

**To the Mayor and Members of the City Council****January 24, 2023**

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**SUBJECT: FORT WORTH MEACHAM AIRPORT MASTER PLAN UPDATE**

The purpose of this report is to provide Mayor and City Council with an update regarding the master planning efforts for Meacham International Airport.

**Airport Master Plan Goal and Objectives**

The primary goal of an airport master plan is to provide the framework needed to guide future airport development that will cost-effectively satisfy aviation demand, while considering potential environmental and socioeconomic impacts. Ultimately, the plan will aid in supporting decisions for directing limited and valuable City resources for future airport development.

It is intended to provide a true vision for how the airport is developed, guidance for future development, and justification for projects for which the airport may receive funding through an updated capital improvement program (CIP) to demonstrate the future investment required by the City of Fort Worth, as well as Texas Department of Transportation – Aviation Division and the Federal Aviation Administration (FAA).

**Master Plan Process**

The FAA recommends that airports update their long-term planning documents every 7 to 10 years, or as necessary, to address local changes at the airport. The last master plan update for Meacham was completed in 2004. In 2020, the City of Fort Worth received a grant from the Texas Department of Transportation - Aviation Division in the amount of \$298,100 to update the Meacham Airport Master Plan. Through a competitive process, Coffman and Associates was selected as the consultant for this effort (M&C 20-0034), who best demonstrated they had the necessary resources to collect, analyze, develop, and produce the required documentation.

A Planning Advisory Committee (PAC) was established to act in an advisory capacity to ensure key stakeholder involvement in the process. Members of the PAC included airport tenants, businesses, users, representatives from TxDOT Aviation, FAA, NTCOG, and the City's Transportation and Public Works, Planning and Data Analytics, and Economic Development departments. The input provided by the PAC did not supplant the important role of the City's Aviation Advisory Board who provided their input, recommendations, and endorsement. PAC members met four times at designated points during the study to review materials and provide comments to help ensure that a realistic and viable plan was developed.

**Public Outreach**

A considerable amount of public input, as well as key airport stakeholder input, was sought throughout the process. Four public meetings were held to gain input and feedback. Three of the meetings were held at Meacham Airport, with the final meeting conducted at the Northwest Library.

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With PAC and community input, the Master Plan was presented to the Aviation Advisory Board (AAB) for their review and discussion. The AAB recommended at their October 20, 2022 the City Council approve the 2022 Master Plan Update for Meacham International Airport (Master Plan). On January 10, 2023, the Master Plan was presented to the Mobility: Innovation and Transportation Committee.

**Key Deliverables**

Key deliverables of the Master Plan that are requirements by the FAA are an updated *Airport Layout Plan*, and the *Airport Forecast summary*. Additional deliverables include:

- Recommended Development Concepts
- Updated Part 77 map (potential objects affecting navigable airspace)
- Short, intermediate and long-term CIP recommendations

Attached to this report is an Introduction & Summary of the updated Master Plan. For more information and to review all elements of the master plan in detail visit:

<https://app.box.com/s/uwre8pgnqcycvpmmy2pauh8v7hxjhup6>

**Next Steps**

A resolution adopting the Master Plan will be presented to City Council for consideration on January 31, 2023. If approved, the Master Plan will be reviewed and approved by the FAA and TxDOT Aviation.

If you have any questions or need additional information, please contact Roger Venables, Aviation System Director at 817-392-5402.

**David Cooke**  
**City Manager**

attachment

# Introduction & Summary

Fort Worth Meacham International Airport (FTW) serves the Dallas-Fort Worth Metroplex as one of the area's 11 reliever airports. FTW is owned by the City of Fort Worth, along with its sister facilities, Fort Worth Alliance and Fort Worth Spinks Airports. The airport is the oldest operating airport in the city, and in its nearly 100 years of service, has grown to become one of North Texas' premier corporate and general aviation facilities. FTW boasts two parallel runways, a 24-hour air traffic control tower, two full-service fixed base operators (FBOs), flight schools, aircraft museums, charter services, and more.

**FTW contributes significantly to the local economy, generating more than 900 jobs and nearly \$165 million annually in economic activity to the Metroplex.** The City of Fort Worth recognizes the value the airport brings to the community, and the Airport Master Plan is evidence of this. With a sound and realistic development plan in place, FTW can maintain its role as an important link to the regional, state, and national air transportation systems.

## ABOUT THE STUDY

### WHAT IS A MASTER PLAN?

The Federal Aviation Administration (FAA) recommends that airports update their long-term planning documents every seven to 10 years, or as necessary to **address** local changes at the airport. The last master plan update for FTW was completed in 2004. The City of Fort Worth, the sponsor of FTW, has received a grant from the Texas Department of Transportation (TxDOT) – Aviation Division to update the airport master plan.



The City of Fort Worth is responsible for funding capital improvements at the airport, as well as obtaining FAA and TxDOT development grants. In addition, the City oversees facility enhancements and infrastructure development conducted by private entities at the airport. The **master plan is intended to provide a true vision for how FTW is developed, guidance for future development, and justification for projects** for which the airport may receive funding through an updated capital improvement program (CIP) to demonstrate the future investment required by the City of Fort Worth, as well as TxDOT and the FAA.

The airport master plan follows a systematic approach outlined by the FAA to identify airport needs in advance of the actual need for improvements. This is done to ensure that the City can coordinate environmental reviews, project approvals, design, financing, and construction to minimize the negative effects of maintaining and operating inadequate or insufficient facilities. An important outcome of the master plan process is a recommended development plan, which reserves sufficient areas for future facility needs. Such planning will protect development areas and ensure they will be readily available when required to meet future needs. The intended outcome of this study is a detailed on-airport land use concept which outlines specific uses for all areas of airport property, including strategies for revenue enhancement.

The preparation of this master plan is evidence that the City recognizes the importance of the airport and the associated challenges inherent in providing for its unique operating and improvement needs. The cost of maintaining an airport is an investment which yields impressive benefits to the local community. With a sound and realistic master plan, the airport can maintain its role as an important link to the regional, state, national, and global air transportation systems. Moreover, the plan will aid in supporting decisions for directing limited and valuable City resources for future airport development. Ultimately, the continued investments in the airport will allow the City of Fort Worth to reap the economic benefits generated by historical investments. Some common questions regarding what a master plan is / is not are answered in the graphic at right.

**What an  
Airport Master  
Plan is:**

- ✈️ A comprehensive, long-range study of the airport and all air and landside components that describes plans to meet FAA safety standards and future aviation demand.
- ✈️ Required by the FAA to be conducted every 7-10 years to ensure plans are up-to-date and reflect current conditions and FAA regulations. The last Master Plan for FTW was completed in 2004.
- ✈️ Funded by the FAA through the Airport Improvement Program (AIP), which provides 90% of the total project costs. The remaining 10% is funded by the City of Fort Worth.
- ✈️ A City of Fort Worth document that will ultimately be presented for approval to the City Council. TxDOT approves only two elements of the Master Plan, the Aviation Demand Forecasts and the Airport Layout Plan (ALP drawing set).
- ✈️ An opportunity for airport stakeholders and the general public to engage with airport staff on issues related to the airport and its current and future operations, and environmental and socioeconomic impacts. Up to four (4) public information workshops will be conducted throughout the Master Plan process to facilitate this public outreach effort.

**What an  
Airport Master  
Plan is not:**

- ✈️ A guarantee that the airport will proceed with any planned projects. Master Plans are guides that help airport staff plan for future airport development; however, the need/demand for certain projects might never materialize.
- ✈️ A guarantee that the City of Fort Worth, TxDOT, or the AIP will fund any planned projects. Project funding is considered on a project-by-project basis and requires appropriate need and demand. Certain projects may require the completion of a benefit-cost analysis.
- ✈️ Environmental clearance for specific projects. The Master Plan includes an environmental overview that identifies potential environmental sensitivities per the *National Environmental Policy Act of 1969* (NEPA) guidelines. Most planned projects will require a separate NEPA study (environmental impact statement/environmental assessment/categorical exclusion) prior to construction.



## WHO IS PREPARING THE MASTER PLAN?

The City has contracted with the airport planning firm of Coffman Associates, Inc. to undertake the Airport Master Plan. Coffman Associates is an airport consulting firm that specializes in master planning and environmental studies. Coffman Associates will lead the planning team, with support from Garver. Garver is an engineering firm that will provide support and offer insights into development alternatives and estimates of probable costs.

The Airport Master Plan Update will be prepared in accordance with FAA requirements, including Advisory Circular (AC) 150/5300-13B, *Airport Design*, and AC 150/5070-6C, *Airport Master Plans* (as amended). The plan will be closely coordinated with other planning studies relevant to the area and with aviation plans developed by the FAA and TxDOT. The plan will also be coordinated with the City of Fort Worth, as well as other local and regional agencies as appropriate.

## STUDY GOALS AND OBJECTIVES

The primary goal of this Master Plan is to provide the framework needed to guide future airport development that will cost-effectively satisfy aviation demand, while considering potential environmental and socioeconomic impacts. Additionally, the plan will evaluate FTW in relationship to the system of airports serving Fort Worth and the Dallas-Fort Worth Metroplex. Accomplishing this goal requires an evaluation of the existing airport to decide what actions should be taken to maintain a safe, adequate, and reliable facility.

MASTER PLAN OBJECTIVES	
<ul style="list-style-type: none"> <li>• <b>DEVELOP</b> strategic visions and mission statements to guide airport development/growth</li> <li>• <b>RESEARCH</b> factors likely to affect air transportation demand segments in the City of Fort Worth and the Dallas-Fort Worth Metroplex over the next 20 years</li> <li>• <b>DETERMINE</b> the airport's current and future critical design aircraft</li> <li>• <b>ANALYZE</b> the airport's existing airfield system to determine if any deficiencies exist and correct areas of non-standard geometry</li> <li>• <b>EVALUATE</b> highest and best uses of airport property for aeronautical development, including hangar expansion and maintenance facilities</li> </ul>	<ul style="list-style-type: none"> <li>• <b>EVALUATE</b> the potential for establishing air service operations</li> <li>• <b>CONSIDER</b> options for non-aeronautical development that could produce additional revenue streams for the airport</li> <li>• <b>DEVELOP</b> a phased, demand-based 20-year Capital Improvement Plan</li> <li>• <b>PRODUCE</b> an updated Airport Layout Plan drawing set, detailing future airside and landside development</li> <li>• <b>REVIEW</b> future use and zoning of airport property, instrument approach areas, and nearby developments to ensure flight safety and land use compatibility is maintained</li> </ul>

## BASELINE ASSUMPTIONS

A long-range planning study requires several baseline assumptions that will be used throughout this analysis. The baseline assumptions for this study are as follows:

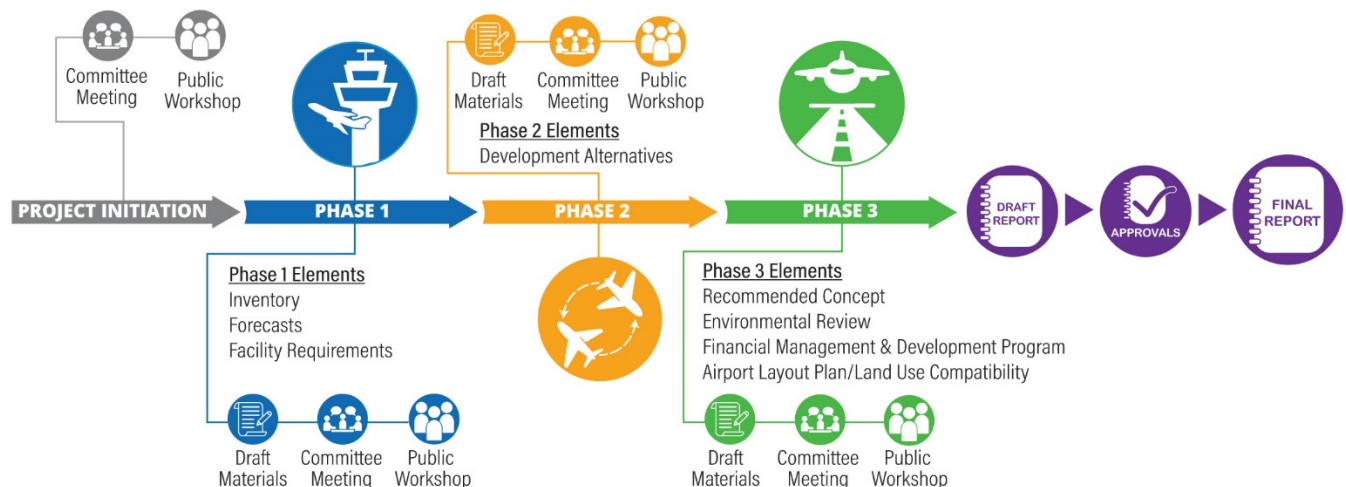




- FTW will continue to accommodate general aviation tenants, as well as itinerant and local aircraft operations by air taxi, general aviation, and military operators.
- The aviation industry will develop through the planning period as projected by the FAA. Specifics of projected changes in national aviation industries are described in Chapter Two – Aviation Demand Forecasts.
- The socioeconomic characteristics of the region will generally change as forecast (see Chapter Two).
- A federal and state airport improvement program will be in place through the planning period to assist in funding future capital development needs.
- A national/global economic and aviation industry recovery from the COVID-19 pandemic will occur over the course of the next several months and years.

## MASTER PLAN ELEMENTS AND PROCESS

The master plan has eight elements that are intended to assist in the evaluation of future facility needs and provide the supporting rationale for their implementation. **Exhibit iA** provides a graphical depiction of the process involved with the study.



**Exhibit iA: Master Plan Study Process**

**Element 1 – Initiation** includes the development of the scope of services, schedule, and study website. Study materials will be assembled in a workbook format. General background information will be established that includes outlining the goals and objectives to be accomplished during the master plan.



**Element 2 – Inventory** is focused on collecting and assembling relevant data pertaining to the airport and the area it serves. Information is collected on existing facilities and operations. Local economic and demographic data is collected to define the local growth trends, and environmental information is gathered to identify potential environmental sensitivities that might affect future improvements. Planning studies that may have relevance to the master plan are also collected.

**Element 3 – Aviation Demand Forecasts** examines the potential aviation demand at FTW. The analysis utilizes local socioeconomic information, as well as national air transportation trends to quantify the levels of aviation activity which can reasonably be expected to occur over a 20-year period. An existing and ultimate critical design aircraft, based upon AC 150/5000-17, *Critical Aircraft and Regular Use Determination*, is also established to determine future planning design standards. The results of this effort are used to determine the types and sizes of facilities which will be required to meet the projected aviation demand at the airport through the planning period.

**Element 4 – Facility Requirements** determines the available capacities of various facilities at the airport, whether they conform with FAA standards, and what facility updates or new facilities will be needed to comply with FAA requirements and/or projected 20-year demand.

**Element 5 – Airport Development Alternatives** considers a variety of solutions to accommodate projected airside and landside facility needs through the long-term planning period. An analysis is completed to identify the strengths and weaknesses of each proposed development alternative, with the intention of determining a single direction for development.

**Element 6 – Airport Plans/Land Use Compatibility** – Coordination with airport staff and the PAC will result in the selection of a recommended development concept. Airport layout plans will be developed to depict the recommended development concept. The drawings will meet the requirements of FAA's Standard Operating Procedure (SOP), *Standard Procedure for FAA Review and Approval of Airport Layout Plans (ALPs)*, effective date October 1, 2013. The updated ALP set will be included as an appendix to this study. The airport's noise exposure and land use compatibility will also be evaluated. An environmental overview will identify any potential environmental concerns that must be addressed prior to the implementation of the recommended development program.

**Element 7 – Financial Management and Development Program** – This element will analyze the costs that may be associated with the development plan, with in-depth financial analysis to estimate capital funds required from federal and state grant-in-aid programs. A 20-year capital program and development schedule that prioritizes projects will be established.

**Element 8 – Final Reports and Approvals** – The final element includes production of the draft final report and ALP drawings in print and digital form. These materials will be presented to the City of Fort Worth, TxDOT, and the FAA for review and approval. Once approved, a final report will be prepared and made available in print and digital formats.



## COORDINATION AND OUTREACH

The Master Plan and its associated public outreach efforts, offer a unique opportunity to engage with the local community to express the importance of the airport and highlight its benefits to the community. As stated previously, FTW supports 900 jobs and nearly \$165 million in annual economic activity to the local community. The airport also has two on-site aviation museums (Vintage Flying Museum and Fort Worth Aviation Museum) that provide aviation education opportunities. The airport, along with the City of Fort Worth, acknowledge its role in supporting economic and business development in the community by participating as corporate partners with various organizations that are committed to help develop and cultivate new and expanding existing businesses. FTW's proximity to downtown Fort Worth supports business aviation activities for many local businesses by connecting them to other national and international markets. In terms of potential future benefits that FTW can offer to the community, this master plan also considers emerging technologies in the form of Advanced Air Mobility (AAM) that aims to connect the local community to faster and cheaper transportation of people and cargo while reducing surface roadway congestion and improving air quality with zero-emission electric vertical takeoff and landing aircraft (eVTOLs).

This study is of interest to many within the local community and region. This includes local citizens, local businesses, community organizations, city officials, airport users/tenants, and aviation organizations. As a component of the regional, state, and national aviation systems, FTW is of importance to both state and federal agencies responsible for overseeing the air transportation system.

To assist in the development of the Master Plan, a Planning Advisory Committee (PAC) has been established to act in an advisory role. PAC members met four times at designated points during the study to review study materials and provide comments to help ensure that a realistic, viable plan is developed.

Draft working paper materials were prepared at various milestones in the planning process. The working paper process allows for timely input and review during each step within the master plan to ensure that all issues are fully addressed as the recommended program develops.

A series of open-house public information workshops were held as part of the study coordination and outreach efforts. Workshops are designed to allow all interested persons to become informed and provide input concerning the master plan process. Notices of meeting times and locations were advertised through local media outlets. All draft working papers, reports, meeting notices, and materials are available to the public on a study-specific website: [meacham.airportstudy.net](https://meacham.airportstudy.net).

## SWOT ANALYSIS

A SWOT analysis is a strategic business planning technique used to identify **Strengths**, **Weaknesses**, **Opportunities**, and **Threats** associated with an action or plan. The SWOT analysis involves identifying an action, objective, or element, and then identifying the internal and external forces that are positively and negatively impacting that action, objective, or element in a given environment. A SWOT analysis was conducted at the first PAC meeting, the findings of which are presented in **Table iA**.





**Table iA – SWOT Analysis**

<b>STRENGTHS</b>	<ul style="list-style-type: none"> <li>• High-capacity airfield with dual runway system meeting needs of many users</li> <li>• Runway length, strength, and lighting</li> <li>• Close proximity to downtown, west side and stockyards</li> <li>• Accessible to major freeways</li> <li>• Outreach of charter market which is a growing segment</li> <li>• Supportive airport management and city government</li> <li>• Easy to use; good ground services, quick to get in the air</li> <li>• Diversity of tenants (charters, maintenance, paint, etc.)</li> </ul>
<b>WEAKNESSES</b>	<ul style="list-style-type: none"> <li>• Poor road signage indicating airport's location</li> <li>• Airport has not effectively marketed itself</li> <li>• Visual character of surrounding area</li> <li>• Geographic/topographic challenges - landlocked</li> <li>• Summer temperatures can get very hot, limiting runway length</li> <li>• ATCT could be more efficient and take full advantage of both runways so corporate operators are not left waiting on small aircraft</li> <li>• Second runway is not long enough to serve as a true alternate</li> </ul>
<b>OPPORTUNITIES</b>	<ul style="list-style-type: none"> <li>• Expanding helicopter charter operations</li> <li>• Executive airport that appeals to business operators</li> <li>• Easy for pilots to use</li> <li>• Proximity to adjacent neighborhoods – protect from possible noise concerns</li> <li>• Pandemic has resulted in growth in charter operations</li> <li>• Federal opportunity zone program surrounds airport; city neighborhood empowerment zone</li> <li>• Educational opportunities (museums, etc.); community engagement</li> <li>• Improved instrument approaches on secondary runway</li> <li>• Competitive advantage with other close airports</li> <li>• Consolidate Fire Dept. operations on airfield to provide support for airport and adjacent neighborhood</li> </ul>
<b>THREATS</b>	<ul style="list-style-type: none"> <li>• Proximity to adjacent neighborhoods/industrial areas</li> <li>• Pandemic has threatened aviation as a whole</li> <li>• Growth in UAVs resulting in loss of flexibility for other traffic; security and safety threat</li> <li>• Poor planning and underfunding impact safety/efficiency</li> <li>• Competition from other airports in close proximity (i.e., Alliance)</li> </ul>

## SUMMARY

Planned development at FTW is focused on accommodating projected growth in activity and meeting FAA airfield design standards. The capital improvement program (CIP) that has been developed identifies both airside (runways, taxiways, navigational aids, etc.) and landside (aprons, hangar, access roads, vehicle parking, etc.) facility needs.

To properly plan for future demand that may occur, aviation demand forecasts were prepared. Because of the cyclical nature of the economy, it is virtually impossible to predict with certainty year-to-year fluctuations in activity when looking five, ten, and twenty years into the future. Recognizing this reality, the master plan is keyed toward potential demand “horizon” levels rather than future dates in time. These “planning horizons” were established as levels of activity that will call for consideration of the



implementation of the next step in the airport development program. By developing the airport to meet the aviation demand levels instead of specific points in time, the airport will serve as a safe and efficient aviation facility which will meet the operational demands of its users while being developed in a cost-efficient manner. This program allows the City to change specific development in response to unanticipated needs or demand.

The forecast approach utilized historical and forecasted commercial service, general aviation and economic trends resulting in modest growth projections for FTW through the planning period of the study. The aviation demand forecast is summarized in **Table iB**.

**TABLE iB | Aviation Demand Planning Horizons**

	Base Year (2020)	Short Term (1-5 Years)	Intermediate Term (6-10 Years)	Long Term (11-20 Years)
<b>BASED AIRCRAFT</b>				
Single Engine	132	144	159	191
Multi-Engine	47	45	41	39
Turboprop	35	39	44	54
Jet	102	115	129	155
Helicopter	22	24	25	29
Other	1	1	1	1
<b>Total Based Aircraft</b>	<b>339</b>	<b>368</b>	<b>399</b>	<b>469</b>
<b>ANNUAL OPERATIONS</b>				
<i>Itinerant</i>				
Air Carrier	95	205	205	205
Air Taxi	8,157	11,411	14,900	18,900
General Aviation	57,743	73,690	87,300	96,500
Military	1,244	1,239	1,239	1,239
<b>Total Itinerant</b>	<b>67,239</b>	<b>86,545</b>	<b>103,644</b>	<b>116,844</b>
<i>Local</i>				
General Aviation	69,571	76,131	107,900	139,600
Military	566	482	482	482
<b>Total Local</b>	<b>70,137</b>	<b>76,613</b>	<b>108,382</b>	<b>140,082</b>
<b>Total Operations</b>	<b>137,376</b>	<b>163,158</b>	<b>212,026</b>	<b>256,926</b>

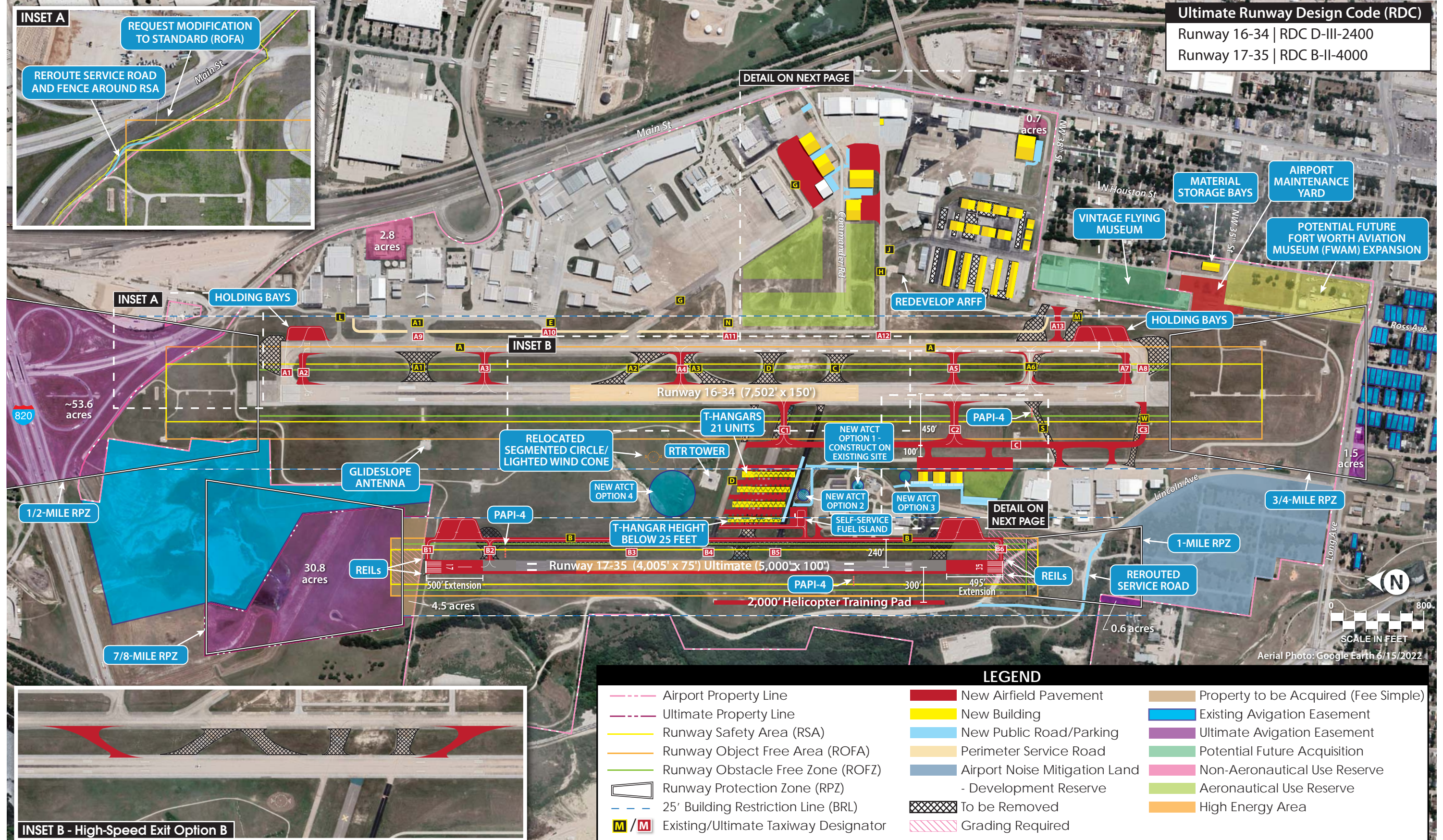
*Source: Coffman Associates analysis*

## RECOMMENDED DEVELOPMENT CONCEPT

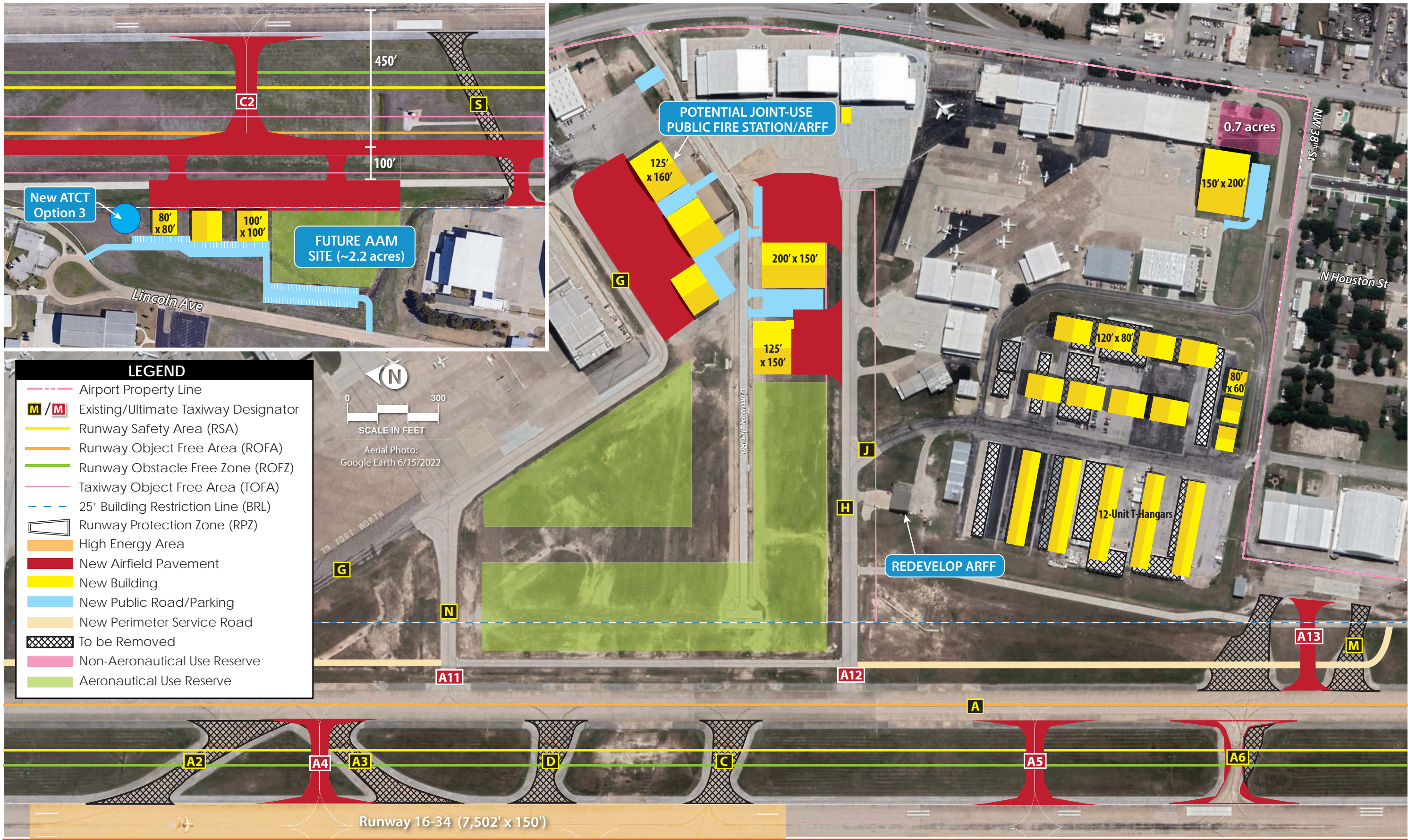
The recommended development concept includes improvements to the airfield and landside area to satisfy FAA design and safety standards and to meet current and forecast needs. Airfield design standards are based upon the characteristics of the airport's critical design aircraft, which is the Gulfstream G500/G600 currently and the Boeing Business Jet (BBJ)/Embraer ERJ190 in the future condition. Based upon these critical design aircraft, Runway 16-34 should meet RDC D-III-2400 airfield design standards. Runway 17-35, which currently serves small aircraft such as the Beechcraft King Air 90/100 is planned to be improved to accommodate small to mid-sized business jets, such as the Cessna Citation X, by meeting RDC B-II-4000 design standards.

The following summarizes the recommended development concept, which is depicted on **Exhibit iB**. A more detailed discussion of the recommended development concept can be found in Chapter Five.













## PRIMARY RUNWAY 16-34

- **Runway Designation** | The primary runway *should be redesignated to 17L-35R* to better align with the current magnetic heading of the surface and to distinguish the runway from its parallel surface.
- **Runway Dimensions** | The primary runway is currently 7,502 feet long and 150 feet wide. This length and width satisfy FTW's role as a reliever to larger airports in the region of general aviation traffic, including large business jets. The current surface length should be maintained through the planning period.
- **Pavement Strength** | Runway 16-34 is currently strength-rated for up to 80,000 pounds for single-wheel loading aircraft (SWL), 100,000 pounds for double-wheel loading aircraft (DWL), 190,000 pounds for double-tandem-wheel loading aircraft (DT), and 350,000 pounds for dual-double-tandem-wheel loading aircraft (2D). The ultimate critical design aircraft – the Boeing BBJ and Embraer ERJ 190 – have MTOWs of 174,200 pounds and 114,199 pounds, respectively. Also, newer versions of the Boeing BBJ have an average MTOW of 184,300 pounds, with the BBJ Max 9 rated at a 194,700-pound MTOW. These aircraft are all equipped with double-wheel landing gear configurations, which exceeds the current pavement strength rating. While the aircraft can safely operate with the current strength rating, increasing the surface strength will prevent premature wear to the runway and extend the usefulness of the surface. Consideration should be given to increasing the double-wheel loading (DWL) strength rating of the surface up to 195,000 pounds.
- **Runway Protection Zones (RPZs)** | The Runway 16 RPZ extends over approximately 58.7 acres outside airport property over major roadways (Interstate 820 and Business US Route 287). A portion of the Runway 16 RPZ is protected by an aviation easement leaving approximately 53.6 acres unprotected. The RPZ serving Runway 34 extends approximately 5.8 acres over Long Avenue and residential land use zones. The residential zone south of Runway 34 is mostly protected by aviation easements; approximately 1.5 acres remain to be mitigated, most likely through additional easements. Because the runway or instrument procedures will not change, the public roadways within the RPZs can be "grandfathered" and do not require mitigation measures.
- **Runway Safety Area (RSA) and Runway Object Free Area (ROFA)** | The standard RSA and ROFA for the runway extend beyond the north end of airport property over the airport security fence, a service road, and Main Street. FTW has applied declared distances<sup>1</sup> to mitigate the non-standard conditions. It is preferred that the physical obstructions to the RSA/ROFA be removed so that the full runway length can be utilized for takeoff/landing operations on Runway 34. As such, the plan calls for rerouting the airport service road and fencing outside of the RSA, then requesting a Modification to Standard for the portion of US Route 287/Main Street that is within the ROFA.

<sup>1</sup> For more detail on declared distances, see the Runway Safety Area section in Chapter Three.





## SECONDARY RUNWAY 17-35

- **Runway Designation** | If the primary runway is redesignated to 17L-35R, then the designation for Runway 17-35 should be changed to 17R-35L to maintain correct, parallel runway numbering standards.
- **Runway Dimensions** | The runway is currently 4,005 feet long and 75 feet wide. A longer runway is recommended in order to accommodate increasing operations by larger and faster aircraft, as well as provide a secondary surface for these aircraft to operate in the event the primary runway is unusable. The runway should be extended to 5,000 feet long and widened to 100 feet. Extending the runway will require significant land fill and grading, especially to the south, before construction can commence.

The planned increase in width of the runway from 75 feet to 100 feet, which exceeds the B-II standard, is to provide a level of airfield redundancy in that Runway 17-35 can accommodate larger business jets when the primary runway is unusable (such as during a pavement maintenance project). However, the cost of widening the runway is not likely to be funded by FAA; the airport/City of Fort Worth would be responsible for the construction and maintenance costs of the additional width.

- **Instrument Approach Procedures** | Both ends of this runway are visual-only, which means there are no published instrument approach procedures available. The plan allows for the possibility of establishing GPS-based approach procedures to both ends of the runway to increase its utility during poor weather conditions.
- **Runway Protection Zones (RPZs)** | A small portion of the ultimate Runway 35 RPZ extends beyond airport property but does not include any incompatible land uses. The ultimate Runway 17 RPZ will require a total of approximately 37.8 acres of land acquisition or avigation easements to maintain positive control of the space beneath the RPZ and avoid future incompatibilities. At a minimum, properties within the ROFA will need to be acquired while the remaining property could be protected via avigation easement.

## TAXIWAY IMPROVEMENTS

- **Taxiway Design** | The taxiway system serving Runway 16-34 is planned to meet Taxiway Design Group (TDG) 3 standards, which establishes a design standard width of 50 feet. Taxiways serving Runway 17-35 are planned to 35 feet in order to meet TDG 2A/2B standards.
- **Taxiway A** | Taxiway A, the current full-length parallel taxiway supporting Runway 16-34, is 100 feet wide, exceeding the TDG 3 width standard of 50 feet. Improvements planned for Taxiway A and its connectors include consolidating existing acute-angled exit Taxiways A2 and A3 into a standard, 90-degree entrance/exit taxiway (new designation: A4), and the addition of bypass taxiways at each runway end and an additional entrance/exit taxiway north of A6. Note: Exhibit



iB includes a high-speed exit “Option B” as a secondary option in the case that FTW staff and the FAA determine that this is a preferred alternative to replacing the acute-angled exits with a 90-degree connector. This option is included for flexibility only and is excluded from the master plan CIP.

- **Taxiway B** | Taxiway B is the full-length parallel taxiway that supports Runway 17-35. It is currently 35 feet wide and meets TDG 2A/2B design standards. By improving Runway 17-35 to RDC B-II-4000 standards, the taxiway will need to be relocated 40 feet to the east to meet the 240-foot runway/taxiway centerline separation distance requirement.
- **Taxiway C** | A new additional partial-parallel taxiway supporting Runway 16-34 is planned to a width of 50 feet with a runway/taxiway centerline separation distance of 450 feet. Taxiway C will provide access to the two apron and hangar areas currently accessible by Taxiways S and W. This will remove the non-standard direct access and acute angle aspects of these taxiways.

## HELICOPTER TRAINING AREA

- Currently, training activities by helicopters are conducted over and on a section of Taxiway B. A dedicated helicopter training area is planned for the airport to prevent premature wear to taxiway surfaces, to reduce the likelihood of conflicts between helicopters and aircraft moving on the ground, and to improve the efficiency of the airport. The helicopter training pad will be located west of Runway 17-35, approximately 300 feet from the runway centerline to the center of the pad.

## EAST LANDSIDE

- **Hangar Development** | The primary focus of the east side development concept is on increasing the number of both executive and conventional hangar facilities. The recommendation, which carries over previous planning for the area vacated when the crosswind runway was closed, includes designating the approximately 35 acres as aeronautical-use reserve for new hangars. Commodore Road provides vehicle access to this area and a portion of the area is set aside for a utility corridor to serve the new developments. Additional apron area will accompany the new facilities, as well as access taxiways/taxilanes.
- **“Apron D” Redevelopment** | The area sits in a depression, a low point on the airport. Consideration was given to filling the area to bring it up to grade with the surrounding area but due to the large amount of fill material required and associated cost, the recommended plan involves replacing the aging hangar facilities with new T-hangar and executive hangar facilities.
- **Joint-Use Public Fire Station/ARFF** | The existing fire service is provided by a “through-the-fence” public fire house that can respond to incidents at the airport as well as an on-airport aircraft rescue and firefighting (ARFF) station located along Taxiway H. The new ARFF facility is



proposed as a joint-use civilian station with the ability to respond to both airfield and city emergencies alike. The facility will be located on an ultimate apron at Taxiway G where ARFF vehicles would be capable of responding to the midpoint of the primary runway within the required three-minute period from the time of the alarm.

- **Non-Aeronautical Use Reserve** | The existing Fort Worth Police Department patrol station, located at 4651 N Main St, as well as the associated property and parking area, will be vacated in 2025. This 2.8-acre area is reserved for future non-aeronautical land use in the recommended concept. The existing Fort Worth Fire Station 25, located at 3801 N Main St will also be vacated with the development of the new joint-use fire station/ARFF facility. The vacated fire station is also planned for future non-aeronautical redevelopment.
- **Vintage Flying Museum** | The property owned by the Vintage Flying Museum has been targeted by airport management as potential future acquisition in the event the museum property comes up for sale. While no plans exist as of this publication, the airport would like to consider the area as potential expansion in the future. Its location along the primary runway flightline with established access to the airfield makes it prime real estate for future aeronautical development.

## WEST LANDSIDE

- **Hangar Development** | Three executive hangars are planned at a new development site south of the control tower, with vehicle access and parking provided by Lincoln Avenue; aircraft movement is provided by ultimate partial-parallel Taxiway C. Approximately 26,400 sf of hangar space is planned. Development of this area will require significant site preparation and drainage improvements. Additional small aircraft storage hangars in the form of T-hangars are planned for the center of the airfield between existing Taxiways C and D.
- **AAM Development** | The FAA and private companies are making strides toward widespread use and implementation of advanced air mobility (AAM) solutions. Companies that are planning to provide people with AAM will need space to establish landing and takeoff surfaces for their vertical takeoff and landing (VTOL) vehicles, as well as landside facilities to transfer passengers. A reasonable approximation of 2.2 acres has been established and reserved in the recommended concept for future AAM development.

## NEW ATCT SITE SELECTION

- The FAA will be funding the construction of a new ATCT at FTW within the 20-year planning horizon. Four potential sites have been identified on the west side of the airfield with the future selected site to be chosen after further analysis by the FAA and consideration by airport staff.



## NOISE LAND REUSE PLAN

- A 14 CFR Part 150 Noise Compatibility Study (Part 150) was completed for FTW in 1995. It was determined that residences were within the 65 dB day-night noise level (DNL) noise exposure contours. As a result, 164 residences were purchased in the areas south of the approach ends of Runway 34 and Runway 35 and north of Long Avenue. Residents of the area were relocated to housing outside of the noise affected area. The resulting land is owned by the City of Fort Worth and is classified as “noise land.” Following acquisition of noise land, the airport sponsor must develop a Noise Land Inventory and Reuse Plan (NLIRP) to document the management of these lands. A draft reuse plan for the noise land at FTW was prepared in 2009 and submitted to FAA. FAA responded in 2011 to request that a formal NLIRP be prepared consistent with the available guidance at the time. Prior to developing the noise lands at FTW, an updated NLIRP, consistent with FAA guidance, will need to be prepared and submitted to FAA.

## LAND USE COMPATIBILITY RECOMMENDATIONS

- **Incorporate Airport Land Use Compatibility Goals and Policies into the City of Fort Worth Comprehensive Plan** | A comprehensive plan is the starting point guiding a city’s development and is the recommending policy document for growth. It is recommended the city include, with input from FTW staff, goals, policies, and objectives for the airport when the comprehensive plans are scheduled for updates.
- **Incorporate the updated Part 77 Map into the Fort Worth Meacham International Airport Overlay Zone** | Currently, the Overlay Zone is based on a map dated 1972, which depicts the 14 CFR Part 77 imaginary surfaces which are used to determine if structures or terrain would cause a potential hazard to air navigation. Since the Part 77 map has been updated for this master plan, it is recommended the airport update the Overlay Zone to incorporate the updated runway information.
- **Adopt Fair Disclosure Requirements for Real Estate Transactions within the Vicinity of FTW** | Fair disclosure regulations in real estate transactions are intended to ensure that prospective buyers of property are informed that the property is or will be exposed to potentially disruptive aircraft noise or overflights. It is not uncommon for newcomers to report having bought property without having been informed about airport noise levels, even around the busiest airports. At the most formal level, fair disclosure can be implemented through a city ordinance requiring a deed notice for property within the vicinity based on an existing boundary, such as the Part 77 Horizontal Surface. The following is an example of deed notice language that would notify the property owner of the proximity of an airport and expectations for living in the vicinity of the airport:

*The subject property is within the vicinity of Fort Worth Meacham International Airport, located at 201 American Concourse, Fort Worth, Texas 76106. Properties within this area are routinely subject to overflights by aircraft using this public-use airport and, as a result, residents may experience inconvenience, annoyance, or discomfort arising from the noise*



*of such operations. Residents also should be aware that the current volume of aircraft activity may increase in response to the population and economic growth within City of Fort Worth and the wider Dallas/Fort Worth Metroplex. Any subsequent deed conveying this parcel or subdivisions thereof shall contain a statement in substantially this form.*

## DEVELOPMENT FUNDING

The full implementation of the recommended development concept is likely to take two decades or more at a cost of \$258.7 million in 2022 dollars. The breakdown of funding over the three planning horizons is presented in **Table iC**. Approximately 72 percent of the total is eligible for grant funding from the Airport Improvement Program (AIP), which is administered by TxDOT. The funding source for the AIP is the Aviation Trust Fund, which is funded through user fees and taxes on airline tickets, aviation fuel, and aircraft parts. A more detailed discussion of the Capital Improvement Program can be found in Chapter Six of the study.

With the study completed, the most important challenge is implementation. The cost of developing and maintaining aviation facilities is an investment which yields impressive benefits for City of Fort Worth. This plan and associated development program provide the tools the city will require to meet the challenges of the future. By providing a safe and efficient facility, FTW will continue to be an asset to City of Fort Worth and surrounding region.

**TABLE iC | Development Funding Summary**

Planning Horizon	Total Cost	AIP/TxDOT Eligible	Airport Sponsor
Short-Term Program	\$91,461,955	\$56,418,062	\$35,043,894
Intermediate-Term Program	\$100,175,232	\$92,157,709	\$8,017,523
Long-Term Program	\$67,055,931	\$38,235,948	\$28,819,983
<b>Total Program Costs</b>	<b>\$258,693,119</b>	<b>\$186,811,719</b>	<b>\$71,881,400</b>
AIP – Airport Improvement Program (federal)			

*Sources: Project cost estimates prepared by Garver, and project staging established by airport staff and Coffman Associates.*