

CHAPTER FIVE AIRPORT PLANS

ED CARLSON MEMORIAL FIELD- SOUTH LEWIS COUNTY AIRPORT MASTER PLAN UPDATE

This Chapter includes the full-set of Airport Layout Plan (ALP) drawings prepared as part of the Ed Carlson Memorial Field - South Lewis County Airport Master Plan Update. The proposed improvements, as depicted, include projects recommended to meet safety and demand-related needs throughout the 20-year planning period as well as additional projects included in the County's long-term vision and expected to take place beyond the 20-year planning period.

The ALP drawings are the result of the analysis included in the various chapters of this master plan, PAC recommendations as they relate to the preferred development alternative, the County's vision for the development of the Airport, and discussions with local, state and federal officials to determine the optimum plan for a safe, efficient and economical facility. In addition, the ALP drawings have been updated to reflect airport design standards in accordance with FAA Advisory Circular (AC) 150/5070-6A, Airport Master Plans; AC 150-5300-13A, Airport Design

(Change 1); and in conformance with the FAA ARP SOP No. 2.00, Airport Layout Plan Review Checklist (October 1, 2013).

The ALP drawing set for the Ed Carlson Memorial Field - South Lewis County Airport includes the following drawing sheets:

- Sheet 1 – Cover Sheet
- Sheet 2 – Airport Layout Plan (ALP) Drawing
- Sheet 3 – Airport Airspace Drawing
- Sheet 4 – Runway 06 Inner-Approach Plan and Profile
- Sheet 5 – Runway 24 Inner-Approach Plan and Profile
- Sheet 6 – Terminal Area Plan
- Sheet 7 – Land Use Plan
- Sheet 8 – Runway 06 and 24 Departure Surface Plan and Profile
- Sheet 9 – Airport Property Map “Exhibit A”

A full-sized set of these drawings is produced for the County and the FAA, which consists of 22-by-34-inch size drawing sheets. A reduced-size set (11-by-17-inch) of the preliminary draft drawings is included at the end of this chapter with the exception of the property map, which will be prepared upon receipt of the additional property information necessary for its completion. The following sections provide a brief description of the content of each of the above mentioned drawings.

SHEET 1 - COVER SHEET

This drawing sheet denotes the Airport’s name, FAA grant number and an index chronicling the ALP drawings contained in the ALP set. This sheet also contains the Airport location map and the wind rose illustrating the crosswind coverage provided by Runway 6-24.

SHEET 2 – AIRPORT LAYOUT PLAN DRAWING

The Airport Layout Plan Drawing serves as the official drawing of record for the Ed Carlson Memorial Field - South Lewis County Airport. This drawing consists of a scaled single-page drawing depicting existing and planned improvements throughout the 20-year planning window and beyond. Specifically, this drawing depicts the current and future limits of airport property,

land uses and configuration of facilities in compliance with geometric design separation and clearance standards, including airspace and navigational (NAVAID) facilities. Existing or future deviations or modifications to standards, if applicable, are appropriately noted.

The ALP should be viewed as a development guide with the actual timing of improvements depending upon the aviation demand and associated improvement needs as well as funding availability.

Some of the major components included in the ALP and discussed in previous chapters include:

- Runway Extension (beyond the planning period) to the east. Such an extension requires the acquisition of property to the east of the existing airport boundary. Some of the parcels needed encompass the current Runway 24 Runway Protection Zone (RPZ) and their control by the county through fee simple acquisition or avigation easement represent an immediate need.
- Displacement of Runway 06 threshold by 379 feet to the east to clear Buckley Road and Jackson Highway from the inner two thirds of the Runway Protection Zone (RPZ).
- Parallel taxiway widening to the 35-foot requirement for Taxiway Design Group (TDG) 2. Parallel taxiway extension to coincide with and be equal in length to the runway extension noted above.
- Development of the 14-acre parcel on the south side of the Airport to serve B-II demand. The development of this property will require an environmental assessment, possible wetland mitigation, extension of utilities to serve this south side development, provision of a secondary airport access road, along with other projects depicted on the ALP drawing.
- Acquisition and development of the parcel to the east of the existing B-I development on the north side of the airport. The development of this parcel would provide for additional apron space, allowing for the relocation of the current tiedowns located within the runway OFZ , as well as allow for the expansion of the existing B-I facilities and services.
- Designation of an area on the east side of the airport to accommodate a Fixed Base Operator (FBO). Attracting an FBO to the airport is part of the County's vision and plan.
- Land acquisition and/or lease to accommodate the installation of an Automated Weather Observing System (AWOS). The need for the system as well as the strong airport users' support for its installation have been documented throughout this planning document.

SHEET 3 - AIRPORT AIRSPACE DRAWING

The Airport Airspace Drawing is a scaled drawing identifying the limits of recommended land use control for the height of objects surrounding the Airport. Airspace features correspond with the ultimate runway dimension as depicted on the ALP, Airport Layout Drawing.

A digital USGS map at a scale of 1" = 2,000' is used as the base map, in which each of the Federal Aviation Regulations (FAR) Part 77, Subpart C imaginary surfaces (primary, horizontal, conical, approach and transitional) is depicted in plan and profile view.

The approach surface is depicted in full-length view using 50-foot contour intervals. An obstruction data table provides structure disposition per existing and future FAR Part 77 surfaces. In addition, the drawing includes general notes, data sources, and a legend for key drawing symbols.

SHEETS 4 AND 5 –INNER-APPROACH DRAWINGS

A scaled drawing depicting close-in plan and profile approach features beyond each runway end. The drawing identifies obstruction and non-compatible land uses within the runway protection zone and airspace surfaces extending beyond runway centerline. Airspace surfaces are depicted for disposition of obstructions to navigable airspace. The limits of drawing extend to a point where the FAR Part 77, Subpart C approach surface reaches 100' height above the runway end elevation.

Obstructions are indexed in plan and profile view, with an obstruction table used to denote existing and future obstructions to FAR Part 77 surfaces. The recommended mitigation of obstructions are noted, to correspond with the Airport's development plan. A general note section includes data sources and applicable reference. A legend is used to note key drawing symbols.

SHEET 6 - TERMINAL AREA PLAN

The Terminal Area Drawing is a scaled drawing depicting close-in terminal area features for the airside and landside layout. The drawing shows required separation requirements and design

standards, and includes general notes, data sources, and a legend noting key drawing symbols. Key facilities shown on the drawing include:

- Apron Configuration and Aircraft Parking Positions;
- Aircraft Taxiways and Taxilanes;
- Airport Terminal Building;
- Terminal Roadway Circulation and Auto Parking;
- Aircraft Hangars and Airport Buildings;
- Fueling Facilities/Fencing;
- Airport Storage Facilities; and
- Commercial/Tenant Operating Areas.

SHEET 7 – LAND USE PLAN

A scaled drawing depicting existing and planned land uses, both on and off the Airport. The drawing provides recommended general land uses for aviation and non-aeronautical land uses within the Airport vicinity, as designated by local planning and ordinances.

The land use areas depicted include:

- Aircraft Operations Area
- Aviation Support
- Aviation Compatible (commercial/industrial)
- Surrounding Airport Land Use Designation -- Rural Residential

SHEET 8 – RUNWAY 06 AND 24 DEPARTURE SURFACE PLAN AND PROFILE

The Runway Departure Surface Plan and Profile drawing for Runway 6-24 depicts the plan and profile view of each runway's departure surface. While a departure surface is shown for both runways at the Airport, this departure surface by definition is applicable to instrument runways with departure procedures. The departure surface is a surface longitudinally centered on the extended runway centerline, extending outward and upward from the end of the primary surface and at the same slope as the approach/departure zone height limitation slope. As shown, the existing departure surface for each runway is depicted by a red trapezoidal-shaped line while the

ultimate departure surface (based on future runway threshold modifications) is depicted by a blue dashed line. The departure surface consists of a designated obstacle clearance slope of 40:1.

SHEET 9 – AIRPORT PROPERTY MAP

A scaled drawing depicting airport property interests as consistent with the Airport Layout Plan Drawing. This drawing documents past land acquisition for the Airport, including fee simple and easement tracts, and summarizes how these tracts have been acquired or released (i.e., federal funds, surplus property, local funds, etc.). When historical documentation is available, the drawing table should list an inventory of all airport property parcels by number, including the grantor, grantee, type of interest, acreage, grant project number, purpose, and book, page and date of recording. The drawing should also illustrate future planned land acquisition and aviation easements. For Ed Carlson Memorial Field - South Lewis County Airport, limited property information is available. For this reason, a request has been made to the FAA for all available airport property acquisition information. To date, minimal information has been located. Once research is completed, the property map will be completed and included in the report and ALP drawings set.