8.1 AIRPORT PLANS
The plan for the future development of Eagle County Regional Airport has evolved from an analysis of many factors. Among these are: aviation activity forecasts, facility requirements, environmental considerations, and aircraft operational characteristics. Forecasts are utilized as a basis for planning; however, facilities are only constructed to meet actual demand.

Previous chapters in this Master Plan established and quantified the future development needs of EGE. In this chapter, the various elements of the development plan are categorically reviewed in summary and graphically detailed. These elements are briefly described and represented in the Airport Layout Plan drawing set for EGE, which includes the following drawings: the Airport Layout Plan, the Terminal Area Plan, Part 77 Airport Airspace Drawing, Existing/Ultimate Airspace Approach Profiles, Inner Portion of the Approach Surface Drawings, Departure Surface Drawing, Land Use Drawing, Exhibit A Property Map, and the Airport Development Plan.

8.2 AIRPORT LAYOUT PLAN
The Airport Layout Plan (ALP) graphically represents the existing and future airport facilities required to enable the Airport to accommodate future demand. In addition, the ALP also provides detailed information on both airport and runway design criteria, which is necessary to define relationships with applicable standards. Figure 8-1 and the following paragraphs describe the major components of the future Airport Development Plan as shown on the Airport Layout Plan below.

8.2.1 Runway System
EGE’s runway configuration will remain structured around its existing runway. Runway 7/25 will remain the primary runway, with its existing length and width (9,000 feet x 150 feet). In regards to the runway system, it is also important to consider the existing and planned instrument approach system:

- Maintain Runway 25 ILS/LOC special precision instrument approach
  - This will require maintaining the 1,400-foot Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights (MALS) to Runway 25

- Maintain Runway 25 GPS and LDA/DME nonprecision approaches

8.2.2 Runway Lighting and Landing Aids
The recommended runway lighting and landing aids at EGE include the following:
• Maintain High Intensity Runway Lighting (HIRL) on Runway 7/25
• Maintain MALSR on Runway 25
• Maintain Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights (MALSR) on Runway 27
• Maintain Precision Approach Path Indicators (PAPI) on Runway 25
• Maintain Runway End Identifier Lights (REIL) on Runway 7

8.2.3 TAXIWAY SYSTEM

The recommended taxiway system improvements at EGE include:

• Construct bypass taxiways or holding bay for Runway 25
• Relocate Taxiway A5
• Construct parallel taxiway connecting the north airfield
• Construct paved shoulders for all taxiways that accommodate ADG-IV aircraft
8.2.4 LANDSIDE DEVELOPMENT

8.1.4.1 Commercial Terminal Building

The Commercial Terminal will include the “T” Expansion which was described in detail in Chapter 5, Alternatives Analysis. This large expansion of the Commercial Terminal occurs through a south expansion of the central Terminal, changing the building footprint from an “H” to a “T” configuration, which will also accommodate a second level addition for passenger boarding bridges. TSA Security screening will be relocated to the second level, allowing for passengers to clear screening and transition to the holdroom on a single level. The “T” expansion incorporates a split curb Terminal area allows for much greater curb front for curbside check-in and passenger pick-up, while maintaining close proximity to the center of the Terminal building. The existing curbside check-in would be expanded to the west with additional check-in kiosks located near the center of the terminal on portions of the curb front between the roadway circulation loops. Additionally, expansion area is given for ground transportation and rental cars, located in an area separated from the baggage claim area, and could help eliminate congestion in the baggage claim area during peak operational periods. There is a greater increase in space dedicated for the expansion of both non-secured and secured concession, an area identified as lacking in passenger surveys and interviews. Relocation of the holdroom to the second level allows for repurposing of the existing holdroom floor space. This includes relocating the airport administrative offices from the ARFF facility to the terminal and expansion of existing tenant administrative spaces.

Finally, relocation of TSA screening to a second level may further increase capacity beyond that provided in the 2012 expansion. Exiting from the Secured Holdroom would occur at level one. This would separate inbound travelers from outbound, helping to improve circulation and further reducing the existing pinch point. Passenger boarding bridges increase the level of service by protecting passengers from the elements and noise found on an active apron area. Passenger movement is also better controlled with improved security due to the use of enclosed loading bridges. Expansion of the baggage claim and outbound baggage facilities has the potential to be phased and occur as actual passenger demand warrants. The increase in concession area allows for expansion that mirrors passenger growth or through proposed private development opportunities. Similar to Alternative 1, there is space for additional west expansion of the holdroom to accommodate passenger growth beyond the 2030 planning period. Terminal expansion facilitates the expansion of ancillary space to be used for future storage, maintenance, and other building mechanical functions.
8.1.4.2 Aviation Support Facilities

Several aviation support facilities were identified in the Master Plan for improvement, which include the following:

- Expand ARFF/SRE building
- Expand equipment and vehicle storage
- Potential second FBO

The proposed SRE building expansion would be located to the immediate west of the current ARFF facility. All SRE equipment would be relocated from the apron and existing ARFF building into the new facility. Space is also reserved to the west for the future expansion of the ARFF building. Equipment and vehicle storage will also be encompassed within the SRE/ARFF building expansion area.

The south side development area addresses the future development of a potential second FBO and an additional support roadway to support growth on the south airfield. The proposed development location is in the land adjacent to the Commercial Terminal and west until it reaches the airport property line. This area is currently undeveloped with the exception of the ARFF station, equipment storage, and overflow parking for public and rental car parking.

Construction of this development area is proposed through a phased development to ensure that development occurs as demand dictates. Development of the second FBO facility is conceptual and reserves adequate space for future development.

8.1.4.3 General Aviation

The following General Aviation elements were identified for improvement in Chapter 4, Facility Requirements:

- Rehabilitate GA apron pavement
- Additional aircraft storage
- Additional private facilities based on demand

A phased development is proposed for providing additional GA Facilities on the north airfield. Phasing will ensure that demands in both the 2020 and 2030 planning periods are adequately met, as well as future development locations beyond the 20 year planning period. Phase one proposes hangar development on the east end of the north GA apron. This phase also relocates the existing airport T-Hangar shelters currently adjacent to the HAATS apron to an area directly east of the self-serve fuel farm. Relocating these structures allows for additional ramp area for aircraft tie-down, staging, or future
development. Phase two as proposed in this development serves to redevelop the apron area between the current HAATS facility and Taxiway B3. These buildings would serve to accommodate additional hangar demand through the 2030 planning period. Hangars proposed in this phase would serve to replace existing structures that will be nearing the end of their useful service life. Replacement of these structures will not occur prior to the end of a buildings service life. The third and final phase proposed for the north GA development area is located north of the future parallel taxiway between Taxiways B4 and B5. Development in this location would serve demand beyond the 2030 planning period. However, this development area can be constructed earlier based on future demand.

8.2 AIRSPACE PLAN

The Part 77 Airspace Drawing is based upon CFR 14 Part 77, Safe, Efficient Use, and Preservation of the Navigable Airspace. The criteria contained in CFR 14 Part 77 have been established to provide guidance in controlling the height of objects within airport vicinities, and to protect an airport’s airspace and approaches from hazards potentially affecting safe and efficient aircraft operations. CFR 14 Part 77 specifies a set a imaginary surfaces that identify an object as an obstruction when these surfaces are penetrated.

The Part 77 Airspace drawings, as shown in Figure 8-2 through Figure 8-4, provide both plan and profile views depicting these surfaces and any penetrations specifically related to Eagle County Regional Airport.

The airspace plan view is based upon the future planned runway lengths and future planned approaches to all runway ends. Runway 9/27 is based on a larger-than-utility runway with precision approaches to Runway 27. For Runway 3/21, it is based on larger-than-utility criteria with a non-precision approach to both runway ends.
Source: Jviation, Inc.
FIGURE 8.4 – PART 77 AIRSPACE OBSTRUCTIONS TABLE (CONT.)

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<th>Location</th>
<th>Description</th>
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</table>

(Continued on next page)
8.3 INNER PORTION OF THE APPROACH SURFACE DRAWINGS

The Inner Portion of the Approach Surface Drawings provide a detailed view of the inner areas of the Runway Protection Zone (RPZ) surfaces and the CFR 14 Part 77 approach surfaces. The RPZ is an area off each runway end designed to enhance the protection of people and property on the ground. The RPZ begins 200 feet off the end of the runway, and extends along the runway centerline in a trapezoidal shape. The RPZ size is a function of the design aircraft, as well as the visibility minimums of the runway’s instrument approach capabilities. Based upon the future planned approaches to each runway end, the Inner Portion of the Approach Surface Drawings illustrate large-scale plan and profiles that identify roadways, railroads, structures, power lines, and other potential obstructions that may lie within the confines of each runway end’s inner approach surface area. The Inner Portion of the Approach Surface drawings are shown below in Figure 8-5 through Figure 8-8.
FIGURE 8-6 – RUNWAY 7 APPROACH OBSTRUCTION TABLE

<table>
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<th>Azimuth</th>
<th>Obstruction</th>
<th>Height</th>
<th>Remarks</th>
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<td>N080°</td>
<td>Crane</td>
<td>30</td>
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</table>

Source: Jviation, Inc.
FIGURE 8-7 – RUNWAY 25 INNER APPROACH PLAN AND PROFILE

Source: Jviation, Inc.
# APPROACH SURFACE OBSTRUCTION TABLE

<table>
<thead>
<tr>
<th>#</th>
<th>LOCATION</th>
<th>ALT (FT)</th>
<th>OBJECT</th>
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<th>DATE OF</th>
<th>APPROXIMATE LENGTH</th>
<th>APPROACH CORRIDOR</th>
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</tbody>
</table>

*In the table above, the columns represent the following:

- **LOCATION**: The location of the obstruction.
- **ALT (FT)**: The altitude (feet) of the obstruction.
- **OBJECT**: The type of obstruction.
- **DATE OF**: The date of the obstruction.
- **DATE OF**: The date of the obstruction.
- **APPROXIMATE LENGTH**: The approximate length of the obstruction.
- **APPROACH CORRIDOR**: The approach corridor affected.
- **INTERSECTION**: The intersection affected.
- **DESCRIPTION**: A detailed description of the obstruction.

Source: Aviation, Inc.
8.4 DEPARTURE SURFACE DRAWINGS

The Departure Surface Drawings graphically depict the applicable runway departure surfaces as defined in Table 3-2, Approach/departure standards table in FAA AC 150/5300-13A, *Airport Design*. The approach surfaces are shown for each runway end that is designated primarily for instrument departures. Departure runway ends supporting air carrier operations show the one-engine inoperative (OEI) obstacle identification surface (OIS). The Departure Surface Drawings are shown in Figure 8-9 through Figure 8-11.
Source: Jviation, Inc.
FIGURE 8-10 – RUNWAY 25 DEPARTURE OBSTRUCTION TABLE

Source: Javiation, Inc.
FIGURE 8-11 – RUNWAY 7 DEPARTURE PLAN AND PROFILE

Source: Jviation, Inc.
8.5 TERMINAL AREA PLAN

The Terminal Area Plan, as shown below in Figure 8-12 through Figure 8-14, illustrates a detailed view of the more intensely developed areas on the landside of the Airport.

8.6 LAND USE DRAWING

The Land Use Drawing graphically depicts existing and recommended future land uses within the future property line, as well as the vicinity of the Airport, including land contained within the future 65 day/night average sound level (DNL) noise contour. The Land Use Drawing provides guidance to local authorities to establish appropriate zoning within the vicinity of the Airport, as well as a plan for future leases of revenue-producing areas contained on airport property. The Land Use Drawing for EGE is presented below, in Figure 8-15.

8.7 EXHIBIT "A" AIRPORT PROPERTY MAP

The Airport Property Map illustrates the acquisition history of various tracts of land contained within airport boundaries, such as federal funds, county funds, surplus property, etc. specifically, Figure 8-16 provides information for analyzing both current and future aeronautical use of land acquired through federal funding.
FIGURE 8-12 – TERMINAL AREA PLAN - SOUTH DEVELOPMENT AREA

Source: Aviation, Inc.
FIGURE 8-14 – TERMINAL AREA PLAN - NORTH GA DEVELOPMENT

Source: Aviation, Inc.
FIGURE 8-15 – AIRPORT LAND USE

Source: Jviation, Inc.
FIGURE 8-16 – EXHIBIT A PROPERTY MAP

Source: Jviation, Inc.