1. Purpose and Need

1.1 Introduction

The St. Louis Lambert International Airport (hereafter referred to as the airport) proposes to sponsor the airport's partner, The Boeing Company (Boeing), to develop airport property in support of defense aircraft assembly and testing operations at the airport.

This Environmental Assessment (EA) analyzes the potential environmental effects of the Proposed Action, which includes constructing aircraft Assembly Buildings, associated supporting buildings, and flight ramps, as well as performing aircraft testing once assembled. The Proposed Action also includes Boeing leasing parcels from the airport. Section 1.4 includes a full description of the Proposed Action, and Section 2 includes the alternatives considered.

This EA has been prepared in accordance with the Council on Environmental Quality's implementing regulations under the *National Environmental Policy Act of 1969* (NEPA) (40 *Code of Federal Regulations* [CFR] 1500 through 1508) and the *Airport and Airway Improvement Act of 1982* (Public Law 97-248), as amended.

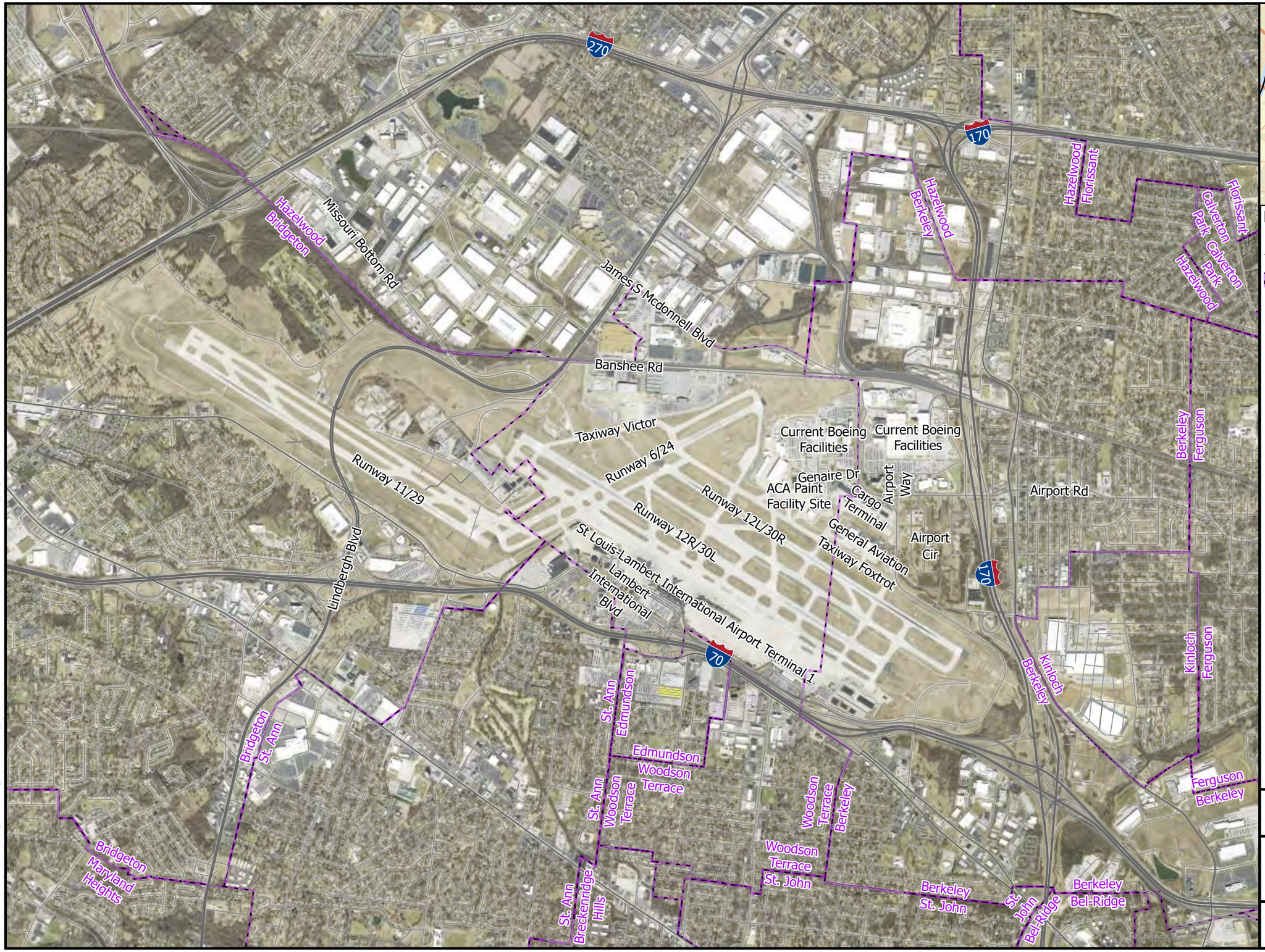
The Federal Aviation Administration (FAA) is the lead Federal Agency to ensure compliance with NEPA for this Proposed Action; therefore, this EA was prepared in accordance with FAA Order 1050.1F, Environmental Impacts: Policies and Procedures, and FAA Order 5050.4B, NEPA Implementing Instructions for Airport Actions.

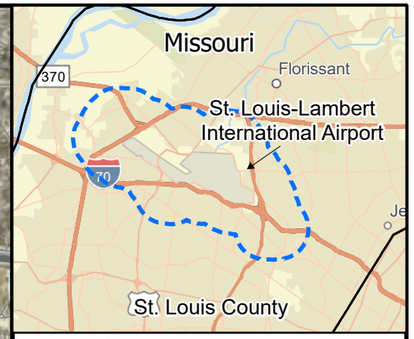
1.2 Background

The St. Louis Lambert International Airport is a commercial service airport owned and operated by the City of St. Louis. The St. Louis Airport Authority manages the airport's daily operations (Landrum & Brown, Inc. 2012). The airport is approximately 14 miles northwest of downtown St. Louis (Figure 1-1). The airport encompasses approximately 3,686 acres of land and is generally bounded to the west by Interstate 270, to the northwest by Berry Hill Golf Course, to the north by a railroad line, to the southeast by Interstate 170, and to the south by Interstate 70. The airport is partially within the Cities of Bridgeton to the west, Hazelwood to the north, and Berkeley to the north. Additional cities that abut the interstates include Kinlock to the east; St. Ann, Edmunson, and Woodson Terrace to the south; and Champ to the southwest. Multiple commercial entities, including Federal Express (FedEx), United Parcel Service (UPS), and Boeing, have long-term leases on property along the northern portions of the airport. Interstate 70 provides commercial passenger access to the airport. A local roadway network provides access to cargo and other commercial aviation functions.

The Greater Metropolitan St. Louis Region has a population of 2.8 million people (USCB 2021). The airport is the primary access point for commercial passengers that serve the metropolitan population and region. The airlines flew 75,695 scheduled flights and transported more than 13.6 million passengers in calendar year 2022 (St. Louis Lambert International Airport 2023).

The airfield system consists of four runways: three parallel runways (12R-30L; 12L-30R, and 11-29) and one crosswind runway (6-24). Primary Runway 12R-30L intersects the crosswind runway. The airfield also includes a network of taxiways, apron taxiway connectors, aprons, and hold pads. (Landrum & Brown, Inc. 2012)





Legend

Street Centerline

City Boundary

N

BASE MAP SOURCE:
USGS USA Topo Map

0 1,000 2,000 3,000
FEET

Site Map
Boeing STL Expansion

Figure 1-1
St. Louis Lambert International Airport

DATE: 7/27/2023

Jacobs

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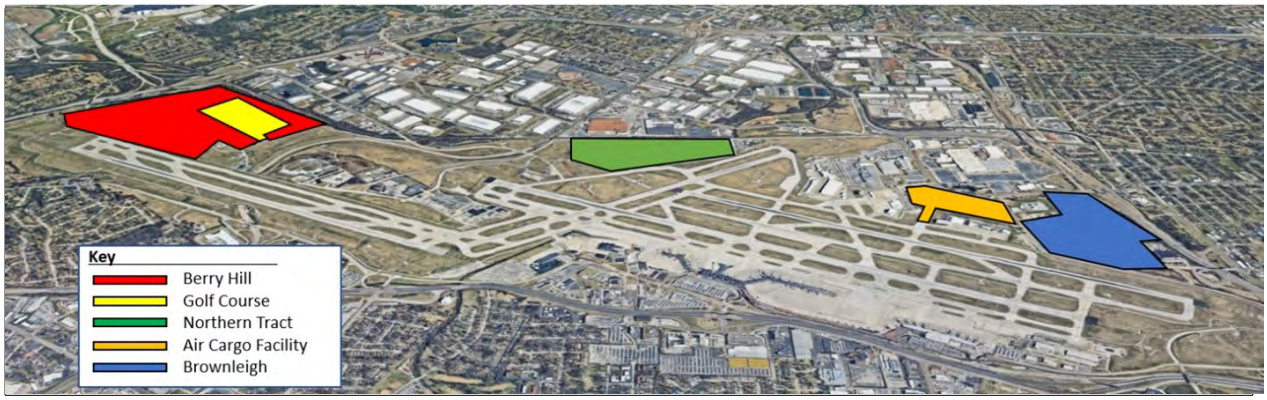
1.3 Purpose and Need

The FAA *Reauthorization Act of 2018* requires that FAA ensure the safe and efficient use of airport properties and monitor the value of federal investments at airports. The purpose of the Proposed Action is to improve aircraft assembly capabilities at the airport and to allow Boeing additional airfield access for aircraft flight testing. The Proposed Action needs to occur to allow for the development of currently underused airport property, support regional economic development, and provide facilities necessary to support national defense objectives.

1.4 Description of the Proposed Action

The airport's partner, Boeing, proposes to lease land from the airport to support construction and operation for U.S. defense-related aircraft production and testing. Figure 1-2 depicts tracts of land at the airport evaluated for development (Northern Tract parcel, Brownleigh parcel, Northern Air Cargo parcel, and Berry Hill/Golf Course parcels). Aircraft flight testing, evaluation, and product delivery require a parcel with direct access between the Hangar and associated facilities to taxiways and runways at the airport. Flight testing is proposed to take place in similar airspace away from the airport that is used by legacy programs originating from the airport. The merits of these parcels were evaluated and the location for the Proposed Action was identified during the alternatives analysis discussion in Section 2.

Figure 1-2. Tracts of Land Evaluated for Development at St. Louis Lambert International Airport



Source: Boeing 2023.

1.4.1 Phase 1

Phase 1 of the Proposed Action includes construction and operation of Boeing's Assembly and Testing Campus. To construct the facilities, Boeing would first demolish existing structures, clear vegetation, and grade the chosen parcels. Phase 1 proposed construction would include the following:

- Approximately 979,000-square-foot (ft^2) Assembly Building
- Approximately 82,000-ft^2 Central Utility Plant (CUP)
- Approximately 58,000-ft^2 CUP
- Approximately 191,500-ft^2 Hangar
- Approximately 94,550-ft^2 Radar Cross-section (RCS) Range Building
- Approximately 25,000-ft^2, Open-air Aircraft Shelters (Launch and Recovery Structures)
- Approximately 14,500-ft^2 Hush House
- Approximately 15,600-ft^2 Maintenance Building
- Approximately 15,200-ft^2 Fuel Calibration Building
- Approximately 11,800-ft^2 Fire Department Satellite Building
- Several small support or storage structures (each under 10,000 ft^2)

- Taxiway connector(s) to connect to taxiway(s)
- Coordination with FAA Air Traffic Organization Technical Operations personnel to support modifications or relocation of FAA infrastructure, cables, and equipment

Additional construction would be required for roads, parking areas, and other infrastructure improvements within the parcel(s). The parcel(s) would be secured with new perimeter fencing, with guardhouses and badge access, similar to other facilities in the area that Boeing occupies.

Aircraft would be assembled at the Assembly Building site and then towed to the Hangar at the flight ramp site, two to four times a month. Additionally, aircraft would be towed from the Hangar to the existing Boeing paint booth (Building 69) located near the intersection of Taxiways Foxtrot and Kilo to be painted, and returned to the Hangar, also occurring two to four times a month. The flight ramp site parcel(s) must contain the flight ramp structures, and the aircraft would move between the Hangar, Fuel Calibration Building, RCS, Hush House, and open-air shelters, and to the existing paint booth, as needed. Aircraft operations are primarily the production acceptance of new-build aircraft and the U.S. Government acceptance of those aircraft at the factory. Boeing operates the aircraft built here in accordance with contractual requirements levied by our government customers to verify they meet the specifications and requirements set by our government customer. For these contracts, the aircraft would be operated under public use rules with military airworthiness oversight. These activities, which would be supported by this expansion, continue the long-established, industry-standard processes for the acceptance of aircraft delivered to government customers.

1.4.2 Phase 2

Phase 2 of the Proposed Action, which is contingent of future contract awards, would construct additional structures and/or additions to existing structures and increase operations of Boeing's Assembly and Testing Campus. Phase 2 is optional, and implementation is dependent on meeting specific proprietary requirements.

Phase 2 proposed construction would include the following:

- Approximately 720,000-ft^2 Assembly Building
- Approximately 75,700-ft^2 Hangar addition
- Approximately 205,000-ft^2 Paint Building
- Approximately 12,500-ft^2 additional Open-air Aircraft Shelters (Launch and Recovery Structures)
- Approximately 13,300-ft^2 additional Hush House
- Approximately 12,000-ft^2 additional Fuel Calibration Building

If Phase 2 is implemented, frequency of the movement from the Assembly Buildings would increase as a result of the second Assembly Building coming online with towing increasing to four to six times a month. Test flights would occur as described under Phase 1, and test flight numbers would stay roughly the same after Phase 2 implementation and legacy flight reductions (refer to Table 3-4 for flight counts).

1.5 Agency Actions and Approvals

The Proposed Action is not included on the airport's latest Airport Layout Plan (ALP). FAA Airports Division has provided guidance regarding the FAA's ALP update requirements to show Boeing's proposed taxiway connectors to Taxiways Foxtrot and Victor. Boeing will provide a conceptual layout of the taxiway connectors and a conceptual operations plan to FAA Airports Division and the airport for review and comment. Boeing will schedule and facilitate a planning meeting to review the layout and operations plan with the airport, FAA, and remaining aeronautical Northern Tract tenants. The airport will submit the revised Future Airport Layout Drawing depicting the proposed taxiway connectors to Taxiways Foxtrot and Victor to FAA Airports Division. FAA Airports Division will circulate the revised Future Airport Layout Drawing for FAA review and comment. If no objections are raised the FAA Airports Division can complete the FAA Form 5200-8 to conclude the Safety Risk Management (SRM) process. If objections are raised, Boeing will facilitate an independent SRM panel in accordance with SRM requirements. Once the SRM

process is concluded, FAA Airports Division will approve the ALP revision conditioned upon completion of the NEPA analysis and Special Purpose Laws process.

For the Proposed Action to proceed, the following Agency actions and approvals are requested:

- Conditional approval of ALP and Future Airport Layout Drawing to depict the proposed improvements pursuant to 49 United States Code (U.S.C.) §§ 40103(b) and 47107(a)(16)
- Determination under 49 U.S.C. § 44502(b) that the airport development is reasonably necessary for use in air commerce or in the interests of national defense

1.6 Timeframe of the Proposed Action

Implementation of the Proposed Action would only occur after FAA has issued a decision based on this EA. Preliminary design of the proposed facilities is currently ongoing to define specific elements of the Proposed Action, including grading and drainage requirements, foundations, building heights, and structural materials to be used. If FAA approves the Proposed Action at the end of 2023, final design, demolition, and construction activities are proposed to begin in 2024 (after FAA approval) and continue into 2027. Target occupancy is proposed in January 2026 and January 2027 for Phase 1 and January 2029 for Phase 2 based on future needs.