

**LAMPSON FIELD AIRPORT
LAKE COUNTY, CALIFORNIA
ULTIMATE AIRPORT CONSTRAINTS ANALYSIS
SCOPE OF WORK**

May 24, 2023

OBJECTIVE

Lake County (County) wishes to identify the constraints to development of the ultimate configuration of Lampson Field. Armstrong Consultants (Consultant) will undertake the tasks in this Scope of Work to provide the documentation the County seeks. The analysis will be at a high level and designed to facilitate discussion of the topic by the Board of Supervisors.

ELEMENT 1 - PROJECT MANAGEMENT

Task 1.1 Project Management and Quality Control

Description: To provide appropriate direction and project management for the development of the Lampson Field Ultimate Airport Constraints Analysis project as each task is undertaken and completed, Armstrong Consultants will maintain close liaison with the County to ensure the plan truly reflects the appropriate development needs.

To ensure consistency throughout the project in terms of written and graphic communication, Armstrong Consultants will be responsible, through regular in-house meetings and communications, for quality control, , editingpresentation graphics, and production of all documents, including draft reports, final reports, preliminary designs, and others as appropriate.

The duration of the project will be up to six (6) months. Invoices will be submitted to the County at key project milestones based on the percentage of tasks completed. Progress reports will accompany each billing.

Responsibilities:

- Consultant: Develop a program for project execution from all members of the Armstrong Consultants team including schedule, budget, meeting summaries, billings, and progress reports.
- County: Review and monitor all project management deliverables provided by Armstrong Consultants.

Output: A program for assuring the overall project is developed collaboratively by the Consultant and County.

Task 1.2 Format of Project Deliverables

Description: All project deliverables will be provided to the County, and other parties as directed by the County, in digital format. Draft and final deliverables will be provided in PDF format. If requested by the County graphics will be provided in a DWG format compatible with the version

of AutoCAD used by the County.

Responsibilities:

- Consultant: Provide deliverables in formats compatible with County applications.
- County: Communicate which file formats are usable by the County.

Output: Production of deliverables that can be readily used by the County.

ELEMENT 2 - DEFINE ULTIMATE AIRPORT

Task 2.1 Defining Ultimate Airport

Description: Guidance provided by the County is that, for the purposes of this study, the ultimate version of Lampson Field is defined by two characteristics:

- An improved instrument approach procedure
- An airfield designed to accommodate larger aircraft

In the United States standards for airfield design are contained in the Federal Aviation Administration's (FAA) Advisory Circular 150/5300-13B *Airport Design*. Most FAA design standards are tied to the Runway Design Code of the critical aircraft. In this element the Consultant will utilize the County's broad guidance to define the appropriate Runway Design Code to be used in the assessment of constraints. Guidance from the County is that the Grumman S-2T *Tracker* used by CalFire in fire suppression should be utilized as the critical aircraft. The S-2T is in Airport Reference Code B-II. This Airport Reference Code also includes a number of small corporate jets and turboprops. Therefore, the single alternative developed for the S-2T will produce a layout that would accommodate other aircraft in Airport Reference Code B-II.

Defining the ultimate runway length is an important component of this analysis. Although the S-2T will be used as the critical aircraft, the desired runway length will be defined more generally. To fulfill the goal of defining the ultimate airport, a runway length capable of supporting use by the S-2T, as well as many small corporate jets and turboprops will be used. The nearby Ukiah Municipal Airport hosts a CalFire base and can be used by small corporate jets and turboprops. This airport has a runway length of 4,423 feet. Therefore, a runway length of 4,500 feet will be used as the ultimate length for Lampson Field.

A graphic will be prepared illustrating the major elements of the new airfield configuration. These elements will be limited to the runway, parallel taxiway, and exit taxiways. The design will not illustrate means to resolve conflicts with exiting aprons, taxilanes, or structures.

A key element of the ultimate version of Lampson Field is development of an instrument approach procedure with lower ceiling and visibility minimums, and a straight-in approach. Currently the proximity of terrain limits Lampson Field to a circle-to-land approach with high minimums (1,200-foot ceiling and 1¼ mile visibility). The longer runway defined above will be evaluated for its ability to support a nonprecision instrument approach procedure from the east. This task will use readily available data and Federal Aviation Regulations Part 77 airspace surfaces to evaluate the

potential for an improved instrument approach procedure. A plan view graphic will be produced that depicts terrain penetrations. The graphic will not document the heights of objects; it will simply show that they are a penetration. No surveying will be undertaken as a part of this project. This analysis will not include an analysis using the standards in Federal Aviation Administration Order 8260.3D, *United States Standard for Terminal Instrument Procedures* (TERPS). Instrument approach procedure development is not included in this task.

Responsibilities:

- Consultant:
 - Preparation of schematic drawing of the ultimate airfield.
 - Preparation of a simplified airspace graphic in plan view.
- County: Respond to requests for clarification of County intent, if needed.

Output: Material that will be included in the summary report.

ELEMENT 3 - DEFINE CONSTRAINTS

Task 3.1 Identify Constraints

Description: Using the Runway Design Code developed in Element 2, the Consultant will document how the airfield would change to meet FAA design standards and longer runway. Graphics will be developed to illustrate how the new design standards would impact existing facilities. Nonstandard conditions will also be documented. Identified constraints will be documented and conceptual means of addressing the constraints will be noted. Specific designs to address constraints will not be provided. Cost estimates to address constraints and environmental impacts will also not be provided.

Responsibilities:

- Consultant: A graphic depiction of the constraints to construction of the ultimate airfield.
- County: Provide an AutoCAD (DWG) file of the currently approved ALP.

Output: Material that will be included in the summary report.

ELEMENT 4 – ASSESS POTENTIAL FOR SPECIFIC AVIATION USES

Task 4.1 Potential for New Aviation Uses

Description: The Consultant will provide a high-level assessment of the potential for specific uses identified by the County to be attracted to or viable at the ultimate version of Lampson Field. The following specific uses will be evaluated:

- Temporary or permanent fire attack base
- Small-package shipment (e.g., UPS or FedEx)
- Fixed-wing medical transport
- Scheduled passenger service (including scheduled charter)

Responsibilities:

- Consultant: Evaluation of listed potential uses.
- County: Clarification of County intent, if needed.

Output: Material that will be included in the summary report.

ELEMENT 5 – DOCUMENTATION AND PRESENTATION

Task 5.1 Documentation of Analysis

Description: The Consultant will prepare a focused report summarizing the analysis and conclusions described above. The report will be formatted to emphasize graphics and tables, and minimize the volume of text.

A draft report will be submitted to County staff for review. A virtual meeting will be arranged to discuss the report. The document will be revised to address comments received from County staff. A final version will then be provided to County staff for inclusion in the Board of Supervisors agenda packet. The draft report will be provided in Word and PDF formats and the final version in PDF format. No printed copies will be provided.

Responsibilities:

- Consultant: Preparation of a summary report.
- County: Review of the summary report.

Output: Draft and final versions of the summary report.

Task 5.2 Presentation to Board of Supervisors

The Consultant will make one presentation to the Board of Supervisors. The Consultant will prepare a PowerPoint presentation to support this presentation.

Responsibilities:

- Consultant: Present results of analysis and design to Board of Supervisors.
- County: Scheduling and meeting preparation.

Output: PowerPoint presentation for meeting.