# ES Executive Summary & Planning Addendum

Based upon comments received during the review of the MP Update Draft Final Report, an addendum to recommendations was formulated which identified revisions to several future development boundaries and their associated labels located on the west side of the Airport. These revisions are now reflected on the ALP illustration located at the end of this summary document (see Figure ES1), including a bullet point text description presented in the *Terminal Area Plan – Area Plan South* section below in bold text. In addition, the updated *Area Plan South* illustration reflecting these revisions is presented in the Airport Plans chapter (see Chapter F and Figure F16).

INTRODUCTION. Following approval for construction in 1928 as the region's first municipal airport, King County International Airport/Boeing Field (BFI or Airport) has grown to be one of the busiest primary non-hub airports in the nation and the primary general aviation reliever airport to Seattle-Tacoma International Airport (SEA). BFI also ranks among the most successful public investments in state history and is a major contributor to the region's economic stability and sustainability. According to the recently completed *High-Level Economic Impact of King County International Airport* study, BFI's economic impact for 2019 was \$2.97 billion in terms of local business sales that support 18,412 jobs and generates \$1.2 billion in labor income to King County. The Airport's 150 tenant businesses, which include the Boeing Company's various civilian and military aircraft Flight Test and Delivery Center operations, directly support 6,705 jobs in the local economy.

BFI serves a wide variety of aviation users that include small commercial passenger airlines, large and small air cargo carriers, commercial general aviation Fixed Base Operators (FBOs), corporate general aviation flight departments, private aircraft owners, helicopters, and military aircraft. In 2015, BFI recorded 20,214 enplanements, 165,571 aircraft takeoffs/landings, and 390 based aircraft. For 2019 enplanements increased to 30,568, with total operations increasing to 186,228. Also, in 2015 BFI ranked as the 27th busiest cargo airport in the country, recording a cargo landed weight of 416,737 tons. This compares to a slight decline of the recorded landed weight of 377,034 tons for 2019, which ranks 38<sup>th</sup> in the country.

The previous Airport Master Plan was completed/adopted in 2004, and significant changes in the local, regional, and national aviation industry have occurred since that time. This Master Plan Update (MP Update) will assist in documenting the current state of the aviation industry at BFI, and ultimately supports the modernization and improvement of existing Airport facilities. In addition, the findings of the MP Update can serve as the strategic guide for overall economic development opportunities and sustainability





recommendations over a 20-year planning horizon, as well as enhance the Airport as a major regional economic and employment center.

# **Public Outreach/Communication Plan**

The MP Update includes a Public Involvement Plan that defines the proposed communication and community engagement process for the project including overall goals, key community audiences, information needs and messages, and proposed community engagement activities.

**Communication and Outreach Goals.** Throughout the MP Update process, King County and the project team strived to:

- Consult with BFI partners, stakeholders, and the broader community about the master planning process. This helps establish the purpose of the work, as well as the schedule and process by which the plan will be developed.
- Ensure that the public knows how they can be involved and understand how their input will be considered.
- Collaborate with Airport partners and a stakeholder working group to identify feedback for consideration in the master planning process.
- Solicit substantive and meaningful public input at appropriate milestones and incorporate these ideas into the plan to the greatest extent possible.
- Conduct a public outreach process that is transparent, accessible, and reflective of the County's commitment to equity and social justice.

# **Development Considerations and Assumptions**

The Development Plan alternatives for BFI were evaluated in combination with the facility requirements of the airport users, as well as the strategic vision established by King County. Therefore, several basic assumptions have been identified with the intent to direct the future development and maintenance of the Airport. These assumptions, which have been formulated from input provided by stakeholders, Airport Staff, and the FAA, are supported by the aviation activity forecasts and include a commitment for continued airport development that supports the economic and sustainable planning objectives of the region.

The aircraft types projected to be used at BFI during the next 20 years are for the most part the same types that presently use the Airport. They include the narrow-body commercial service aircraft associated with Boeing's 737 Delivery Center, both widebody (e.g., the B-767, MD-11, & A-300) and narrow body aircraft (e.g., B-737, B-757) that are operated by the air cargo providers, and the various military aircraft (e.g., the Boeing P-8 Poseidon, Boeing E-3 Sentry - AWACS, and the new Boeing KC-46 Pegasus) associated with Boeing's existing Military Flight Center and Test Facility. In addition, BFI is home to numerous corporate general aviation flight departments that operate all sizes of business-use aircraft (including the very large business jets such as the Gulfstream V and the Canadair Global Express).

From an aircraft operational standpoint, the number of annual aircraft operations (landings and takeoffs) at BFI is forecasted to increase from approximately 165,571 in 2015 (the base year for the forecasting effort) to





170,956 by the end of the 20-year planning period encompassed in this Master Plan. Also, commercial passenger activity at the Airport is forecasted to increase by approximately 30 percent over the next two decades (an average 1.3 percent annual increase), from 18,945 enplaned passengers in calendar year 2015 to 24,541 in 2035.

#### **Development Assumptions**

Assumption One. Existing non-standard dimensional criteria that have been identified for Runway 14R/32L will be evaluated separately for mitigation options and integrated into the airside alternatives formulated for this Master Plan Update.

Assumption Two. Future development of the Airport will continue to safely accommodate the existing variety of aviation users and activities, ranging from air cargo, commercial service passenger operations, commercial service aircraft deliveries, all sectors of the existing general aviation users, and military aircraft test operations with facilities properly sized to accommodate the projected forecast demand.

**Assumption Three.** Future land acquisition priorities (i.e., fee simple and/or easement, as necessary) will be identified as they relate to airport safety, future airport development, and land use compatibility.

Assumption Four. Encourage the protection of existing public and private investment in land and facilities and advocate the resolution of any potential land use conflicts, both on and off airport property.

**Assumption Five.** Provide effective direction for the future development of the Airport through the preparation of a rational plan and adherence to the adopted development program that incorporates the defined air transportation planning goals and objectives of King County.

# **Development Recommendations**

The plan for the future development of BFI has evolved from an analysis of many considerations. Among these are: aviation demand forecasts, facility requirements, aircraft operational characteristics, environmental considerations, and the general direction of future airport development, as expressed by King County. The various airside and landside development options that are presented in the Alternatives Analysis and Development Concepts chapter provided the Airport Work Group (AWG) and the management staff of the Airport with a variety of options for future facility development. Following a careful assessment of the potential impacts for each development option, the airport sponsor selected components that formed the basis for an overall long-term development concept for the Airport.





# **Runway System**

There are several development recommendations for the Airport runway system.

# Runway 14R/32L

Runway Design Code (RDC) Dimensional Criteria. As the Airport's primary runway, Runway 14R/32L is currently designed to accommodate the "Design Aircraft" in consideration of approach speed and wingspan. This translates to design standards associated with RDC D-IV-4000 criteria, as specified by the FAA. The design criteria also include the Runway Visual Range (RVR) visibility minimums of 4000 feet (or not less than % statute mile) published for the runway. The existing design criteria are to be maintained in the future.

**Dimensions.** This runway is currently 200 feet wide with an existing length of 10,007 feet [10,880 feet with the Runway 14R Prior Permission Required Pavement (PPRP)]; a 300-foot conversion of the Runway 14R PPRP will extend the runway length to 10,307 feet. Removal of the remaining Runway 14R PPRP is proposed, and the Runway 32L threshold displacement of 880 feet is to remain. As provided on the ALP, the proposed declared distance lengths are shown in **Table ES1**.

Table ES1 RUNWAY 14R/32L RUNWAY SYSTEM (PROPOSED)

Runway	TORA	TODA	ASDA	LDA
Runway 14R	10,300'	10,300'	9,420'	9,420'
Runway 32L	10,300'	10,300'	10,300'	9,420'

Notes: TORA: Takeoff Run Available.

ASDA: Accelerate Stope Distance Available.

LDA: Takeoff Distance Available.

LDA: Landing Distance Available.

**Pavement.** The existing published gross weight bearing capacity of 100,000 pounds single wheel, 200,000 pounds dual wheel, and 500,000 pounds dual tandem wheel main landing gear configuration will be maintained.

**Instrument Approach Criteria.** The existing four instrument approach procedures (ILS or LOC, RNAV (RNP) and RNAV (GPS) approaches to Runway 14R and ILS or LOC approach to Runway 32L) will be maintained. However, the FAA is in the early stages of developing new GPS-based procedures that can be utilized independent of SEA operations.

**Runway Protection Zones (RPZs).** The size of both the approach and departure RPZs for Runway 14R are to be maintained at 1,000 feet x 1,510 feet x 1,700 feet and 500 feet x 1,010 feet x 1700 feet, respectively. The Runway 32L approach and departure RPZs will be maintained at 500 feet x 1,010 feet x 1,700 feet.

Runway Lighting and Navigational Aids. The Airport plans to maintain the runway's existing High Intensity Runway Lights (HIRLs) and Precision Approach Path Indicators (PAPIs) at both runway ends. The existing Medium Intensity Approach Lighting System with Sequenced Flashers (MALSF) serving Runway 14R is to be relocated and the existing Runway End Indicator Lights (REILs) serving Runway 32L will be upgraded to High Intensity Approach Light System with Sequenced Flashing lights (ASLF-1).





Future in-pavement runway Centerline Lights (CL) and Touchdown Zone Lights (TDZL) are planned for each runway end, including the install of in-pavement runway guard lights at each taxiway connector. Additionally, the ground-based Navigation Aids (NAVAIDS) associated with the ILS approaches will be maintained (i.e., the Localizer and glide slope antennas for Runway 14R; the Localizer antenna for Runway 32L).

# Runway 14L/32R

Runway Design Code (RDC) Dimensional Criteria. As the Airport's secondary runway, Runway 14L/32R is currently designed to RDC B-I (Small Aircraft)-Visual criteria, as specified by the FAA. It is recommended that this runway will be maintained to these criteria.

**Dimensions.** This runway is currently 100 feet wide and 3,710 feet long. The Runway 14L threshold displacement of 250 feet and the Runway 32R threshold displacement of 375 feet are to remain. As provided on the ALP, the existing and future declared distance lengths are shown in **Table ES2**.

Table ES2 RUNWAY 14L/32R RUNWAY SYSTEM

Runway	TORA	TODA	ASDA	LDA
Runway 14L	3,709'	3,709'	3,709'	3,459'
Runway 32R	3,709'	3,709'	3,709'	3,334'

Notes: TORA: Takeoff Run Available. TODA: Takeoff Distance Available.

ASDA: Accelerate Stope Distance Available. LDA: Landing Distance Available.

**Pavement.** The existing published gross weight bearing capacity of 120,000 pounds single wheel, 250,00 pounds dual wheel, and 550,000 pounds dual tandem wheel main landing gear configuration will eventually be reduced to greater than 100,000 pounds single wheel main landing gear configuration.

**Instrument Approach Criteria.** The existing visual approaches will be maintained with no implementation of future approaches planned.

**Runway Protection Zones (RPZs).** The size of both the approach and departure RPZs for this runway are to be maintained at 250 feet x 450 feet x 1,000 feet.

**Runway Lighting and Navigational Aids.** The existing Medium Intensity Runway Lights (MIRLs), PAPIs, and REILs are to be maintained.

# **Taxiway System**

BFI has historically been planned and designed with an efficient taxiway system that serves both runways. The recommendations for the Airport's taxiway system design and geometry improvements are presented below.





# Runway 14R/32L Taxiway System

**Taxiway Dimensional Criteria.** Taxiway B, the parallel taxiway serving the west side of Runway 14R/32L, is designed in accordance with Airplane Design Group (ADG) IV and (Taxiway Design Group (TDG) 5 design criteria, as specified by the FAA. These criteria are to be maintained and upgrades to exit and connector taxiways are planned as depicted Figure ES1 at the end of this summary document. Exit and connector taxiways providing access to the east of Runway 14R/32L are designed in accordance with ADG II, III, or IV and TDG 2, 3, or 5 design criteria, as specified by the FAA. These criteria are also to be maintained or upgrades provided as shown on Figure ES1.

**Dimensions.** TDG 5 standards specify a taxiway width of 75 feet and shoulder width of 30 feet.

**Pavement.** The proposed taxiway improvements will be designed, engineered, and constructed commensurate with the existing Runway 14R/32L pavement strength.

**Taxiway Lighting.** The existing system of Medium Intensity Taxiway Lights (MITLs) will be maintained. Installation of in-pavement taxiway centerline lights is planned for Taxiways serving Runway 14L/32R.

#### **Recommended Taxiway Improvements.**

- Design and re-designate 300 feet to the north of existing Taxiway Z PPRP as an extension of Taxiway
   B in conjunction with the conversion of the 300-foot 14R PPRP to useable runway pavement
- Construct future Taxiway B1
- Remove existing Taxiway Z north of the Taxiway B extension
- Remove existing Taxiway B1 pavement
- Widen Taxiway B2 to 90 feet
- Extend Taxiway A 300 feet to the north in conjunction with the conversion of 300 feet of the Runway
   14R PPRP to useable runway pavement
- Construct future Taxiway A1
- Remove existing Taxiway A1
- Widen Taxiway A2 from 45 to 75 feet
- Construct future Taxiway A3 and remove existing Taxiway A4 to eliminate acute-angled taxiway
- Remove existing Taxiway A8 (between the runways)

#### Runway 14L/32R Taxiway System

**Taxiway Dimensional Criteria.** Taxiway A, the parallel taxiway serving the east side of Runway 14L/32R, is designed in accordance with ADG II, III, or IV and TDG 2, 3, or 5 design criteria, as specified by the FAA. These criteria are also to be maintained or upgrades provided as shown on Figure ES1.

**Dimensions.** TDG 2 standards specify a taxiway width of 35 feet and shoulder width of 15 feet. TDG 3 standards specify a taxiway width of 50 feet and shoulder width of 20 feet. TDG 5 standards specify a taxiway width of 75 feet and shoulder width of 30 feet.

**Pavement.** Existing Taxiways A7, A9, and A10 pavement strengths will be maintained and the proposed improvements to Taxiways A1, A2, and A3 will be designed, engineered, and constructed commensurate with the existing Runway 14R/32L pavement strengths. Future Taxiway A4 and existing Taxiways A8 and A11





pavement strengths are anticipated to be commensurate with the existing Runway 14L/32R pavement strengths.

**Taxiway Lighting.** The existing system of Medium Intensity Taxiway Lights (MITLs) will be maintained. Installation of in-pavement taxiway CL lights are planned for future Taxiways A1, A2, A3, and existing Taxiways A10 and A11.

#### **Recommended Taxiway Improvements.**

- Realign and extend segment of Taxiway A north of future Taxiway A1
- Widen Taxiway A2 from 45 to 75 feet
- Construct future Taxiway A3 and remove existing Taxiways A3 and A4 to eliminate acute-angled taxiways
- Construct future Taxiway A4 and remove existing Taxiway A5 to eliminate acute-angled taxiway
- Remove existing Taxiway A8 west of the Runway 32R end

# **Property/Easement Acquisition**

King County presently owns the property associated with the existing runway/taxiway system and inner approach areas, including most of the Runway Protection Zones (RPZs) at each end of the runways. However, additional property acquisition is needed to control the balance of the existing Runway 14R departure RPZ (south of the Runway 32L end), the future repositioning of the Runway 14R approach RPZ, for additional aviation development within the southwest quadrant of the Airport, and for additional aviation support development west of the Airport. The specified property acquisition projects are summarized in the following text.

#### **Future Property Acquisition:**

- Runway 14R departure RPZ 7.4 acres
- Runway 14R approach 1.0 acres

- Airside/Landside Development 3.6 acres
- Airport Support Facilities 20.58 acres

### **Future RPZ Use Agreement:**

Runway 14R approach RPZ – 1.3 acres

# Landside Development Area Plans (Planning Addendum)

Based on input received from the AWG, airport stakeholders, the FAA and Airport Staff, an overall landside development concept for BFI was formulated from the alternatives presented in the *Alternatives Analysis and Development Concepts* chapter. The key components of this landside conceptual plan, as well as the sitespecific area plans, are described in the following narrative and identified on the ALP illustration, at the end of this Executive Summary.

#### **Terminal Area Plan**

The major improvements identified in the vicinity of the passenger terminal building (east side of the Airport) are summarized here:





- Expands Terminal Area Courtyard Apron to approximately 6.0 acres to accommodate larger passenger charter aircraft and provide flex space for overflow cargo aircraft parking
- Realigns outbound segment of the Terminal looped roadway with Othello Street
- Removes the South Arrivals building and adjacent auto parking
- Retains the former King County Agencies building
- Widens Orchard Street to accommodate two-way auto traffic
- Relocates the existing traffic light at the Othello Street/Airport Way South intersection to the existing Orchard Street
- Reserves approximately 10.4 acres of landside development area improvements for UPS cargo processing, storage, and auto parking
- Closes a segment of Perimeter Road South to public access

# Terminal Area Plan – Area Plan South (Planning Addendum)

The major improvements identified at the south end of the Airport (both east and west sides) are summarized here:

- Removes the existing T-hangars and tie-down apron in the southeast corner of the Airport and develops Modern Aviation Fixed Based Office (FBO) facilities (this project has been completed)
- Redevelops the Kenmore Aero Services FBO facilities in the southeast corner of the Airport
- Maintains the existing Museum of Flight "Through-the-Fence" agreement with access corridor and aircraft tiedowns
- Proposes acquiring approximately 3.6 acres of the Woods Meadows property located west of Taxiway B and south of the corporate hangars, and if combined with the removal of the existing Thangars and tie-down apron, reserves approximately 10.25 acres of property for future aviation redevelopment
- Proposes acquiring approximately 20.58 acres west of East Marginal Way S. for potential relocation of the ATCT and the fuel storage facility, among other facilities
- Designates approximately 2.96 acres located south of the existing ATCT for future General Aviation
   Redevelopment to accommodate aircraft tiedowns
- Provides additional Boeing aircraft parking apron to the north of the existing ATCT

#### Terminal Area Plan – Area Plan North

The major improvements identified at the north end of the Airport (both east and west sides) are summarized here:

- Decommissions the existing northeast GA apron tiedown area
- Relocates the existing fuel storage facility
- Relocates the existing Airport maintenance building
- Refurbishes previous FAA building for Airport Offices
- Constructs new Steam Plant access road
- Modifies approximately 9.3 acres of existing National Guard leasehold property and redevelops with airport maintenance and administration facilities





# **Aviation Support Development**

Support facilities provide those services and functions that are necessary for an airport to operate safely and efficiently, but are not part of the runway/taxiway system and are not related to the passenger terminal building, air cargo facilities, aircraft storage, or aircraft maintenance. The aviation support facilities at BFI that require development recommendations include the Airport's maintenance facilities, fuel storage facility, and Airport Traffic Control Tower (ATCT).

Airport Maintenance Facility Development Area. Due to the proposed relocation of the Runway 14R threshold and associated RPZ development restrictions, future plans for the site include renovation of the existing FAA Flight Service Station for Airport Offices, including relocation of the Airport's Maintenance Building and construction of a Snow Removal Equipment (SRE) Building to a new Airport Maintenance Development Area located west of the Steam Plant. In addition, construction of a new access road is planned to serve the existing Steam Plant facility.

**Fuel Storage Facility.** Due to BFI's existing fuel storage facility being partially located within the existing Runway 14R RPZ, which is considered an incompatible land use, and the fact that the existing Jet A fuel storage facility is potentially undersized, a future development site has been identified. The selected redevelopment site for the facility is located west of East Marginal Way South, on the former Jorgensen Forge property that is to be acquired for Airport development. It is estimated that the future fuel storage facility will require a development footprint of approximately two acres.

Airport Traffic Control Tower (ATCT). The Airport's existing ATCT is located at midfield, on the west side of the Airport, adjacent to the ARFF facility. Due to the age and condition of the existing ATCT, it has been determined that a facility upgrade may be necessary during the timeframe of this Master Plan Update. Airport Staff have identified a potential new development site, also located west of East Marginal Way South, on the former Jorgensen Forge property. King County would have the option to construct a new ATCT at this new location with conventional facilities or evaluate an upgrade/replacement of existing ATC facilities with new remote/virtual Air Traffic Control (ATC) technology.

## **Environmental Overview & Land Use Plan**

Utilizing information that was gathered/documented in the *Inventory of Existing Conditions* chapter of this document, an environmental screening review of the Airside and Landside Conceptual Development Plan (CDP) proposal was prepared to identify any significant environmental issues that may be of concern with the proposed improvements. The general environmental resource categories associated with the recommended CDP were summarized in a non-quantified fashion to identify the likely environmental processing necessary for the improvements. These categories include:

- Noise/Compatible Land Use
- Air Quality
- Farmlands
- Floodplains

- Hazardous Materials, Solid Waste, and Pollution Prevention
- Historical, Architectural, Archaeological, and Cultural Resources
- Section 4(f) Property





- Threatened and Endangered Species
- Water Resources

Wetlands

Each improvement specified in the CIP for this Airport Master Plan Update that receives Federal funding or necessitates a change to the ALP requires environmental clearance prior to implementation on a projectspecific basis. The environmental documentation required to receive the clearance differs with the complexity of the project and the anticipated level of environmental impacts. This documentation can range from a Categorical Exclusion (CAT-EX) for simple projects to a full Environmental Impact Statement (EIS) for projects with potentially significant impacts. The purpose of this Environmental Overview is to identify any potentially significant environmental concerns that might influence the ability to implement one or more of the recommended improvement projects and determine the level of environmental documentation required. Based upon this initial assessment, it appears that the potential environmental impacts associated with the identified development projects likely can be addressed or mitigated below significant thresholds through the appropriate environmental documentation process.

# **Conceptual Development Plan**

The major improvement considerations described above for the BFI have been organized and graphically represented in the following illustration entitled AIRPORT LAYOUT PLAN (ALP). In short, the development concept as illustrated by the ALP provides the King County with a long-term development plan for BFI that will continue to accommodate a wide range of aviation user groups and operational activities. As with any airport planning document, the ultimate build-out of the various aviation development areas will be demand driven and will be influenced by financial and environmental considerations.

# **Development Program**

The long-term development program or Capital Improvement Program (CIP) for BFI is intended to establish a strategy to fund airport improvements and maximize the potential to receive federal grant funds, while also establishing a financially prudent plan for improvement funding on a local level. From the FAA's perspective, the CIP provides a detailed listing of projects and costs that is critical for their use in establishing priorities and budgeting expenditures at BFI, when compared with the needs of other airports. From the local sponsor's perspective, the CIP identifies improvement needs and allows budgeting/financial decisions to be made with a comprehensive understanding of financial implications.

The overall concept is to maximize the opportunities to receive federal grants, within the context of, and in recognition of, the amount of local funds that are available for capital needs. Although the CIP will be used for programming by the FAA, there is no financial commitment for the federal government or the sponsor to provide funding for the CIP. If federal matching funds are unavailable for a certain project during the specified time frame, the project will almost certainly be unaffordable using only local money, and the improvement project will not go forward until appropriate funding is available.





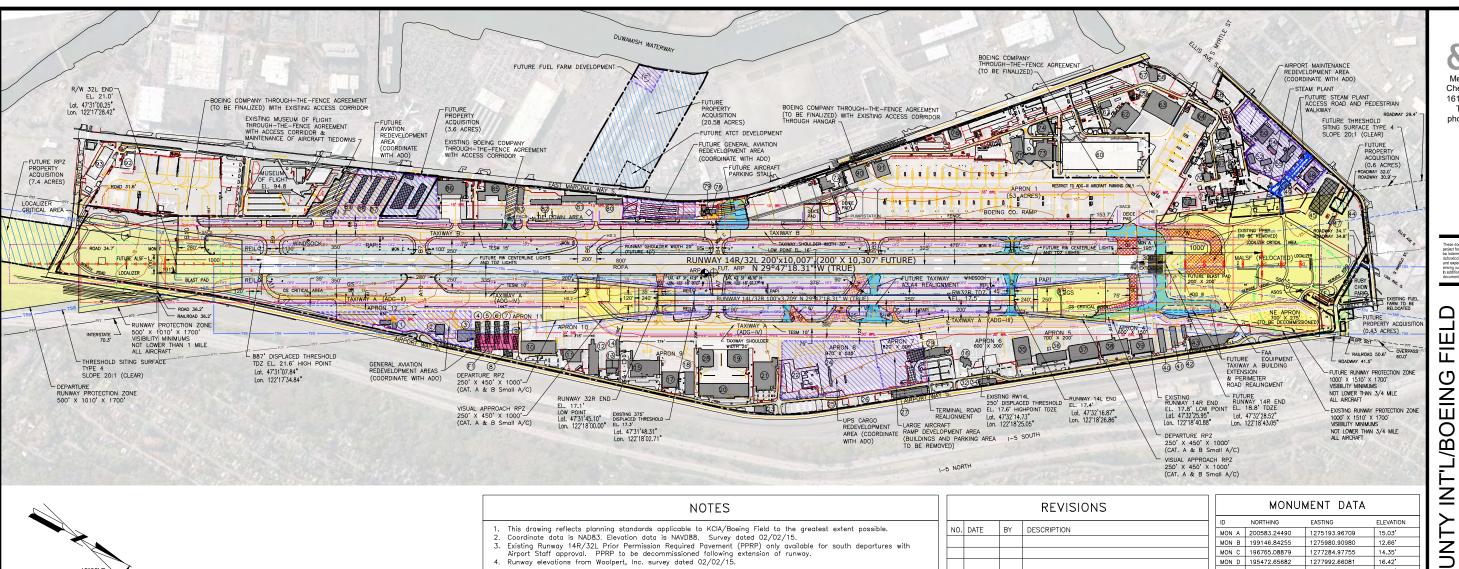
The potential improvements necessary to accommodate the future needs of BFI have been placed into three phases: Phase I (0-5 years), Phase II (6-10 years), and Phase III (11-20 years). The suggested Capital Improvement Program (CIP) for the phasing of these projects is provided in the Financial Implementation Plan chapter of this document, and the estimated total cost for each development phase is presented as follows:

- **Phase I** (0-5 years) @ \$98,954,596
- **Phase II** (6-10 years) @ \$95,803,000
- Phase III (11-20 years) @ \$64,478,000

In the past, the Airport has used a combination of FAA Airport Improvement Program (AIP) entitlement funding (both passenger and cargo entitlements) and discretionary grants, private third-party financing, and cash reserves/net operating revenue to fund capital improvements. These funding sources will continue as the Airport's primary sources to finance Capital Improvements in the future.







			REVISIONS	
NO.	DATE	BY	DESCRIPTION	

MONUMENT DATA						
ID	NORTHING	EASTING	ELEVATION			
MON A	200583.24490	1275193.96709	15.03'			
MON B	199146.84255	1275980.90980	12.66			
MON C	196765.08879	1277284.97755	14.35			
MON D	195472.65682	1277992.66081	16.42			
MON E	193940.83455	1278831.39276	16.14			
MON F	191668.97132	1280075.33067	18.54			
NAD 8	3 STATE PLANE WASHIN	NGTON NORTH, NAVD 88				

	BUILDING LEGEND														
#	DESCRIPTION	ADDRESS	ELEVATION*	#	DESCRIPTION	ADDRESS	ELEVATION*	#	DESCRIPTION	ADDRESS	ELEVATION*	#	DESCRIPTION	ADDRESS	ELEVATION*
1	VACANT	8600 PERIMETER ROAD SOUTH	40.5'	26	UPS	7440 PERIMETER ROAD SOUTH		51	FUTURE AIRPORT MAINT. REDEV		37.5'	76	BOEING CO CREDIT UNION	7960 EAST MARGINAL WAY	50.9'
2	KENMORE AERO SERVICES	8555 PERIMETER ROAD SOUTH	40.2'	27	K.C. AGENCIES	7300 PERIMETER ROAD SOUTH		52	FUTURE AIRPORT MAINT. REDEV		38.0'	77	BOEING CO 75 YEAR LEASE		45.4'
3	KENMORE AERO SERVICES	8535 PERIMETER ROAD SOUTH	44.3'	28	QUAD 7 DEVELOPMENT, LLC		59.8'	53	FUTURE AIRPORT MAINT, REDEV		34.7'	78	ARFF BUILDING	8190 EAST MARGINAL WAY	38.3'
4	HANGAR II, LLC T-HANGAR (TBR)	8500 PERIMETER ROAD SOUTH	39.0'	29	AIRPORT TERMINAL	7277 PERIMETER ROAD SOUTH	59.6'	54	FUTURE AIRPORT MAINT, REDEV		45.4'	79	ATCT (TO BE RELOCATED)	8200 EAST MARGINAL WAY	85.1'
5	HANGAR II, LLC T-HANGAR (TBR)	8490 PERIMETER ROAD SOUTH	35.3'	30	REMOVED			55	FUTURE AIRPORT MAINT, REDEV		43.1'	80	T-HANGAR	8700 A EAST MARGINAL WAY	37.4'
6	HANGAR II, LLC T-HANGAR (TBR)	84xx PERIMETER ROAD SOUTH	35.1'	31	REMOVED			56	FUTURE AIRPORT MAINT, REDEV			81	T-HANGAR	8700 B EAST MARGINAL WAY	41.5'
7	HANGAR II, LLC T-HANGAR (TBR)	8467 PERIMETER ROAD SOUTH	34.6'	32	AVIATION STORE	7201 PERIMETER ROAD SOUTH	32.9'	57	BOEING CO MARKOV SITE		30.9'	82	T-HANGAR	8700 C EAST MARGINAL WAY	36.3'
8	HANGAR II, LLC (TBR)	8465 PERIMETER ROAD SOUTH	36.9'	33	REMOVED			58	BOEING CO MARKOV SITE		30.9'	83	T-HANGAR	8700 D EAST MARGINAL WAY	35.8'
9	HANGAR II, LLC T-HANGAR (TBR)	8453 PERIMETER ROAD SOUTH	36.4	34	AVIATION TRAINING CENTER	7170 PERIMETER ROAD SOUTH	32.9'	59	BOEING CO 75 YEAR LEASE		30.9	84	REMOVED		
10	MODERN AVIATION	8403 PERIMETER ROAD SOUTH	60.7	35	7023 PERIMETER ROAD, LLC	7023 PERIMETER ROAD SOUTH	56.6'	60	BOEING CO 75 YEAR LEASE (THROUGH	H THE FENCE AGREEMENT)	107.9'	85	GDH-I, LLC	8900 EAST MARGINAL WAY	48.2'
11	MODERN AVIATION	8285 PERIMETER ROAD SOUTH	47.7	36	SIGNATURE	7001 PERIMETER ROAD SOUTH	49.7'	61	BOEING CO 75 YEAR LEASE		46.5'	86	CHARLESAIR, LLC	9010 EAST MARGINAL WAY	46.8'
12	VACANT	8201 PERIMETER ROAD SOUTH	37.2'	37	SIGNATURE	6987 PERIMETER ROAD SOUTH	55.7'	62	BOEING CO 75 YEAR LEASE		79.8'	87	HANGAR "E" (TBR)	9210 EAST MARGINAL WAY	36.3'
13	KENMORE AIR HARBOR	8167 & 8187 PERIMETER ROAD SOUTH	39.6'	38	KING COUNTY JET CENTER, INC.	6801 B PERIMETER ROAD SOUTH	56.1'	63	BOEING CO 75 YEAR LEASE		99.8'	88	HANGAR "D" (TBR)	9220 EAST MARGINAL WAY	35.7'
14	KENMORE AIR HARBOR	8185 PERIMETER ROAD SOUTH	35.2'	39	KING COUNTY JET CENTER, INC.	6801 A PERIMETER ROAD SOUTH	58.1'	64	BOEING CO 75 YEAR LEASE		63.7'	89	HANGAR "C" (TBR)	9230 EAST MARGINAL WAY	36.3'
15	MENTE	8075 PERIMETER ROAD SOUTH	52' EST.	40	T-HANGAR	6711 PERIMETER ROAD SOUTH	38.9'	65	BOEING CO 75 YEAR LEASE		55.5'	90	LARGE HANGAR		69.3'
16	SIGNATURE FBO		31' EST.	41	T-HANGAR	6691 PERIMETER ROAD SOUTH	38.3'	66	BOEING CO 75 YEAR LEASE		25.4'	91	LARGE HANGAR		67.7'
17	NORDSTROMS, INC.	7979 PERIMETER ROAD SOUTH	45.6'	42	T-HANGAR	6671 PERIMETER ROAD SOUTH	34.8'	67	BOEING CO 75 YEAR LEASE		49.9'	92	BOEING		72.8'
18	NORDSTROMS, INC.	7xxx PERIMETER ROAD SOUTH	49.8'	43	J & J AIRPORT PROPERTIES, LLC	6605 PERIMETER ROAD SOUTH	51.6	68	BOEING CO 75 YEAR LEASE		33.3'	93	BOEING		54.7*
19	QUAD 7 DEVELOPMENT, LLC	7777 PERIMETER ROAD SOUTH	59.3'	44	VACANT	6404 ELLIS AVE.		69	BOEING CO 75 YEAR LEASE		35.9*				
20	QUAD 7 DEVELOPMENT, LLC	7827 PERIMETER ROAD SOUTH	53.6'	45	AIRPORT MAINTENANCE (TO BE RELOCATED)			70	BOEING CO 75 YEAR LEASE		47.6'				
21	HANGAR HOLDINGS	7675 PERIMETER ROAD SOUTH	90.3'	46	REMOVED			71	BOEING CO 75 YEAR LEASE		47.4'				
22	VACANT	7607 PERIMETER ROAD SOUTH		47	NORTH EQUIPMENT SHED (TBR)		35.8'	72	BOEING CO 75 YEAR LEASE		32.9'	F1	MODERN AVIATION		
23	UPS	7585 PERIMETER ROAD SOUTH	38.3'	48	EXISTING FAA FLIGHT SERVICES STATION FUTURE AIRPORT ADMIN. OFFICES	6610 ELLIS AVE.	34.4'	73	BOEING CO 75 YEAR LEASE		105.0'				
24	UPS SORT SHACK	75XX PERIMETER ROAD SOUTH	34.9'	49	KC DNR WASTEWATER	6640 ELLIS AVE.	39.9'	74	BOEING CO 75 YEAR LEASE		106.9'				
25	UPS	7500 PERIMETER ROAD SOUTH		50	FUTURE AIRPORT MAINT, REDEV	6736 ELLIS AVE.	42.4'	75	BOEING CO 75 YEAR LEASE		82.0'				

\* TOP ELEVATIONS FROM AGIS SURVEY BY WOOLPERT, INC. (AUGUST 2016)

(TBR) TO BE REMOVED

15°35' F ± 0°22' CHANGING BY (OCT, 11, 2018)

500

1000

SPONSOR	APPROVAL
NAME/TITLE	DATE

NAME/TITLE		DATE
FAA	APPROVAL	

ITEM  ITEM  RUNNAY SAFETY AREA  RUNNAY 14R/328  RUNNAY SAFETY AREA  RUNNAY SAFETY AREA  RUNNAY 14R/328  BUILDINGS RESTRICTION LINE (HEIGHT ABOVE R/W CL)  TAXIWAY SAFETY AREA  ILS CRITICAL AREAS  AIRPORT PROPERTY LINE  FENCE (8')  AIRFIELD PAVEMENT  AIRFIELD PAVEMENT  AIRFIELD SHOULDER PAVEMENT  AIRFIELD SHOULDER PAVEMENT  AIRFIELD SHOULDER PAVEMENT  BUILDINGS  BEACON  **  N/A  **  **  **  **  **  **  **  **  **	LATOUT LLUI	_110		
RUNWAY SAFETY AREA  RUNWAY 147,238  RUNWAY OBJECT FREE AREA  RUNWAY PROFECTION LINE (HEIGHT ABOVE R/W CL)  RUNWAY OBJECT FREE AREA  RUNWAY PROFECTION LINE  FENCE (8')  AIRPIELD PAVEMENT REMOVED  N/A  RIPRIELD PAVEMENT REMOVED  N/A  RIPRIELD PAVEMENT REMOVED  N/A  RUNWAY PROTECTION ZONE  BUILDINGS  BUILDINGS  BUILDINGS TO BE REMOVED  N/A  RUNWAY PROFECTION APPROACH PATH INDICATOR (PAPI)  TAXIWAY HOLDLINES AND SIGNS  RUNWAY PROTECTION APPROACH PATH INDICATOR (PAPI)  TAXIWAY HOLDLINES AND SIGNS  RUNWAY PROTECTION APPROACH PATH INDICATOR (PAPI)  TAXIWAY HOLDLINES AND SIGNS  RUNWAY PROTECTION APPROACH PATH INDICATOR (PAPI)  TAXIWAY HOLDLINES AND SIGNS  RUNWAY PROTECTION APPROACH PATH INDICATOR (PAPI)  TAXIWAY HOLDLINES AND SIGNS  RUNWAY PROTECTION APPROACH PATH INDICATOR (PAPI)  TAXIWAY HOLDLINES AND SIGNS  RUNWAY END IDENTIFIER LIGHTS (REILS)  O  C  CCCESS CORRIDORS (THROUGH—THE—FENCE)	ITEM	EXISTING	FUTURE	
RUNWAY OBJECT FREE AREA ROMAN 14.238 BORA 1	AIRPORT REFERENCE POINT (ARP)	•	Φ	
RUNWAY OBJECT FREE AREA RINNAY 14R/328 BILDING RESTRICTION LINE (HEICHT ABOVE R/W CL)  TAXIWAY SAFETY AREA  TAXIWAY OBJECT FREE AREA  ILS CRITICAL AREAS  AIRPORT PROPERTY LINE  FENCE (8)  AIRPIELD PAVEMENT  AIRFIELD PAVEMENT  AIRFIELD PAVEMENT REMOVED  RUNWAY PROTECTION ZONE  BUILDINGS  BUILDINGS	RUNWAY SAFETY AREA RUNWAY 14R/32L			
BUILDINGS TO BE REMOVED  FURL STORAGE  BEACON  WINDSOCK  PECLSION APPROACH PATH INDICATOR (PAPI)  TAXIWAY SUPFIX LIGHT SUPFORK (PAPI)  TAXIWAY POLICINES AND SIGNS  SURVEY MONUMENTS  AIRPORT SUPPORT VEHICLE ACCESS LANES  BUILDINGS TO SE REMOVED (PAPI)  TAXIWAY POLICINES AND SIGNS  SURVEY MONUMENTS  AIRPORT SUPPORT VEHICLE ACCESS LANES  ACCESS CORRIDORS (THROUGH—THE—FENCE)	DUNINAY OD FOT FOFF ADEA RUNWAY 14R/32L	R0FA		
TAXIWAY DBJECT FREE AREA  ILS CRITICAL AREAS  AIRPORT PROPERTY LINE  FENCE (8')  AIRFIELD PAVEMENT  AIRFIELD PAVEMENT  AIRFIELD SHOULDER PAVEMENT  AIRFIELD SHOULDER PAVEMENT  RUNWAY PROTECTION ZONE  PART 77 APPROACH SURFACE  BUILDINGS  BUILDI			N/A	
ILS CRITICAL AREAS  AIRPORT PROPERTY LINE  FENCE (8')  AIRPIELD PAVEMENT  AIRPIELD SHOULDER PAVEMENT  AIRPIELD PAVEMENT REMOVED  PART 77 APPROACH SURFACE  BUILDINGS	TAXIWAY SAFETY AREA	TSA	— — — TSA —	
AIRPORT PROPERTY LINE  FENCE (8')  AIRFIELD PAVEMENT  AIRFIELD PAVEMENT  AIRFIELD PAVEMENT  AIRFIELD PAVEMENT REMOVED  RIUNWAY PROTECTION ZONE  BUILDINGS  BUILDINGS  BUILDINGS  BUILDINGS  BUILDINGS  BUILDINGS  BEACON  *  N/A  PROL:  *  N/A  *  N/A  *  N/A  *  AIRFORT  AIRFORD  AIRF	TAXIWAY OBJECT FREE AREA	TOFA —	TOFA	
AIRPORT PROPERTY LINE FENCE (8')  AIRFIELD PAVEMENT AIRFIELD SHOULDER PAVEMENT AIRFIELD PAVEMENT REMOVED  RUNNAY PROTECTION ZONE PART 77 APPROACH SURFACE  BUILDINGS  BUILDINGS  BUILDINGS TO BE REMOVED  ROADS  FUEL STORAGE  BEACON  WINDSOCK  PECLISTORAGE  BEACON  TAXIWAY HOLDLINES AND SIGNS  SURVEY MONUMENTS  AIRPORT SUPPORT VEHICLE ACCESS LANES  RUNWAY END IDENTIFIER LIGHTS (RELIS)  C ACCESS CORRIDORS (THROUGH—THE—FENCE)	ILS CRITICAL AREAS		N/A	NOT FOR CONCERNATION
AIRFIELD PAVEMENT AIRFIELD SHOULDER PAVEMENT AIRFIELD SHOULDER PAVEMENT AIRFIELD SHOULDER PAVEMENT RUNWAY PROTECTION ZONE RUNWAY PROTECTION ZONE PART 77 APPROACH SURFACE BUILDINGS BUILDI	AIRPORT PROPERTY LINE			NOT FOR CONSTRUCTION
AIRFIELD PAVEMENT AIRFIELD PAVEMENT REMOVED  AIRFIELD PAVEMENT  AI	FENCE (8')	×	×	
AIRPIELD PAVEMENT REMOVED  RUNWAY PROTECTION ZONE  RUNWAY PROTECTION ZONE  BART 77 APPROACH SURFACE  BUILDINGS  BUILDINGS	AIRFIELD PAVEMENT			74-704-70004-704
AIRPELD PAVEMENT REMOVED  NA  RINIWAY PROTECTION ZONE  PART 77 APPROACH SURFACE  FURESHOLD SITING SURFACE  BUILDINGS  BUILDINGS TO BE REMOVED  ROADS  FUEL STORAGE  BEACON  **  N/A  PRECISION APPROACH PATH INDICATOR (PAPI)  TAXIWAY HOLDLINES AND SIGNS  SURVEY MONUMENTS  RUNNAY END IDENTIFIER LIGHTS (RELS)  ACCESS CORRIDORS (THROUGH—THE—FENCE)	AIRFIELD SHOULDER PAVEMENT			
RINNAY PROTECTION ZONE  PART 77 APPROACH SURFACE  BUILDINGS  BUILDINGS TO BE REMOVED  ROADS  FUEL STORAGE  BEACON  ** ** ** ** ** ** ** ** ** ** ** ** *	AIRFIELD PAVEMENT REMOVED	N/A	××××××	0/11/0/11/1 2021
PART 77 APPROACH SURFACE BUILDINGS B	RUNWAY PROTECTION ZONE			
THRESHOLD SITING SURFACE BUILDINGS BUILDINGS TO BE REMOVED  ROADS FUEL STORAGE  BEACON  ** N/A PRECISION APPROACH PATH INDICATOR (PAPI) TAXIWAY HOLDLINES AND SIGNS SURVEY MONUMENTS AIRPORT SUPPORT VEHICLE ACCESS LANES RUNWAY END IDENTIFIER LIGHTS (REILS) ACCESS CORRIDORS (THROUGH—THE—FENCE)	PART 77 APPROACH SURFACE	917 — P77	p	****
BUILDINGS TO BE REMOVED  ROADS  FUEL STORAGE  BEACON  * N/A  WINDSOCK  PRECISION APPROACH PATH INDICATOR (PAPI)  TAXIWAY HOLDLINES AND SIGNS  SURVEY MONUMENTS  AIRPORT SUPPORT VEHICLE ACCESS LANES  ROWAY END IDENTIFIER LIGHTS (REILS)  ACCESS CORRIDORS (THROUGH-THE-FENCE)  FIGURE ES1  Airport  Layout  Drawing	THRESHOLD SITING SURFACE			
ROADS  FUEL STORAGE  BEACON  * N/A  PRECISION APPROACH PATH INDICATOR (PAPI)  TAXIWAY HOLDLINES AND SIGNS  SURVEY MONUMENTS  RUNWAY END IDENTIFIER LIGHTS (REILS)  ACCESS CORRIDORS (THROUGH—THE—FENCE)	BUILDINGS			
FUEL STORAGE  BEACON  * N/A WINDSOCK  PECCISION APPROACH PATH INDICATOR (PAPI)  TAXIWAY HOLDLINES AND SIGNS  SURVEY MONUMENTS  MON. A AIRPORT SUPPORT VEHICLE ACCESS LANES  RUNWAY END IDENTIFIER LIGHTS (REILS)  ACCESS CORRIDORS (THROUGH—THE—FENCE)  ACCESS CORRIDORS (THROUGH—THE—FENCE)	BUILDINGS TO BE REMOVED	N/A	*******	Figure FS1
BEACON  WINDSOCK  PERCISION APPROACH PATH INDICATOR (PAPI)  TAXIWAY HOLDLINES AND SIGNS  SURVEY MONUMENTS  MON. A  AIRPORT SUPPORT VEHICLE ACCESS LANES  RUWAY END IDENTIFIER LIGHTS (REILS)  ACCESS CORRIDORS (THROUGH—THE—FENCE)  ACCESS CORRIDORS (THROUGH—THE—FENCE)	ROADS		====	r igaio Eo i
WINDSOCK PRECISION APPROACH PATH INDICATOR (PAPI)  TAXIWAY HOLDLINES AND SIGNS SURVEY MONUMENTS AIRPORT SUPPORT VEHICLE ACCESS LANES RUNWAY END IDENTIFIER LIGHTS (REILS) ACCESS CORRIDORS (THROUGH-THE-FENCE)	FUEL STORAGE	(Ē)	Ē	
PRECISION APPROACH PATH INDICATOR (PAPI)  TAXIWAY HOLDLINES AND SIGNS  SURVEY MONUMENTS  AIRPORT SUPPORT VEHICLE ACCESS LANES  RUNWAY END IDENTIFIER LIGHTS (REILS)  ACCESS CORRIDORS (THROUGH-THE-FENCE)	BEACON	*	N/A	A :
TAXIMAY HOLDLINES AND SIGNS  SURVEY MONUMENTS  AIRPORT SUPPORT VEHICLE ACCESS LANES  ROWAY END IDENTIFIER LIGHTS (RELIS)  ACCESS CORRIDORS (THROUGH—THE—FENCE)	WINDSOCK	<i>P</i>	N/A	Airport
SURVEY MONUMENTS  AIRPORT SUPPORT VEHICLE ACCESS LANES  RUNWAY END IDENTIFIER LIGHTS (REILS)  ACCESS CORRIDORS (THROUGH—THE—FENCE)	PRECISION APPROACH PATH INDICATOR (PAPI)		N/A	Lavout
AINTOIN SOFFON EVINEL NOTE: SEVEN SO CONTROL	TAXIWAY HOLDLINES AND SIGNS	000		
AINTOIN SOFFON EVINEL NOTE: SEVEN SO CONTROL		MON. A	N/A	Drawing
ACCESS CORRIDORS (THROUGH-THE-FENCE)	AIRPORT SUPPORT VEHICLE ACCESS LANES		N/A	Diaming
		0	α	
FUTURE DEVELOPMENT AREAS XIIII	, , ,			
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			52220	XIIII

LAYOUT LEGEND

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Mead and Hunt, Inc. Cherry Street Building 1616 East 15th Street Tulsa, OK 74120 phone: 918-585-8844 meadhunt.com

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