



ST. LOUIS LAMBERT
INTERNATIONAL AIRPORT.®

AIRPORT MASTER PLAN

CHAPTER 1 - INTRODUCTION

FEBRUARY 2023 – FINAL DRAFT



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1 INTRODUCTION

1.1 BACKGROUND

Over 15 million passengers (an average of 41,000 passengers per day) flew in and out of STL in 2019. By 2040, the number of annual travelers is projected to grow to 21 million. Since the last airport Master Plan (MP) was completed in 2012, changes have occurred in the national and local aviation industry, which necessitated an update to the plan. As a result, in 2020, the St. Louis Airport Authority (STLAA) initiated, on behalf of the City of St. Louis, an Airport Layout Plan Update (ALPU) to meet short-term and long-term aviation demand. By mid-2021, it became apparent through the ALPU process that significant terminal and landside improvements needed to be considered to adequately meet the Airport's short- and long-term needs. Therefore, the scope of the ALPU was expanded to become a full master plan, and the effort was renamed the *Airport Layout Plan Update and Master Plan (ALPU/MP)*.

1.2 METHODOLOGY

An airport master plan is a long-range roadmap for the comprehensive development of an airport that may be required to meet projected demand.

This ALPU/MP for STL was prepared for the STLAA between 2020 and 2022 by WSP USA, in association with Crawford, Murphy & Tilly (CMT), Unison Consulting, Faith Group, Lion CSG, Hirsh Associates, NV5 GeoSpatial, KB Environmental Sciences, TransSolutions, EDSI, and M3 Engineering. The project team followed the general methodology described in the Federal Aviation Administration (FAA) Advisory Circular (AC) 150/5070-6B on Airport Master Plans, and other FAA airport guidance, such as AC 150/5300-13A, Change 1, on Airport Design.

This approach was enhanced and augmented for addressing the local specificities of St. Louis and the objectives of the STLAA ALPU/MP process.

The STL ALPU/MP encouraged the community to be involved in the process through stakeholder groups, an open house, three public surveys, and an ALPU/MP webpage.

While the ALPU/MP has been completed, the plan is only the first of several steps required before construction of improvements can begin. Construction of the new consolidated terminal, for example, will first require approval under the National Environmental Policy Act (NEPA), followed by an agreement with the airlines and architectural design, permitting, and finally construction.

1.3 AIRPORT LAYOUT PLAN UPDATE AND MASTER PLAN DOCUMENTATION

The ALPU/MP documentation features the following chapters:

- Chapter 1: Introduction

- Chapter 2: Inventory of Existing Conditions
- Chapter 3: Aviation Activity Analysis and Forecasts
- Chapter 4: Demand Capacity and Facility Requirements
- Chapter 5: Alternatives Development and Evaluation
- Chapter 6: Implementation and Funding Plan
- Chapter 7: Environmental Overview
- Chapter 8: Airport Layout Plan Narrative Report
- Chapter 9: Stormwater Planning
- Chapter 10: Stakeholder Engagement
- Chapter 11: Facility Conditions Assessment – Volume I
- Chapter 12: Facility Conditions Assessment – Volume II (Confidential)

The following appendices are part of the ALP/MP documentation; the appendix numbers correspond to their respective chapters:

Appendix 0	List of Acronyms
Appendix 2A	Sustainability Initiatives
Appendix 3A	Comparison of STL ALPU Forecast with FAA TAF
Appendix 3B	Critical Aircraft Determination
Appendix 3C	Forecast Approval Letter
Appendix 4A	Runway Exit Design Interactive Model (REDIM) Assumptions
Appendix 4B	Design Day Flight Schedule (DDFS)
Appendix 4C	Roadway Geometry Analysis
Appendix 4D	Intersection Movements Analysis
Appendix 5A	Individual Taxiway Alternatives and Evaluation
Appendix 5B	Airfield Layout Alternatives
Appendix 5C	Comparative Safety Assessment
Appendix 5D	Obstacle Action Plan
Appendix 8A	FAA SOP Checklist
Appendix 9A	NRCS Soil Report
Appendix 9B	Alternative ROM Cost Estimate
Appendix 10A	Public Survey Results

Appendix 11A	Facility Condition Assessment – Volume I: Component Classification System
Appendix 11B	Facility Condition Assessment – Volume I: Tabular Assessment
Appendix 11C.1	Facility Condition Assessment – Volume I: Compiled Facility Condition Assessment CapEx
Appendix 11C.2	Facility Condition Assessment – Volume I: Basis of Estimate and Markups
Appendix 11D	Facility Condition Assessment – Volume I: Reports and Documents Reviewed
Appendix 11E	Facility Condition Assessment – Volume I: Meeting Minutes
Appendix 11F	Facility Condition Assessment – Volume I: Supplemental Structural Assessment Report
Appendix 11G	Facility Condition Assessment – Volume I: Fire Sprinkler Testing Report
Appendix 11H	Facility Condition Assessment – Volume I: Transformer Testing Report
Appendix 12A.1	Facility Condition Assessment – Volume II: Compiled Facility Condition Assessment CapEx (Confidential)
Appendix 12A.2	Facility Condition Assessment – Volume II: Basis of Estimate and Markups (Confidential)
Appendix 12B	Facility Condition Assessment – Volume II: Meeting Minutes (Confidential)

1.4 FEDERAL AVIATION ADMINISTRATION FUNDING AND STUDY ACCEPTANCE

The preparation of this document was supported, in part, through the Airport Improvement Program (AIP) financial assistance from the Federal Aviation Administration (FAA), as provided under Title 49, United States Code, section 47104. The contents do not necessarily reflect the official views or policy of the FAA. Acceptance of this report by the FAA does not in any way constitute a commitment on the part of the United States to participate in any development depicted therein, nor does it indicate that the proposed development is environmentally acceptable in accordance with appropriate public laws.

1.5 PROJECT FIRMS

Table 1.5-1 summarizes the firms that contributed to the ALPU/MP effort.

Table 1.5-1: Project Firms

FIRM	ROLE
WSP	Prime
	Airfield
CMT	Airport Layout Plan Drawings
	AGIS update
	M3/KB/Faith Group Oversight
M3	Major utilities
	Stormwater Analysis
Unison	Forecast
	Financial Implementation
NV5	Aerial Survey
EDSI	Land Surveying
Lion	Environmental Overview
TransSolutions	Airfield Modeling
Faith Group	Safety Risk Planning
	Security Planning
KB	Noise Modeling

Source: WSP USA, 2022.