxiway A4, where they cross Runway 17-35, is reported by ATCT as a location where pilots sometimes lose situational awareness. Magnetic variation has changed enough to warrant the redesignation of Runway 17-35 to Runway 18-36.	Yes
M2	**DESIGN/ CONSTRUCTION**	**Taxilane J Development** - This project includes the development of a taxilane extending from the primary apron to the Taxilane J development area. The taxilane is anticipated to be constructed to TDG 2B standards and be constructed of concrete. New medium intensity taxiway edge lights will be installed along the taxilane. The existing fenceline and gate at Saturn Drive will be reconfigured to support the development of the taxilane. This project also includes the establishment of a new roadway leading from Mariner Drive into the Taxilane J development area. The roadway is anticipated to be constructed of concrete and be 25 feet wide. The project also includes the development of a vehicle parking lot within the area.	Demonstrated demand is present (i.e., interested developers) to develop hangars in the Taxilane J development area.	No
M3	**DESIGN/ CONSTRUCTION**	**Taxiway D and A3 Realignment and Rehabilitation** - This project includes the demolition of a portion of Taxiway D and the development of a new taxiway crossing point for Runway 13-31. Additionally, the remaining portion of Taxiway D, south of Runway 13-31, will be rehabilitated. The new taxiway is planned to be constructed to TDG 3 standards with the same weight bearing capacity as the initial construction for Taxiway E. New medium intensity taxiway edge lights will be installed along the taxiway and the taxiway is expected to be constructed of concrete. This project also includes the development of small engine run-up pad a on the south end of Runway 18-36. The pad is approximately 14,000 square feet and will be constructed of concrete.	Current Taxiway D and A3 alignment is non-standard. The alignment of the taxiways is not perpendicular to the Runway 13-31 centerline. Additionally, the existing taxiway pavement south of Runway 13-31 is in fair condition.	Yes

Source: Garver, 2026

Table 6-2 – Airside Projects – Mid-Term (Continued)

Project Reference #	Design/Construction/ Land Acquisition/ Easement/Other	Project Name/Description	Trigger Mechanism	Has Trigger Already Been Reached?
M4	**DESIGN/ CONSTRUCTION**	**Taxiway E (Phase IV)** - This project includes the extension of Taxiway E to the southeast to the end of Runway 36. The taxiway is planned to be constructed to TDG 3 standards with the same weight bearing capacity as the initial construction of Taxiway E. The taxiway will have a 400 foot offset from the Runway 13-31 and Runway 18-36 centerlines. The project also includes the development of an apron area at the approach end of Runway 36 for aircraft engine run-ups and holding. The new pavement is anticipated to be constructed with concrete. New medium intensity taxiway edge lights will be added for the new taxiway. The project also includes three stub taxiways between the existing runways and the new parallel taxiway.	Additional westside development requires a parallel taxiway to Runway 13-31 to reduce the need for runway crossings in the middle third of the runway.	Yes
M5	**DESIGN/ CONSTRUCTION**	**Taxiway A, B, and C Rehabilitation** - This project includes the rehabilitation of the existing pavement on the north end of Taxiway A, Taxiway B south of Taxiway C, and Taxiway C between the runways.	Taxiway pavement is in fair condition.	Yes (Taxiway A north and Taxiway C)
M7	**DESIGN/ CONSTRUCTION**	**Runway 18-36 Lighting Rehabilitation** - This project includes the replacement of the existing MIRLs for Runway 18-36.	Existing MIRLs are past their useful life. Installed in 2004.	Yes
M9	**DESIGN/ CONSTRUCTION**	**Western Development Area Taxilane Development** - This project includes the development of a TDG 3 taxilane extending from Taxiway E to potential hangar development locations in the western development area. The taxilane is expected to have the same weight bearing capacity as Taxiway E and be constructed of concrete.	Demonstrated demand is present (i.e., interested developers) to develop hangars in the western development area.	Yes

Source: Garver, 2026

The mid-term airside projects include the rehabilitation of existing taxiways, the realignment of taxiways to follow current FAA design standards, airfield lighting rehabilitation, and the development of new taxiway/taxilane infrastructure. Several of these projects have already reached their implementation trigger.

Table 6-3 – Terminal/Landside Projects – Mid-Term

Project Reference #	Design/Construction/ Land Acquisition/ Easement/Other	Project Name/Description	Trigger Mechanism	Has Trigger Already Been Reached?
M6	**DESIGN/ CONSTRUCTION**	**Main Apron Rehab (Phase 1)** - This project includes the rehabilitation of approximately 89,000 square feet of existing apron space adjacent to the current terminal building.	Apron pavement is in fair condition.	Yes
M8	**DESIGN/ CONSTRUCTION**	**Main Apron Rehab (Phase 2)** - This project includes the rehabilitation of approximately 57,000 square feet of existing apron space adjacent to the current terminal building.	Apron pavement is in fair condition.	Yes, portions are in fair condition.
M10	**DESIGN/ CONSTRUCTION**	**Western Development Area Roadway Development (Phase 1)** - This project includes the entrance roadway to the western development area. The roadway is expected to be at least 25 feet wide and constructed of concrete. It will be developed to support semi-truck operations.	Demonstrated demand is present (i.e., interested developers) to develop hangars in the western development area that can't be reached with existing roadway system.	No
M11	**DESIGN/ CONSTRUCTION**	**Western Fuel Farm** - This project includes the development of a Jet A fuel farm with two 20,000 gallon tanks.	Additional development on the westside of the airport requires the development of a fuel farm.	Yes

Source: Garver, 2026

The mid-term terminal/landside projects focus on apron rehabilitation, roadway/parking development and a new fuel farm on the western side of the airfield. The apron rehabilitation and fuel farm projects have already reached their implementation triggers.

Table 6-4 – Airside Projects – Long-Term

Project Reference #	Design/Construction/ Land Acquisition/ Easement/Other	Project Name/Description	Trigger Mechanism	Already Been Reached?
L1	**DESIGN/ CONSTRUCTION**	**Runway 18 Extension -** This project includes a 725 foot extension of Runway 18 to the north and the extension of Taxiway A to the new runway end point. The runway will remain 150 feet wide and the new taxiway will be constructed to TDG 2B standards. The new pavement will be constructed of concrete and the weight bearing capacity will be consistent with the existing strength of Runway 18-36. Additional runway and taxiway edge lights are included.	Demand for Runway 18-36 to be extended.	No
L2	**DESIGN/ CONSTRUCTION**	**Runway 36 Extension -** This project includes a 275 foot extension of Runway 36 to the south and the extension of Taxiway D and Taxiway E to the new runway end point. The runway will remain 150 feet wide and the new taxiways will be constructed to TDG 2B standards. The new pavement will be constructed of concrete and the weight bearing capacity will be consistent with the existing strength of Runway 18-36. Additional runway and taxiway edge lights are included.	Demand for Runway 18-36 to be extended.	No
L3	**DESIGN/ CONSTRUCTION**	**Taxiway B Relocation** - This project includes the relocation of Taxiway B to be 400 feet from the Runway 13-31 centerline. It also includes the relocation of the engine run-up pad and the establishment of a new stub taxiway between Taxiway B and Runway 13-31. The taxiway weight bearing capacity is expected to be the same as the existing weight bearing capacity of Runway 13-31. The taxiway will be designed to TDG 2B standards. This project includes the replacement of the existing taxiway edge lights.	Critical aircraft shifts into the ADG III category.	No
L4	**DESIGN/ CONSTRUCTION**	**Taxiway A Rehabilitation** - This project includes the rehabilitation of the existing taxiway pavement associated with Taxiway A and the stub taxiways between Taxiway A and the runways. The stub taxiway rehabilitation will only be completed up to the runway hold position markings. This also includes the rehabilitation of the engine run-up area at the approach end of Runway 31.	Apron pavement is in fair condition.	No

Source: Garver, 2026

Table 6-4 – Airside Projects – Long-Term (Continued)

Project Reference #	Design/Construction/ Land Acquisition/ Easement/Other	Project Name/Description	Trigger Mechanism	Has Trigger Already Been Reached?
L5	**DESIGN/ CONSTRUCTION**	**Runway 18-36 Rehabilitation** - This project includes the rehabilitation of the pavement associated with Runway 18-36 and associated stub taxiways. The stub taxiway rehabilitation will only be completed for the portions of the taxiways inside the runway hold position markings.	Pavement is in fair condition.	No
L6	**DESIGN/ CONSTRUCTION**	**Runway 13-31 Rehabilitation** - This project includes the rehabilitation of the pavement associated with Runway 13-31 and associated stub taxiways. The stub taxiway rehabilitation will only be completed for the portions of the taxiways inside the runway hold position markings. Additionally, a new stub taxiway will be developed connecting Runway 13-31 to Taxiway E.	Pavement is in fair condition.	No

Source: Garver, 2026

The long-term airside projects focus on the rehabilitation of the existing airfield pavement and the northern and southern extensions of Runway 18-36. None of these projects have reached their implementation triggers.

Table 6-5 – Terminal/Landside Projects – Long-Term

Project Reference #	Design/Construction/ Land Acquisition/ Easement/Other	Project Name/Description	Trigger Mechanism	Has Trigger Already Been Reached?
L7	**DESIGN/ CONSTRUCTION**	**Western Development Area Roadway Development (Phase 2)** - This project includes the extension of the entrance roadway to the western development area. The roadway is expected to be at least 25 feet wide and constructed of concrete. It will be developed to support semi-truck operations.	Demonstrated demand is present (i.e., interested developers) to develop hangars in the western development area that can't be reached with existing roadway system.	No

Source: Garver, 2026

The long-term terminal/landside project supports roadway development on the western side of the airport. This project has not reached its implementation triggers.

Project Cost Estimates and Funding Sources

Rough Order of Magnitude (ROM) cost estimates for each individual project identified in Tables 6-1 through 6-5 were prepared as part of the development of the 20-year RBD CIP. These cost estimates are based on current year (2026) dollars and are intended for planning purposes only and should not be used or construed as formal construction cost estimates. Formalized opinions of probable cost will be developed as part of each project's scoping process during the design and engineering phase.

Short-Term Phase

Short-term phase cost estimates are shown in **Table 6-6**, and a funding breakdown is shown in **Figure 6-1**. A breakdown of these costs indicates a need for approximately $11.167 million in capital funding assistance from state/federal aviation grants. The matching share for these grants from the airport sponsor as well as sponsor funded projects totals $2.042 million. The grant funding in the short-term phase is focused on the extension of Taxiway E to the approach end of Runway 13.

Mid-Term Phase

Mid-term phase cost estimates are shown in **Table 6-7**, and a funding breakdown is shown in **Figure 6-2**. A breakdown of these costs indicates a need for approximately $48.654 million in capital funding assistance from state/federal aviation sources. The matching share for these grants from the airport sponsor as well as sponsor funded projects totals $5.406 million. Grant funding in this phase is focused on the rehabilitation and realignment of multiple taxiways, pavement rehabilitation, and airfield lighting rehabilitation. The western fuel farm is anticipated to be privately funded at approximately $3.216 million.

Long-Term Phase

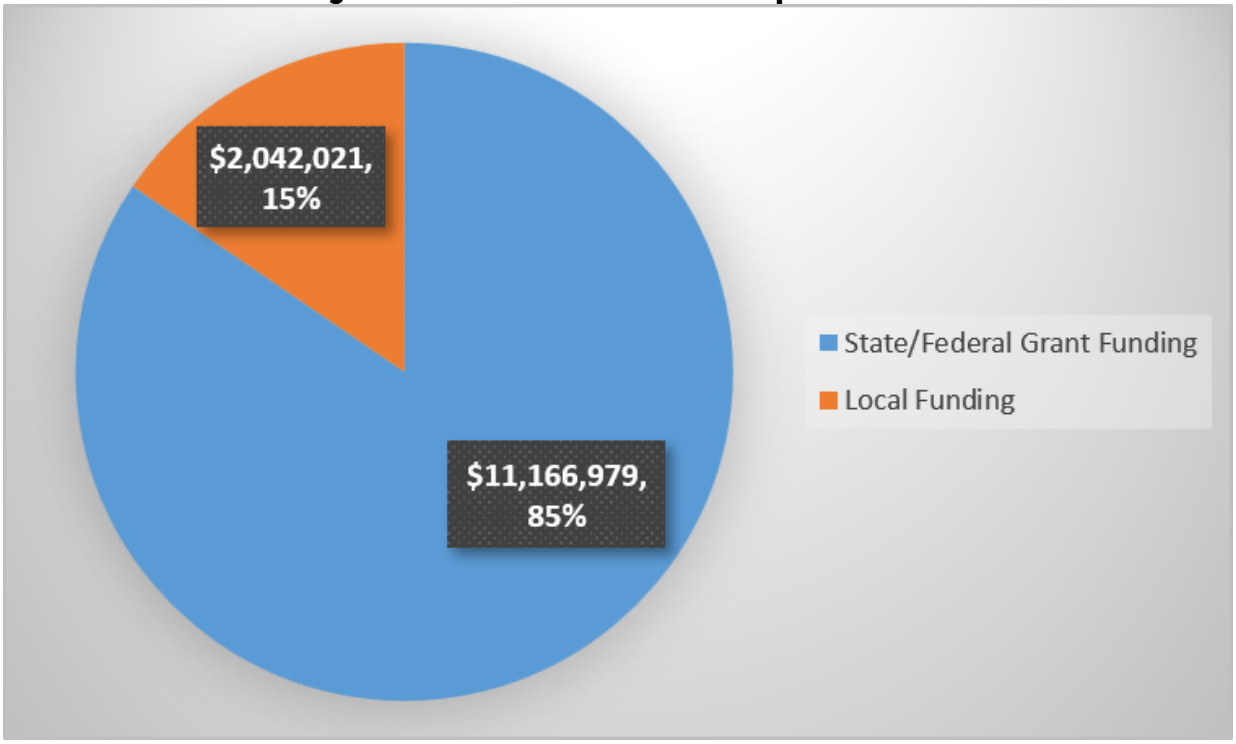
Long-term phase cost estimates are shown in **Table 6-8**, and a funding breakdown is shown in **Figure 6-3**. A breakdown of these costs indicates a need for approximately $83.452 million in capital funding assistance from state/federal aviation sources. The matching share for these grants from the airport sponsor as well as sponsor funded projects totals $9.272 million. Grant funding in this phase supports pavement rehabilitation and the north and south extensions of Runway 18-36.

Table 6-6 – Short-Term Development Costs

Project Reference #	Design/Construction/ Land Acquisition/ Easement/Other	Project Name/Description	Estimated Cost	State/Federal Grant Funding	Local Funding	Private Funding
S1	**DESIGN/ CONSTRUCTION**	**Taxiway E (Phase II)** - This project includes the extension of Taxiway E to the northwest to the location of Taxiway B3. The taxiway is planned to be constructed to TDG 3 standards with the same weight bearing capacity as the initial construction of Taxiway E. Taxiway will have a 400 ft. offset from the Runway 13-31 centerline. The new pavement is anticipated to be constructed with concrete. New medium intensity taxiway edge lights will be added for the new taxiway.	$7,953,000	$6,436,579	$1,516,421	
S2	**DESIGN**	**Taxiway E (Phase III)** - This project includes the extension of Taxiway E to the northwest to the end of Runway 13. The taxiway is planned to be constructed to TDG 3 standards with the same weight bearing capacity as the initial construction of Taxiway E. Taxiway will have a 400 ft. offset from the Runway 13-31 centerline. This project also includes the development of an apron area at the approach end of Runway 13 for aircraft engine run-ups and holding. The new pavement is anticipated to be constructed with concrete. New medium intensity taxiway edge lights will be added for the new taxiway.	$438,000	$394,200	$43,800	
S3	**CONSTRUCTION**	**Taxiway E (Phase III)** - This project includes the extension of Taxiway E to the northwest to the end of Runway 13. The taxiway is planned to be constructed to TDG 3 standards with the same weight bearing capacity as the initial construction of Taxiway E. Taxiway will have a 400 ft. offset from the Runway 13-31 centerline. This project also includes the development of an apron area at the approach end of Runway 13 for aircraft engine run-ups and holding. The new pavement is anticipated to be constructed with concrete. New medium intensity taxiway edge lights will be added for the new taxiway.	$4,818,000	$4,336,200	$481,800	

Source: Garver, 2026. Costs reflect current 2026 dollars without any inflation factor applied for the future and should be used for planning purposes only. Engineering/design and construction costs are inclusive. All hangar development is shown as being privately financed. However, the Airport may choose to utilize NPE funds if all other aeronautical needs are met.

Figure 6-1 – Short-Term Phase Development Costs



Source: Garver, 2026

Table 6-7 – Mid-Term Development Costs

Project Reference #	Design/Construction/ Land Acquisition/ Easement/Other	Project Name/Description	Estimated Cost	State/Federal Grant Funding	Local Funding	Private Funding
M1	**DESIGN/ CONSTRUCTION**	**Taxiway A4 and B Realignment and Runway 17-35 Redesignation** - This project includes the demolition of Taxiway A4 and portions of Taxiway B and the development of new taxiway infrastructure for crossing Runway 17-35. The new crossing taxiway will be located north of the existing crossing point. The taxiway is planned to be constructed to TDG 3 standards with the same weight bearing capacity as the remainder of Taxiway B. New medium intensity taxiway edge lights will be installed along the taxiway and the taxiway is expected to be constructed of concrete. This project will also include the redesignation of Runway 17-35 to Runway 18-36. This includes coordination with the FAA, repainting the runway, and updating all applicable airfield signage.	$3,696,000	$3,326,400	$369,600	
M2	**DESIGN/ CONSTRUCTION**	**Taxilane J Development** - This project includes the development of a taxilane extending from the primary apron to the Taxilane J development area. The taxilane is anticipated to be constructed to TDG 2B standards and be constructed of concrete. New medium intensity taxiway edge lights will be installed along the taxilane. The existing fenceline and gate at Saturn Drive will be reconfigured to support the development of the taxilane. This project also includes the establishment of a new roadway leading from Mariner Drive into the Taxilane J development area. The roadway is anticipated to be constructed of concrete and be 25 feet wide. The project also includes the development of a vehicle parking lot within the area.	$6,780,000	$6,102,000	$678,000	
M3	**DESIGN/ CONSTRUCTION**	**Taxiway D and A3 Realignment and Rehabilitation** - This project includes the demolition of a portion of Taxiway D and the development of a new taxiway crossing point for Runway 13-31. Additionally, the remaining portion of Taxiway D, south of Runway 13-31, will be rehabilitated. The new taxiway is planned to be constructed to TDG 3 standards with the same weight bearing capacity as the initial construction for Taxiway E. New medium intensity taxiway edge lights will be installed along the taxiway and the taxiway is expected to be constructed of concrete. This project also includes the development of small engine run-up pad a on the south end of Runway 18-36. The pad is approximately 14,000 square feet and will be constructed of concrete.	$8,196,000	$7,376,400	$819,600	

Source: Garver, 2026. Costs reflect current 2026 dollars without any inflation factor applied for the future and should be used for planning purposes only. Engineering/design and construction costs are inclusive. All hangar development is shown as being privately financed. However, the Airport may choose to utilize NPE funds if all other aeronautical needs are met.

Table 6-7 – Mid-Term Development Costs (Continued)

Project Reference #	Design/Construction/ Land Acquisition/ Easement/Other	Project Name/Description	Estimated Cost	State/Federal Grant Funding	Local Funding	Private Funding
M4	**DESIGN/ CONSTRUCTION**	**Taxiway E (Phase IV)** - This project includes the extension of Taxiway E to the southeast to the end of Runway 36. The taxiway is planned to be constructed to TDG 3 standards with the same weight bearing capacity as the initial construction of Taxiway E. The taxiway will have a 400 foot offset from the Runway 13-31 and Runway 18-36 centerlines. The project also includes the development of an apron area at the approach end of Runway 36 for aircraft engine run-ups and holding. The new pavement is anticipated to be constructed with concrete. New medium intensity taxiway edge lights will be added for the new taxiway. The project also includes three stub taxiways between the existing runways and the new parallel taxiway.	$13,620,000	$12,258,000	$1,362,000	
M5	**DESIGN/ CONSTRUCTION**	**Taxiway A, B, and C Rehabilitation** - This project includes the rehabilitation of the existing pavement on the north end of Taxiway A, Taxiway B south of Taxiway C, and Taxiway C between the runways.	$3,192,000	$2,872,800	$319,200	
M6	**DESIGN/ CONSTRUCTION**	**Main Apron Rehab (Phase 1)** - This project includes the rehabilitation of approximately 89,000 square feet of existing apron space adjacent to the current terminal building.	$1,572,000	$1,414,800	$157,200	
M7	**DESIGN/ CONSTRUCTION**	**Runway 18-36 Lighting Rehabilitation** - This project includes the replacement of the existing MIRLs for Runway 18-36.	$228,000	$205,200	$22,800	
M8	**DESIGN/ CONSTRUCTION**	**Main Apron Rehab (Phase 2)** - This project includes the rehabilitation of approximately 57,000 square feet of existing apron space adjacent to the current terminal building.	$1,044,000	$939,600	$104,400	
M9	**DESIGN/ CONSTRUCTION**	**Western Development Area Taxilane Development** - This project includes the development of a TDG 3 taxilane extending from Taxiway E to potential hangar development locations in the western development area. The taxilane is expected to have the same weight bearing capacity as Taxiway E and be constructed of concrete.	$11,328,000	$10,195,200	$1,132,800	

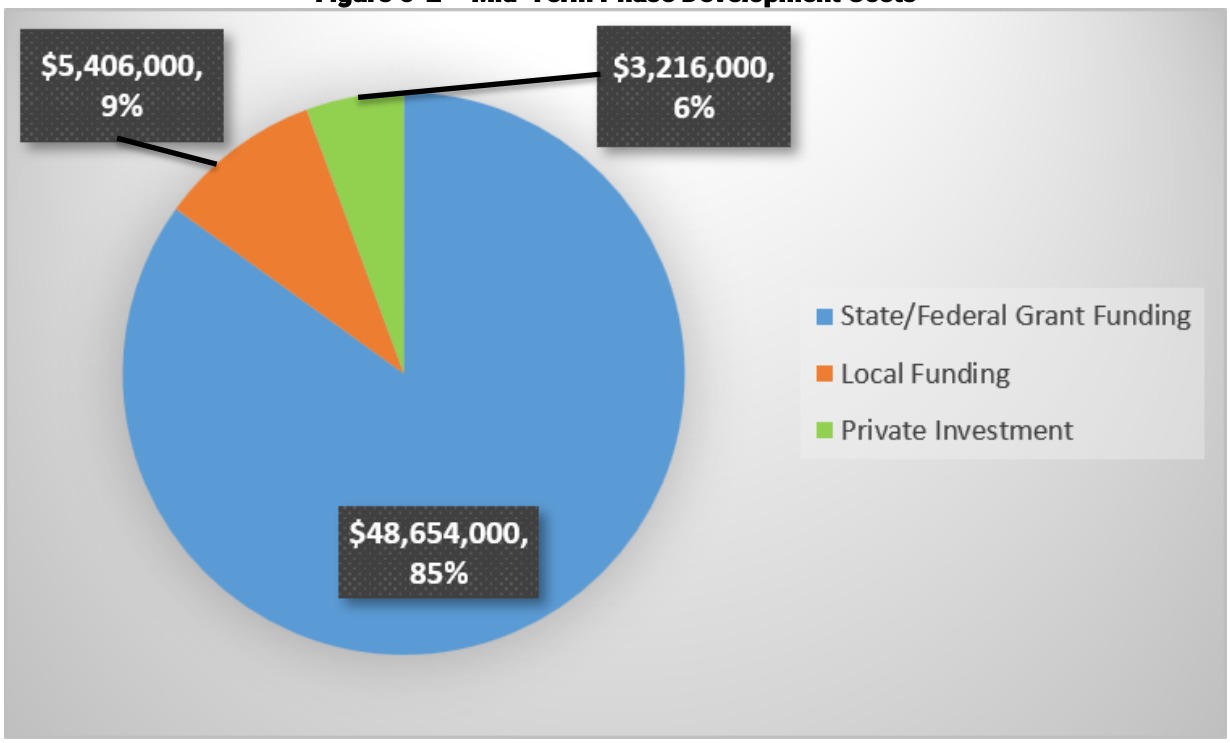
Source: Garver, 2026. Costs reflect current 2026 dollars without any inflation factor applied for the future and should be used for planning purposes only. Engineering/design and construction costs are inclusive. All hangar development is shown as being privately financed. However, the Airport may choose to utilize NPE funds if all other aeronautical needs are met.

Table 6-7 – Mid-Term Development Costs (Continued)

Project Reference #	Design/Construction/ Land Acquisition/ Easement/Other	Project Name/Description	Estimated Cost	State/Federal Grant Funding	Local Funding	Private Funding
M10	**DESIGN/ CONSTRUCTION**	**Western Development Area Roadway Development (Phase 1)** - This project includes the entrance roadway to the western development area. The roadway is expected to be at least 25 feet wide and constructed of concrete. It will be developed to support semi-truck operations.	$4,404,000	$3,963,600	$440,400	
M11	**DESIGN/ CONSTRUCTION**	**Western Fuel Farm** - This project includes the development of a Jet A fuel farm with two 20,000 gallon tanks.	$3,216,000			$3,216,000

Source: Garver, 2026. Costs reflect current 2026 dollars without any inflation factor applied for the future and should be used for planning purposes only. Engineering/design and construction costs are inclusive. All hangar development is shown as being privately financed. However, the Airport may choose to utilize NPE funds if all other aeronautical needs are met.

Figure 6-2 – Mid-Term Phase Development Costs



Source: Garver, 2026

Table 6-8 – Long-Term Development Costs

Project Reference #	Design/Construction/ Land Acquisition/ Easement/Other	Project Name/Description	Estimated Cost	State/Federal Grant Funding	Local Funding	Private Funding
L1	DESIGN/ CONSTRUCTION	**Runway 18 Extension -** This project includes a 725 foot extension of Runway 18 to the north and the extension of Taxiway A to the new runway end point. The runway will remain 150 feet wide and the new taxiway will be constructed to TDG 2B standards. The new pavement will be constructed of concrete and the weight bearing capacity will be consistent with the existing strength of Runway 18-36. Additional runway and taxiway edge lights are included.	$25,596,000	$23,036,400	$2,559,600	
L2	DESIGN/ CONSTRUCTION	**Runway 36 Extension -** This project includes a 275 foot extension of Runway 36 to the south and the extension of Taxiway D and Taxiway E to the new runway end point. The runway will remain 150 feet wide and the new taxiways will be constructed to TDG 2B standards. The new pavement will be constructed of concrete and the weight bearing capacity will be consistent with the existing strength of Runway 18-36. Additional runway and taxiway edge lights are included.	$8,088,000	$7,279,200	$808,800	
L3	DESIGN/ CONSTRUCTION	**Taxiway B Relocation** - This project includes the relocation of Taxiway B to be 400 feet from the Runway 13-31 centerline. It also includes the relocation of the engine run-up pad and the establishment of a new stub taxiway between Taxiway B and Runway 13-31. The taxiway weight bearing capacity is expected to be the same as the existing weight bearing capacity of Runway 13-31. The taxiway will be designed to TDG 2B standards. This project includes the replacement of the existing taxiway edge lights.	$25,932,000	$23,338,800	$2,593,200	
L4	DESIGN/ CONSTRUCTION	**Taxiway A Rehabilitation** - This project includes the rehabilitation of the existing taxiway pavement associated with Taxiway A and the stub taxiways between Taxiway A and the runways. The stub taxiway rehabilitation will only be completed up to the runway hold position markings. This also includes the rehabilitation of the engine run-up area at the approach end of Runway 31.	$5,832,000	$5,248,800	$583,200	
L5	DESIGN/ CONSTRUCTION	**Runway 18-36 Rehabilitation** - This project includes the rehabilitation of the pavement associated with Runway 18-36 and associated stub taxiways. The stub taxiway rehabilitation will only be completed for the portions of the taxiways inside the runway hold position markings.	$8,652,000	$7,786,800	$865,200	

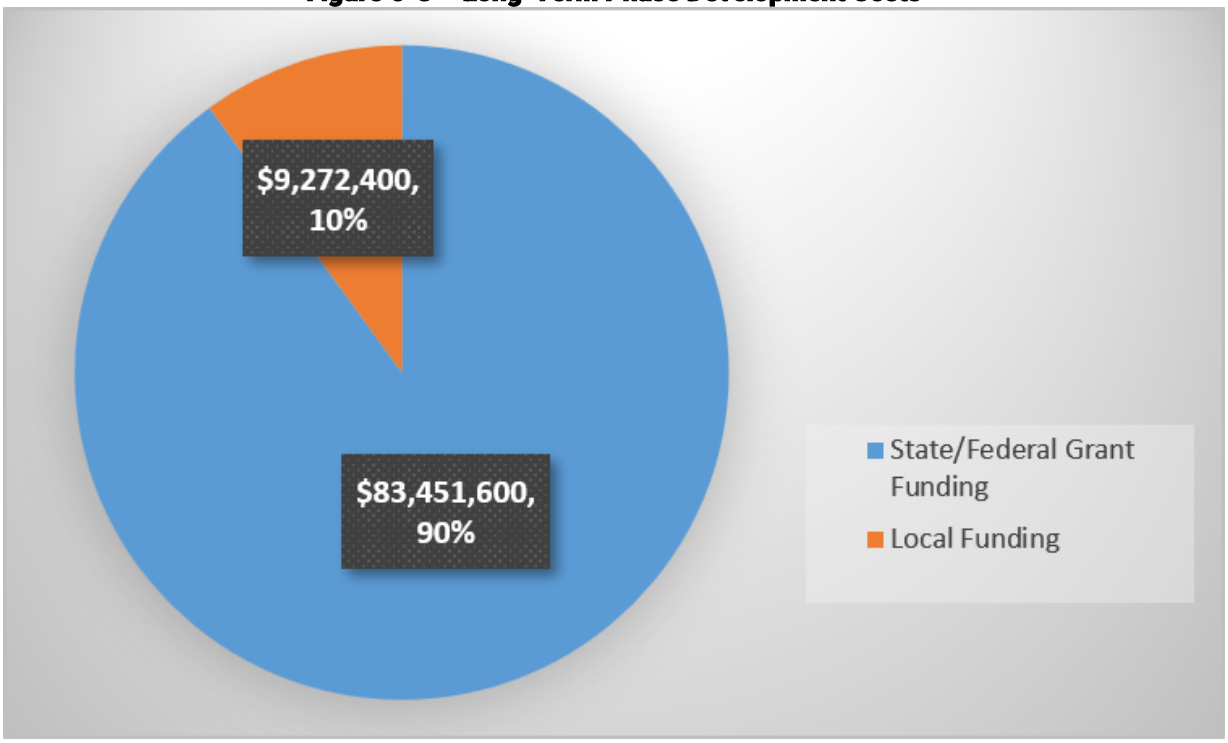
Source: Garver, 2026. Costs reflect current 2026 dollars without any inflation factor applied for the future and should be used for planning purposes only. Engineering/design and construction costs are inclusive. All hangar development is shown as being privately financed. However, the Airport may choose to utilize NPE funds if all other aeronautical needs are met.

Table 6-8 – Long-Term Development Costs (Continued)

Project Reference #	Design/Construction/ Land Acquisition/ Easement/Other	Project Name/Description	Estimated Cost	State/Federal Grant Funding	Local Funding	Private Funding
L6	**DESIGN/ CONSTRUCTION**	**Runway 13-31 Rehabilitation** - This project includes the rehabilitation of the pavement associated with Runway 13-31 and associated stub taxiways. The stub taxiway rehabilitation will only be completed for the portions of the taxiways inside the runway hold position markings. Additionally, a new stub taxiway will be developed connecting Runway 13-31 to Taxiway E.	$16,296,000	$14,666,400	$1,629,600	
L7	**DESIGN/ CONSTRUCTION**	**Western Development Area Roadway Development (Phase 2)** - This project includes the extension of the entrance roadway to the western development area. The roadway is expected to be at least 25 feet wide and constructed of concrete. It will be developed to support semi-truck operations.	$2,328,000	$2,095,200	$232,800	

Source: Garver, 2026. Costs reflect current 2026 dollars without any inflation factor applied for the future and should be used for planning purposes only. Engineering/design and construction costs are inclusive. All hangar development is shown as being privately financed. However, the Airport may choose to utilize NPE funds if all other aeronautical needs are met.

Figure 6-3 – Long-Term Phase Development Costs



Source: Garver, 2026

Alternative Funding Plans

The preferred funding plan set forth in Table 6-6 through Table 6-8 describes a best-case scenario where the City of Dallas receives extensive grant funds to perform the capital projects included in the CIP. While it is recommended that the City of Dallas pursue grant funding to the greatest extent practical, it is likely that some grant eligible projects may receive reduced or no grant funding due to limited funding availability and/or the project receiving a lower priority rating under the FAA's AIP project prioritization formula. If this occurs, the City of Dallas may need to invest additional local funds to execute specific projects or delay projects until the necessary grant funding becomes available. In an effort to plan for this future, two alternative funding plans have been developed.

Alternative Funding Plan #1 – Reduced Grant Funding

This funding plan assumes that a reduced amount of grant funds are received for projects that would receive a lower priority rating under the FAA's AIP project prioritization formula. The projects that are most likely to be impacted are described below:

- Project M2 – Taxilane J Development
- Project M9 – Western Development Area Taxilane Development
- Project M10 – Western Development Area Roadway Development (Phase 1)
- Project L7 – Western Development Area Roadway Development (Phase 2)

These projects are capacity driven as they enable additional development and are consequently expected to be more difficult to obtain grant funding for. Therefore, in this alternative funding scenario it was assumed that these projects would only receive 50% grant funding.

Alternative Funding Plan #2 – Limited Grant Funding

This funding plan assumes that a limited amount of grant funds are received for projects that would receive a lower priority rating under the FAA's AIP project prioritization formula. The projects that are most likely to be impacted are described below:

- Project M2 – Taxilane J Development
- Project M9 – Western Development Area Taxilane Development
- Project M10 – Western Development Area Roadway Development (Phase 1)
- Project L7 – Western Development Area Roadway Development (Phase 2)

These projects are capacity driven as they enable additional development and are consequently expected to be more difficult to obtain grant funding for. Therefore, in this alternative funding scenario it was assumed that projects M10 and L7 would receive no grant funding and projects M2 and M9 would receive only 25% grant funding.

Alternative Funding Plan Analysis

Table 6-9 compares the preferred funding plan (i.e., optimal grant funding) and Alternative Funding Plans #1 and #2. Assuming grant availability will be limited, it is recommended that the City reserve additional local funds to support the funding of capital projects at RBD.

Table 6-9 – Alternative Funding Plan Analysis

Funding Type	Preferred Plan	Alternative Plan #1	Additional Local Funding	Preferred Plan	Alternative Plan #2	Additional Local Funding
Grant Funding	$130,521,600	$122,284,800	$8,236,800	$130,521,600	$105,878,400	$24,643,200
Local Funding	$23,212,400	$31,449,200		$23,212,400	$47,855,600	

Source: Garver, 2026

Private Development

While many of the common-use airside and terminal/landside facilities at an airport are eligible for federal/state funding, revenue producing facilities (e.g., hangars) and areas that serve those facilities exclusively (e.g., apron immediately in front of a hangar, parking lots, etc.) are typically not eligible to be funded with federal/state grants. Consequently, it is anticipated that all the future hangar developments at RBD will be privately funded. This development typically occurs via a land-lease where the airport leases portions of airport property to a developer for an extended time (typically 40 years or less). In turn, the tenant/developer builds and maintains a hangar facility for the duration of the lease. When the lease expires, the ownership of the developed facility reverts to the airport sponsor. This general leasing approach has been used for recent hangar developments at RBD.

In some cases, airports have been successful in obtaining funding from local economic development agencies to finance hangar development at an airport. However, this funding is typically not grant based and is commonly part of a larger economic incentive package with a prospective business to encourage new development.

Since hangar development is expected to be privately financed, the typical timeframes associated with CIP planning (e.g. short, mid, and long-term) are not as relevant. However, enabling infrastructure work such as airside facilities (e.g., taxiways/taxilanes) and terminal/landside facilities (e.g., roadways and utilities) may be necessary to enable these developments to come to fruition.

These enabling projects are shown in the CIP and are notated below:

- Mid-Term Private Development Enabling Projects (6-10 Years)
  - Project M2 – Taxilane J Development
  - Project M9 – Western Development Area Taxilane Development
  - Project M10 – Western Development Area Roadway Development (Phase 1)
- Long-Term Private Development Enabling Projects (11+ Years)
  - Project L7 – Western Development Area Roadway Development (Phase 2)

Consequently, the timing of the identified enabling projects is anticipated to influence when private investment for specific hangar development areas may become feasible.

Table 6-10 segments the preferred hangar development plan shown in the Alternatives Chapter into groups of development areas for capital planning purposes. The cost estimates included in the table are conceptual. The actual cost associated with developing each area could vary significantly based on the types of hangars, apron thickness, and utility needs.

It is also anticipated that the new fuel farm in the western development area will need to be privately funded, funded by a state grant, or funded by the City of Dallas. Under current FAA AIP eligibility guidance, only an airport's initial fuel farm is eligible for federal funding.

The AAM developments shown in Table 6-10 may eventually be eligible for state and federal funds. However, until the FAA and TxDOT Aviation establish specific eligibility guidelines for AAM facilities, it is anticipated that these facilities will be privately financed and developed through land leases as previously described.

Table 6-10 – Private Development Areas

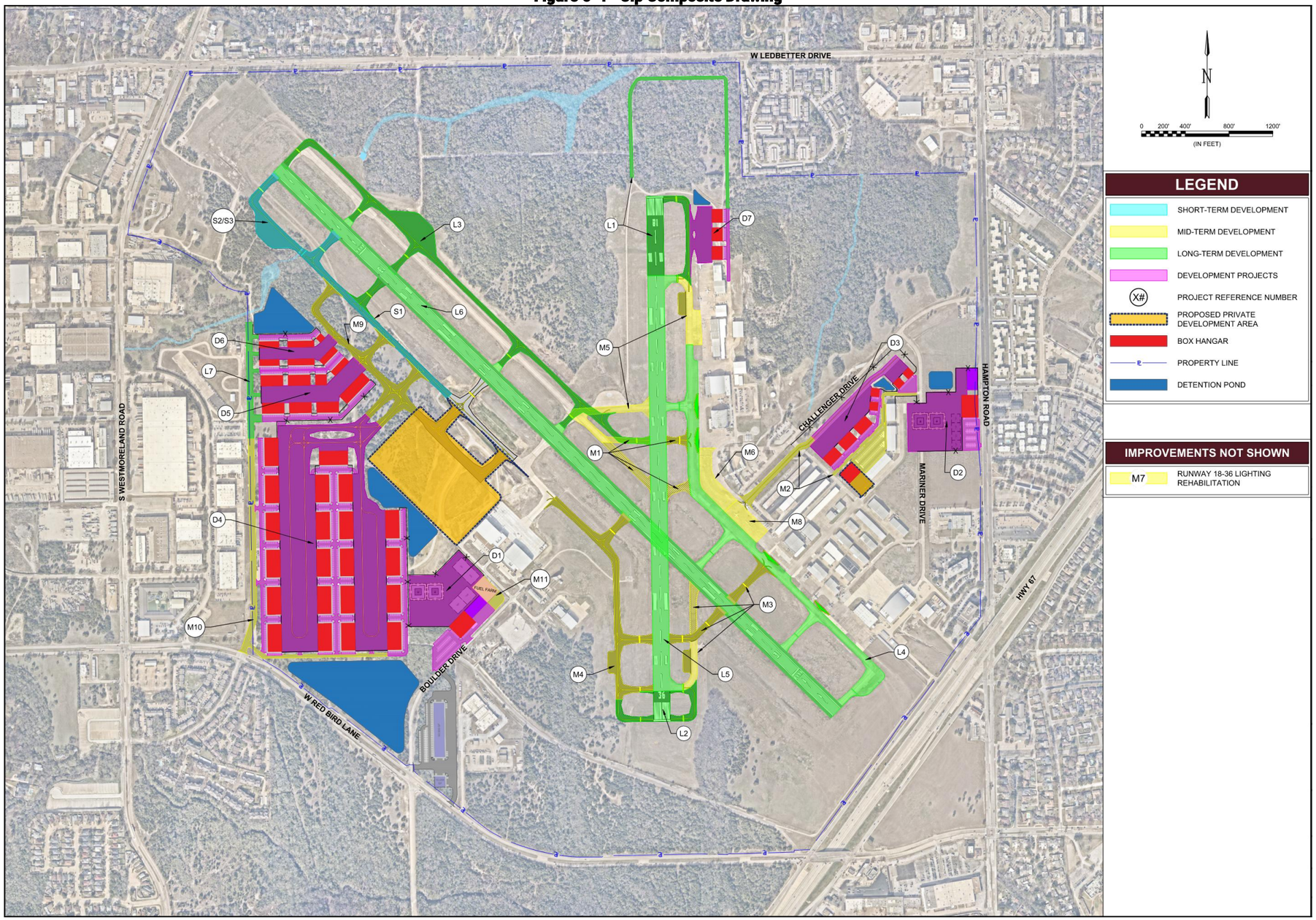
Project Reference #	Design/Construction/ Land Acquisition/ Easement/Other	Project Name/Description	Estimated Cost	State/Federal Grant Funding	Local Funding	Private Funding
D1	**DESIGN/ CONSTRUCTION**	**Western Vertiport Facility** - This project includes the development of a vertiport terminal, two vertipads, four AAM parking spots, and a vehicle parking lot.	$39,204,000			$39,204,000
D2	**DESIGN/ CONSTRUCTION**	**Eastern Vertiport Facility** - This project includes the development of a vertiport terminal, two vertipads, four AAM parking spots, and a vehicle parking lot.	$38,292,000			$38,292,000
D3	**DESIGN/ CONSTRUCTION**	**Taxilane J Hangar Development** - This project includes the development of the aircraft apron, hangars (3 - 100 feet x 150 feet and 4 - 75 feet x 75 feet), and vehicle parking.	$32,688,000			$32,688,000
D4	**DESIGN/ CONSTRUCTION**	**Westside Hangar Development (Phase 1)** - This project includes the development of the aircraft apron, hangars (21 - 130 feet x 260 feet), and vehicle parking.	$263,664,000			$263,664,000
D5	**DESIGN/ CONSTRUCTION**	**Westside Hangar Development (Phase 2)** - This project includes the development of the aircraft apron, hangars (14 - 100 feet x 100 feet and 3 - 60 feet x 60 feet), and vehicle parking.	$52,416,000			$52,416,000
D6	**DESIGN/ CONSTRUCTION**	**Westside Hangar Development (Phase 3)** - This project includes the development of the aircraft apron, hangars (18 - 60 feet x 60 feet), and vehicle parking.	$25,344,000			$25,344,000
D7	**DESIGN/ CONSTRUCTION**	**Northside Hangar Development** - This project includes the development of the aircraft apron, hangars (3 - 100 feet x 120 feet), and vehicle parking.	$15,156,000			$15,156,000

Source: Garver, 2026. Costs reflect current 2026 dollars without any inflation factor applied for the future and should be used for planning purposes only. Engineering/design and construction costs are inclusive. All hangar development is shown as being privately financed. However, the Airport may choose to utilize NPE funds if all other aeronautical needs are met.

Composite CIP Graphic

To supplement the information provided by the phased project list and development cost estimates, a composite CIP graphic has been created that depicts the limits of the projects shown in the CIP (**Figure 6-4**).

Figure 6-4– Cip Composite Drawing



Source: Garver, 2026

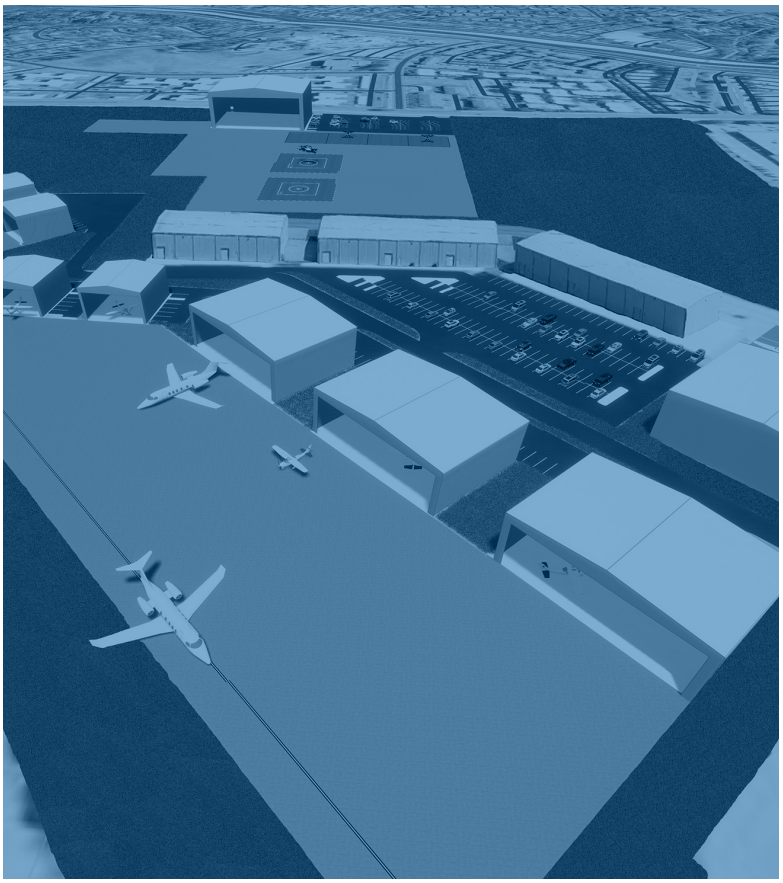
CIP 2027-2031

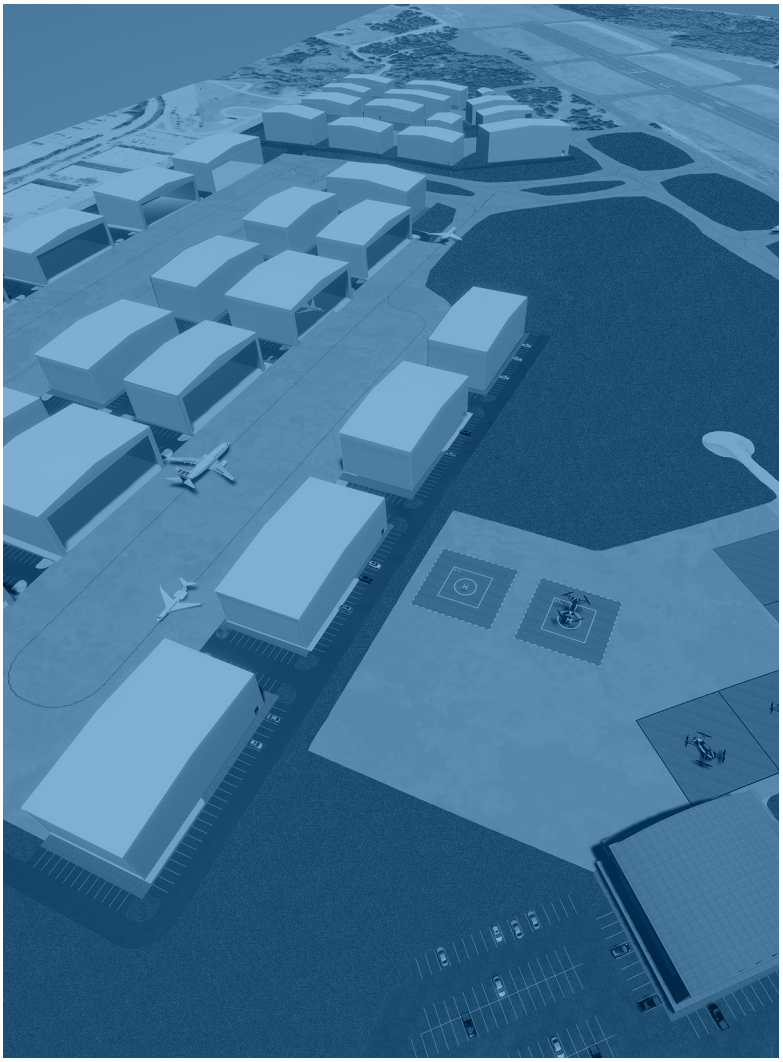
Table 6-11 provides a year-by-year CIP for RBD for key projects from 2027–2031. The trigger point for all of these projects has already been achieved. No projects are planned for FY27-29 due to the significant amount of funding RBD received for Taxiway E – Phase II in FY 25 and FY 26. If additional projects are needed during the short-term phase of the CIP, the airport may need to seek funding through the State of Texas or other grant funding sources (e.g., FEMA, DHS, etc.). The costs associated with the Taxiway E – Phase II project are not shown as that project was initiated in FY26.

Table 6-11 – Five-Year CIP

CIP Year	Project Type	Project Reference #	Project Name/Description	Total Cost	Federal/ State Grants	Local Funding	Trigger	Funding Mechanism
FY 27			No Projects					
FY 28			No Projects					
FY 29			No Projects					
FY 30	DESIGN	S2	**Taxiway E (Phase III)** - This project includes the extension of Taxiway E to the northwest to the end of Runway 13. The taxiway is planned to be constructed to TDG 3 standards with the same weight bearing capacity as the initial construction of Taxiway E. The taxiway will have a 400 ft. offset from the Runway 13-31 centerline. Project also includes the development of an apron area at the approach end of Runway 13 for aircraft engine run-ups and holding. The new pavement is anticipated to be constructed with concrete. New medium intensity taxiway edge lights will be added for the new taxiway.	$438,000	$394,200	$43,800	Additional westside development requires a parallel taxiway to Runway 13 approach end to reduce the need for runway crossings.	NPE (FY28/29/30) - $394,200 Local - $43,800
FY 31	CONSTRUCTION	S3	**Taxiway E (Phase III)** - This project includes the extension of Taxiway E to the northwest to the end of Runway 13. The taxiway is planned to be constructed to TDG 3 standards with the same weight bearing capacity as the initial construction of Taxiway E. The taxiway will have a 400 foot offset from the Runway 13-31 centerline. Project also includes the development of an apron area at the approach end of Runway 13 for aircraft engine run-ups and holding. The new pavement is anticipated to be constructed with concrete. New medium intensity taxiway edge lights will be added for the new taxiway.	$4,818,000	$4,336,200	$481,800	Additional westside development requires a parallel taxiway to Runway 13 approach end to reduce the need for runway crossings.	NPE (FY31) - $150,000 FAA Dis./State Apportionment - $4,186,200 Local - $481,800
			Totals:	**$5,256,000**	**$4,730,400**	**$525,600**		

Source: Garver, 2026





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D Drainage Report

E Airport Layout Plan

Appendix A
RBD Forecast Approval Letter

Texas Department of Transportation

6230 East Stassney Lane, Austin, Texas 78744| 512.694.1767 | WWW.TXDOT.GOV

December 30, 2025

Garver
Mr. Nathan Polsgrove, A.A.E., IAP, ACE
13750 San Pedro Ave. #350
San Antonio, TX 78232

Airport Operations/Based Aircraft Forecast Approval

Mr. Polsgrove,

TxDOT Aviation has completed review of forecast information for Dallas Executive Airport. We have found the forecast to be supported by reasonable planning assumptions and current data and developed using acceptable forecasting methodologies. Accordingly, this forecast is approved for the use in the Airport Layout Plan with Narrative for Dallas Executive Airport.

The acceptance or approval of the forecast does not automatically constitute a commitment on the part of TxDOT/FAA to participate in any development recommended in the ALP with Narrative or shown on the ALP. TxDOT Aviation approval of the baseline scenario in this forecast does not constitute justification for future projects. Justification for future projects will be made based on activity levels at the time the project is requested for development, in accordance with criteria in FAA Orders 5090.5 and 5100.38. Documentation of actual activity levels meeting planning activity levels will be necessary to justify AIP funding for eligible projects. Further, the approved forecast may be subject to additional analyses if the fundamental rationale of the forecast or the critical aircraft changes materially.

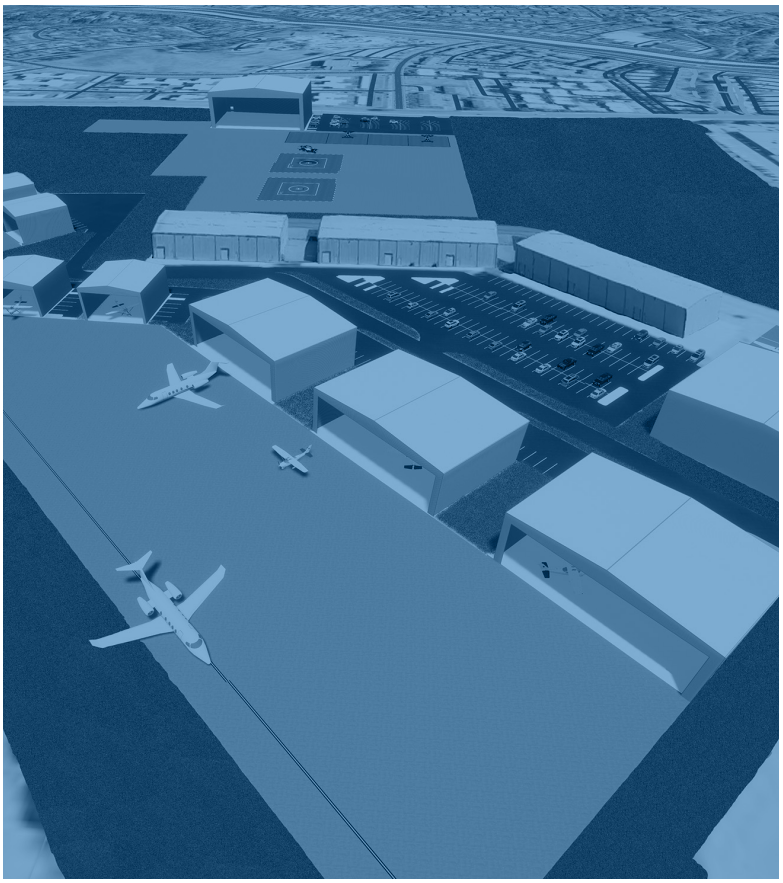
If you have any questions concerning this matter, please contact me at (512) 496-8557 or christian.cox@txdot.gov

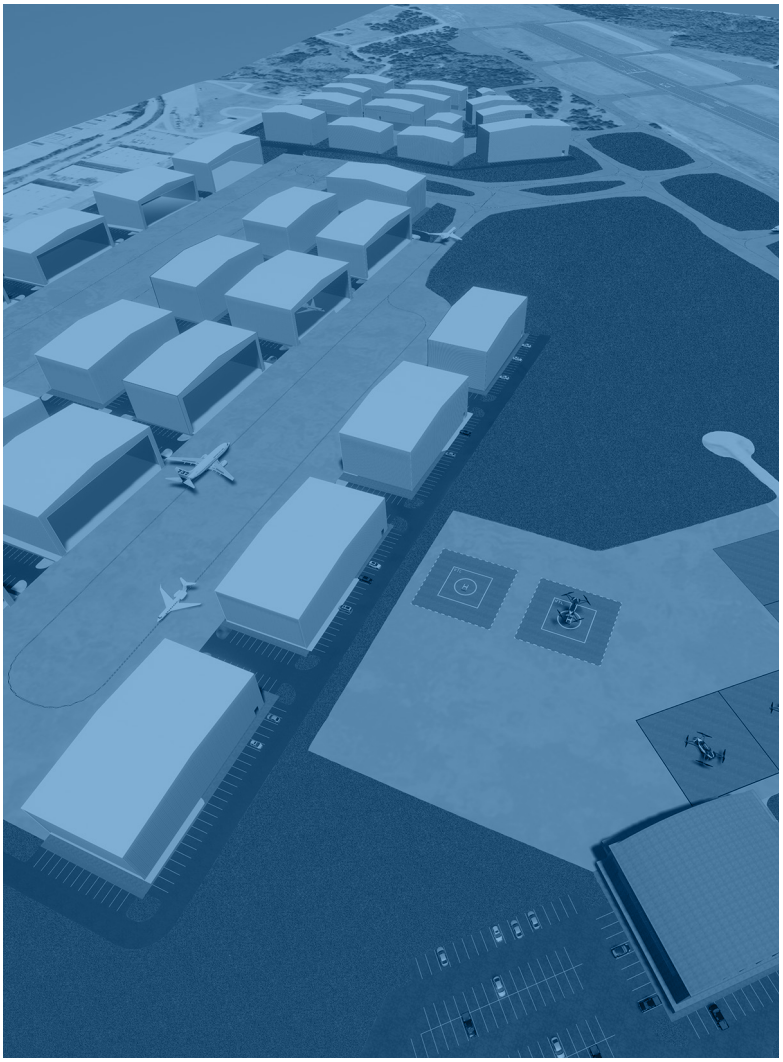
Sincerely,

CCOX3

Christian Cox
TxDOT Business Ops Project Manager

eCC: Rafael Garza, Airport Manager





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Appendix B
RBD Public Open House Sign-In Sheets

DALLAS EXECUTIVE

Dallas Executive Airport
Airport Layout Plan Project - Open House
August 25, 2026

DALLAS EXECUTIVE

Name (Print)	Signature
Cynthia Franks-Paulsen	
Trent Lake	
Ryan Short / Red Wing Aerials	
Dennis Sorber / NOVA Avionics	
Chance Inman / Nova Avionics	
Kenny Graham	JA
JERRA WILLIAMS	
Bala Ponnusamy	
Dana Donati	
Logan Jones	
Bryan Wrin	
Javier Centeno	
RAFAEL GARCIA	
Billie Reed	
W.D. Anderson	
BRIAN MYLER	

DALLAS EXECUTIVE

Dallas Executive Airport
Airport Layout Plan Project - Open House
August 25, 2026

DALLAS EXECUTIVE

Name (Print)	Signature
Dakota Parker	
Gloria Mendez	
James Duke	
Alan Hendrix	
Dustin Pope	
Tilla Hurd	
Trevor Bradbury	
Patrick Williams	
Bonnie Roberts	
Shandra Colón	
Jacob Mitchell	
Patty Satarino	
Ronald W. Stinson	
Ruben Lawda	
David Cooper	
DeNita Lackins-Quinn	

DALLAS EXECUTIVE

Dallas Executive Airport
Airport Layout Plan Project - Open House
August 25, 2026

DALLAS EXECUTIVE

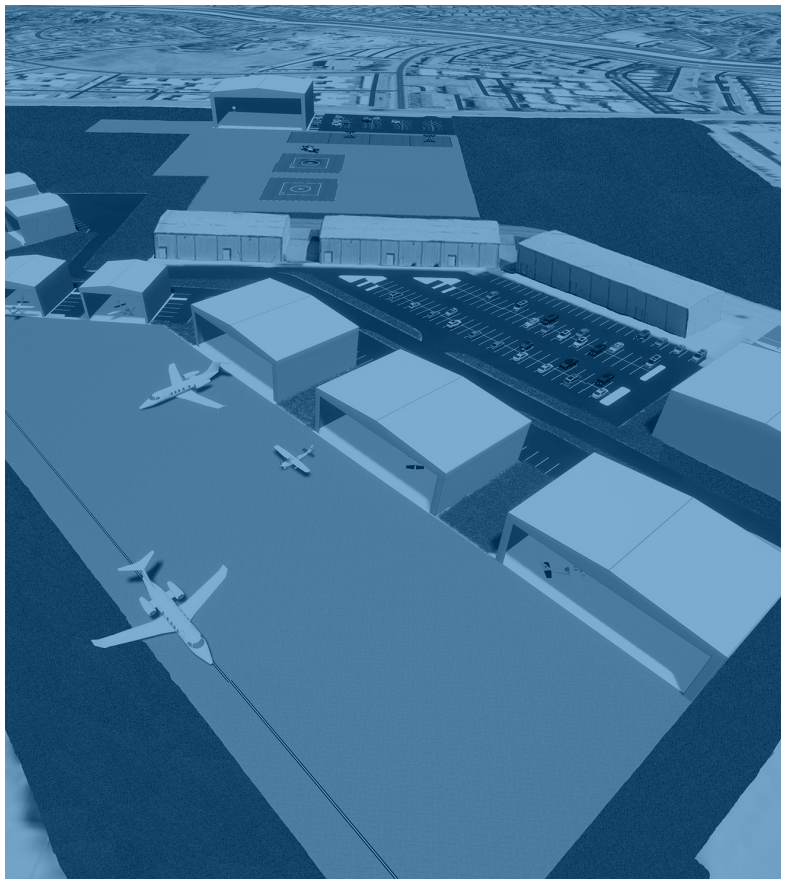
Name (Print)	Signature
Ron Hill Post L Group FTW/Richardson	
Mae Givens	Mae Givens
Aundrel Givens	
Macario Hernandez	
Sherri Thompson	
Michele Thompson	Michele Thompson
Sandra Burke	
Michael F. Knowles	
MAXINE JONES	
Jesse Jones	
Antonio Strong	
Sara Andrews	
Richard Ellis	
Lyndon Williams	
LaBreona Hollis	
Zach Plaas	

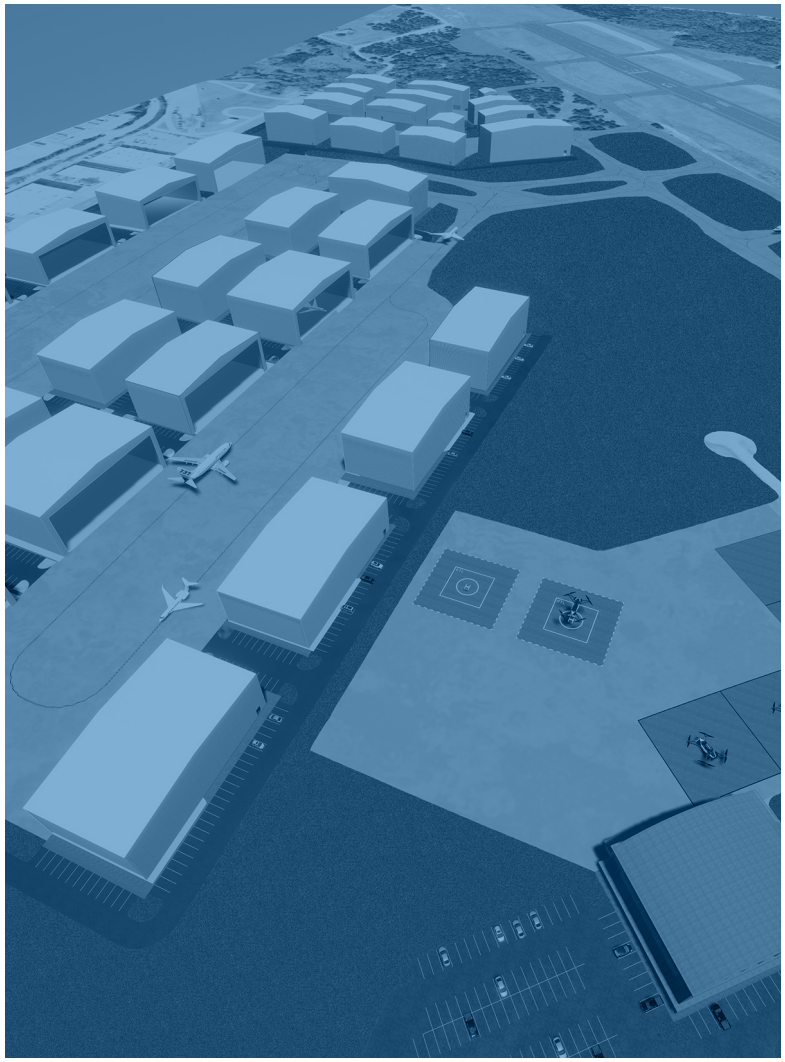
DALLAS EXECUTIVE

Dallas Executive Airport
Airport Layout Plan Project - Open House
August 25, 2026

DALLAS EXECUTIVE

Name (Print)	Signature
Nathaniel Polsgrove	





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APPENDIX C: SUSTAINABILITY/WASTE REDUCTION PLAN

INTRODUCTION AND OVERVIEW

Sustainability is an emerging trend in the aviation industry, just as it is in many other industries. Airports across the country are increasingly considering and implementing new practices and infrastructure to reduce their impact on the environment while also increasing operational and financial resiliency. This appendix discusses ways in which Dallas Executive Airport (RBD or Airport) could implement and benefit from sustainability and resiliency practices.

FACILITY DESCRIPTION

As discussed in this Airport Layout Plan (ALP) Narrative Report, the Airport is expected to experience growth over the planning horizon. Additionally, a runway extension to the north and south ends of Runway 17-35 and significant taxiway improvements are included as part of the ultimate condition of this ALP.

PROPOSED PROJECTS

In addition to the runway extensions and taxiway improvement projects noted above, projects proposed as part of the preferred development plan focus on additional terminal area development to satisfy both existing and anticipated demand for aircraft storage and aeronautical businesses. These projects include improvements to the existing terminal area facilities on the east side of the airport, vertiport development, and expansion on the west side of the airport. These projects will require utility and roadway connections and include both new vertical structures and new paved areas.

Sustainability Considerations

In addition to accounting for the environmental considerations discussed in the alternatives chapter, these are other strategies the airport may choose to employ when developing the projects associated with the preferred development plan. In many cases, these strategies can be employed both during construction and in design. Some general areas of sustainability that can be considered include:

- Use of recycled and/or sustainable materials
- Reduced energy usage and/or alternative energy production
- Efficient use of water
- Stormwater runoff management
- Carbon emissions reductions
- Ability to support alternative energy aircraft and vehicles

MINIMIZING SOLID WASTE GENERATION

In addition to the environmental factors already discussed, FAA guidance encourages airports to assess the generation of solid waste at their facilities and ways in which it can be reduced. Currently, RBD supports two fixed base operators, multiple aeronautical businesses, the Commemorative Air Force, and numerous private aircraft owners and operators. As airports continue to grow, solid waste production is also likely to increase. In addition to ensuring compliance with all federal, state, and local laws regarding these materials, opportunities may exist to reduce the airport's impacts to waste streams. Based on FAA guidance in the memorandum *Guidance on Airport Recycling, Reuse and Waste Reduction Plans*, dated September 30, 2014, recycling and solid waste management plans need to incorporate the following components:

- A waste audit;
- The feasibility of solid waste recycling at the airport;
- Minimizing the generation of solid waste at the airport;
- Operation and maintenance requirements;
- Review of waste management contracts; and
- Potential of cost savings and/or the generation of revenue.

At RBD, solid waste can generally be defined under the following categories, as discussed in the same FAA memo referenced above:

- Municipal Solid Waste (MSW) consists of everyday items that are used and discarded. Recyclable MSW at airports includes, but is not limited to, aluminum and

steel, glass bottles and containers, plastic bottles and containers, packaging, bags, paper products, and cardboard.
- Construction and Demolition (C&D) Debris is generally categorized as MSW. Construction and demolition debris is any non-hazardous solid waste that results from land clearing, excavation, or construction, demolition, renovation, or repair of structures, roads, and utilities.
- Compostables are also categorized as MSW. They are sometimes referred to as green waste and food waste. Green waste consists of trees, shrubs, grass clippings, leaves, weeds, small branches, seeds, pods, and similar debris generated by landscape maintenance activities. Food waste is food that is not consumed or generated during food preparation activities and discarded.

Solid waste at RBD can further be defined by the different waste streams. These generally include:

- Airport tenants
- Fixed-Base Operators (FBOs)
- Airport maintenance and construction

When seeking to minimize solid waste generation at RBD, the process and components discussed in this section should be considered. In general, the airport should seek opportunities to:

- Reduce generation of solid waste through sustainable practices such as pavement reuse or recycling during paving construction projects.
- Increase recycling of materials that can be accepted by local waste management companies and consider opportunities to compost solid waste materials that are classified as compostable. It is important to note that any composting efforts on airport property must adequately consider the potential for wildlife attraction, which could create hazards to aircraft operations.

AIRPORT RESILIENCY CONSIDERATIONS

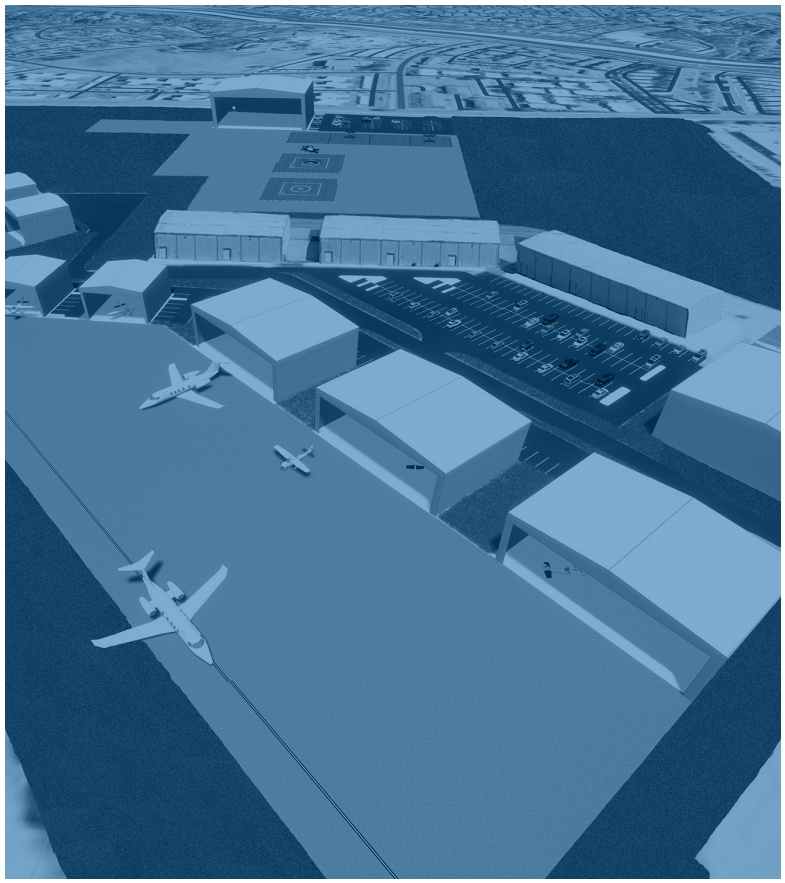
It is important for airports to consider what steps can be taken to support resiliency and reduce or eliminate impacts to airport operations and infrastructure. Specific considerations should include:

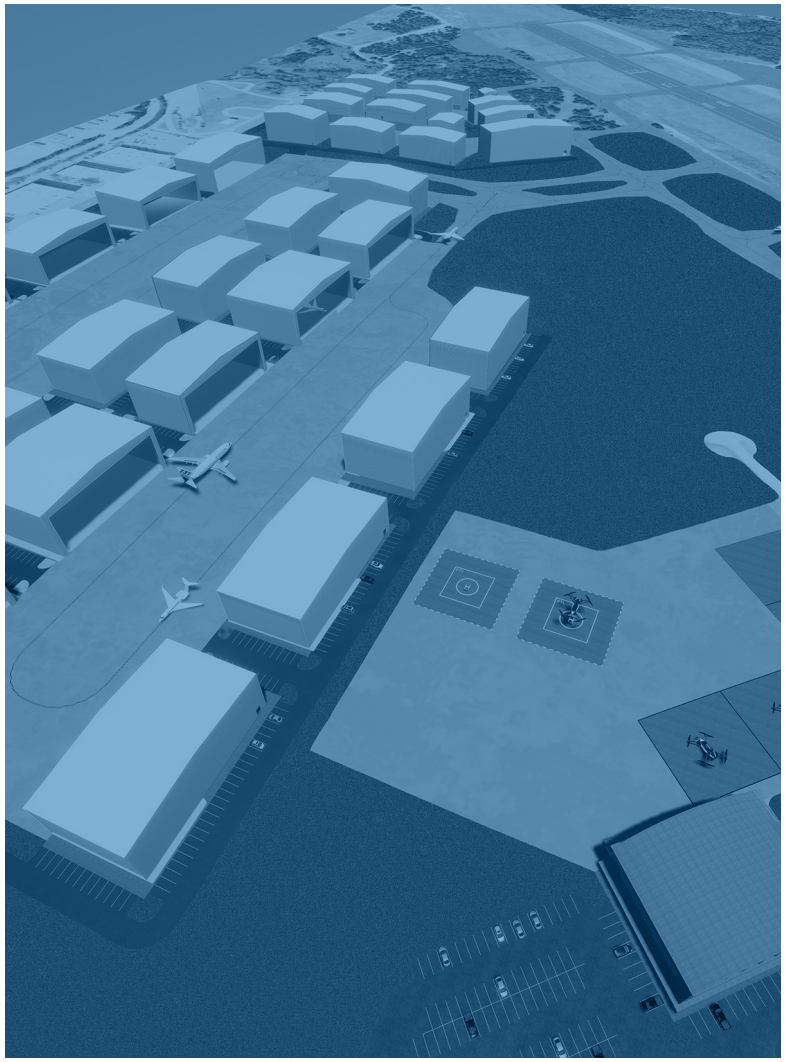
- The ability of infrastructure to withstand severe heat, cold, wind, and precipitation.
- Maintaining electrical power to key infrastructure during periods of severe weather or grid unreliability.

- Planning and designing for flood risk; while RBD mostly sits in an area of minimal flood hazard, the northern section of the Airport has a significant drainage channel that runs beneath the threshold of Runway 13. This should be a consideration for any future development in this area of the Airport.

As a key component of transportation infrastructure for the City of Dallas and the surrounding area, it is important that the Airport remains operable during and following severe weather events. Airports frequently serve as key logistics hubs for the movement of personnel and supplies to and from disaster areas. In general, to increase resiliency, the airport should seek opportunities to:

- Ensure sufficient weatherization of key airport infrastructure and equipment.
- Sufficiently train tenants and staff in the emergency plan and emergency procedures.
- Maintain strong, collaborative partnerships with area first responders, aid organizations (such as Red Cross), and area local and state government officials.





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3 Forecast of Aviation Activity

4 Facility Requirements

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6 Capital Improvement Program and Financial Plan

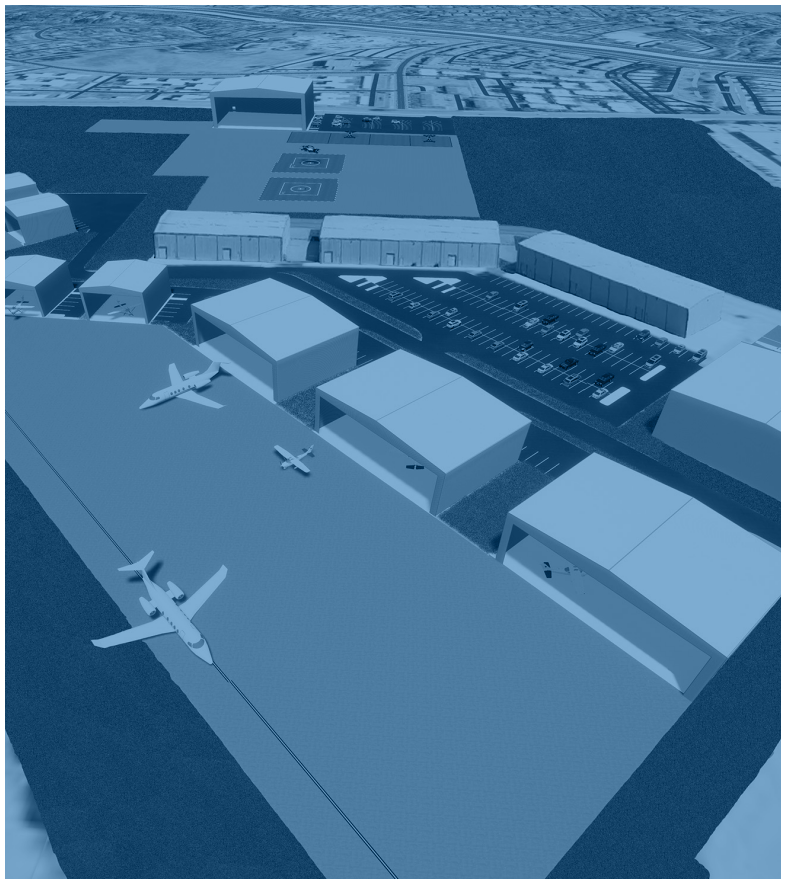
A Forecast Approval Letter

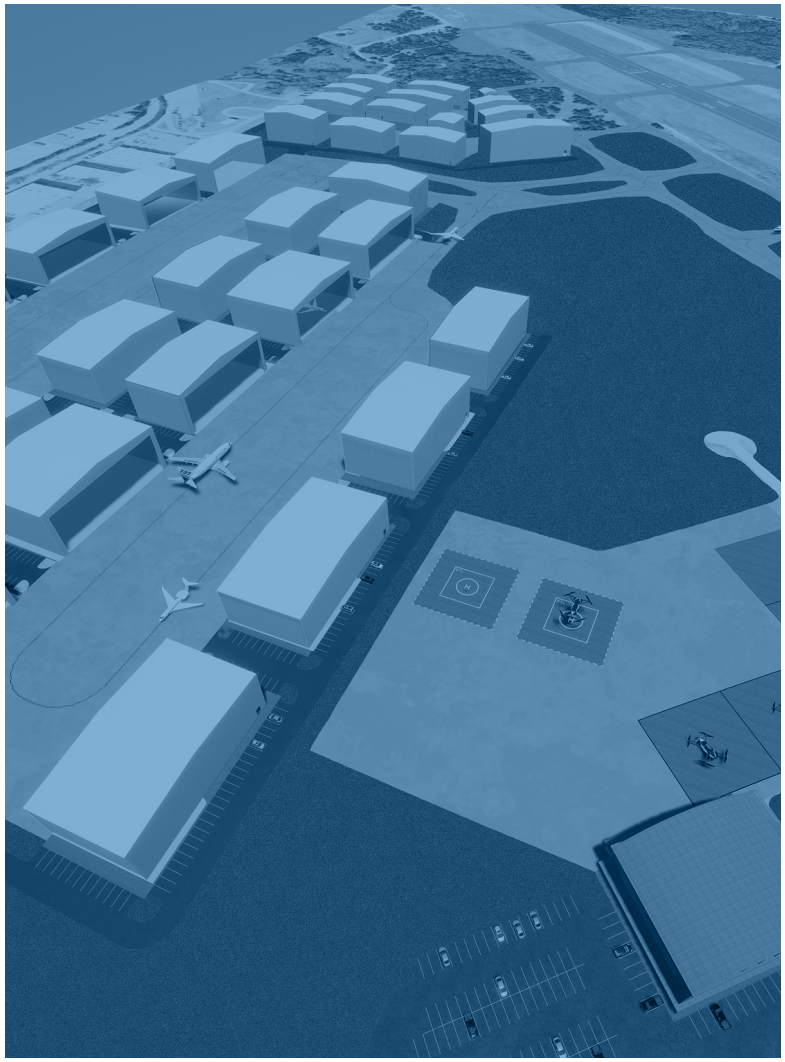
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