Lemhi County Airport

Master Plan Update
Narrative Report
August 2011

T-O ENGINEERS

9777 Chinden Blvd
Boise, ID 83714
(208) 323-2288
www.to-engineers.com

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EXECUTIVE SUMMARY

INTRODUCTION

An airport master plan is prepared by the owner of an airport (sponsor) to support the modernization and/or expansion of an existing airport or in some cases the creation of a new airport. The master plan presents the sponsor's strategy for the development of the airport over a 20-year planning period. The development strategy is typically presented in a Capital Improvement Plan (CIP) divided into three planning increments of 0 to 5 years, 5 to 10 years, and 10 to 20 years. Projects contained in the development program are derived from a systematic evaluation of existing airfield facilities, an analysis of current activity and a realistic projection of future activity, an analysis of facilities required to meet projected airfield activities, and an evaluation of alternatives required to meet facility needs. A master plan typically performs a cursory review of environmental factors which may influence alternative selection. Master plans also consider operational issues which could have a bearing on long term viability of an airport, one such issue being compatible land use in the vicinity of the airport.

The goal of a master plan study is to provide the framework at a planning level to guide future airport development and present adequate justification to support proposed development. It must be cautioned, the inclusion of a proposed development in a master plan does not constitute an automatic approval of that project. Project implementation is normally subject to additional environmental approval, justification of demand, and the availability of funding based on the FAA's national system of establishing priorities for project funding.

Master planning projects are completed in accordance with a detailed scope of work prepared by a consultant or consultant team and approved by the FAA and the airport sponsor. The scope of work is prepared to meet the specific needs of each airport in accordance with the general guidance for master plan study elements presented in AC 150/5070-6B.

Airport master plans are routinely updated at airports similar to the Lemhi County Airport (SMN) at approximate 10 year intervals. The most recent planning study completed at SMN was an Airport Layout plan update in 1995, some 16 years ago. An accepted and approved master plan enables Lemhi County to apply for Federal Airport Improvement Program (AIP) Development grants to assist with implementation of eligible projects shown on the Airport Layout Plan (ALP) and presented in the capital improvement program (CIP). The ALP drawing set is a graphic presentation of the culmination of the planning process which depicts current facilities and facilities recommended to meet appropriate design standards and demand requirements.

Aside from traditional master plan elements, this master plan update for Lemhi County Airport also includes guidance on airport revenue enhancements, compatible land use, airport compliance issues and management guidance.

The remaining sections of this Executive Summary provide the reader with an overview of the highlights of each chapter. Additional detailed discussion of plan elements is presented in the complete master plan report.

PUBLIC OUTREACH

Over the course of the planning process, several meetings were held in Salmon, Idaho, to discuss project goals, ideas and status. Public outreach efforts for this master plan included the following: formal Project Advisory Committee (PAC) meetings, public information and involvement meetings with the Lemhi County Board of County Commissioner and both formal and informal project meeting with the Lemhi County Airport Board. Attendance at the public meetings was limited and only minor feedback was received. Comments from the Public, PAC, Commissioners and Airport Board were incorporated as appropriate into the planning documents.

BACKGROUND

The Lemhi County Airport (SMN) is a small general aviation airport situated on approximately 266 acres, three and a half miles south of the City of Salmon, Idaho at an elevation of 4,043 feet. SMN is owned by the County of Lemhi, Idaho with the county seat located in Salmon. SMN provides access to a remote area of the state. The surrounding mountainous terrain makes the area a highly desirable destination and major attractor for outdoor enthusiasts as well as scientific research. The airport is a U.S. Forest Service helicopter base for forest and rangeland firefighting activities as well as serving as the avenue for mail and parcel service for the area, including the only means of communicating with remote areas in the wilderness. Airport expansion projects and the ability to achieve sophisticated instrument approaches may be limited due to the mountainous terrain surrounding of the airport.

The Idaho Airport System Plan, developed in 2008 by the Idaho Transportation Department Division of Aeronautics, recognized the airport's important economic contribution to the region and the city of Salmon. According to this study, SMN generates a direct and indirect combined $19.1 million in annual economic activity and a total of 101 jobs. The system plan defines SMN's role as a Regional Business Airport. It is considered essential to preserve and protect the capital investment and economic value of the airport to the local community and the Idaho aviation system as a whole. Consideration is given to information and recommendations presented in the Idaho System Plan study in the preparation of this master plan study.

AIRPORT INVENTORY

The first step in the planning process is to undertake an airport inventory to determine the type, number, and condition of existing facilities and document the changes that have occurred since the previous planning study was completed. The airfield consists of a 5,150 foot long runway (17-35) and associated parallel taxiway. Lemhi County Airport also offers Avgas and Jet A fuel, several hangars, aircraft parking aprons, and other facilities. The airport annually accommodates nearly 25,000 annual aircraft operations and hosts 50 based aircraft.

AVIATION DEMAND

Airport activity forecasts provide the basis for determining the type, extent, size, location, timing, and to a certain degree even the financial feasibility of capital development. Consequently, demand forecasts influence virtually all subsequent phases of the master planning process. For this reason activity forecasts are subject to the review and approval of the FAA.

Several methodologies are used to develop projections of based aircraft and operational demand. The aviation forecast anticipates continued gradual growth in based aircraft and aircraft operations at the airport over the 20-year planning period. **Table ES-1** presents the estimated annual operations and based aircraft expected from 2010 through 2030. The forecasts offer a guide for facility planning purposes, actual activity will determine the ultimate need for and timing of improvements.

TABLE ES-1: ESTIMATED BASED AIRCRAFT AND ANNUAL OPERATIONS AT LEMHI COUNTY AIRPORT

Year	Based Aircraft	Local Operations	Itinerant Operations	Total Operations
2010 (Base Year)	50	7,595	16,905	24,500
2015	53	8,042	17,900	25,942
2020	55	8,815	18,953	27,468
2030	61	9,547	21,248	30,795

Source: T-O Engineers, Inc.

FACILITY REQUIREMENTS

The facility requirements analysis translates the activity forecasts into needed improvements required to meet demand. Needs are determined by comparing future facility requirements to the airport's current inventory of facilities as well as FAA design criteria associated with demand to assure compliance with standards.

The appropriate Airport Reference Code (ARC) as defined by FAA Advisory Circular 150/5300-13, Airport Design, for SMN is "B-II". This designation is a reflection of the types of aircraft that routinely use the airport. The ARC is used during planning and component design to determine the dimensions of most airfield pavements and separation of key airfield components. Examples of aircraft in the B-II category are illustrated in **Table ES-2**. Critical requirements for SMN result from the recommendation for the airport to meet all B-II design standards.

TABLE ES-2: EXAMPLE B-II AIRCRAFT

Characteristics	King Air B200	Pilatus PC-12
Approach Speed	103 knots	120 knots
Wing Span	54.5 feet	53.4 feet
Length	43.8 feet	47.3 feet
Tail Height	15.0 feet	14 feet
Max. Take-off Weight	12,500 lbs.	10,450 lbs.

Source: T-O Engineers,Inc./Pilatus Aircraft Operators

A number of required and recommended improvements to existing facilities are identified during the planning process. **Table ES-3** summarizes these recommendations.

Some of the requirements are related to compliance with design standards, such as runway width. The projects related to meeting design standards are priority items. Other recommendations are demand driven and should be implemented in a timely manner so as to meet increasing demand.

An important conclusion of requirements analysis is the need to extend the runway by 360 feet to a length of 5,510 feet. This extension is justified by the need to meet the requirements associated with frequent users of the airport and to enhance the ability of the airport to fulfill its multi-faceted and critical role in supporting a remote community. Airports like Lemhi County, provide vital connectivity to outside communities. A runway length of 5,510 feet will serve 100 percent of the small aircraft fleet (small airplanes with less than 10 passenger seats) and is considered justified based on criteria associated with “unusual circumstances” resulting from the airport’s remote location and regional significance within the State of Idaho.

TABLE ES-3: SUMMARY OF FACILITY REQUIREMENTS FOR LEMHI COUNTY AIRPORT

Facility		Existing	Recommended
Runway			
	Length (usable)	5,150’	5,510’
	Width	60'	75’
	Strength	30,000 SWG	30,000 SWG
Taxiways			
	Type	Full Parallel	Full Parallel
	Width	35'	35'
	Strength	Same as RW	Same as RW
Apron			
	Strength	12,500 – 30,000 lbs.	Same as RW and TWY
	Fuel Island	Mid-Apron	Relocate w/ new Above Ground Tanks
Navaids, Visual Aids, and Lighting			
	Approach	GPS RNAV	GPS RNAV
	Automated Weather	AWOS	AWOS
	Runway Lights	MIRL	MIRL
	Taxiway Lights	Reflectors	MITL
	REILs	RW 17	RW 17 & RW 35
	Approach Slope Indicator	PAPI RW 17	PAPI RW 17
	Segmented Circle	No	Yes
Aircraft Storage			
	Box Hangars	37	47
Terminal & Buildings			
	Terminal Building/Pilot Lounge	None	Yes
	FBO	Yes (1)	Yes (1 minimum)
	Snow Removal	Provided by County	Equipment & storage building
Access and Parking			
	Automobile	Paved	Paved
Fuel			
	100LL	Yes	Yes
	Jet-A	Yes	Yes
	Fuel Service	24-hour reader	24-hour reader
Airport Property			
	Land envelope	266 acres	Additional 9.1 acres
Additional Requirements			
	Construct new airport access road from Highway 93 to west side (including land and ROW purchase)		
	Purchase land for west side development		
	East side development		
	New taxilanes to accommodate hangar development and apron development		
	Routine pavement maintenance including seal coat, crack seal and nominal overlay(s)		

Source: T-O Engineers Inc.

CONCEPTUAL ALTERNATIVES

The alternatives evaluation section considers various means to meet the facility requirements identified previously. Multiple options for meeting both airside and landside needs are considered in arriving at the “preferred” alternative depicted in the ALP drawing set. In selection

of the preferred alternative, input was sought and considered from Lemhi County representatives and the Airport Board. In some cases, meeting a facility requirement is straight forward, as is the case for the need to widen the runway. In other instances, such as future hangar development, several approaches may be viable. Further analysis of all demand driven options will be required during specific project formulation and preliminary design. Alternatives to meet the recommended runway length of 5,510 feet are addressed in detail in Chapter 6. This study recommends a 360 foot extension on the south end and the use of declared distances to meet design standards within the current land envelope.

DEVELOPMENT PLAN

The development plan organizes the airport improvement projects into a schedule designed to meet the demand throughout the 20-year planning period. The capital improvement program for SMN is based on short (0-5 year), mid (6-10 year) and long term (11-20 year) development requirements. It is important to emphasize that although projects are arranged in specific time frames, the majority of the CIP program is demand-based. If the demand levels are more or less than forecasted, adjustments to the CIP will be appropriate. **Table ES-4** provides a list of recommended future airport improvements. They represent the projects that could be part of the SMN CIP and considered for the FAA AIP. The 5-year Phase I development depicts the highest priority and most desired airport development projects.

TABLE ES-4: PHASED DEVELOPMENT PLAN FOR LEMHI COUNTY AIRPORT

Short Term (1-5 years)
Widen RW17-35 from 60' to 75'
Overlay RW 17-35
Extend RW 17-35 360 feet (incl. lights and REILs)
Extend Parallel Taxiway
Construct Connecting Taxiways
Reconstruct and Reconfigure Apron including relocate fueling
Construct Terminal Building
Mid Term (6-10 years)
Reconstruct Transient Aprons
Construct Transient Apron (West side)
Construct Taxilanes (South Side)
Acquire 9.1 acres (West Side)
Construct Access Road and Parking
Construct SRE Building and Acquire SRE Equipment
Long Term (11-20 years)
Construct Taxilanes and Hold Aprons (West side)
Construct Hangar Access Roads and Parking
Overlay Parallel Taxiway (West Side)
Install Parallel Taxiway Lighting (West Side)
Overlay Existing Aprons
East Side Development including: parallel taxiway and connectors, aprons, taxilanes, access and parking

Source: T-O Engineers Inc.

The development plan also examines historical and projected revenue and expenses to determine the financial viability of implementing the recommended capital improvement program. The CIP cost estimates for all three phases of development at SMN presented in **Table ES-5** are based on the current (2011) dollar value without consideration being given to inflation.

TABLE ES-5: CAPITAL IMPROVEMENT EXPENDITURE SUMMARY AT LEMHI COUNTY AIRPORT

Phases	Total Project Costs
Short Term Development (1-5 Years)	$3,685,000
Mid Term Development (6-10 Years)	$5,159,000
Long Term Development (11-20 Years)	$4,838,000
TOTAL 20 YEAR	**$13,682,000**

Source: T-O Engineers Inc.

The 20-year capital improvement program for SMN totals nearly $12.4 million. It is anticipated that funding will come primarily from the following sources:

- At the federal level, the FAA's Airport Improvement Program (AIP);
- At the state level, ITD's Idaho Airport Aid Program (IAAP)
- At the local level, the revenue collected at the airport in terms of fuel revenue and lease agreements and other use fees
- Other federal and state grant programs such as Idaho Gem Grants and USDA Rural Development Grants, US DOT Small Community Air Service Development Program
- Private funding sources for projects such as hangar development

Successful development of an airport requires construction of multiple improvements to include elements such as: airfield operational surfaces (runways, taxiways, and aprons); access roads and vehicle parking areas; underground utilities; aircraft storage hangars; and water and sewer systems. Projects eligible for AIP Funding typically relate to aircraft operations and ground movements, other facilities (e.g. hangars) are routinely funded by local or private sources. Additionally, projects which may technically be eligible for AIP Funding shown in the CIP and or on the ALP may not be funded by the FAA as a result of low relative priority to other overall system funding needs or a simple lack of AIP funds.

It is recommended that the sponsor work closely with their FAA representative, the Idaho Aeronautics staff, and their airport consultant as appropriate to maintain awareness of project eligibility and availability and to update their CIP routinely.

While the airport is currently self-sufficient, it may be difficult for SMN to provide the local sponsor share to support the proposed capital improvement program. It is recommended that Lemhi County pursue opportunities to develop additional revenue at SMN to strengthen its

financial capabilities to fund improvements throughout the planning horizons. Additional revenue generation at the airport could be created by:

- Adjusting hangar rental fees
- Collecting additional fees including landing fees, fuel flowage fees, overnight parking charges, and commercial use fees
- Developing aviation-related land leases
- Encouraging special events
- Developing basic infrastructure (utilities, drainage areas, roadway) to encourage private development of airport properties
- Updating Lemhi County's leasing and development policies

AIRPORT COMPLIANCE & AIRPORT MANAGEMENT BEST PRACTICES

As the recipient of AIP grant funding from the FAA and also funding from the State of Idaho, Lemhi County is under contractual obligation to comply with grant assurances, agreements, and other requirements. FAA Order 5190.6B, Airport Compliance Manual, describes the 39 airport grant assurances which are a part of each grant. These assurances range from project contracting to compatible land use to airport revenue. As part of the Idaho Airport Aid Program, ITD also imposes 17 grant assurances which are similar to those of the FAA. SMN's compliance with the federal and state grant assurances as well as land use, environmental, airport user compliance is described in the Master Plan Update. In addition, Airport Management Best Practices have been identified and described to assist the airport in its efforts to comply with these assurances. The Lemhi County Master Plan Update includes a separate chapter on land use policy review and recommendations. The chapter discusses one of the key compliance issues for airports- compatible land use planning. Lemhi County and the City of Salmon have several key airport land use planning tools in place in their current policies.

Recommendations to further protect the land and airspace surrounding the airport are summarized in **Table ES-6**. The table also summarizes additional recommendations to ensure full airport compliance.

TABLE ES-6: RECOMMENDATIONS FOR IMPROVED AIRPORT COMPLIANCE FOR LEMHI COUNTY AIRPORT

Land Use Compliance Recommendations
✈ Include more specific language about the airport in the Comprehensive and Transportation Plans.
✈ Keep the airport master plan and ALP drawing set current.
✈ Commit to an effective and cooperative airport land use planning effort that is designed to protect and preserve airport operations, economic prosperity, and quality of life realities in addition to safety provisions for both the community and its airport.
✈ Revise the Lemhi County Development Code to address airspace and land use restrictions and zoning requirements. Revisions should also include the creation of a land use map that delineates land uses and a Fair Disclosure Notification to prospective and new property owners.
✈ Create a formal process for policy development that identifies airport land use planning as a continual component of its community and comprehensive planning process.
✈ Coordinate with the City of Salmon to ensure multi-jurisdictional cooperation as it relates to the airport and future land use planning.
Other FAA and State Assurances Recommendations
✈ The County should continue to analyze all existing uses of airport property to ensure that all tenants are appropriately contributing to the airport's revenue stream and compare airport's fee and rental structure that of nearby airports to ensure fair market value.
✈ Familiarize County Commissioners with all FAA and Idaho grant assurances.
✈ Continue to use airport facilities for aeronautical purposes only, unless otherwise specified by the airport and approved by the FAA.
✈ Perform services in a non-discriminatory manner regardless of race, creed, color, national origin, or sex.
✈ Monitor the financial demands of the airport and consider adjustments to existing fees and adding new fees as airport activity and needs dictate.
Airport Environmental Compliance Recommendations
✈ Develop a Stormwater Pollution Prevention Plan
✈ Develop a Spill Prevention Control and Countermeasures Plan
✈ Assess Wildlife hazards and develop an informal Wildlife Control Program
✈ Follow future FAA guidance regarding required wildlife hazard mitigation plans and site assessments.
Airport User Compliance Recommendations
✈ Maintain a current and up-to-date aircraft roster of all based aircraft,
✈ Update Rules and Regulations/Minimum Standards to include additional items including accident procedures and airport security procedures.
✈ Develop additional lease agreements based on the appropriate category of tenant.
✈ Review lease agreements on a regular basis and update as appropriate.
Other Airport Operational Policies and Procedures
✈ Develop an Airport Security Plan and educate airport tenants on appropriate security procedures.
✈ Put an airport emergency plan (AEP) in place, including an up-to-date emergency contact list.
✈ Develop a routine self-inspection program including the creation of a safety inspection checklist.
✈ Perform daily self-inspections.
✈ Review appropriate procedures for required NOTAM and Part 77 FAA notifications.

Source: T-O Engineers Inc.

SUMMARY

The Lemhi County Airport Master Plan Update documents the needed airport improvements over the 20-year planning horizon that will best meet future aviation demand. The goals of the community, the protection of the environment, and the fiscal and operating constraints of Lemhi County are also considered to produce a feasible plan for airport development. The process has

included public coordination, technical evaluations, and community participation. The Master Plan Update is intended to be used as a dynamic tool for airport management and a source to guide the development of the airport.

1.0 INTRODUCTION

1.1 GENERAL

The purpose of the Airport Master Planning process for the Lemhi County Airport (SMN) is to assist Lemhi County to ensure that the airport is developed in a manner that coincides with current and future aviation demand. The local community initiated this airport planning effort with the desire to continue to meet the needs of the existing airport users as well as to understand the demands that future users will place upon the facility and reconcile the necessary improvements that need be made to the airport facilities in order to meet the expected demands. This planning process intends to address these local needs while maintaining compliance with the Federal Aviation Administration (FAA) and Idaho Transportation Department – Division of Aeronautics (ITD) requirements.

This Master Plan Update incorporates information from the previous update to the Airport Layout Plan completed in 1995 and identifies new airport planning and development recommendations that are consistent with the airport's present and future needs for a "20-year planning horizon" long-range plan. The recommendations included in this plan were developed using sound variables based on the best current practices in the airport planning discipline.

1.2 PROJECT BACKGROUND

This Airport Master Plan update was originally identified and programmed through the FAA (Federal Aviation Administration). Lemhi County endeavors to identify sound planning recommendations in this Master Plan update in order to meet the FAA's requirements for safe and efficient transfer of goods as well as provide for a well-planned airport that is vital to the health and vitality of the Lemhi County and City of Salmon community.

1.2.1 PUBLIC OUTREACH

Over the course of the planning process, several meetings were held in Salmon, Idaho, to discuss project goals, ideas and status. Public outreach efforts for this master plan included the following: formal Project Advisory Committee (PAC) meetings, public information and involvement meetings with the Lemhi County Board of County Commissioner and both formal and informal project meetings with the Lemhi County Airport Board. Attendance at the public meetings was limited and only minor feedback was received.

All public meetings were advertised according to County requirements providing ample notice to the community regarding the planning project. Comments from the Public, PAC, Commissioners and Airport Board were incorporated as appropriate into the planning documents.

1.3 PROJECT GOALS

- Document existing airport facilities and activity levels.
- Update aircraft activity and fleet mix forecasts for the airport.
- Identify the present and future role(s) of the airport.
- Identify the size and layout of airside and landside facilities to accommodate projected aircraft demand and FAA airport design standards.
- Identify optimum landside uses that enhance the economic benefits of the airport and are compatible with airside operations.
- Quantify the airport's economic contribution to the community.
- Prepare compatible land-use and height restriction plans consistent for the airport vicinity including recommended zoning protection within the airport influence area.
- Involve the public throughout the planning process in a meaningful, efficient and productive manner.
- Develop realistic phased development and maintenance plans for the airport that provides the basis for future federal, state, local government and private investment in the airport.
- Screen proposed development projects for potential environmental impacts.
- Prepare an Airport Layout Plan drawing set and associated Master Plan narrative report that meets current FAA standards.

1.4 FUNDING AND ADMINISTRATION

This planning study is funded in part with Federal Aviation Administration (FAA) Airport Improvement Program (AIP) funds; Idaho Department of Transportation, Division of Aeronautics, Idaho Airport Aid Program (IAAP) and with local funds. FAA funding for this project was 95 percent of the total project cost with the remaining 5 percent split equally between IAAP and local funds. The Master Plan update document and Airport Layout Plan were prepared in accordance with the current regional FAA ALP checklist and guidance provided in FAA Advisory Circulars 150/5070-6B, [*Airport Master Plans*]; 150/5300-13, [*Airport Design*]; 150/5060-5, [*Airport Capacity and Delay*]; and 150/5325-4B, [*Runway Length Requirements for Airport Design*]; FAR Part 77, [*Objects Affecting Navigable Airspace*]; FAA Order 5100.38C, [*AIP Handbook*]; FAA Order 1050.1E, [*Environmental Impacts: Policies and Procedures*], and other applicable Advisory Circulars (ACs) and changes, FAA Orders and Federal Aviation Regulations (FARs) and State of Idaho guidance.

1.5 PLAN PROCESS

Development of the Master Plan Update with ALP requires a series of specific steps. The planning process will address several basic elements in the following chapters. Additional work efforts were scoped as part of this study effort and are further discussed in this narrative report.

1.5.1 INVENTORY

The airport inventory is a collection of information about the existing airport facilities, including characteristics of the existing runway and taxiways, airport access, property holdings, airport

users, airport services, hangars and aircraft parking aprons, population changes, land uses, development trends, changes in employment and income and future trends in the study area.

1.5.2 AVIATION ACTIVITY FORECASTS

The development of the aviation activity forecast for Lemhi County Airport provides a prediction of future aircraft operation levels and the types of aircraft that will operate at the airport. All predictions are made based on the accepted statistical methods practiced within the aviation planning industry, recognizing that no method for predicting future events exists which produces 100 percent accurate results. Forecasts are developed using various mathematical, market share and trend projection techniques to develop a statistically justifiable estimate of the future number of based aircraft, type of aircraft, and the total number of aircraft operations that should be expected at this airport. Anticipated levels of airport activity at the airport are organized in set intervals describing the expected future users. The FAA must approve aviation activity forecasts.

1.5.3 FACILITY REQUIREMENTS ANALYSIS

This section compares existing airport conditions to the expected future condition and recommends what is needed to sustain the current activity levels and the levels of activity forecast for the future. Using this comparison, it is possible to identify where there are deficiencies or excesses in capacity within the airport facility. The output of this section is a list of facility improvements that the airport endeavors to achieve.

1.5.4 AIRPORT ALTERNATIVES ANALYSIS

This portion of the Master Plan Update compares the possible actions that may be taken to meet the needs of the airport. The options considered in the alternatives analysis can range from minor to major undertakings on the airport property and its facilities. The various alternatives designated for this project will form the basis for future airport development at the Lemhi County Airport.

1.5.5 DEVELOPMENT PLAN

The development plan and the associated airport Capital Improvement Program (CIP) is a key plan for airport decision makers. It is a realistic listing of the projects required to satisfy the facilities requirements including the most viable manner of meeting these needs. The CIP includes a cost estimate based on current construction costs for each development. The CIP also identifies sources of funding and the phasing of the required improvements.

1.5.6 AIRPORT LAYOUT PLAN DRAWING SET

Tied to the development of the Master Plan Update is the preparation of a series of drawings depicting the existing airport and the proposed changes to the airport over the next 20 years, commonly referred to as the ALP. A description of each drawing included in the ALP drawing set for the Lemhi County Airport is included in Chapter Six along with a complete drawing set.

1.5.7 LAND USE POLICY REVIEW AND RECOMMENDATIONS

Compatible land use and zoning has become increasingly important for airports over the last decade and the FAA has stressed that each airport should have appropriate measures in place to ensure appropriate development occurs within the airport environs. This portion of the Master Plan Update will review existing policy and zoning in place in Lemhi County and the City of Salmon regarding airport land use and future development. Recommendations for improved policy to prevent incompatible land use surrounding the airport are also identified.

1.5.8 AIRPORT COMPLIANCE AND MANAGEMENT BEST PRACTICES

This section provides Lemhi County Airport with a clear understanding of its federal and state regulatory requirements and grant assurances. The management best practices the airport should have in place in order to ensure compliance with grant assurances and other policies are discussed.

2.0 INVENTORY OF EXISTING CONDITIONS

The purpose of the inventory is to summarize pertinent information regarding the existing conditions of the airport facilities and information on the history, background, role, operations and general characteristics of the Lemhi County Airport (SMN) in context to its place in the community. The information in this chapter constitutes the current status of the Lemhi County Airport and provides the baseline for determining future facility needs. Information was obtained through various justifiable mediums including: consultant research, review of existing documents, and interviews and conversations with airport stakeholders including Lemhi County the airport sponsor, Airport Board, airport tenants, ITD Aeronautics and other knowledgeable sources.

2.1 AIRPORT BACKGROUND

2.1.1 AIRPORT HISTORY

The airstrip was originally constructed in 1930 by a private business entity. The FAA activated the Lemhi County Airport in April 1940. The City and County gained control of the airport in 1943 and co-owned and co-operated the facility until 1976, when the County gained full proprietorship. The airport is currently home to 63 based aircraft. The United States Forest Service (USFS) has been and continues to be a significant stakeholder at the airport. In 1958, the Forest Service established a fire retardant facility on property that it leased from the airport until 1976; the Forest Service could no longer operate the fire retardant base at this airport when the design needs of larger twin-engine aircraft outstripped the airport's designed capacity. Currently the airport serves as an important USFS airbase for wild land firefighting activities during fire season with occasional operations be single engine and similar twin engine firefighting aircraft. . The airport facilitates incoming and outgoing mail and parcel service for this area, including the only means of communicating with remote areas in the wilderness, via the backcountry Idaho Airmail Route.

2.1.2 AIRPORT LOCATION

The airport is located at 45°07.43"N latitude and 113°52.88"W longitude in Lemhi County in east central Idaho. The runway is oriented on headings 170/350 degrees and designated as Runways 17 and 35 respectively. The airport is situated on approximately 266 acres three and a half miles south of the City of Salmon at an elevation of 4,043 feet. The greater Salmon area is considered to be one of the more isolated communities in Idaho. The airport is surrounded by open rangeland and areas of low density residential development to the North, South and West, with a significant terrain surrounding all quadrants around the airport. This airport's geographic location is significant because of the access it provides to the Salmon-Challis National Forest and the most remote

Source: T-O Stock Photo

wilderness area in the Continental United States: the Frank Church River of No Return Wilderness. It also provides access to Mount Borah, Wild and Scenic Salmon River, Middle Fork of the Salmon River, Sawtooth National Recreation Area and the Sawtooth Mountain Range (Frank Church River of No Return Wilderness, United States Forest Service). This area is a highly desirable destination and major attractor for hunters, fishers, whitewater rafters, and other outdoor enthusiasts in addition to the focused activities of wildlife biologists, ecologists and academics. The Targhee National Forest is also nearby, only 130 miles to the southeast of the airport.

2.1.3 AIRPORT OWNERSHIP AND MANAGEMENT

The airport is currently owned, operated and managed by Lemhi County. There currently is no dedicated airport manager for the airport. The volunteer Lemhi County Airport Board manages all maintenance and operations activities at the airport. The Airport Board is currently composed of 7 members appointed by the Board of County Commissioners to formulate airport policy and direction. The Airport Commission transmits recommended actions and policies to the Lemhi County Board of Commissioners for final action in airport matters. The Airport Board currently meets the first Monday of each month.

2.1.4 AIRPORT ROLE

The Lemhi County Airport is a part of the FAA's National Plan of Integrated Airport Systems (NPIAS) and is recognized as a General Aviation (GA) airport. ITD Aeronautics classifies this airport's role as "Regional Business" because this airport is a substantial economic driver for the region and the City of Salmon (Idaho Airport System Plan, 2008). The Airport is primarily used for GA air taxi, itinerant GA, local GA, recreational flying, protecting the public welfare (Search & Rescue, Fire Fighting, Law Enforcement, Medical Evacuation) with some cargo activity and a trace of military operations.

Source: Idaho Statesman

Lemhi County also has two other publically owned airports that are not a part of the NPIAS: one in Leadore (U00) with a turf/asphalt runway 3,500 feet long with no communication capabilities, no winter maintenance and no fuel; and one near May (0U8) with a 4,950 foot dirt/gravel runway with no communication capabilities, no winter maintenance and no fuel.

2.1.5 EXISTING AIRPORT ACTIVITIES AND USERS

The Lemhi County Airport provides for a variety of aviation uses and activities. The airport predominantly serves single-engine and multi-engine piston aircraft. The principal activities occurring at this airport pertain to corporate business, recreational, medical related transport, government Fire Fighting (BLM and Forest Service), flight training school and some cargo and freight transport.

Source: T-O Stock Photo

2.1.6 EXISTING ACTIVITY LEVELS

The FAA's 5010 Airport Master Record is the official record kept by the FAA for public-use airport activities and facility conditions and is the industry standard for determining airport activity levels. The FAA 5010 Airport Master Record uses information provided by airport management and ITD. Airport activity levels are determined by the number of aircraft based at the airport and the approximate number of aircraft operations that occur annually. Based aircraft are defined as "an aircraft 'operational and air worthy', which is typically based at an airport facility for the majority of the year," and a single aircraft operation is defined as "either an aircraft take-off or landing". For example, a "touch-and-go" accounts for two operations (FAA, Definition of Terms).

The FAA 5010 report dated January 19th, 2010 states that the total number of based aircraft at the Lemhi County Airport is 63: 52 single-engine aircraft, 11 multi-engine aircraft and consisting of 1 jet-propelled aircraft. Of the estimated 24,500 operations that occur in a 12 month period, 9,000 are estimated to be Air Taxi, 7,500 local and 8,000 itinerant General Aviation operations (FAA, 5010). A March, 2010 verification of based aircraft by the FAA resulted in 50 based aircraft.

Source: T-O Stock Photo

2.2 COMMUNITY BACKGROUND

2.2.1 GENERAL

Lemhi County, named in the honor of Fort Lemhi, was founded January 9th 1869 and offers ample recreation activities within 4,570 square miles (Idaho Genealogy Resources). Sacajawea was born in Tendoy, between Kenny and Agency Creeks, in Lemhi County (http://www.sacajaweahome.com). Adjacent counties include Idaho, Valley, Custer, Butte, Clark and the two Montana Counties of Ravalli and Beaverhead.

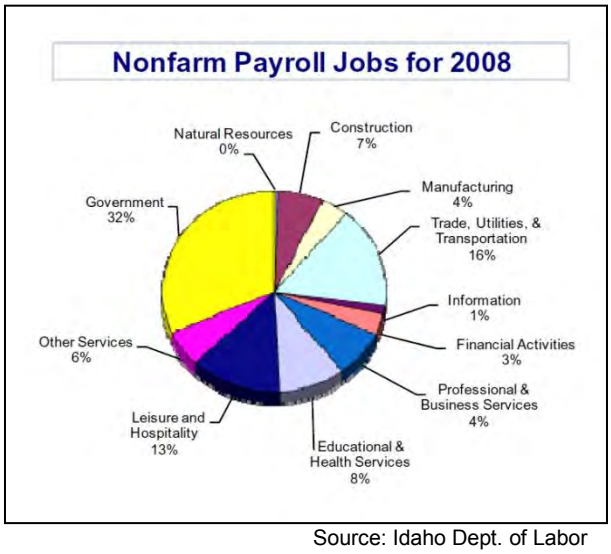
2.2.2 SOCIOECONOMIC CONDITIONS

According to the data obtained from the U.S. Census Bureau and Bureau of Economic Analysis, the decennial census counted 7,806 people in 2000, and 7,808 people in 2008 for Lemhi County, constituting a flat growth rate (0.0 percent) from 2000-2008. When compared with the other 44 Counties in the State of Idaho, Lemhi County ranked 32nd in population. In 2008, the county had approximately 4,485 housing units with a higher homeownership rate (76.2 percent) than the rest of Idaho (72.4 percent). In 2007, the median household income was $37,523.00 in Lemhi County. The average persons per household in 2000 were 2.38 and the average persons per square mile were 1.7 for Lemhi County, which is much lower than the 15.6 average persons per square mile for Idaho (U.S. Census Bureau).

Positive socioeconomic changes that occurred between 1998 and 2007 were driven by a prolonged period of decreasing unemployment rates, in which the rate dropped from 8.5 percent to 4 percent. These positive socioeconomic changes were recently eclipsed by the 2008 – 2009 recession in a reversal to a decade of advances. As of December 2009, the unemployment rate in Lemhi County as recorded by the Idaho Department of Labor was 13.2 percent compared to an Idaho statewide average of 9.1 percent and nationwide average of 10 percent.

2.2.3 EMPLOYMENT TRENDS

The Idaho Department of Labor trend data identify several major employers in the vicinity, including the QB Corporation; Salmon Public Schools #291; United States Government; Idaho Department of Fish and Game; Lemhi County; Steele Memorial Hospital; the Discovery Care Center, LLC and the Saveway Market, Inc. Because the Federal, State and Local Governments control over 92 percent of the land in Lemhi County, it follows that the Department of the Interior, Bureau of Land Management, Idaho Fish and Game, United States Forest Service and other land management agencies have a significant presence in the local economy. Data obtained from the Idaho Department of Labor and the U.S. Census Bureau reveal a dominant industry cluster constituting almost 70 percent of the local economy: Government (32 percent); Trade, Utilities and Transportation (16 percent); Leisure and Hospitality (13 percent); and Education and Health Services (8 percent) industry sectors represent the core of the local economy. It is also important to recognize that these figures constitute Non-Farm Payroll employment, and do not include Farm Payroll employment. The temporary seasonal Farm Workers employed in Lemhi County in 2009 is estimated to be 653 in comparison with the total Non-Farm civilian labor force of 3,678 (Lemhi County Workforce Trends, Idaho Department of Labor).



Source: Idaho Dept. of Labor

2.2.4 REGIONAL WEATHER AND CLIMATE

The weather recorded for this area during a 30-year observation period spanning from 1961 to 1990 classifies Lemhi County as a semi-arid climate characterized by a variety of weather. The average maximum temperature is 59.2° Fahrenheit (F) with the highest average monthly temperature of 87.1 F occurring in July. The average minimum temperature was 27.5° F with the lowest average monthly temperature of 8.1° F occurring in January. The average growing season lasts 126 days, from May 17 until September 20. The average annual precipitation for Lemhi County is 8.2 inches. The County typically receives the yearly precipitation relatively steadily throughout the year; May (1.3”) and June (1.4”) have slightly higher average accumulations of precipitation than other monthly averages (.55”). The typical annual snow accumulation at the Lemhi County Airport is 27 inches (National Weather Service, National Oceanic and Atmospheric Administration).

2.3 EXISTING AIRSIDE FACILIITES

FIGURE 2-1: EXISTING AIRPORT FACILITIES (2009)

Source: T-O Engineers, Inc.

2.3.1 RUNWAY

The airport has been developed and improved over time to the present single runway configuration designated 17-35 with the physical dimensions of 5,150 feet in length and 60 feet in width. Runway 17-35 is marked with basic visual markings which are considered to be in fair condition. The published asphalt pavement strength is 12,500 pounds or less with single wheel

loading, although strength surveys exist which rate the pavement strength for the runway, taxiway and apron higher.

2.3.2 TAXIWAY

The airport has a full-length parallel taxiway measuring 5,150 feet long and 35 feet wide. There are four associated taxiway connectors; one on each runway end and two midfield connectors. The taxiway and connectors are marked with standard yellow taxiway markings and the markings are considered to be in good condition. There is currently no taxiway lighting system installed on the taxiway; however, retro-reflectors are installed in lieu of lights.

2.3.3 AIRFIELD LIGHTING, VISUAL AIDS AND NAVAIDS

A NAVAID is defined by the FAA as any facility used in the aid of air navigation, including landing areas, lights, any apparatus or equipment for disseminating weather information, for signaling, for radio direction-finding, for radio or other electronic communication, and any other structure or mechanism having similar purpose of controlling flight in the air, the landing or takeoff of aircraft. Runway 17-35 is equipped with a Medium Intensity Runway Lighting (MIRL) system with Pilot Controlled Lighting (PCL). PCL is activated via Common Traffic Advisory Frequency (CTAF) 122.8, which also may be used by the pilot to remotely activate a four light Precision Approach Path Indicator (PAPI-4) and Runway End Identification Lighting (REIL) on Runway 17. Both the PAPI and REIL are owned and maintained by the FAA.

2.3.4 AUTOMATED WEATHER

Lemhi County Airport is equipped with an Automated Weather Observation System (AWOS-III). The AWOS-II at SMN is owned and maintained by the FAA. An Automated Weather Observation System (AWOS) is defined by the FAA as a computerized weather reporting system that receives input from multiple sensors and broadcasts voice-synthesized weather data to pilots through the NAVAID. Pilots access the up-to-date, on-site airport weather conditions via the AWOS broadcast frequency 135.075 or by telephone (208) 756-4381.

Table 2-1 summarizes the existing lighting, visual aids and NAVAIDS at the Lemhi County Airport.

TABLE 2-1: LEMHI COUNTY AIRPORT LIGHTING, VISUAL AND NAVAIDS

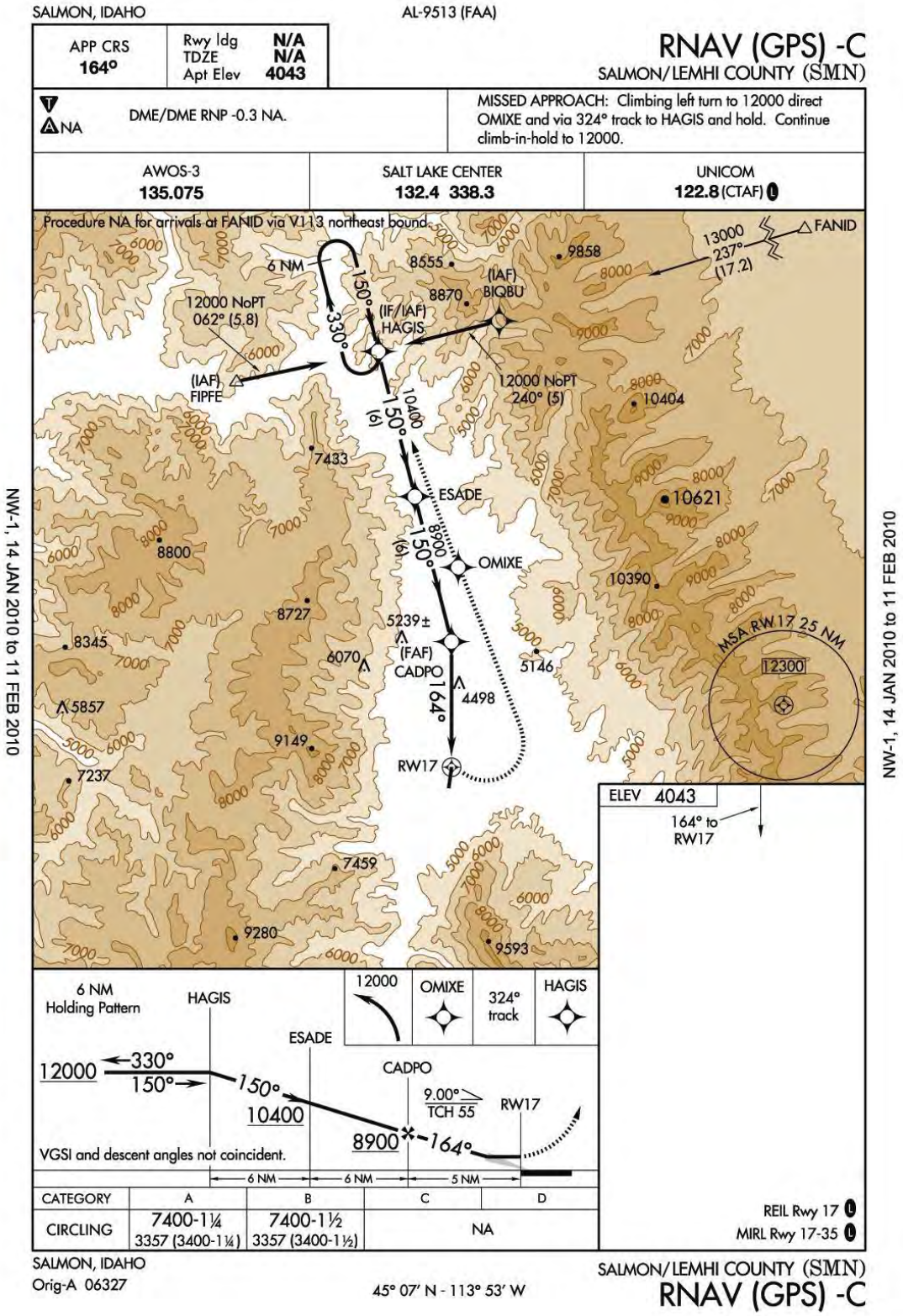
COMMUNICATION AND WEATHER	
UNICOM - 122.8	
AWOS-3	
VISUAL	
Lighted Wind Cone	
Segmented Circle	
Rotating Beacon	
Medium Intensity Runway Lighting (MIRL)	
NAVAIDS AND OTHER	
RUNWAY 17	**RUNWAY 35**
Precision Approach Path Indicator (PAPI- 4)	No PAPI
Runway End Identifier Lights (REIL)	No REIL

Source: T-O Engineers, Inc.

2.3.5 INSTRUMENT APPROACH CAPABILITIES

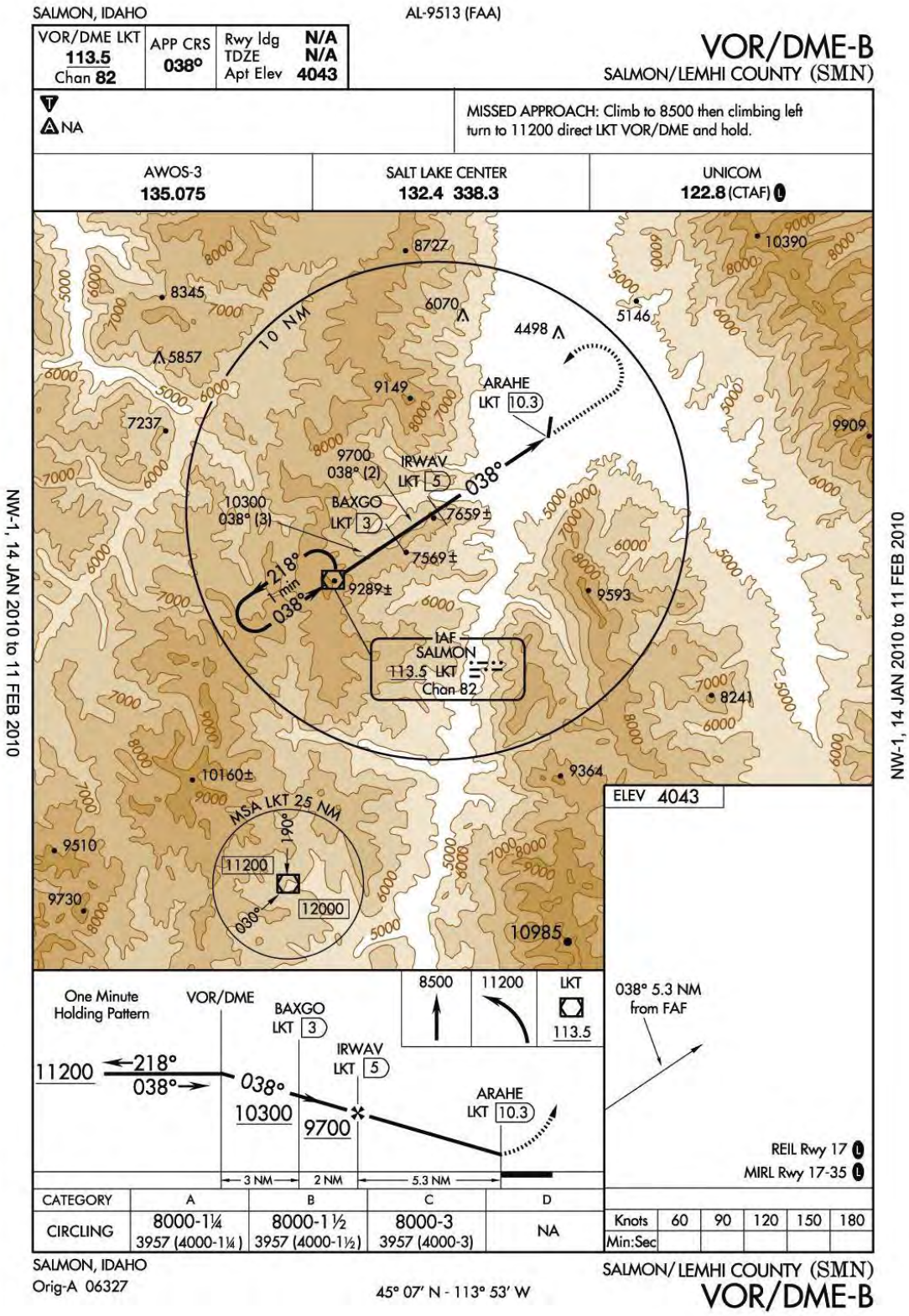
The Lemhi County Airport currently provides instrument approach capabilities to airport users, however due to terrain limitations, only circling minimums are available. Existing instrument approach capabilities include Area Navigation (RNAV) GPS and VOR/DME procedures. Lemhi County airport also has a published instrument departure procedure for Runway 35. Following are the approach plates for existing instrument procedures at SMN.

FIGURE 2-2: RNAV GPS INSTRUMENT APPROACH PLATE



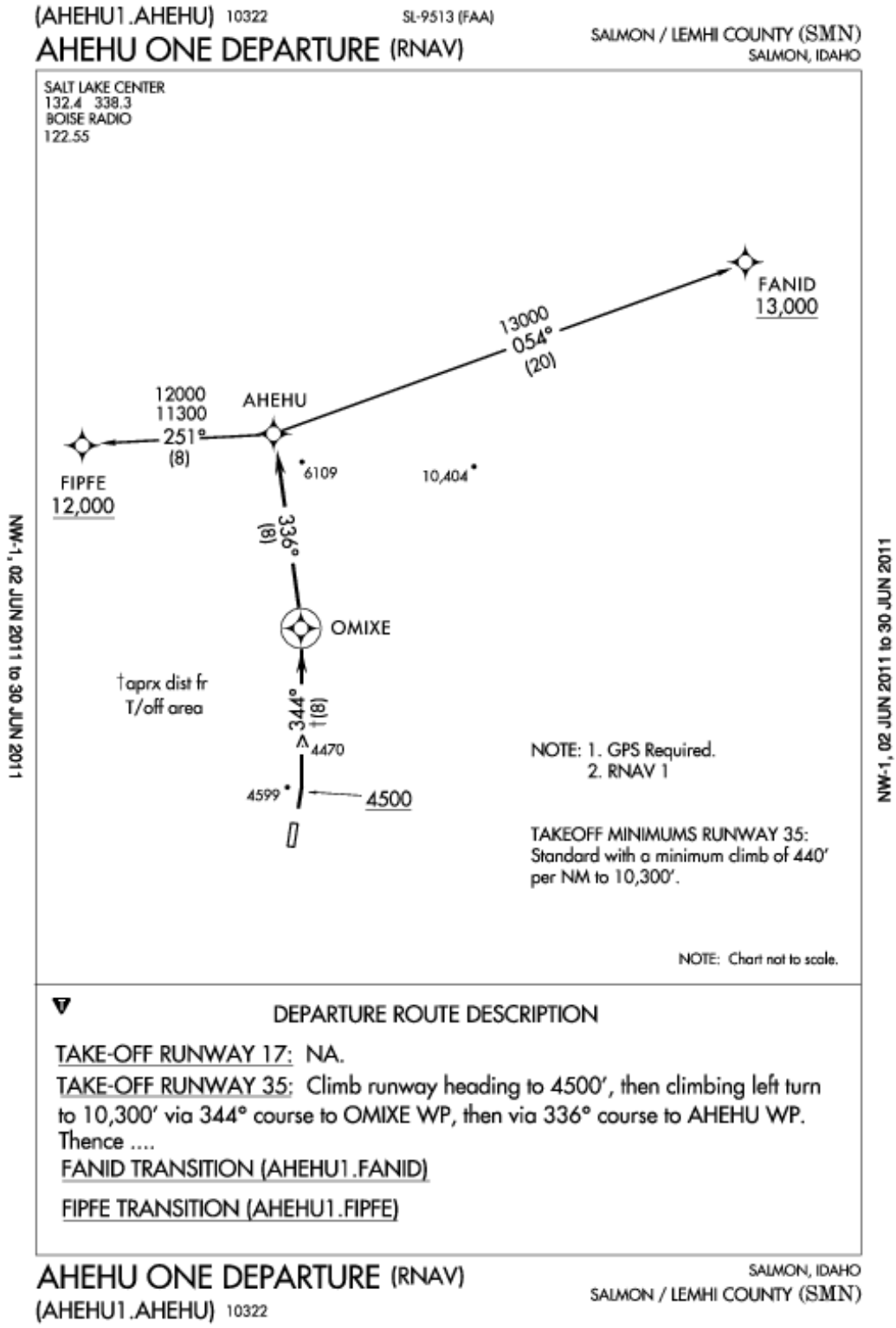
Source: Airnav.com

FIGURE 2-3: VOR DME-B INSTRUMENT APPROACH PLATE



Source: Airnav.com

FIGURE 2-4: AHEHU ONE INSTRUMENT DEPARTURE PLATE



Source: Airnav.com

2.3.6 SUMMARY OF AIRSIDE FACILITIES

Table 2-2 summarizes the airport's airside facilities.

TABLE 2-2 LEMHI COUNTY AIRPORT AIRSIDE FACILITIES

Item	Current Data
Airport Role / Service Level / Type	GA – FAA/Regional Business – ITD
Airport Elevation	4,043'
Mean/Maximum Temperature (of)	59.2/˚87.1˚
Airport Reference Code – ARC	B-I
Critical Aircraft	Undefined
Airport Reference Point Latitude	45°07.43"N
Coordinates (NAD 83) Longitude	113°52.88"W
Runway Headings	172 mag, 188 true/352 Mag, 008 true
Magnetic Declinations	13° 55' E/0° 9' West per year
Runway Length	5,150'
Runway Width	60'
Runway Pavement Type	Asphalt
Runway Pavement Strength - SW	12,500 lbs. (published)
Runway Pavement Strength - DW	--
% Effective Runway Gradient	1%
Runway Lighting Type	MIRL
Runway Marking Type	Basic Pavement Markings
Taxiway Pavement Type	Asphalt
Taxiway Pavement Strength - SW	--
Taxiway Width	35'
Taxiway Lighting Type	Retroreflectors
Taxiway Marking Type	Basic
Instrument Approaches	RNAV GPS/VOR-DME
Amount of Airport Property (acres)	266.79

Source: T-O Engineers, Inc.

2.4 DESIGN STANDARDS

The vast majority of public use airports are developed in accordance with established design standards that specify dimensional standards based on the airport type. This is particularly true for FAA NPIAS airports, such as Lemhi County Airport, which are required to use a classification system recognized by the FAA commonly referred to as the Airport Reference Code (ARC). Typical design standards for an ARC classified airport are predicated on the (a) approach speed (Category) and (b) wingspan (Design Group) of the most demanding aircraft or group of similar aircraft that operate frequently at the airport. Frequent operation is typically categorized by 500 or more operations per year. These ARC classifications drive the airport design and dimensional requirements for ground based separations, safety areas, runway and taxiway environs and other design parameters. A summary of the FAA approach categories and design groups that result in the ARC is included below:

Aircraft Approach Category (ARC): A grouping of aircraft based on 1.3 times their stall speed in their landing configuration at their maximum certificated landing weight. The categories are as follows:

Category A: Speed less than 91 knots
Category B: Speed 91 knots or more but less than 121 knots
Category C: Speed 121 knots or more but less than 141 knots
Category D: Speed 141 knots or more but less than 166 knots
Category E: Speed 166 knots or more

Airplane Design Group (ADG): A grouping of planes based on their wingspan. The groups are as follows:

Group I: Up to but not including 49 feet
Group II: 49 feet up to but not including 79 feet
Group III: 79 feet up to but not including 118 feet
Group IV: 118 feet up to but not including 171 feet
Group V: 171 feet up to but not including 214 feet
Group VI: 214 feet up to but not including 262 feet

The Lemhi County Airport is currently classified as an ARC B-I General Aviation airport and meets FAA design standards for this designation. While currently a B-I facility, the airport does accommodate a significant amount of both B-I and B-II activity. As depicted in **Table 2-3** below, with the exception of runway width, the airport currently meets B-II design standards as well. Common aircraft currently using Lemhi County airport include the single and multi-engine aircraft fleet including turboprops and light business jets. Examples include the Beech Baron 58, Beech King Air 200, Cessna 402, Cessna 421, Piper Navajo, Piper Cheyenne, and the Cessna Citation line of business jets. Table 2-3 presents the dimensional standards for FAA Airport Reference Code B-I and B-II and compares these to existing airport dimensions.

TABLE 2-3: EXISTING AIRPORT DIMENSIONAL CRITERIA

Design Standard (feet)	FAA ARC B-I	FAA ARC B-II	Existing
Runway Width	60	75	60
Runway Safety Area Length beyond each runway end (RSA)	240	300	300
Runway Safety Area Width (RSA)	120	150	150
Runway Object Free Area (OFA) Length beyond each RW end	240	300	300
Runway Object Free Area (OFA) Width	400	500	500
Runway Centerline to Taxiway Centerline	225	240	240
Runway Centerline to Edge of Aircraft Parking	200	250	300
Taxiway Width	25	35	35
Taxiway Safety Area (TSA)	49	79	79
Taxiway Object Free Area (TOFA)	89	131	131

Sources: ALP, T-O Engineers, Inc., FAA AC150/5300

2.4.1 RUNWAY PROTECTION ZONE (RPZ)

The RPZ is a defined area on the ground beyond the end of the runways that is clear of incompatible activities and objects in order to protect persons and property from collision hazards. The RPZ is trapezoidal in shape and begins 200 feet from the end of each runway. The RPZs associated with Runway 17-35 are sized to accommodate FAA visual design standards of not lower than 1 mile approach visibility minimums. The design standard for the RPZ inner dimension is 500 feet centered on the runway, the length is 1,000 feet and the width at the outer end of the trapezoid is 700 feet.

The Runway 17 RPZ at Lemhi County Airport meets this design standard; however, the Runway 35 RPZ is encumbered by a public road.

2.4.2 RUNWAY SAFETY AREA (RSA)

The RSA is a defined surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway. The RSA should be cleared and graded and not have potentially hazardous ruts, humps, depressions or other surface variations. The design standard for B-I ARC is 120 feet wide and 240 feet beyond each runway end. The design standard for B-II ARC is 150 feet wide and 300 feet beyond each runway end.

The Runway 17-35 RSA at Lemhi County Airport meets both B-I and B-II design standards.

2.4.3 RUNWAY OBJECT FREE AREA (OFA)

The OFA is a defined surface surrounding the runway required to keep above ground objects from penetrating the RSA. Objects can be located in the OFA for air navigation or aircraft ground maneuvering purposes. Aircraft are prohibited from parking in the OFA. The design standard for B-I OFA is 400 feet wide and 240 feet beyond each runway end. The design standard for B-II ARC is 500 feet wide and 300 feet beyond each runway end.

The OFA for Runway 17-35 at Lemhi County Airport meets both B-I and B-II design standards.

2.4.4 RUNWAY/TAXIWAY SEPARATION

The Runway/Taxiway separation is a centerline offset that is standardized in order to satisfy the requirement of the FAA: that no part of an aircraft, tail or wing tip, on a taxiway or taxilane centerline is within the runway safety area. The required separation distance between the runway and parallel taxiway centerlines is 225 feet for Airplane Design Group I airports for visual runways and runways with approaches with not lower than ¾ mile approach visibility minimums.

Source: T-O Stock Photo

The current Runway/Taxiway centerline separation of 240 feet at the Lemhi County Airport meets this design standard and also meets the separation standard for ARC B-II. The parallel taxiway was constructed to meet the B-II requirements in anticipation of a change to the airport's ARC, from B-I to B-II.

2.4.5 TAXIWAY SAFETY AREA (TSA)

The TSA is a defined surface centered on the taxiway centerline prepared or suitable for reducing the risk of damage to an airplane unintentionally departing the taxiway. The design standard for ARC B-I TSA is 49 feet wide and 79 feet wide for B-II.

The existing TSA width at Lemhi County Airport is 79 feet, which meets both ARC B-I and B-II design standards.

2.4.6 TAXIWAY OBJECT FREE AREA (TOFA)

The TOFA is an area on the ground centered on the taxiway provided to enhance the safety of aircraft operations by having the area free of objects, except for objects that need to be located in the TOFA for air navigation or aircraft ground maneuvering purposes. The design standard for ARC B-I TSA is 89 feet wide and 131 feet wide for B-II.

The existing TSA width at Lemhi County Airport is 131 feet and meets both ARC B-I and B-II design standards.

2.5 EXISTING LANDSIDE FACILITES

2.5.1 AIRCRAFT APRON

The aircraft apron is the area that aircraft can perform landside activities without interfering with airside operations. The airport has an aircraft apron area consisting of approximately 30,000 square yards in three areas; north, south and east of the Salmon Air building. They are both used for non-airside operations, such as aircraft parking, servicing, refueling, enplanements and deplanements. The aircraft apron at the Lemhi County Airport consists of asphalt pavements designed for both small single and multi-engine aircraft fleet weighing 12,500 pounds or less.

FIGURE 2-5: EXISTING LANDSIDE FACILITIES (2009)

Source: T-O Engineers, Inc.

2.5.2 FIXED BASE OPERATOR (FBO)

The airport is served by one FBO, Salmon Air. Salmon Air provides scenic backcountry tours, aircraft maintenance, flight training and pilot supplies. The FBO office is a 2,000 square foot privately owned terminal building that includes restrooms, a pilot's lounge, flight training and general meeting areas. The airport is open 24 hours a day, but the FBO is usually only attended from 8 am to 5 pm, Monday through Saturday.

2.5.3 GENERAL AVIATION TERMINAL BUILDING

There is no general aviation terminal building located at the airport. A small administrative building exists where airport files are stored; however, the building is very small and provides no public services.

2.5.4 FUEL FACILITIES

Source: T-O Stock Photo

The airport currently provides Avgas (100LL) and Jet A fuel at the airport. The fuel is stored in two (2) 12,000 gallon underground tanks. Fuel is available 24 hours a day via a credit card system and may also be procured from the FBO during attended hours. The fuel island is located in close proximity to aircraft parking aprons. Larger aircraft using the fuel island are can conflict with taxi operations.

2.5.5 HANGARS

There are 28 hangar buildings located on the airport property including 22 conventional box hangers, 2 T-type hangars, 2 condominiumized hangars and 2 FBO hangar facilities. The 2 condominiumized hangar buildings provide for a total of 8 hangar spots. As of February 2010, there was a 95 percent utilization rate for hangar capacity and zero aircraft on the hangar waiting list.

Source: T-O Stock Photo

2.5.6 TIE DOWNS

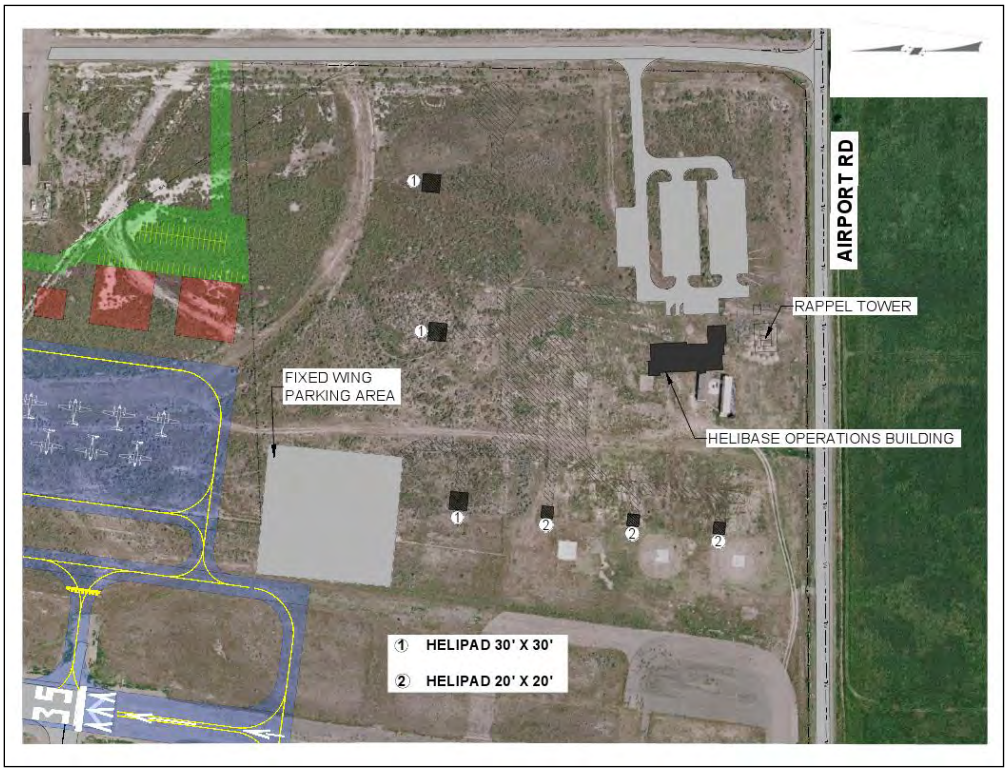
There are 58 fully improved steel tie-down positions encased in concrete anchors that are embedded in the apron; five are reserved for based aircraft and 53 are reserved for transient aircraft.

Source: T-O Stock Photo

2.5.7 USFS AIRBASE

The United States Forest Service recently constructed an Airbase on the east side of the airport. The facilities include a Helibase operations building, rappel tower, six helipads, and a fixed wing parking area. The perimeter of the Airbase is fenced with a 9' fence that ties into the existing perimeter fence and access is controlled through a 20' manual gate. The facilities are shown below in **Figure 2-6**.

FIGURE 2-6: US FOREST SERVICE AIRBASE



Source: T-O Engineers, Inc.

2.5.8 PERIMETER FENCING

The airport perimeter is fully fenced with a 9-foot steel mesh wildlife fence. The fence minimizes the ability of large wildlife to access the airfield and provides a security deterrent. There is an automated access gate at the main airport entrance.

Source: T-O Stock Photo

2.5.9 AIRPORT ROADSIDE ACCESS

Airport Road, located at the south end of the airport, connects Highway 93 west of the airport to Hot Springs Road located on the east side of the airport. Access to both the west and east sides of the airport is provided by roads connecting to the north side of Airport Drive and extending in a northerly direction. The access on the east side of the airport serves the recently constructed USFS airbase facility and undeveloped ground owned by Lemhi County north of the airbase facility. Access on the west side serves the majority of landside facilities including private hangars, FBO facilities, aircraft parking aprons, and vehicle parking. In addition, Ranchette Road, located at the northern end of the west side of the airfield, extends from Highway 93 to the airport property boundary. This road does not provide a public access to the airport, but may be used to access the on airport automated weather station for maintenance, and perhaps the API approach lighting system. It may also be used for operation and maintenance of irrigation system components located on the airport.

2.5.10 GROUND TRANSPORTATION

Abundant automobile parking spaces exist on the airport. Some provide direct access to the FBO or individual hangars. The main automobile parking lot on Airport Road is improved with gravel. There is no automobile intersite circulation plan or parking lot layout plan at this time. Arrangements for off-airport rental cars, courtesy rides and organized bus service are available by making advanced agreements with off-airport businesses and service providers. There are no on airport rental cars. The airport has a courtesy car available for use with minimal cost.

2.5.11 UTILITIES

The airport sponsor provides limited public utility services and Idaho Power provides electricity to airport users. It is important to note that sanitary sewer service is provided by individual disposal systems (septic facilities) and does not have wet line taps to a sewer system.

TABLE 2-4: UTILITY SERVICES

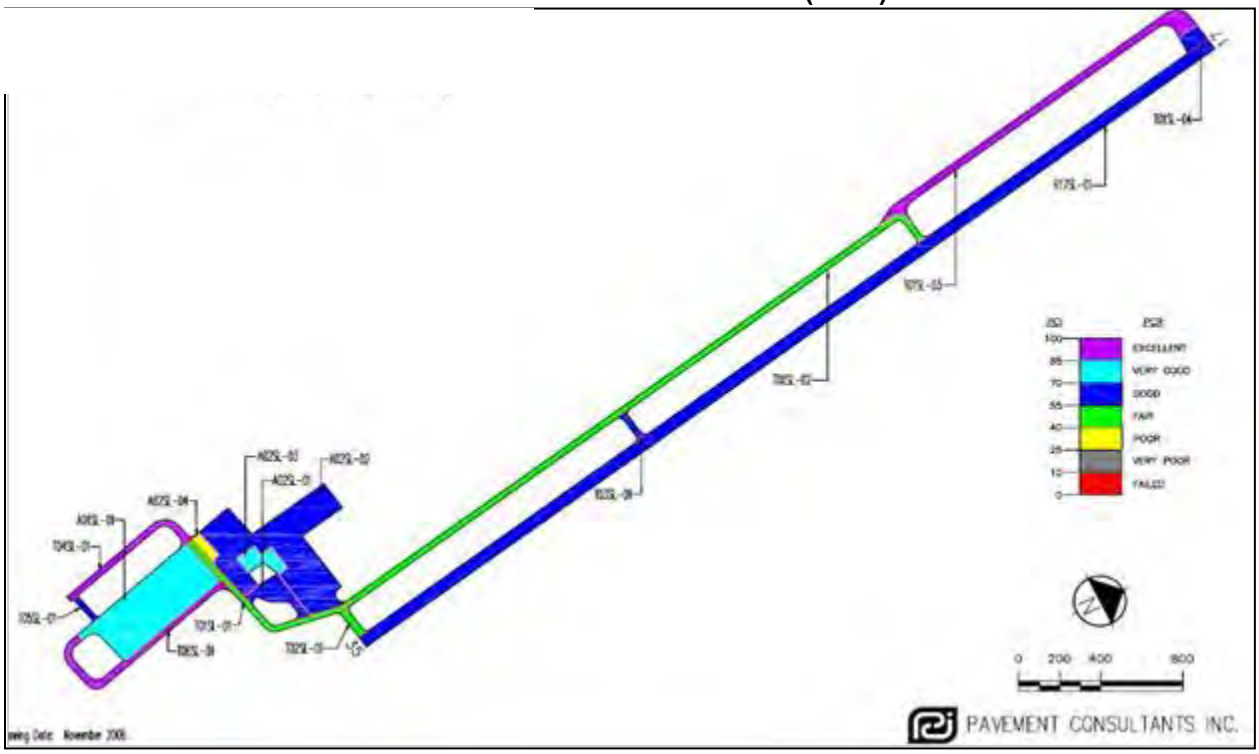
Utilities	Service	Provider
Water	Individually Served	Well head
Sewer	Partial	Individual Disposal Systems
Fire Protection	Emergency Response	Lemhi County
Electric	Full	Idaho Power
Natural Gas	Tank	Private
Refuse	Partial	Lemhi Sanitation

Source: T—O Engineers, Inc.

2.6 AIRPORT PAVEMENT CONDITION

ITD periodically completes Pavement Condition Index (PCI) inspections of airport pavements at public use airports in Idaho. The PCI is based on a visual inspection of pavement condition only. The last PCI inspection conducted at Lemhi County Airport by ITD was in October of 2006, no other current information exists. The condition of the various paved surfaces at Lemhi County Airport are graphically depicted in **Figure 2-7.**

FIGURE 2-7: PAVEMENT CONDITION AT LEMHI COUNTY AIRPORT (2006)



Source: Idaho Transportation Department, Division of Aeronautics

As shown, Runway 17-35 and much of the apron is considered to be in “good” condition. The southern two-thirds of the parallel taxiway and several connectors, that are shown to be in “fair” condition on Figure 2-1, were reconstructed in 2008 and now meet FAA runway/taxiway separation requirements. As a result, the PCI rating of this pavement is now considered to be excellent. While portions of the aircraft apron range from “poor” to “very good”, the 2006 ITD PCI Report rated the average apron condition as good.

2.7 AIRPORT OPERATIONS AND MAINTENANCE

The airport sponsor provides all airport operation and maintenance services including snow removal, minor pavement maintenance, weed abatement, landscape maintenance and emergency response.

The airport does not have any dedicated snow removal equipment or ARFF equipment located at the airport because the County provides these services; however, they do own a pickup truck

equipped with a small plow. General aviation airports are not required to locate these facilities onsite.

2.8 FEDERAL AVIATION REGULATION PART 77 IMAGINARY SURFACES

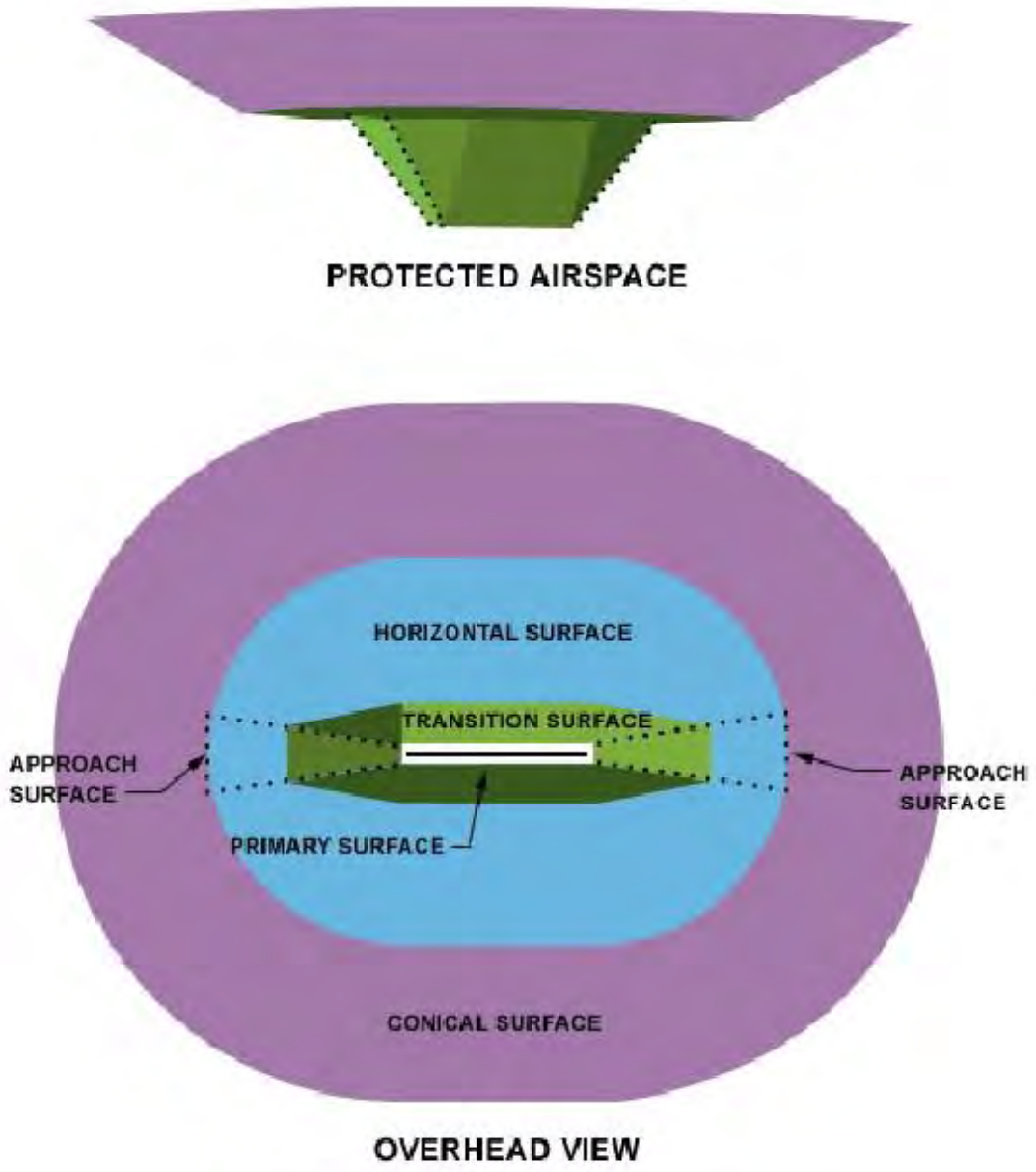
Federal Aviation Regulation (FAR) Part 77, Objects Affecting Navigable Airspace, provides for airspace protection requirements at public-use airports. Airspace requirements are determined by the weight of the aircraft that predominantly operate at an airport and the type of instrument approach, if any, that exists or is planned.

Although the Airport runway predominantly serves small single- and multi-engine aircraft fleet weighing 12,500 pounds or less, the runway occasionally accommodates aircraft weighing in excess of 12,500 pounds. Runways accommodating aircraft of greater than 12,500 pounds (MGW) are know as “Other Than Utility Runways”. Far part 77 Runway designations of either “Utility” or “Other Than Utility” can include visual only runways or runways with a precision or non-precision instrument approach. Once a runway has been designated as either ‘Utility or “Other Than Utility” and the type of approach is known, The specific airspace dimensions can be identified. For public-use civilian airports, FAR Part 77 identifies the following “imaginary” airport airspace surfaces.

- Primary Surface
- Approach Surface
- Transitional Surface
- Horizontal Surface
- Conical Surface

Runway 17-35 is designated an “Other Than Utility” runway for purposes of FAR Part 77 because aircraft in excess of 12,500 lbs operate at the airport. Runway 17 has a non-precision instrument approach and Runway 35 a visual approach. A description of each FAR Part 77 airspace surface and specific dimensions for this airport are described in the following paragraphs. **Figure 2-8** depicts an exaggerated example of the FAR Part 77 Surfaces.

FIGURE 2-8: FAR PART 77 IMAGINARY SURFACES



Source: WSDOT

2.8.1 PRIMARY SURFACE

A rectangular surface longitudinally centered on the runway. For hard surfaced runways, the surface extends a distance of 200 feet beyond each runway end. Its elevation is the same as that of the runway at any given point perpendicular to the runway at that point. The width of the Primary Surface is set by the most demanding type of approach existing or planned for either end of the runway. Widths can be 250 feet, 500 feet or 1,000 feet if the existing or planned approach has approach visibility minimums as low as ¾ statute mile or a precision instrument approach.

The current width of the Primary Surface at the Airport is 500 feet, or 250 feet either side of centerline and extending 200 feet beyond each runway end.

2.8.2 APPROACH SURFACE

Since the approach to Runway 17 is not less than ¾ mile the Approach Surface begins at the ends of the Primary Surface and slopes upward and outward. An Approach Surface is applied to each runway end and is based upon the type of approach planned for that runway end. For visual and utility runways, the Approach Surface slope extends for a distance of 5,000 feet at a slope of 20:1. For all non-precision instrument runways other than utility the distance is 10,000 feet at a slope of 34:1. For all precision instrument runways the slope is 50:1 for 10,000 feet then 40:1 for additional 40,000 feet. The ultimate width of the Approach Surface is dependent upon the specific visibility of the approach minima to that runway end.

Based on the current instrument approach capabilities at the airport, the current Runway 17 Approach Surface extends 10,000 feet from the end of the Primary Surface at a slope of 34:1. The current Approach Surface for Runway 35 extends 5,000 feet long from the end of the Primary Surface at a slope of 20:1. The inner width of each Approach Surface matches the Primary Surface (500 feet) and increases to a width of the 3,500 feet for Runway 17 and 1,500 feet for Runway 35 at the end of the Approach Surface.

2.8.3 TRANSITIONAL SURFACE

A sloping area that begins at the edge of the primary surface and slopes upward at a ratio of 7:1 until it intersects the horizontal surface.

2.8.4 HORIZONTAL SURFACE

An oval-shaped level area situated 150 feet above the airport elevation with the perimeter established by swinging arcs of specified radii from the center of each end of the Primary Surface of each runway and connecting the adjacent arcs by lines tangent to those arcs. The arcs at either end will have the same value. The radius of each arc is:

- 5,000 feet for all runways designated as utility or visual
- 10,000 feet for all other runways.

The elevation of the Horizontal Surface at Lemhi County Airport is 4,193 feet. MSL.

2.8.5 CONICAL SURFACE

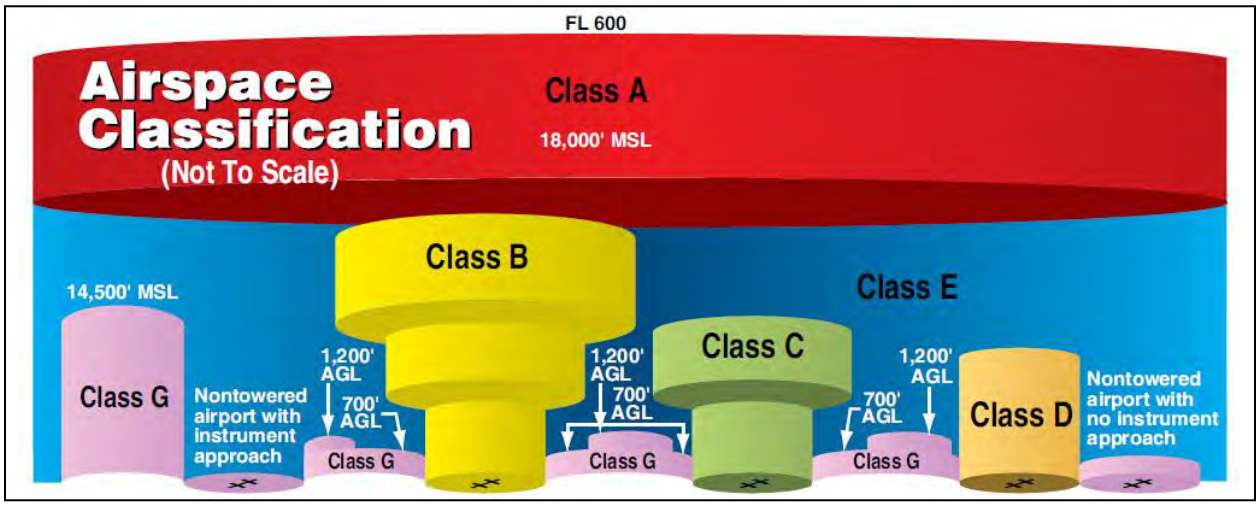
The conical surface is a sloping area whose inner perimeter conforms to the shape of the horizontal surface. It extends outward for a distance of 4,000 feet measured horizontally, while sloping upward at a 20:1 ratio resulting in an additional 200 feet of height about the Horizontal Surface. The elevation at the outer edge of the conical surface at Lemhi County Airport is 4,393 feet. MSL.

2.9 SURROUNDING AIRSPACE AND AIRPORTS

2.9.1 AIRSPACE

The National Airspace System (NAS) designates areas of controlled and uncontrolled airspace. There are established operating procedures and requirements in both controlled and uncontrolled airspace. Controlled airspace includes more stringent requirements in terms of Air Traffic Control (ATC) procedures, aircraft equipment and pilot certification. Typically, the busier the airport and airspace, the more restrictive and stringent the operating requirements enforced in that airspace. **Figure 2-9** depicts the general airspace classifications as defined by the FAA.

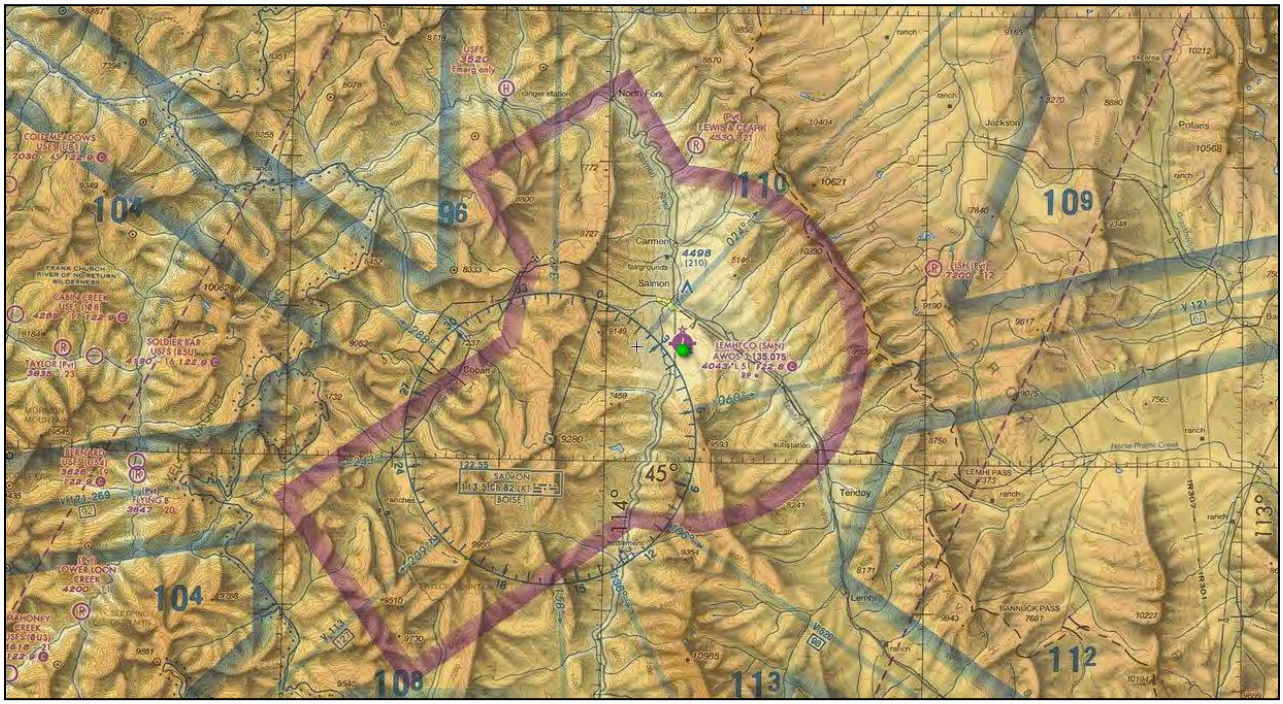
FIGURE 2-9: AIRSPACE CLASSIFICATION



Source: FAA

The airport is currently in Class E controlled airspace. Class E airspace extends up from the ground surface to an elevation of 700 feet above the ground. The Class E designation around the airport is in place to establish operating procedures and restriction as a result of the instrument approach capabilities in place at the airport. The airspace around the airport is challenging because of high terrain in all sectors around the airport. Pilots using Lemhi County Airport must be diligent and prepared for operating in the vicinity of the airport. **Figure 2-10** depicts the airspace sectional (aeronautical chart) in the immediate vicinity of the airport.

FIGURE 2-10: SECTIONAL CHART FOR LEMHI COUNTY AIRPORT AND SURROUNDING AIRSPACE



Source: SkyVector.com

2.10 SURROUNDING AIRPORTS

As previously mentioned, the Lemhi County Airport is located in a remote area of Idaho. As a result, relatively few airports are in close proximity to SMN. Due to its proximity to Montana, many of the closest airports to SMN are located in Montana. The closest Idaho airport is located in Challis but currently Challis does not provide instrument approach capabilities. **Table 2-5** below identifies several surrounding airports, their distance (NM) from SMN, and the services they provide.

TABLE 2-5: AIRPORTS IN THE VICINITY

Airport	Runway Dimensions	Weight Capacity	Approach	NM to SMN	Role	Fuel	Surface
Salmon (SMN)	*RW 17/35* 5,150	**12.5 SW 20 DW**	**RNAV GPS –C VOR/DME –B**	**0**	**Regional Business**	**100LL JET A**	**ASPH-G**
Challis (LLJ)	*RW 16/34* 4,600	30 SW	Visual	39	Regional Business	100LL JET A	ASPH-G
Dillon (DLN)	*RW 17/35* 6,500 x 75	30 SW 50 DW	VOR/VOR/DME, GPS –A or –B	56	GA, BLM Air Tanker Base	100LL, JET A	ASPH-F
Ravalli (6S5)	*RW 16/34* 4,200 x 75	17 SW 25 DW	RNAV GPS –A RNAV GPS –B	68	GA, USFS SEAT, Helideck,	10LL, JET A & JET A+	ASPH-F
Butte (BTM)	*RW 15/33* 9,001 x 150 *RW 11/29* 5,100 x 75	75 SW 160 DW 250 DTW 12.5 SW	ILS, RNAV (GPS), LOC/DME, VOR/DME, GPS –A, VOR or GPS –B,	76	General Aviation, Commercial	100LL, JET A	ASPH-G GRVD
Friedman Memorial (SUN)	*RW 13/31* 7,550 x 100	65 SW 95 DW 150 DTW	RNAV GPS, RNAV RNP, NDB/DME, GPS –A	99	Commercial Service	100LL, JET A1+	ASPH-F ASPH-G
McCall (MYL)	*RW16/34* 6,108	45 SW 78 DW 135 DTW	RNAV GPS NDB	95	Regional Business	100LL, JET A JET A+	ASPH-G
Idaho Falls (IDA)	*RW 2/20* 9,002 x 150 *RW 17/35* 4,051 x 75	140 SW 175 DW 270 DTW 48 SW 58 DW	ILS, LOC, RNAV (GPS), LOC BC, VOR, NDB	124	Commercial Service	100LL JET A1	ASPH-G

Sources: FAA 5010, AirNav, MDT Aeronautics, T-O Engineers

2.11 ENVIRONMENTAL OVERVIEW

An Environmental Assessment (EA) was completed at the airport as part of recent construction projects. The EA found no significant environmental considerations at the airport as part of these projects. Among the findings, the airport is not located in a flood plain, does not contain suitable habitat for the 5 endangered species thanal Species Program, United States Fish and Wildlife Service), and contains no water bodies that are capable of supporting fish. In General, the airport contains wetlands and a historic canal but has no uniquely sensitive environmental considerations. Significant Native American activity occurred in the prehistory throughout the County. Currently the airport does not have a Stormwater Pollution Prevention Plan (SWPPP) or Spill Prevention, Control and Countermeasure (SPCC) Plan.

3.0 AVIATION ACTIVITY FORECAST

The aviation industry and general aviation industry have both experienced significant changes over the last 20 years. At the national level, fluctuating trends regarding general aviation usage and economic upturns and downturns resulting from the nation's business cycle have all impacted general aviation demand. At the state level, steady demographic and economic growth experienced in Idaho has impacted general aviation demand. On the local level, socio-economic activity within the airport service area, along with area airport facilities and services have impacted general aviation demand.

On an annual basis, the Federal Aviation Administration (FAA) publishes aerospace forecasts that summarize anticipated trends in all components of aviation activity. Each published forecast revisits previous aerospace forecasts and updates them after examining the previous year's trends in aviation and economic activity. Many factors are considered in the FAA's development of aerospace forecasts, some of the most important of which are U.S. and international economic forecasts and anticipated trends in fuel costs. FAA aerospace forecasts generally provide the most detailed analyses of historic and forecasted aviation trends and the general framework for examining future levels of aviation activity for the nation as well as in specific states and regions.

It is important to point out that while activity forecasts are an important part of the airport planning process, they are generally based on available information and perceived assumptions captured and discussed at a particular point in time. Further, the forecasting process can be more difficult at an airport like the Lemhi County Airport because it is uncontrolled (no air traffic control tower) and existing data is derived from estimates only. Because of these factors, aviation activity forecasts are "educated estimates" at best which need to be monitored to ensure validity as time and other influences dictate.

3.1 NATIONAL TRENDS

The "active" fleet consists of any aircraft flown for at least one hour during the survey year. The estimated 2009 active general aviation fleet totaled 229,149. **Table 3-1** depicts the active fleet by aircraft type between 2000 and 2009. The 144,745 single-engine piston aircraft accounted for 63.2 percent of all aircraft. This has decreased slightly from 2000, when there were 149,422 single-engine piston aircraft which accounted for 68.7 percent of all aircraft.

The second most significant category, the number of active multi-engine piston aircraft has decreased slightly from 9.7 percent of the 2000 fleet to 7.6 percent of the 2009 fleet with 21,091 and 17,351 aircraft, respectively. The most active growth in the fleet size has been in turbine aircraft. This fleet increased its size from 12,763 aircraft in 2000 to 20,428 aircraft in 2009, or a 60 percent increase during the 9-year period.

TABLE 3-1: HISTORIC GENERAL AVIATION ACTIVE AIRCRAFT BY AIRCRAFT TYPE

Aircraft Type	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Fixed Wing Total	**183,276**	**177,609**	**176,182**	**176,442**	**182,759**	**185,371**	**182,183**	**186,805**	**182,965**	**182,524**
Piston Total	***170,513***	***163,226***	***160,986***	***160,756***	***165,082***	***167,606***	***163,741***	***166,906***	***163,016***	***162,096***
Single-Engine	149,422	145,034	143,503	143,265	146,613	146,102	145,033	147,571	145,497	144,745
Multi-Engine	21,091	18,192	17,483	17,491	18,469	19,504	18,708	19,335	17,519	17,351
Turbine Total	***12,763***	***14,383***	***15,196***	***15,686***	***17,677***	***17,765***	***18,442***	***19,899***	***19,949***	***20,428***
Turbo Prop	5,762	6,596	6,841	7,689	8,379	7,942	8,063	9,514	8,907	9,010
Turbo Jet	7,001	7,787	8,355	7,997	9,298	9,823	10,379	10,385	11,042	11,418
Rotorcraft Total	**7,150**	**6,783**	**6,648**	**6,526**	**7,821**	**8,728**	**9,159**	**9,567**	**9,876**	**10,206**
Piston	2,680	2,292	2,351	2,123	2,315	3,039	3,264	2,769	3,498	3,666
Turbine	4,470	4,491	4,297	4,403	5,506	5,689	5,895	6,798	6,378	6,540
Other Total	**6,700**	**6,633**	**6,478**	**6,088**	**5,939**	**6,454**	**6,277**	**5,940**	**5,652**	**5,673**
Sport Total	**NA**	**NA**	**NA**	**NA**	**NA**	**170**	**1,273**	**6,066**	**6,811**	**7,311**
Experimental Total	**20,407**	**20,421**	**21,936**	**20,550**	**22,800**	**23,627**	**23,047**	**23,228**	**23,364**	**23,435**
Total All Aircraft	**217,533**	**211,446**	**211,244**	**209,606**	**219,319**	**224,350**	**221,939**	**231,606**	**228,668**	**229,149**

Source: FAA Aerospace Forecasts FY 2010-2030

3.1.1 NATIONAL GENERAL AVIATION FORECASTS

The FAA is forecasting that the number of active, general aviation aircraft will continue to increase through the year 2030. The forecast assumes that the near-term growth will be slow, however, the longer term will see growth in business use of general aviation aircraft as the U.S. and world economies begin to rebound from the economic downturn. The general aviation fleet is projected to total 278,723 in 2030, a compound annual growth rate (CAGR) of 0.9 percent over the forecast horizon.

Table 3-2 depicts a summary of the active general aviation and air taxi aircraft forecast through 2030. The number of active single-engine piston aircraft is forecast to increase from 149,422 in 2009 to 150,646 in 2030, or maintaining a 0.2 percent compound annual growth rate. It should be noted that multi-engine piston aircraft are expected to decrease at a compound annual rate of -0.8 percent over the forecast period totaling 14,597 in 2030. Turbo jet aircraft are forecasted to increase by 4.2 percent annually. The growth in the turbo jet aircraft forecasts can be attributed to the microjets that began entering the market in 2006. The rotorcraft (helicopter) fleet is expected to increase 2.8 percent annually, while the number of experimental aircraft is projected to increase 1.8 percent annually. Finally, sport aircraft are anticipated to increase at a rate of 3.9 percent annually.

TABLE 3-2: FORECAST OF GENERAL AVIATION ACTIVE AIRCRAFT BY AIRCRAFT TYPE

Aircraft Type	Historical		Forecast		CAGR
	2000	2009	2010	2030	2009-2030
Single-Engine Piston	149,422	144,745	144,104	150,646	0.2%
Multi-Engine Piston	21,091	17,351	17,177	14,597	-0.8%
Turbo Prop	5,762	9,010	9,100	12,023	1.4%
Turbo Jet	7,001	11,418	11,779	27,035	4.2%
Rotorcraft	7,150	10,206	10,545	18,195	2.8%
Experimental	20,407	23,435	23,605	34,350	1.8%
Sport Aircraft	NA	7,311	7,711	16,311	3.9%
Other Aircraft	6,700	5,673	5,673	5,565	-0.1%
Total Aircraft	**217,533**	**229,149**	**229,699**	**278,723**	**0.96%**

Source: FAA Aerospace Forecasts FY2010-2030

3.1.2 PILOT POPULATION

There were an estimated 594,285 active pilots in the United States at the end of 2009: a significant 5.3 percent pullback from 2000. An active pilot is a person with a pilot certificate and a valid medical certificate. Certificate types that increased were commercial, airline transport, rotorcraft, and glider while all other certificate types decrease (see **Table 3-3**). Between 2010 and 2030 each certificate type is forecasted to experience an increase, including instrument rated pilots.

TABLE 3-3: ACTIVE PILOTS BY TYPE OF CERTIFICATE (2010 – 2030)

Certificate Type	Historical		Forecast		CAGR
	2000	2009	2010	2030	2009-2030
Student	93,064	72,280	70,700	86,050	0.8%
Recreational	340	234	235	235	0.0%
Sport Pilot	NA	3,248	4,060	14,100	7.2%
Private	251,561	211,619	206,400	219,050	0.2%
Commercial	121,858	126,738	124,950	139,100	0.5%
Airline Transport	141,596	144,600	142,660	162,900	0.6%
Rotorcraft Only	7,775	16,298	15,380	21,380	1.6%
Glider Only	9,387	21,268	21,270	21,960	0.2%
Total Pilots	***625,581***	***594,285***	***585,645***	***664,775***	**0.5%**
Instrument Rated Pilots	311,944	323,495	322,300	375,900	0.7%

Source: FAA Aerospace Forecasts FY 2010-2030
Note: Instrument rated pilots should not be added to the other categories in deriving totals.

As shown in **Table 3-4**, the number of active pilots per active general aviation aircraft decreased between 2000 and 2009. In 2000, there were 2.88 pilots per aircraft with 625,581 pilots and 217,533 active general aviation aircraft. This ratio decreased in 2009 to 2.59 pilots per aircraft. The ratio is forecasted to continue to decrease, ultimately to a ratio of 2.39 by 2030.

TABLE 3-4: AVERAGE ACTIVE PILOTS PER GENERAL AVIATION AIRCRAFT (2010 – 2030)

Year	Active Pilots	Active General Aviation Aircraft	Pilots Per Aircraft
2000	625,581	217,533	2.88
2009	594,285	229,149	2.59
2020	607,265	249,440	2.43
2030	664,775	278,723	2.39

Source: FAA Aerospace Forecasts FY2010-2030 and T-O Engineers Inc.

3.1.3 NATIONAL OPERATIONAL TRENDS

An insight into general aviation activity at non-towered airports may be obtained from a review of tower operations from the 508 tower locations in the United States. As shown in **Table 3-5**, in 2009 there were 28.0 million general aviation operations at 508 towered airports, 56 percent of which were itinerant operations.

TABLE 3-5: HISTORICAL & FORECAST GENERAL AVIATION OPERATIONS IN MILLIONS AT U.S. TOWERED AIRPORTS (2010 – 2030)

Fiscal Year	Towered Airports	Total GA Operations	Local GA Operations	Itinerant GA Operations
2000	458	39.8	17.0	22.8
2001	472	37.6	16.1	21.4
2002	482	37.6	16.1	21.4
2003	484	35.5	15.2	20.2
2004	490	34.9	14.9	20.0
2005	493	34.1	14.8	19.3
2006	494	33.1	14.4	18.7
2007	499	33.1	14.7	18.6
2008	503	31.2	14.1	17.5
2009	508	28.0	12.4	15.6
2010*	508	27.1	12.1	15.0
2020	508	30.7	13.7	17.0
2030	508	35.1	15.6	19.4

Source: FAA Aerospace Forecasts FY2010-2030
*Base Year

3.1.4 BUSINESS USE OF GENERAL AVIATION

Business aviation is one of the fastest growing facets of general aviation. Companies and individuals use aircraft as a tool to improve their businesses efficiency and productivity. The terms business and corporate aircraft are often used interchangeably, as they both refer to aircraft used to support a business enterprise. FAA defines business use as “any use of an aircraft (not for compensation or hire) by an individual for transportation required by the business in which the individual is engaged.” The FAA estimates that business aircraft conducts slightly more than 11 percent of all aviation activity. The FAA defines corporate transportation as “any use of an aircraft by a corporation, company or other organization (not for compensation or hire) for the purposes of transporting its employees and/or property, and employing professional pilots for the operation of the aircraft.” An additional 12 percent of the nation’s general aviation

activity is considered corporate. Regardless of the terminology used, the business component of general aviation use is one that has experienced significant recent growth.

Increased personnel productivity is one of the most important benefits of using business aircraft. Companies flying general aviation aircraft for business have control of their travel. Itineraries can be changed as needed, and the aircraft routinely fly into destinations not served by scheduled airlines. Business aircraft usage provides the following:

- Employee time savings
- Increased en route productivity
- Minimized time away from home
- Enhanced industrial security
- Management control over scheduling

Many of the nation's employers who use general aviation are members of the National Business Aircraft Association (NBAA). According to NBAA, approximately 75 percent of all Fortune 500 businesses operate general aviation aircraft and 92 of the Fortune 100 companies operate general aviation aircraft. Business use of general aviation aircraft ranges from small, single-engine aircraft rentals to multiple aircraft corporate fleets supported by dedicated flight crews and mechanics. General aviation aircraft use allows employers to transport personnel and air cargo efficiently. Businesses often use general aviation aircraft to link multiple office locations and reach existing and potential customers. Business aircraft used by smaller companies has escalated as various chartering, leasing, time-sharing, interchange agreements, partnerships, and management contracts have emerged. In addition, the use of business aircraft is on the rise because of its convenience. Simply put, with more Transportation Security Administration (TSA) restrictions, the use of general aviation aircraft for business provides travelers less hassle and more convenience than traveling with the airlines.

Other new, growing segments of the business aircraft fleet mix include business liners and very light jets. Business liners are large business jets, such as the Boeing Business Jet and Airbus ACJ, which are reconfigured versions of passenger aircraft flown by large commercial airlines. Very Light Jets (VLJs) are a relatively new category of aircraft that includes the Eclipse 500 and Cessna Mustang (among others). These are small jets, seating less than 10 passengers that cost substantially less than typical business jet aircraft. They have been labeled as “personal jets”. VLJ aircraft represent a significant departure from the cost of previously available jet aircraft. The cost of these aircraft begins at approximately $1.6 million. In recent years, there has been much hype and anticipation for the very light jet market, however, due to the downturn in the economy and other related issues, nearly a dozen manufacturers have filed for Chapter 11 bankruptcy or have been forced into Chapter 7 liquidation. While the market for very light jets seems to have dampened and not succeeded as hoped, the market still exists and companies

like Cessna, Embraer, Honda Aircraft Company, and Piper Aircraft are still moving forward with manufacturing their own very light jets.

Business aviation is projected to experience additional growth in the future. The Honeywell Business Aviation Outlook projects that more than 11,000 new business aircraft valued at over $200 billion will be delivered between 2009 and 2019, excluding business liners and very light jets.

The anticipated changes in the nation's active general aviation fleet, including growth in the number of active jet aircraft, is likely to impact aviation activity at Lemhi County over the study period of the Master Plan Update. Recent general aviation trends and projected changes to the nation's active general aviation fleet will be reflected in the projections of aviation demand developed for the airport.

3.1.5 CHARTER ACTIVITY

Air charter flights provide individuals and companies with enticing reasons to choose on-demand air travel such as safety, security, and productivity. These flights operate on the passenger's schedule, allowing for considerable flexibility that affords the passenger freedom and comfort for personal or business travel. With the ability to fly in and out of more than 5,000 public use airports in the United States, air charter provides convenient access to just about any destination.

The economic downturn that has occurred in the last several years has dampened the charter market as individuals and companies sought ways to save money. However, CharterX Corporation, an online charter-booking portal, reported in February 2010, that most of the US charter sector of the general aviation industry showed improvement when compared to 2009. Charter companies reported increases in hours flown in January 2010 by as much as 25 percent (midsize jets) or 15,509 hours flown over January 2009. The light jet sector increased by 11 percent, to 14,757 hours flown. CharterX analysis also indicates that aircraft charter activity is seeing steady improvement since the middle of 2009.

Through discussions with charter operators based at airports in Idaho, it appears that the local markets in Idaho are mirroring the national trends of overall improvement in charter activity. Like with the use of general aviation aircraft for business related purposes, the use of charter operators by various aviation users is likely to increase with airline travel becoming increasingly inconvenient.

3.2 IDAHO TRENDS

Over the last several years Idaho's public use airports have been experiencing continued growth in based aircraft and aviation activity in terms of operations. The Idaho Airport System Plan (IASP) identified approximately 2,500 aircraft based at Idaho's public use airports in 1998.

Over a nine-year period, total based aircraft in the State grew to 3,188 in 2007, an overall increase of 24 percent, representing a growth rate of 2.43 percent each year. This correlates to an increase in overall state population growth by 19 percent and an average annual growth rate of 2 percent over the same period. The FAA projects that national active general aviation aircraft fleet will increase at a compound annual growth rate of 0.9 percent from 2010 to 2030. The FAA aerospace forecasted rate is much more conservative than the actual rate in which Idaho's total based aircraft has grown in the most recent nine-year period.

3.2.1 AREA TRENDS

Other airports in the vicinity of the Lemhi County Airport are considered origins, waypoints or destinations used by aircraft traveling in the area. As noted in **Table 3-6**, most of the neighboring or competing airports have runway lengths and facilities that meet or exceed that presently available at Lemhi County. In addition, when total based aircraft among all of the general aviation airports in the area are considered, there are presently 619 based aircraft in the area performing 235,435 operations per year.

TABLE 3-6: AREA AIRPORT SUMMARY

Airport	Runway Length	Based Aircraft	Annual Operations	Distance from Lemhi County
Lemhi County (SMN)	5,150 feet	50	24,500	0 miles
Challis (LLJ)	4,600 feet	27	16,350	39 miles
Dillon (DLN)	6,500 feet	21	10,500	56 miles
Ravalli (6S5)	4,200 feet	107	23,600	68 miles
Butte (BTM)	9,001 feet	33	34,682	76 miles
Friedman Memorial (SUN)	7,550 feet	147	44,237	99 miles
McCall (MYL)	6,108 feet	88	43,600	95 miles
Idaho Falls (IDA)	9,002 feet	146	37,966	124 miles
Total		619	235,435	

Source: Idaho Airport System Plan 2010, FAA 5010 and T-O Engineers Inc.
Note: Annual operations do not include military operations

There are several conclusions that can be drawn from this information that are important to the forecasting process. While the Lemhi County Airport has experienced relatively static growth patterns in its number of based aircraft since the events of September 11, 2001, it is unlikely that this pattern will continue over the forecast period. While the airport will most likely experience growth over the next 20-year forecast period, the rate of growth that the airport can expect will be somewhat comparable to those in the region and the type of aircraft that are depending on the future facilities and services provided at the Lemhi County Airport.

3.2.2 DEMOGRAPHIC AND SOCIO-ECONOMIC FORECAST

The FAA identifies the economic characteristics of a community as a factor that influences demand for air traffic. In addition to national and regional economic activity, socio-economic drivers include the local activities occurring in the geographic area served by the airport. The type of industry in an airport's service area has a direct connection with aviation supply and

demand to the extent in which it participates in the local economy. The IASP identifies the Lemhi County Airport as an economic driver for this region, contributing 101 direct and indirect jobs to the local economy, with an estimated total payroll of $4.2 million and estimated total economic output of nearly $19.1 million.

The FAA also recognizes the demographic profile of an area as a factor influencing demand for aviation services. As shown in **Table 3-7**, the population in 2030 is projected to increase from 7,955 in 2010 to 9,529 in 2030. Employment is also projected to increase from 4,795 in 2010 to 6,292 in 2030, a gain of 1,497 jobs. One of the most significant indicators of demographic influence is the amount of disposable income held by the local community, usually measured on a per capita basis. Disposable income coupled with population and employment data are good indicators of the local community's access to general aviation aircraft. Per capita income, as measured at the value of today's dollar, is also expected to increase. The demographic profile of this area signals a propensity for aviation activity to increase with disposable income.

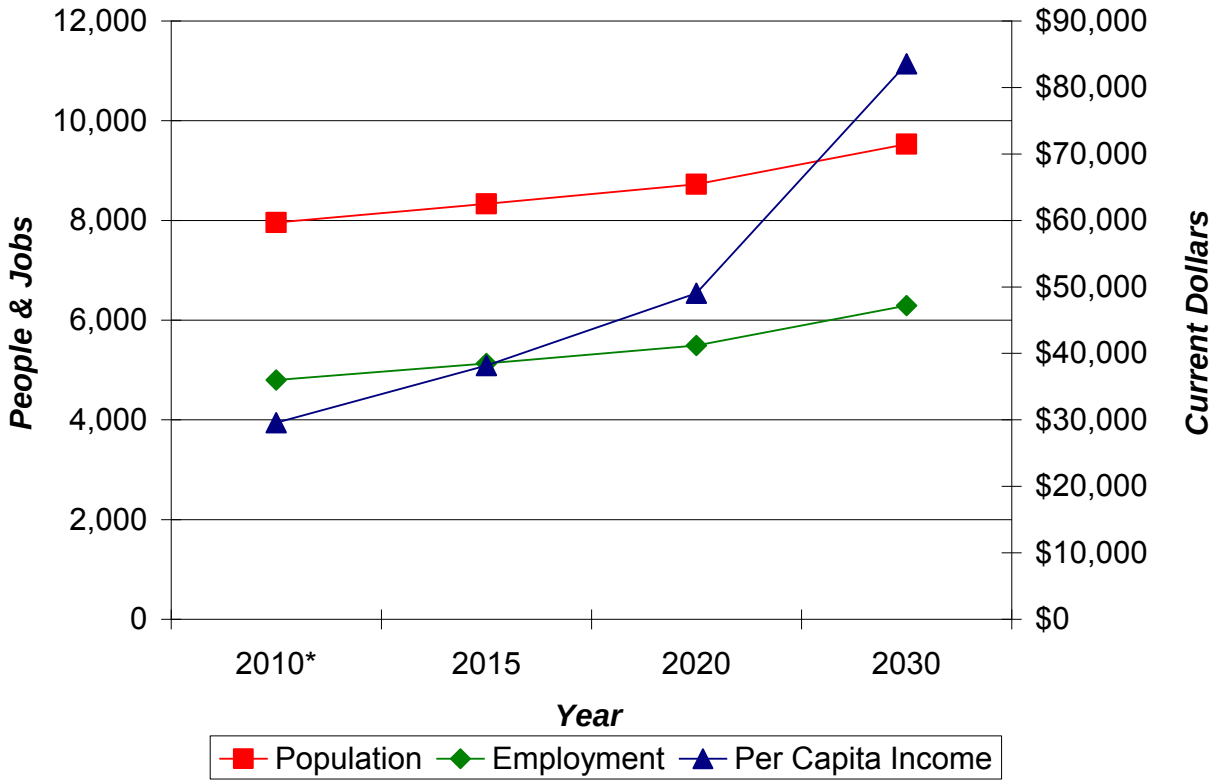
TABLE 3-7: LEMHI COUNTY SOCIO-ECONOMIC & DEMOGRAPHIC PROJECTION

Years	Population	Employment	Per Capita Income
2010*	7,955	4,795	$29,543
2015	8,333	5,131	$38,144
2020	8,725	5,489	$49,046
2030	9,529	6,292	$83,533
CAGR 2010-2030	0.91%	1.37%	5.33%

Source: U.S. Department of Commerce, Woods and Poole Economics
*Base Year

In addition to disposable income being an indicator of increased aviation activity at the airport, the remote location of Salmon and its surrounding community also lends itself to increased aviation activity. Salmon is located and recognized as one of the most remote communities in Idaho. Salmon is situated near the Frank Church River of No Return Wilderness and surrounded multiple outdoor recreational destinations. A significant number of outdoor enthusiasts visit Salmon on a year round basis for recreational activities. As a result of its remoteness there is increased use of aviation for not only personal access but also business. Life flight activities provide residents and visitors with a vital link to necessary healthcare facilities beyond Salmon and wild land firefighting is provided on a seasonal basis.

FIGURE 3-1: LEMHI COUNTY SOCIO-ECONOMIC & DEMOGRAPHIC PROJECTION



Source: U.S. Department of Commerce, Woods and Poole Economics
*Base Year

3.3 LEMHI COUNTY AIRPORT ACTIVITY FORECAST

The general aviation facilities at an airport should accurately reflect the level and type of aviation activity. To assist in the Master Plan update for the Lemhi County Airport, forecasts of general aviation activity have been developed for the short range (0-5 years), intermediate range (6-10 years), and the long range (11-20 years) planning period. The general aviation activity categories forecasted include based aircraft, operations, and peak hour operations. Data collected at the airport, FAA records of aircraft operations, historical aviation trends, and information collected through discussions have contributed to the forecast of future general aviation activity for Lemhi County Airport.

General aviation activity is measured as the annual number of takeoffs and landings; these aircraft operations are only partly a function of aircraft based at the airport. For this reason, the preparation of based aircraft projections for the airport is a critical element in the Master Plan update. Projections of based aircraft are essential to the projection of general aviation fleet mix operations and in the preparation of facility requirements in this study.

Forecasting based aircraft requires the assumption that airport facilities will keep pace with and meet the demand for aviation use and those facilities will not limit the number of based aircraft to be accommodated in the future. It is significant to note that prior to this Master Plan update

no verification of based aircraft had recently been performed. Recent verification (March 2010) by the FAA regarding based aircraft at the Lemhi County Airport resulted in a total of 50 based aircraft at the airport. This information, along with the Idaho Division of Aeronautics' IASP data, was used to develop general aviation activity forecasts.

3.3.1 BASED AIRCRAFT FORECAST

For this study, based aircraft projections were derived using three methodologies. The first methodology was applied to demonstrate how the history of based aircraft at Lemhi County airport would likely continue as a function or trend. The second methodology used was the IASP projection that is predicated on population growth. The IASP took one step further and modified the applied population growth methodology to better reflect conditions at the local level. The third methodology was applied to demonstrate how Lemhi County participates in the nation's general aviation fleet, assuming that Lemhi County remains regionally competitive enough to maintain its national market share of based aircraft. The tree methodologists used are summarized below:

- Method 1 –Projection of Historic Growth Trend– Historic based aircraft data were used to create a single variable linear regression chart. The data consists of the total based aircraft for 2000 thru March 2010 and extrapolates the rate to 2030.
- Method 2 – Idaho Airport System Plan (Modified) – Projections from the IASP were examined and extrapolated to the year 2030.
- Method 3 – FAA Aerospace Forecast – Current FAA projections were examined and extrapolated to the year 2030.

The methodologies produce similar outputs with compound annual growth rates (CAGR) ranging from 0.83 percent to 1.16 percent. The IASP method was determined to be the recommended projection of based aircraft for Lemhi County Airport. The CAGR for the recommended projection is 1.16 percent. The FAA's Terminal Area Forecast (TAF) estimates a more aggressive growth rate. 2010 data from the TAF indicates 57 based aircraft, when 50 based aircraft have been verified at the airport by both the airport sponsor and the FAA verification program. This difference of 7 based aircraft is the likely cause of a more aggressive rate of growth. **Table 3-8** and **Figure 3-2** depict the outcomes of the three methodologies along with the TAF for comparison. It must be noted that in order accommodate the needs of these aircraft, proper facilities must be in place.

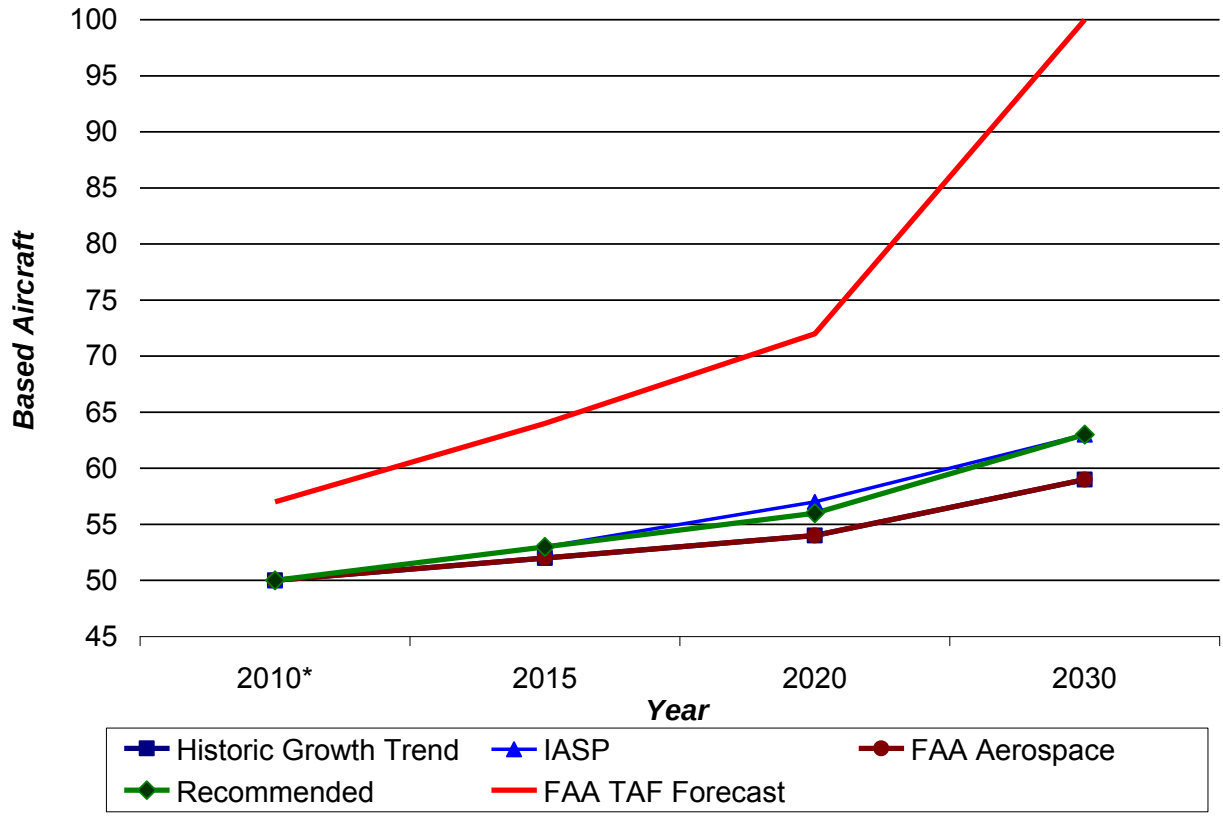
TABLE 3-8: BASED AIRCRAFT FORECASTS

Year	Historic Growth Trend	IASP	FAA Aerospace	TAF	Recommended
2010*	50	50	50	57	50
2015	52	53	52	64	53
2020	54	57	54	72	56
2030	59	63	59	100	63
CAGR 2010-2030	0.83%	1.16%	0.83%	2.85%	1.16%

Source: T-O Engineers inc.

*Base Year

FIGURE 3-2: BASED AIRCRAFT FORECASTS



Source: T-O Engineers Inc.
* Base Year

3.3.2 BASED AIRCRAFT FLEET MIX

The fleet of aircraft currently using the Lemhi County Airport consist of a mix of single-engine, multi-engine piston, jet, and helicopter aircraft. The significance of identifying the fleet mix is important to the forecasts because the attributes of each aircraft type, including wingspan, approach speed, weight, and other performance characteristics are necessary for estimating the future facility requirements and improvement such as runway improvements, hangars and apron space. Consideration was given to the existing based aircraft fleet composition and national trends, both historic and predicted, in the development of this forecast.

The recommended forecast reflects that nationally the multi-engine, turbo prop, and business jet fleets are growing at a faster rate than the single-engine piston aircraft fleets. **Table 3-9** illustrates the total number of based aircraft is forecast to increase from a total of 50 for 2010 to a total of 63 by 2030. The number of single-engine aircraft based at Lemhi County is expected to increase from 39 in 2010 to 45 in 2030. The proportion of single-engine powered aircraft is expected to decrease slightly from approximately 78 percent to 72 percent in 2030 as a response to the national trend. It should be noted that as single-engine aircraft numbers fall, they are typically being replaced by multi-engine and jet aircraft, which correlates with both state

and national trends. In Lemhi County's scenario, it is expected that some of the additional aircraft will also be light sport aircraft in addition to multi-engine and jets. Light sport aircraft are being introduced into the national air system at a steady rate that began in 2005. The exact number and type of aircraft actually based at Lemhi County Airport in any of the planning periods may vary from what is shown. However, it is believed that the total and mix of aircraft shown are a reasonable representation and may be adopted for planning purposes.

TABLE 3-9: RECOMMENDED FORECAST BASED AIRCRAFT BY TYPE

Year	Single-Engine	Multi-Engine	Helicopter	Jet	Light Sport	Total
2010*	39	10	1	0	0	50
2015	40	11	1	0	1	53
2020	41	13	1	0	1	56
2030	45	15	1	1	1	63

Source: T-O Engineers Inc.
*Base Year

3.3.3 GENERAL AVIATION OPERATIONS

The projections of operational demand at an airport are critical to determining the need for airside improvements. Total annual operations consist of several types of activities including air carrier, regional/commuter, air taxi, military, and general aviation. Two methodologies were tested to project general aviation operations to ensure a reasonable forecast. One methodology examines operations per based aircraft (OPBA) ratio for the airport and projects operations based on this ratio. The second methodology extrapolates the projections from the IASP. The IASP projections were derived from historical operations counts as compiled by the airport and FAA. Projections of general aviation operations were calculated for the next 20 years using these two methodologies.

- Method 1 – Operations Per Based Aircraft (OPBA) – The FAA Terminal Area Forecast (TAF) historic average of operations per based aircraft ratio (490) was applied to the recommended based aircraft forecast and extrapolated to the year 2030.
- Method 2 – Idaho Airport System Plan (Modified) – Projections from the IASP were examined and extrapolated to the year 2030.

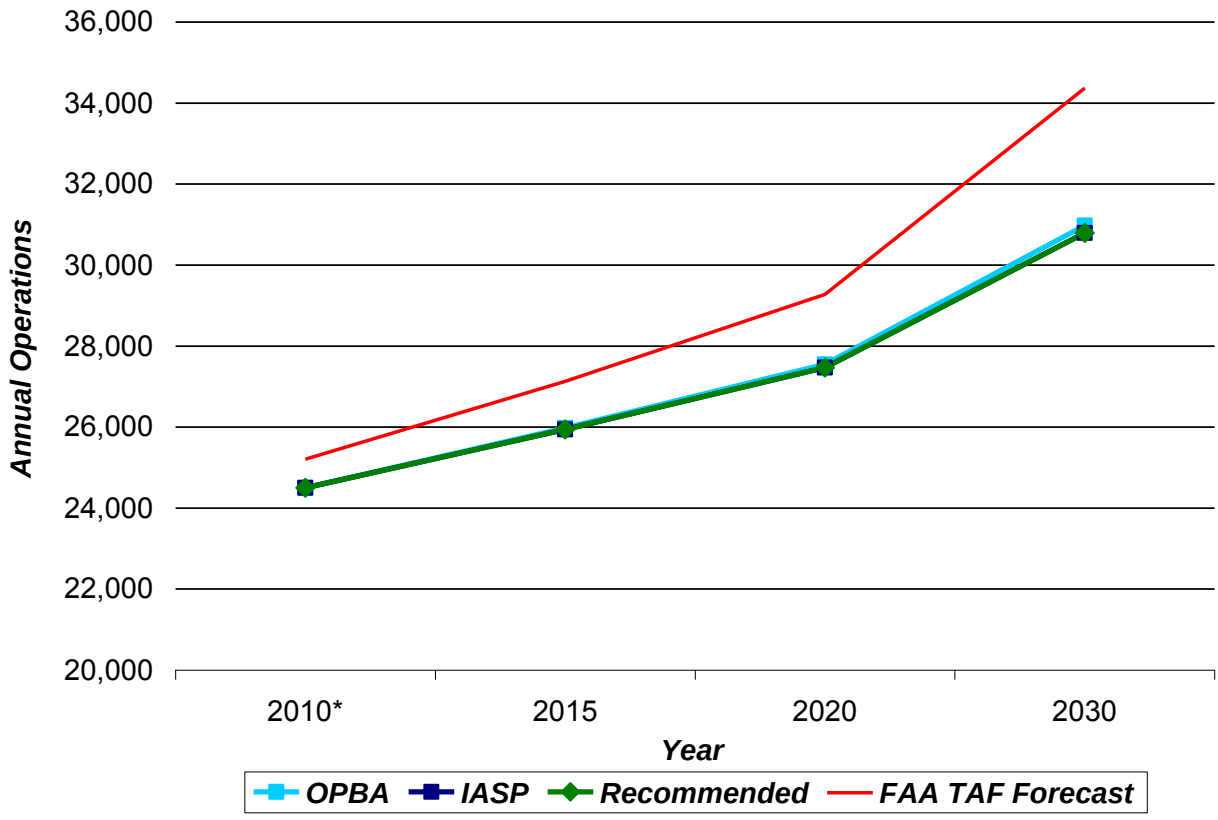
Of the two forecasts developed, the IASP methodology is believed to be a reasonable forecast of general aviation operations for planning purposes and is the recommended forecast. The methodology supporting this forecast is based on Idaho's employment and more closely mirrors the general aviation environment experienced in Idaho over the last several years. **Table 3-10** and **Figure 3-3** present the forecast of general aviation operations for the 20-year planning period as well as presents the TAF forecasts. Military operations are not reflected in this portion of the operations forecast.

TABLE 3-10: GENERAL AVIATION OPERATIONS FORECASTS

Year	OPBA	IASP	TAF	Recommended
2010*	24,500	24,500	25,210	24,500
2015	25,980	25,942	27,130	25,942
2020	27,549	27,468	29,276	27,468
2030	30,978	30,795	34,371	30,795
CAGR 2010-2030	1.18%	1.15%	1.56%	1.15%

Source: T-O Engineers
*Base Year

FIGURE 3-3: GENERAL AVIATION OPERATIONS FORECASTS



Source: T-O Engineers Inc.
*Base Year

3.3.4 LOCAL AND ITINERANT OPERATIONS

Aircraft operations are divided into two types: local and itinerant. Local operations are classified as arrivals and departures of aircraft that operate in the local traffic pattern or within sight of the airport. Local operators are known to be departing for or arriving from flights in local practice areas within a 20-mile radius of the airport, or they have simulated approaches or low passes at the airport. Itinerant operations are defined as all operations other than local. The current ratio of local to itinerant general aviation is 69 percent itinerant and 31 percent local. This ratio is expected to remain constant throughout the study period as shown in **Table 3-11**.

TABLE 3-11: GENERAL AVIATION OPERATIONS FORECASTS BY TYPE

Year	Local	Itinerant	Total
2010*	7,595	16,905	24,500
2015	8,042	17,900	25,942
2020	8,815	18,953	27,468
2030	9,547	21,248	30,795

Source: T-O Engineers Inc.
*Base Year

3.3.5 ANNUAL INSTRUMENT OPERATIONS

The FAA uses forecasts of annual instrument approaches to evaluate an airport's navigational aid facilities for adequacy. The FAA defines an instrument approach as an approach to an airport with the intent to land by an aircraft in accordance with an instrument flight rule (IFR) flight plan, when visibility is less than three miles and/or when the ceiling is at or below the minimum initial approach altitude.

Current data on instrument approaches at Lemhi County was gathered from the Airport IQ database and through discussions with airport management. **Table 3-12** presents the current data as well as the projection of annual instrument operations through 2030. Future annual instrument operations were projected at the existing levels with a slight increase due to growth in turbine equipment and transient aircraft activity at the airport.

TABLE 3-12: ANNUAL INSTRUMENT OPERATIONS FORECAST

Year	IFR	Total Operations
2003-2010*	278	24,500
2015	309	25,942
2020	344	27,468
2030	425	30,795

Source: T-O Engineers Inc.
* Average IFR operations in 7 years prior to Base Year

3.3.6 OPERATIONAL FLEET MIX

Approximately 78 percent of the forecasted total annual operations are expected to be conducted by single-engine aircraft. The remaining 22 percent of operations are anticipated to be made by light sport, multi-engine, turbo prop, and jet aircraft (**Table 3-13**).

TABLE 3-13: OPERATIONAL FLEET MIX

Year	Single-Engine Operations (78%)	Light Sport, Multi-Engine, Turbo Prop, or Jet Operations (22%)	Total Annual Operations
2010*	19,110	5,390	24,500
2015	20,234	5,707	25,942
2020	21,425	6,043	27,468
2030	24,020	6,775	30,795

Source: T-O Engineers Inc.
*Base Year

3.3.7 PEAK HOUR OPERATIONS

In calculating the number of general aviation operations occurring during the peak hour, it was assumed that the peak day was 20 percent higher than the average day and that the peak hour was 20 percent of the peak day operations. **Table 3-14** presents peak factors for the 20-year planning period.

TABLE 3-14: GENERAL AVIATION OPERATIONS FORECASTS – PEAKING FACTORS

Year	Total Annual Operations	Average Daily Total	Peak Day Total	Peak Hour Total
2010*	24,500	67	81	16
2015	25,942	71	85	17
2020	27,468	75	90	18
2030	30,795	84	101	20

Source: T-O Engineers Inc.
Note: Military operations are not included
*Base Year

3.4 CRITICAL AIRCRAFT

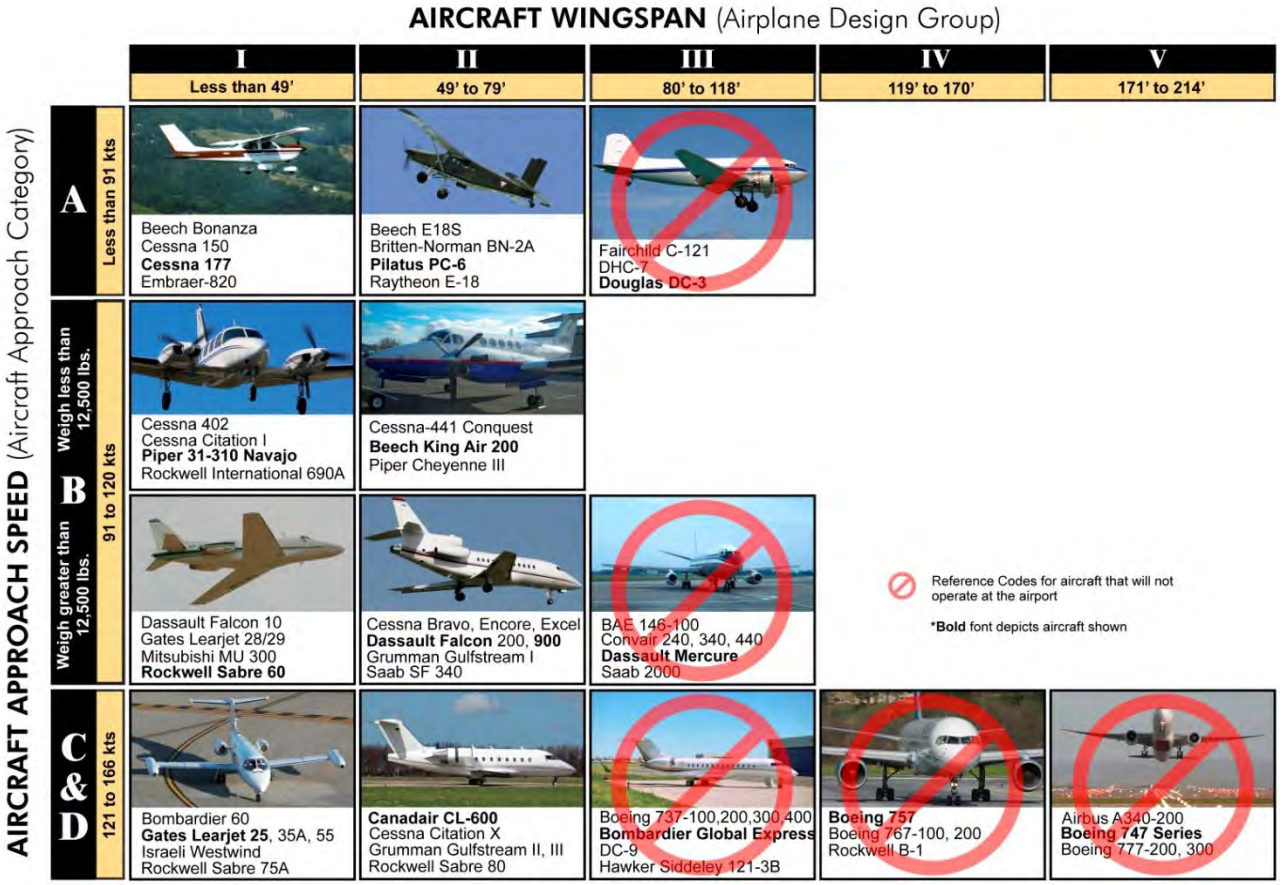
To assist airport planners and designers in planning for and developing standards for accommodating aircraft at a given airport, the concept of a “critical aircraft” is utilized. The critical aircraft is defined as the most demanding airplane currently using or projected to use the facility on a regular basis. For planning purposes, an Airport Reference Code (ARC) is derived from the critical aircraft whereby a coding system is used by the FAA to relate design criteria to the operational and physical characteristics of that aircraft. As briefly discussed in Chapter 2, the ARC has two components that relate an airport's design to its critical aircraft.

The first component is the aircraft approach category; this is depicted by a letter (e.g. "A") and is determined by the approach speed of the critical aircraft. Generally, aircraft approach speed applies to the design and development of runways and runway-related facilities.

The second component, depicted by Roman numeral (e.g. “II”), is the airplane design group. This is determined by the design aircraft's tail height or wingspan. Where an airplane is in two categories, the most demanding category is used. These dimensions relate primarily to separation criteria involving runways, taxiways, and taxilanes.

Figure 3-4 exhibits common aircraft by ARC. The figure is a representative example only and it is not intended to show all of the types of aircraft currently using or with a likelihood of using Lemhi County Airport.

FIGURE 3-4: ARC EXAMPLES



Source: T-O Engineers Inc.

Current FAA guidance regarding critical aircraft operations as a function of necessary facility improvements is based on 500 itinerant operations of the identified critical aircraft. This is particularly true for justifying the need for runway extensions. FAA Advisory Circular 150/5325-4B, "Runway Length Requirements for Airport Design", provides guidance on runway length justification requirements including a threshold of 500 itinerant operations. However, the AC also states that, "…under unusual circumstances, adjustments may be made to the 500 total annual itinerant operations threshold after considering the circumstances of a particular airport. Two examples are airports with demonstrated seasonal traffic variations, or airports situated in isolated or remote areas that have special needs…" As previously discussed, the Lemhi County Airport and the City of Salmon are located in one of the most remote locations in Idaho. The impact of this allowance as it relates to runway lengthening and widening at the Lemhi County Airport will be analyzed in greater detail in subsequent chapters.

The 1995 ALP Update identifies an ARC B-II as the critical aircraft for the airport; however, no specific aircraft type was identified. While the 1995 ALP Update recommended development of the airport to ARC B-II design standards, progress toward that goal has been made; however, full implementation has yet to be realized. Identifying 500 itinerant operations of B-II aircraft has

been difficult due to the lack of activity records based on aircraft type and use. As a part of this update to the Master Plan, analysis of existing user data, including IFR records, interviews with local airport management and tenants, interviews with itinerant airport users including life flight and fractional jet operators, as well as the analysis of the future fleet mix composition as part of this study, indicates substantial use by B-II design aircraft. Aircraft classified within the B-II design category include use by the majority of general aviation turboprop aircraft and smaller corporate jets. It is recommended that Lemhi County Airport continue to work towards full B-II design standards compliance. Consistency with the approved 1995 ALP and recommendations in this study, recent construction and relocation of the full parallel taxiway to meeting B-II separation standards, the installation of runway light cans to accommodate a 75 feet wide runway, clearly indicate FAA precedent and support in B-II compliance and continued efforts toward this implementation goal is warranted.

Based on available information collected from the airport and FAA records, both the Raytheon King Air 200 and Pilatus PC-12 are good representative aircraft types for critical aircraft determination at the airport. Both aircraft types are common in the G.A. fleet and both types use the airport on a regular basis, including extensive use by life flight operators. Table 3-15 below depicts the characteristics of the King Air B200 and the Pilatus PC-12.

TABLE 3-15: CHARACTERISTICS OF DESIGN AIRCRAFT

Characteristics	King Air B200 (left photo)	Pilatus PC-12 (right photo)
Approach Speed	103 knots	120 knots
Wing Span	54.5 feet	53.4 feet
Length	43.8 feet	47.3 feet
Tail Height	15.0 feet	14 feet
Max. Take-off Weight	12,500 lbs.	10,450 lbs.

Source: T-O Engineers Inc./Pilatus Aircraft

3.5 SUMMARY OF AVIATION FORECASTS

The aviation forecasts presented in this chapter reflect accepted methods of forecasting coupled with sound aviation planning judgments. These forecasts were based on the most recent data available and adequately describe future conditions concerning Lemhi County Airport. **Table 3-16** summarizes the recommended forecasts selected Lemhi County Airport while **Table 3-17** compares the recommended forecasts to the FAA's TAF. While the recommended forecasts are less aggressive than the FAA's TAF projections for the airport and differ from the TAF by more

than 10 percent (lower), it is believed that the activity projected for the airport is reasonable given the airport's historic patterns and the current economic environment of the region and country. Historic data and base year (2010) data was collected from various sources such as the airport, FAA form 5010, FAA TAF database, and National Based Aircraft Inventory Program. This data coupled with conversations with airport management and data from the recent (March 2010) validation of based aircraft counts by the National Based Aircraft Inventory Program, it was determined that the recommended forecast for based aircraft provides a realistic and accurate projection of activity even though it differs from the TAF, being significantly lower. While differences compared to the TAF are significant for based aircraft toward the end of the planning period, it is important to point out that it is likely the forecasts will be updated at least twice in the planning period as part of regular planning updates before the significant point of deviation from the TAF is realized.

Lastly, the B-II family of aircraft that have been determined to be the ultimate critical design aircraft (King Air 200/Pilatus PC-12) using the airport will further drive the facility requirements needed over the 20-year planning period.

TABLE 3-16: SUMMARY OF LEMHI COUNTY AVIATION FORECASTS

Year	Based Aircraft	Local Operations	Itinerant Operations	Total Operations
2010*	50	7,595	16,905	24,500
2015	53	8,042	17,900	25,942
2020	55	8,815	18,953	27,468
2030	61	9,547	21,248	30,795

Source: T-O Engineers Inc.
*Base Year

TABLE 3-17: COMPARISON OF LEMHI COUNTY RECOMMENDED FORECAST AND TAF

	Year	Airport Recommended Forecast	TAF	Airport Forecast/TAF Percent Difference
Based Aircraft				
Base yr.	2010*	50	57	-12.3%
Base yr. + 5yrs.	2015	53	64	-17.2%
Base yr. + 10yrs.	2020	56	72	-22.2%
Base yr. + 20yrs.	2030	63	100	-37.0%
CAGR 2010-2030		1.16%	2.85%	
Aircraft Operations				
Base yr.	2010*	24,500	25,210	-2.8%
Base yr. + 5yrs.	2015	25,942	27,130	-4.4%
Base yr. + 10yrs.	2020	27,468	29,276	-6.2%
Base yr. + 20yrs.	2030	30,795	34,371	-10.4%
CAGR 2010-2030		1.15%	1.56%	

Source: T-O Engineers Inc.
*Base Year

4.0 FACILITY REQUIREMENTS

This chapter of the Master Plan Update assesses the relationship between current and projected demand and facility needs based on the 20-year forecasts for the planning periods presented in Chapter 3. The purpose of this section is to identify the needs of the Lemhi County Airport. By comparing existing airport conditions with those needed to serve existing activity levels and the levels of activity forecast for the future. Improvements to the airport should address these needs over the course of the planning period. Operational areas on the airfield are categorized in two divisions for evaluation of existing and future facility requirements:

- Primary Airfield or "Airside" Facilities
- Secondary Airfield or "Landside" Facilities

The capacity of existing airport facilities will be determined based on criteria set forth by the FAA, Advisory Circulars (AC) 150/5060-5 ''Airport Capacity and Delay'' and 150/5300-13, Appendix 5, "Small Airport Buildings, Airplane Parking and Tie-Downs". The forecast aviation demand for each planning horizon year will be evaluated against the capacity of specific facilities to determine if additional facilities are needed within each planning period. Recommendations for facility improvements will then be developed to alleviate existing or projected deficiencies.

4.1 2010 IDAHO AIRPORT SYSTEM PLAN

The Idaho Airport System Plan (IASP) was published by the Idaho Transportation Department Transportation Division of Aeronautics in 2010. The IASP provides the state with a top down analysis of its airports and provides recommendations to improve the overall state airport system. The plan recommends facility improvements at each public airport in Idaho, including Lemhi County Airport. Whether or not recommended improvements can be implemented at an airport must still be analyzed and justified during a site specific airport planning process.

The IASP placed each airport in one of five functional roles or categories based on current airport performance. Facility and service objectives were then developed for each airport role category. Individual airport recommendations depend on which role the airport plays in the overall system. The 2010 IASP classified Lemhi County Airport as a *Regional Business Airport* and as such recommended a number of standard airfield improvements for all airports within this category. The recommendations for this category, when applied to Lemhi County Airport, reveal in several unmet conditions which consist of extending and widening Runway 17-35, construction of a terminal building and addition of auto parking spaces.

The facility and service recommendations for the airport, based on the Regional Business role, are summarized in **Table 4-1**.

TABLE 4-1: IDAHO AIRPORT SYSTEM PLAN PROJECT RECOMMENDATIONS FOR LEMHI COUNTY AIRPORT

Facility or Service	Existing	System Objective	Recommendation
Runway Length	5,150 ft.	6,070 ft. or greater	Extend 920 ft.
Runway Width	60 ft.	75 ft.	Widen 15 ft.
Instrument Approach	Non-Precision	Non-Precision	Meets Recommendation
Weather Reporting	AWOS-3	AWOS or ASOS	Meets Recommendation
Apron Spaces	58 spaces	31 spaces	Meets Recommendation
Hangar Storage	99 spaces	37 spaces	Meets Recommendation
Fuel	Av Gas and Jet A	AvGas and Jet A	Meets Recommendation
Additional Recommendations			
Terminal Building	None	Terminal with Restroom	Construct Terminal
Improved Auto Parking	None	10 spaces	Add spaces

Source: Idaho Airport System Plan 2010

Analysis of extended Runway 17-35 length is addressed in Section 4.2 of this chapter. The 2010 IASP recommends a 920 foot extension of the runway to meet a standardized goal of 6,070 feet for airports in the *Regional Business Airport* category. The current width of 60 feet is 15 feet narrower than the required 75 feet width for Airplane Design Group II runways. Therefore, Runway 17-35 should be widened by 15 feet to meet FAA design standards.

Lemhi County airport does not have an existing terminal building; rather this service is accommodated by the local FBO. This business provides restrooms and a pilot's lounge but the building it is housed in is over capacity. The 2010 Idaho Plan identifies the need for a terminal building that provides amenities including public restrooms and a pilot's lounge as well as providing space for the FBO and airport administrative offices.

Lastly, the 2010 Idaho Plan indicates a need for additional automobile parking. Section 4.3 of this chapter indicates 50 to 70 existing parking spaces adjacent to the FBO. There is sufficient automobile parking available at the airport but the parking lot is unimproved. Paving and marking this existing lot is desirable and is consistent with the minimum objectives of the 2010 IASP. The IASP published an individual summary report for the airports studies. **Appendix B** contains the report for Lemhi County Airport.

4.2 AIRFIELD FACILITIES REQUIREMENTS

4.2.1 AIRFIELD CAPACITY ANALYSIS

Airport capacity is a function of the number and physical layout of available runways and taxiways, their orientation and their relative location. Capacity and delay analyses clarify what facilities are necessary to meet the aviation demand for that particular airport. Airport capacity can be expressed by the maximum number of aircraft per hour or per year. When capacity is provided on an annual basis, it is referred to as the airport's Annual Service Volume (ASV). ASV Annual Service Volume is defined as ‘‘a reasonable estimate of an airport's annual capacity’’. Methods to determine airport capacity and delay are discussed in FAA Advisory Circular (AC) 150/5060-5 and have been used as part of this analysis.

Existing Airfield Capacity

ASV is a reasonable estimate of an airport's annual capacity that takes into consideration a variety of applicable parameters affecting airfield capacity levels. Existing airfield capacity at Lemhi County was estimated based on the following factors:

- Runway/taxiway configuration
- Aircraft mix
- Percentage of touch & go operations
- Weather conditions

FAA Advisory Circular 150/5060-5 categorizes runway configuration, typical of those at airports throughout the United States, in order to determine ASV. The configuration of Lemhi County Airport most closely reflects the operational and physical characteristics of runway configuration "Number 1" as depicted in AC 150/5060-5, which is a single runway configuration. Supporting the single runway configuration at the airport is a full, parallel taxiway. The presence of a full parallel taxiway at the airport greatly enhances capacity of the runway.

The Aircraft Mix index is the percentage of aircraft operations by large multi-engine aircraft in Aircraft Class C (aircraft with maximum certificated takeoff weights between 12,500 pounds and 300,000 pounds) and Aircraft Class D (aircraft with maximum certificated takeoff weights greater than 300,000 pounds). For capacity purposes, the percentage of category C and D aircraft (aircraft approach speeds greater than 121 knots) must be known. Primary usage of the Lemhi County Airport is currently by categories A and B aircraft with rare usage by business jet operations in the C class and no known operations by D class aircraft. The formula for determining aircraft mix index is the percent of (C + 3D). Based on the current fleet using the airport, the mix index is assumed to be less than one percent.

Wind speed and direction, cloud ceiling conditions and visibility are also factors that impact airport capacity. Wind speed and direction typically dictate which runways pilots can use. In addition to wind, ceiling height and visibility dictate whether a pilot can operate via Visual Flight Rules (VFR) or Instrument Flight Rules (IFR). IFR conditions greatly impact airport capacity due to specialized aircraft and airspace procedures required to land aircraft under these conditions.

Based on data gathered from the airport's on-site Automated Weather Observation System (AWOS), the existing Runway 17-35 configuration provides excellent wind coverage during inclement weather. In addition, the airport currently provides instrument approach capabilities from both the north and south. While terrain limits existing approaches to circling minimums only, runway wind coverage and available approaches greatly increase user safety and accessibility, which enhances overall airport capacity.

Based on the above variables, the ASV for Lemhi County Airport was estimated to be 230,000 annual operations. The hourly capacity for the airport is estimated to be approximately 98 VFR

operations or 59 IFR operations. **Table 4-2** depicts Annual Service Volume calculations based on runway configuration, mix index and hourly capacity.

TABLE 4-2: AIRPORT HOURLY CAPACITY

Runway Configuration	Mix index	Ops/Hour		Annual Service Volume
		VFR	IFR	Ops/Year
Number 1: Single Runway	0 to 20	98	59	230,000
	21 to 50	74	57	195,000
	51 to 80	63	56	205,000
	81 to 120	55	53	210,000
	121 to 180	51	50	240,000

Source: FAA - AC 150/5060-5, T-O Engineers Inc.

Future Capacity Requirements

Projected demand at Lemhi County Airport by the Year 2030 is forecast to be approximately 30,795 annual operations. These projected operations represent 13 percent of the ASV, which was estimated to be 230,000 annual operations. FAA guidelines suggest that facility improvements should be considered to increase capacity when annual operations reach 60% of the Annual Service Volume. Since demand at the airport will not reach this threshold level within the 20-year planning period, airfield development for capacity purposes is not anticipated.

4.3 AIRSIDE REQUIREMENTS

Runway 17-35 is the most prominent feature at Lemhi County Airport. It represents the single most important element of the airfield and has the most impact on overall airport safety and accessibility. Furthermore, the ability of an airport to accommodate existing and future aviation demand is largely predicated on the size and configuration of the runway.

The FAA supports the designation of the Lemhi County Airport as an Airport Reference Code (ARC) B-II. This designation is a reflection of the types of aircraft that routinely use the airport and is used during planning and design to determine the dimensions of most airfield pavements and separation of key airfield components. In addition to the guidance provided by standardized FAA guidelines, when analyzing airside requirements and recommended improvements for Lemhi County Airport it is important to highlight the unique aspects of the airport, these primarily include the environment in which it operates, and the community it serves.

The City of Salmon, Idaho, located in Lemhi County, is widely considered as one of the most remote communities in Idaho. The closest large population base is Missoula, Montana, located approximately 116 miles North of Salmon. The closest Idaho city is Idaho Falls, Idaho, located approximately 148 miles South and East of Salmon. Idaho Rural Partnership (IRP) is an organization comprised of diverse public and private resources with the goal of finding ways to strengthen communities and improve lives in rural Idaho. According to IRP, infrastructure, including airports, are essential for rural economic development.

Furthermore, airports in rural settings like Lemhi County provide vital connectivity to outside communities which support critical services directly affecting the well-being of the community it serves. Examples include:

- Emergency medical evacuation (life flights)
- Specialized professional services ("flying" doctors)
- Wildland firefighting
- Law enforcement
- Mail/package delivery
- Business and commerce (meetings, onsite observation, legal proceedings, etc.)
- Recreation (hiking, hunting, river rafting, all types of backcountry activities)

Such activities occur at many rural airports on an everyday basis, including the Lemhi County Airport. As an example, a medical evacuation/life flight operator was contacted as part of the study analysis. According to the operator, over the past several years, the Lemhi County Airport has been one of its top two destinations. Nearly 70 percent of their operations into and out of Lemhi County are directly related to trauma and cardiac related emergencies.

Another example relates to wild land firefighting. The United States Forest Service has constructed a regional training and fire suppression base at the airport that will be used extensively by both fixed wing and helicopters.

The location of the Lemhi County Airport in its mountainous environment also presents significant challenges not common to airfields at sea level with unrestricted airspace. Higher elevations affect aircraft performance, requiring longer runways. Constrained environments mean lower approach capabilities and other aircraft operational challenges caused by weather and terrain. The cost to maintain and improve mountain airports is significantly greater than at comparable size airports throughout the country, due to difficult terrain and a short construction season. Pavement maintenance costs are also higher due to the higher construction prices and increased environmental damage from extreme seasonal and daily temperature variations and ultraviolet light. Lastly, there is more runway and taxiway pavement to construct and maintain, due to the longer runway lengths that are needed at higher elevations.

When considering the needs of Lemhi County Airport over the next twenty years, the above dynamics cannot be overlooked.

4.3.1 RUNWAY

Runway Length

A review of Lemhi County Airport's role and how that role relates to FAA runway length criteria is necessary when discussing required runway length. Airport function, elevation, mean maximum temperature of the hottest month, aircraft take-off weight, aircraft engine performance, runway gradient and runway surface condition are some of the criteria used when

calculating required length. All of these factors affect the lift capability of departing aircraft. Aircraft manufacturer's performance curves or calculations based on FAA Advisory Circulars are common methods of determining runway length.

Lemhi County Airport is classified as a General Aviation airport serving aircraft up to and including Approach Category B. Aircraft in Category B are defined as those with an approach speed of 91 knots or more but less than 121 knots.

Lemhi County Airport routinely accommodates aircraft in Airport Design Groups (ADG) I and II. This designation encompasses aircraft with wingspans up to, but not including, 79 feet. During the planning period the airport is expected to continue to serve more than 500 annual itinerant operations by aircraft in ADG II (wingspans up to but not including 79 feet).

The current and future airport role and function of Lemhi County Airport is expected to be:

- Airport Role: Other than Utility Airport
- Runway17-35: Other than Utility Runway
- ***Airport Reference Code: B-II with non-standard conditions***

Table 4-3 presents the runway length requirements for Runway 17-35 based on an airport elevation of 4,043 feet Above Mean Sea Level (AMSL) and a mean maximum temperature of 87.3 degrees Fahrenheit for the hottest month of the year. The runway length requirement for Runway 17-35 ranges from 420 feet to 5,510 feet for small airplanes (aircraft with maximum takeoff weights of 12,500 pounds or less). A maximum length of 9,610 is recommended for large airplanes with maximum takeoff weights of 60,000 pounds or less at ninety percent useful load. Based on current available information, large aircraft are not anticipated to operate at Lemhi County Airport on a frequent or regular basis.

It is recommended that the runway at Lemhi County Airport be extended from its current length of 5,150 feet to 5,510 feet (+360 feet). This length will provide the length necessary to accommodate 100 percent of the small aircraft fleet. It should be noted that previous planning studies were more aggressive in recommending longer runway lengths of approximately 6,190 feet. This may in fact prove to be justifiable at some time in the future. As a result, this possibility should be kept in mind when making land use decisions or when considering potential land acquisitions.

TABLE 4-3: RUNWAY LENGTHS RECOMMENDED FOR AIRPORT DESIGN

Airport and Runway Data	Inputs
Airport Elevation	4,043 MSL
Mean Maximum Temperature of the hottest month	87.3° F
Maximum difference in runway centerline elevation	8 Feet
Length of haul for airplanes of more than 60,000 pounds	500 NM
Runway Lengths Recommended For Airport Design	**FAA Recommendation (feet)**
Small airplanes with approach speeds of less than 30 knots	420
Small airplanes with approach speeds of less than 50 knots	1,120
Small airplanes with less than 10 passenger seats	
75 percent of these small airplanes	3,690
95 percent of these small airplanes	5,180
100 percent of these small airplanes	5,510
Small airplanes with 10 or more passengers	5,510
Large airplanes of 60,000 pounds or less	
75 percent of these airplanes at 60 percent useful load	6,190
75 percent of these airplanes at 90 percent useful load	8,680
100 percent of these airplanes at 60 percent useful load	8,050
100 percent of these airplanes at 90 percent useful load	9,610
Airplanes of more than 60,000 pounds	6,430

Source: T-O Engineers Inc., FAA AC 150/5300-13

As discussed in Chapter 3, current FAA guidance regarding critical aircraft operations as a function of necessary facility improvements is based on 500 itinerant operations of the identified critical aircraft. This is particularly true for justifying the need for runway extensions. As further discussed, identifying 500 itinerant operations of B-II aircraft has been difficult at Lemhi County due to the lack of activity records. As a part of this update to the Master Plan, analysis of existing user data, including IFR records, interviews with local airport management and tenants, interviews with itinerant airport users including life flight and fractional jet operators, as well as the analysis of the future fleet mix composition was conducted. This research indicates substantial use by B-II design aircraft. Aircraft classified within the B-II design category include use by the majority of general aviation turboprop aircraft and smaller corporate jets. The aviation activity forecasts were approved based on the available data gathered.

It is important to point out that FAA Advisory Circular 150/5325-4B, Runway Length Requirements for Airport Design and Planning Guidance No. 09-01, Runway Extension Justification Considerations, also state that, "…under unusual circumstances, adjustments may be made to the 500 total annual itinerant operations threshold after considering the circumstances of a particular airport. Two examples are airports with demonstrated seasonal traffic variations, ***or airports situated in isolated or remote areas that have special needs****…"*

The guidance also states that recommended runway lengths to support 100 percent of the fleet include airports that are, "primarily intended to serve communities located on the fringe of a metropolitan area or a relatively large population remote from a metropolitan area…" The guidance does state that recommended lengths to support 95 percent of small aircraft fleet, "applies to airports that are primarily intended to serve medium size population communities with a diversity of usage and a greater potential for increased aviation activities... and those airports that are primarily intended to serve low-activity locations, small population communities,

and remote recreational areas…" While the airport does not support a large population by numbers, is does support one of the largest population centers in that part of Idaho. As previously stated, Salmon is extremely remote and isolated from a metropolitan area.

Based on its remote location and dependency on aviation, the study team believes the Lemhi County Airport meets the criteria for, "unusual circumstances," based on one of the guidance in regard to the itinerant operations and, therefore, is justified in pursuing the additional 360 feet. Lastly, discussions with frequent airport users and the Airport Board advised that the addition of the modest extension would, in their opinion, provide a significant increase in operational safety.

Runway Width

Per FAA airport design standards, runway width for Airplane Design Group II is 75 feet. At a current width of 60 feet, Runway 17-35 does not meet the FAA design standard, and therefore improvements to runway width are necessary, and recommended, to accommodate the designated critical aircraft.

Runway Strength

Current Runway 17-35 pavement strength is reported to be 12,500 pounds single wheel loading as published on the FAA 5010 master data record. The most current available Pavement Strength Survey listed the Runway 17-35 pavement strength to be 30,000 pounds single wheel loading. While the designated critical aircraft at Lemhi County Airport has a maximum gross takeoff weight (MGTW) of 12,500 pounds, the airport is used by the smaller corporate jet fleet weighing in excess of 12,500 pounds Based on current Pavement Strength Survey data, it is recommended that the Airport Board work with the FAA to revise the published pavement strength to reflect the higher weight capability. Foreseeable conditions do not indicate the need for additional runway pavement strength within the planning period. Effort should be made, however, to update the FAA 5010 master data record to accurately reflect the pavement strength as shown in the Pavement Strength Survey.

Wind Coverage and Crosswind Analysis

FAA criteria recommend a minimum 95 percent wind coverage for all airports. The wind data gathered on-site for the years 2000 through 2009 was used to determine wind coverage for Lemhi County Airport. Based on this data, Runway 17-35 provides 98.3 percent coverage for a 10.5-knot crosswind component at the airport with the current 60 foot wide runway. When based on a 13 knot crosswind and proposed 75-feet runway width to meet current design standards, wind coverage increases to 99 percent. Existing and future wind coverage for Runway 17-35 exceeds recommended minimum wind coverage.

Lighting

Runway 17-35 at Lemhi County Airport is currently equipped with Medium Intensity Runway Lights (MIRL). It is anticipated that this lighting system will be sufficient during the planning period. When Runway 17-35 is widened from 60 to 75 feet, the lighting system must be relocated accordingly. As mentioned in Chapter 3, light cans to accommodate a 75 foot runway

were installed as part of a past lighting project in anticipation of a runway widening to meet full B-II standard.

4.3.2 TAXIWAYS

Taxiway Geometry

Airfield taxiways provide the primary route between airside and landside facilities. As an important airfield feature, most taxiway geometric properties are defined by FAA design guidance. Improvements to an airport taxiway system are generally undertaken to increase runway capacity or to improve safety and efficiency. An efficient taxiway system increases the ability of an airport to handle arriving and departing aircraft and expedite aircraft ground movements.

Runway/Taxiway Separation

The required separation distance between the runway and parallel taxiway centerline is 240 feet for airports accommodating aircraft with an ARC of B-II. The current runway/taxiway centerline separation is 240 feet and therefore meets the FAA requirement.

Width

The existing taxiway system at Lemhi County Airport complies with FAA criteria for the B-II Airport Reference Code taxiway width (35 feet) and meets appropriate design standards for current and future demand. No changes to taxiway width are necessary throughout the planning period.

Strength

Like the runway, the Pavement Strength Survey from recent taxiway improvement projects as part of AIP-06, AIP-010 and AIP-011, list the single wheel loading pavement strength to be 30,000 pounds. Further, the pavement strength survey listed the northern taxiway dual wheel strength at 45,000 pounds while the dual wheel strength for the southern portion of the taxiway was listed at 60,000 pounds. Lemhi County Airport's existing taxiway system complies with FAA criteria for B-II Airport Reference Code taxiway strength (at least 12,500 pounds). These current taxiway pavements accommodate the activities of existing general aviation aircraft that use the facility on a regular basis as well as the forecasted aircraft activity expected to operate at the airport throughout the planning period. Foreseeable conditions do not indicate the need for additional taxiway pavement strength. A nominal overlay may be required in the latter stages of the planning period to maintain pavement quality due to deterioration from weathering and oxidation. Further analysis is also recommended during the latter stages of the planning period to ensure the structural integrity of existing taxiway pavement sections correlates with the strength of the apron and runway.

Lighting

The Lemhi County Airport taxiway system currently has no lighting but is designated with reflectors. Taxiway lights are recommended for aircraft safety, especially in the mountainous environment and for transient operations.

4.3.3 APRON

The general aviation apron area at Lemhi County Airport is located on the southwest side of Runway 17-35 near the Runway 35 end. There are 58 fully improved tie-down positions consisting of steel eye bolts placed in concrete anchors that are imbedded in the apron. The airport unofficially separates the apron into based and transient areas. The central portion of the existing apron is primarily uses by based aircraft. Portions of the apron east and south of the existing FBO are used more frequently by transient operators and the FBO does lease a small number of tie-downs from the County for their transient customers. **Figure 4-1** depicts the current apron layout at the airport.

FIGURE 4-1: EXISTING APRON LAYOUT

Source: T-O Engineers Inc.

Based Aircraft Apron

Smaller aircraft typically use the apron at Lemhi County Airport. Based single-engine aircraft require about 300 square yards per aircraft. A few multi-engine aircraft use the apron. These larger aircraft require up to 600 square yards of apron space each. Calculation of required apron space assumes most of the aircraft tied down will be small aircraft requiring 300 square yards of apron each with a few multi-engine aircraft requiring 600 square yards (an area approximately 74 feet by 74 feet in size). In addition, approximately 75 percent of existing based aircraft are currently stored in hangars.

Table 4-4 summarizes the overall based aircraft apron supply and demand for the airport from the forecast found in Chapter 3. Several new hangars have been constructed in recent years and this has relieved some apron demand. Appropriate Taxilane Object Free (TLOFA) must also be factored in within the apron. TLOFA needs facilitate safe aircraft taxi on the apron and reduces the amount of apron space available for aircraft parking. Nevertheless, analysis as shown in the table indicates the existing apron area should be adequate to accommodate based aircraft parking requirements through 2030, even if no new hangars are constructed.

TABLE 4-4: BASED AIRCRAFT APRON REQUIREMENTS

	2010	2015	2020	2030
Single Engine	39	40	41	45
Multi-Engine	10	11	13	15
Jet	0	0	0	1
Light Sport	0	1	1	1
Other	1	1	1	1
Based Subtotal	50	53	56	63
Based Aircraft Not in Hangars (Single Engine/Multi-Engine)	10/4	11/4	11/4	12/4
Total Apron Demand (Square Yards)	**5,400**	**5,700**	**5,700**	**6,000**
Existing Apron Total (Square Yards)*	30,000	30,000	30,000	30,000
Additional Apron Requirement (Square Yards)	**(24,600)**	**(24,300)**	**(24,300)**	**(24,000)**

Source: T-O Engineers Inc.
*Does not include required Taxilane Object Free Area requirements

Transient Aircraft Apron

When determining the amount of apron space required for aircraft tie-down, a distinction must be made between those aircraft departing from or returning to the airport and those temporarily visiting. This distinction is defined as transient versus itinerant operations.

Transient operations are a subset of itinerant operations and are a consideration when planning apron space requirements. A transient operation will originate from another airport and will typically require temporary tie-down space at the destination airport. At airports like Lemhi County, common transient aircraft include large turboprop aircraft and small to midsize business jets. For purposes of airport planning, transient operators are assumed to be flying larger aircraft and are unfamiliar with the airport thus requiring additional maneuvering room and additional tie-down space when compared to based aircraft.

Table 4-5 summarizes the transient apron space requirement at Lemhi County Airport during the planning period. The following assumptions were made in deriving the table:

- Transient operations represent approximately 50 percent of the peak day itinerant operations.
- The number of transient aircraft total 50 percent of peak day transient operations.
- Space should be provided for 75 percent of peak day transient aircraft.
- 80 percent of peak day transient aircraft are single-engine.

- 20 percent of peak day transient aircraft are multi-engine.

Transient apron space demand was calculated using a space requirement of 360 square yards for each small single engine transient aircraft (an area approximately 57 feet by 57 feet in size) and 600 square yards for larger multi-engine aircraft (approximately 74 feet by 74 feet).

TABLE 4-5: TRANSIENT APRON REQUIREMENTS

	2010	2015	2020	2030
Peak Day Operations	81	85	90	101
Peak Day Itinerant Operations	41	43	45	71
Peak Day Transient Operations	21	22	23	36
Transient Aircraft	11	11	12	18
Transient Spaces	8	8	9	14
Peak Space Demand				
Aircraft < 12,500 pounds	6	6	7	11
Aircraft > 12,500 pounds	2	2	2	3
Total Apron Demand (Square Yards)	**3,360**	**3,360**	**3,720**	**5,760**

Source: T-O Engineers Inc.

At 30,000 square yards, the existing aircraft apron should be adequate to accommodate both based and transient operations during the planning period. **Table 4-6** summarizes the total aircraft apron area requirements from Tables 4-4 and 4-5. A surplus of apron area is available throughout the planning period.

TABLE 4-6: AIRCRAFT APRON REQUIREMENT SUMMARY

	2010	2015	2020	2030
Based Aircraft Apron Demand (Square Yards)	5,400	5,700	5,00	6,700
Transient Aircraft Apron Demand (Square Yards)	3,360	3,360	3,720	5,760
Total Apron Demand (Square Yards)	**8,760**	**9,060**	**9,060**	**12,460**
Existing Apron Available (Square Yards)	30,000	30,000	30,000	30,000
Surplus Apron Available (Square Yards)	**21,240**	**20,880**	**20,880**	**17,520**

Source: T-O Engineers.
*Does not includes required Taxilane Object Free Area requirements

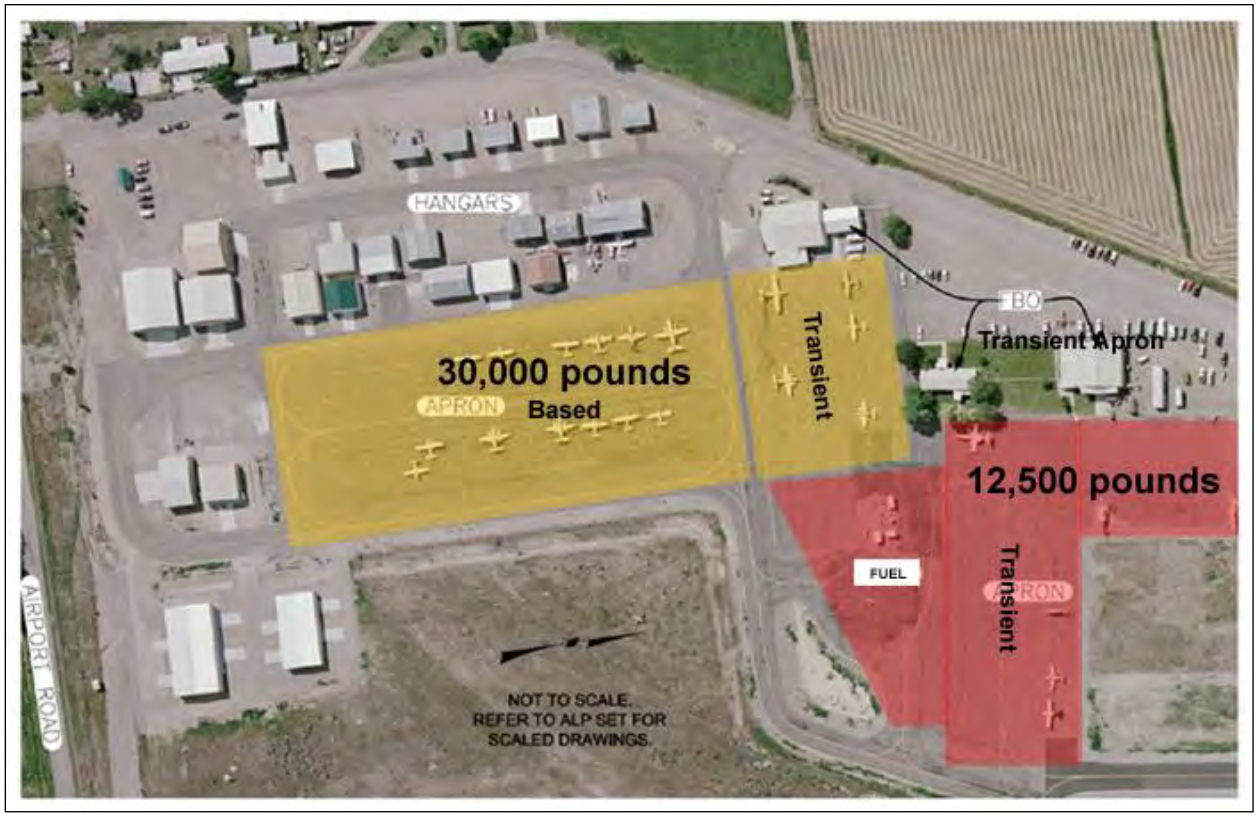
Apron Strength

As discussed, transient aircraft parking aprons typically accommodate larger aircraft. The transient apron just east of the FBO area has a reported pavement strength of 12,500 pounds. The large apron area south of the transient aircraft parking area used primarily by based aircraft has a reported pavement strength of 30,000 pounds. The remainder of the apron area near the rotating beacon and the fueling facilities has a reported pavement strength of 12,500 pounds.

The existing apron section at Lemhi County Airport accommodates existing general aviation aircraft that currently use the facility on a regular basis. However, the reported lower pavement strength for portions of the transient aircraft parking apron area east of the FBO is a potential

issue for large aircraft, especially when compared to higher existing pavements strengths of the runway and taxiway complex. In addition, while the last PCI report completed in 2006 show pavement conditions ranging from good to very good condition, more recent pavement inspections conducted as part of routine maintenance procedures indicates the apron condition has greatly deteriorated since 2006. The pavement on this apron will require reconstruction or other improvements to increase pavement strength and improve the condition of the pavement. **Figure 4-2** depicts the current apron pavement strengths.

FIGURE 4-2: EXISTING APRON PAVEMENT STRENGTHS



Source: T-O Engineers Inc.

Apron Configuration

Currently, the airport's fuel island is located mid-apron south and east of the FBO. The fuel island facility includes the airport's two underground fuel tanks and a card reader as well as separate fuel dispensers for both Jet A and AvGas fuel. The current configuration of two tanks mid apron with separate fuel dispensers results in a confusing and congested situation that uses more apron space than necessary. It is recommended that both tanks be removed and a new fueling facility be constructed to facilitate easier aircraft access to both the based and transient aprons as well as the hangar taxilanes from the FBO and Airport Operations Area. The fuel facility should be relocated to allow a Design Group II taxilane between the apron/hangar area and FBO/AOA while eliminating wasted apron space and providing more space for aircraft parking.

4.3.4 AIRCRAFT STORAGE

Of the 50 aircraft based at the Lemhi County Airport, approximately 37 are stored in aircraft hangars. This usage represents an approximate 75 percent/25 percent ratio of aircraft in hangars versus tie-downs. This ratio is consistent with similar airports in similar environments and is used to project future hangar needs at the airport.

Hangars

Lemhi County Airport currently has a mix of aircraft storage hangar construction. There are currently 28 hangar buildings located on the airport property, including 22 conventional box hangars, 2 T-type hangars, 2 condominium type hangars and 2 FBO hangar facilities. The 2 condominium hangar buildings provide for a total of 8 hangar spaces. The majority of existing hangars are located immediately west and south of the aircraft parking apron with the remaining 2 hangars associated with the FBO located north and west of the aircraft parking apron.

The recent economic downturn has slowed hangar development at the airport. The airport does keep a hangar waiting list but there are currently no aircraft on the hangar waiting list and as of mid-2010, there was a 95 percent utilization rate for hangar capacity. Nevertheless, it is likely that additional hangar facilities will be required during the planning period. Historical demand for hangars has been primarily for box hangars. It is expected that trend will continue during the planning period.

Table 4-7 presents the distribution of based aircraft projected to be stored in hangars throughout the planning period.

TABLE 4-7: BASED AIRCRAFT HANGAR REQUIREMENTS

	2010*	2015	2020	2030
BASED AIRCRAFT	**50**	**56**	**56**	**63**
Single Engine	29	29	30	33
Multi-Engine	7	8	10	11
Turbojet	0	0	0	1
Other	0	1	1	1
Rotor	1	1	1	1
Total Hangar Demand	37	39	42	47

*Base Year
Source: T-O Engineers Inc.

4.3.5 HELIPADS

Lemhi County airport is frequently uses by helicopters for aerial firefighting, medical evacuation and transportation activities throughout the region. Currently, helicopters typically hover-taxi on the ramp for training exercises, refueling and maneuvering. A significant amount of debris is generated from the helicopter downwash which introduces the potential for impacts of this debris on fixed wing aircraft located on the ramp and other adjacent property. In the past, the United States Forest Service (USFS) has operated a large majority of helicopter operations at the airport. The USFS has recently constructed its own exclusive use “Nelitack” facility on airport property which will reduce the number of helicopter operations occurring on and near the

airport's public-use aprons see Figure 2-1. Additional medical evacuation and general helicopter activities are expected to continue throughout the planning period. As a result, it is recommended that at least two paved helipads be provided at the airport in an area separate from fixed wing aircraft, due to the generally incompatible nature of helicopters and fixed wing aircraft.

4.3.6 NAVIGATIONAL AIDS AND INSTRUMENT APPROACH PROCEDURES

Signage, Visual Aids and Lighting

There is currently no airfield signage at Lemhi County Airport. Installation of signage meeting the standards outlined in FAA Advisory Circular 150/5340-18C "Standards for Airport Sign Systems" is recommended early in the planning period. This improvement should be completed concurrently with widening of the runway. Runway 17-35 has Medium Intensity Runway Lighting (MIRL) equipped with Pilot Controlled Lighting (PCL). The PCL is activated via Common Traffic Advisory Frequency (CTAF) 122.8, which also may be used by the pilot to remotely activate a four light Precision Approach Path Indicator (PAPI-4) and Runway End Identification Lighting (REIL) on Runway 17. Both the PAPI and REIL for Runway 17 are owned and maintained by the FAA. Runway 35 is currently not equipped with either PAPI or REIL. It could not be established whether the FAA has conducted an evaluation of the feasibility of a PAPI on this end. Due to PAPI siting criteria, a PAPI is not expected to be feasible to Runway 35. A REIL on Runway 35 should be considered to assist pilots with identifying the runway end, especially in light of recently published approach procedures from the south.

The parallel taxiway and ramp area are currently delineated with retroreflective markers only. The rotating beacon is located on top of a tower near the fuel island and is in generally good condition. The lighted wind cone is located on the east side of the runway, adjacent to the Runway 35 end. It is anticipated that the wind cone will require replacement, having reached the end of its service life. It is also recommended that a segmented circle be constructed at the time of wind cone replacement. A supplemental wind cone at the north end of the runway should also be installed.

The existing lighting system is in good condition including equipment in the electrical vault. It is anticipated that the electrical system will need to be serviced, upgraded, rehabilitated or replaced having reached the end of the useful service life at the end of the planning period.

The aircraft apron is not currently lit. It is recommended that floodlighting be installed in strategic locations throughout the apron to enhance airport safety and security.

Automated Weather

Lemhi County Airport is currently equipped with an FAA owned and operated Automated Weather Observation System–3 (AWOS-3). Eccept as newer technology dictates, no changes to the AWOS are anticipated to be necessary throughout the planning period. The AWOS is located approximately 1,200 feet from the end of Runway 17. An AWOS critical area consists of a 500-foot radius circle at least 500 feet from runway centerline. Future potential off-airport

development in and near the critical zone needs to be monitored to ensure compatibility with critical zone clearance requirements.

Instrument Approach Procedures

Instrument approach procedures provide users with an increased level of safety and accessibility during times of inclement weather. This is particularly important in the mountainous environment around the airport.

As of mid-2010, RNAV/GPS instrument approach procedures to the airport are available from both the north and the south. Due to terrain limitations, affecting both the approach and missed approach segments in either direction, current approaches are limited to circling only with high minimums.

The FAA Flight Procedures Office was contacted as part of the study process to determine if any additional improvements could be made to existing procedures. Per the FAA, current approaches offer the best minimums allowed under current development criteria for RNAV/GPS approaches. FAA did advise that the development of Required Navigation Performance (RNP) procedures could offer users some potential improvements. This said, improvement would likely be small and the smaller aircraft types which commonly use Lemhi County Airport are not equipped with the necessary equipment for RNP procedures.

Instrument approach development capabilities have advanced greatly over the years with the advent and implementation of new technology. It is recommended that the Airport Board work with the FAA to monitor future advancements that improve upon existing approach capabilities at the airport.

4.3.7 FAR PART 77 AIRSPACE

While current instrument approach procedures at the airport amount to circling minimums, it is recommended that the airspace around the airport be protected to FAR Part 77 defined other-than-utility airspace dimensions. While the existing location of the airport and the surrounding mountainous terrain make significant future improvements difficult, protection of airspace based on other-than-utility standards will ensure future airport airspace is adequately protected in the event of advancements in instrument approach technology allowing improved minimums. Airspace plans prepared as part of this study reflect this recommendation as appropriate.

4.4 LANDSIDE REQUIREMENTS

4.4.1 AIRFIELD SUPPORT FACILITIES

Terminal Building

There is currently no general aviation terminal building located at the Lemhi County Airport. A small County owned administrative building exists where airport files are stored; however, the building is small and provides no public services. The airport has expressed a strong desire to build a terminal building with a pilot's lounge. The airport is served by one Fixed Base Operator.

While the existing FBO does provide some office space and amenities, the facility is not available at all times, especially in the winter.

Currently, about 33 percent or 8,000 operations at Lemhi County Airport are itinerant and that ratio is expected to remain constant during the planning period. Pilots and passengers on itinerant flights rely on the services provided by either an FBO or public terminal/pilot's lounge. The Airport Board reports that cargo hauler and medical evacuation aircrews that use the airport at night, especially in the winter, have nowhere to go to warm up, rest and check weather etc. For this reason, it is recommended that a new terminal building be constructed at the airport. This new building should include a pilot's lounge, public restrooms, and offices for airport management. The facility may also be designed to incorporate counter space for an FBO, restaurant space or other food service facilities. While a terminal building is currently eligible for FAA funds, because the airport has other higher priority needs, immediate funding will have have to come from local sources. If a full terminal building facility is not realistic due to cost in the near future, a simpler standalone Pilot Lounge facility should be considered. Such a facility would include limited, basic amenities such as restrooms and heated flight planning area.

Fixed Based Operator (FBO)

There is currently one FBO in operation at the airport. Lenny's Aeromotive also operates at the airport, providing aircraft maintenance. It is anticipated that one FBO on the field should be sufficient throughout the planning period; however, reserving additional space on the east side of Runway 17-35 for future service provider(s) is recommended.

Auto Parking

Existing automobile parking spaces are available for pilots, passengers, tenants, and employees. Existing parking is unpaved, unmarked and is generally located landside of the FBO facilities. Although the parking is unmarked, review of aerial photography provides an estimate of from 50 to 70 automobile parking spaces in this area. Parking space requirements for general aviation airports vary depending on the specific needs of the individual airport. A forecasting technique developed for general aviation airports calculates automobile parking requirements with the following equation:

GA Automobile Spaces = 2.34 x Peak Hour Operations

Table 4-8 lists the total projected general aviation automobile parking requirements using this formula. Based on the analysis, there is current demand of approximately 38 automobile parking spaces. This calculation serves as a guideline and unless demand increases during the planning period, the current number of parking spaces appears adequate. The existing area is large enough to expand throughout the planning period. It is recommended that the current and future parking lots be paved. The airport receives significant rain and snowfall, resulting in often times muddy and washboard conditions.

TABLE 4-8: AUTOMOBILE PARKING REQUIREMENTS

	2010 Actual	2015	2020	2030
Peak Day Operations	81	85	90	101
Peak Hour Operations	16	17	18	20
Peak Parking Space Demand	38	40	43	47
Existing Parking	50-70	50-70	50-70	50-70

Source: T-O Engineers Inc.

Fueling Facilities

Avgas (100LL) fuel and Jet A fuel is currently available at the Lemhi County Airport. The fuel is stored in two 12,000-gallon underground tanks with separate dispensers for each fuel. As previously discussed, it is recommended that both tanks be removed and a new fueling facility be constructed to improve aircraft access to both the based and transient aprons as well as the hangar taxilanes from the FBO and Airport Operation Area. Relocating the fuel facility will allow a Design Group II taxilane between the apron/hangar area and FBO/AOA, which will improve efficiency and safety of ground movements.

Snow Removal Equipment (SRE)

Snow removal at the airport is currently conducted under an agreement between Lemhi County and the airport using County equipment and manpower. While the County has historically performed this task, airport management has expressed interest in obtaining dedicated airport SRE equipment. This would most likely be a single piece of equipment that could serve both for snow removal and routine airport maintenance. It is recommended that a multi-utility piece of equipment, typically a front-end loader tractor, be acquired by the airport to perform this duty. To protect the new equipment from the elements and to provide a space for maintenance, an SRE building is also recommended for this and other airport vehicles.

4.4.2 INFRASTRUCTURE AND UTILITIES

Lemhi County Airport has access to some basic utilities, including electrical power and potable water. Idaho Power supplies electrical power to the airport and properties around its perimeter. Accessing electricity from any location on the airport is possible.

Potable water is currently supplied by a domestic well on the airport. Development of water supply on the airport will likely be driven by fire flow requirements as opposed to consumption use. Currently the fire flow at the airport is inadequate. Additional study is recommended early in the planning period to quantify the available fire flow and design water main looping to add redundancy and increase fire flow. It may also be desirable to add an additional well or provide some in system water storage.

Individual, on-site septic systems are currently used for wastewater disposal on the airport. Given the distance of the airport from the City of Salmon central sewer facilities and municipal water, it is unlikely that connection to a municipal system will be possible during the planning period. In some cases large commercial hangars and airport related businesses may generate wastewater flow that requires connection to a sanitary sewer system. Case by case analysis of

this issue will be necessary in conjunction with planning and analysis of future development proposals.

Development of other utilities including natural gas, fiber optic cable and telephone service are beneficial to the long-term growth of the airport. These utilities are not currently available in the vicinity of the Lemhi County Airport, although the airport should look for and encourage opportunities to enhance utility availability whenever possible.

Availability of full utility service to hangar development sites is an important factor to businesses and large hangar owners when deciding on locating a new facility on an airport. The Lemhi County Airport is not well positioned, from a utility services standpoint, to attract these tenants and should continue to enhance utility availability on the airport whenever possible, including looking for opportunities to partner with private development interests for extension of utilities to the airport.

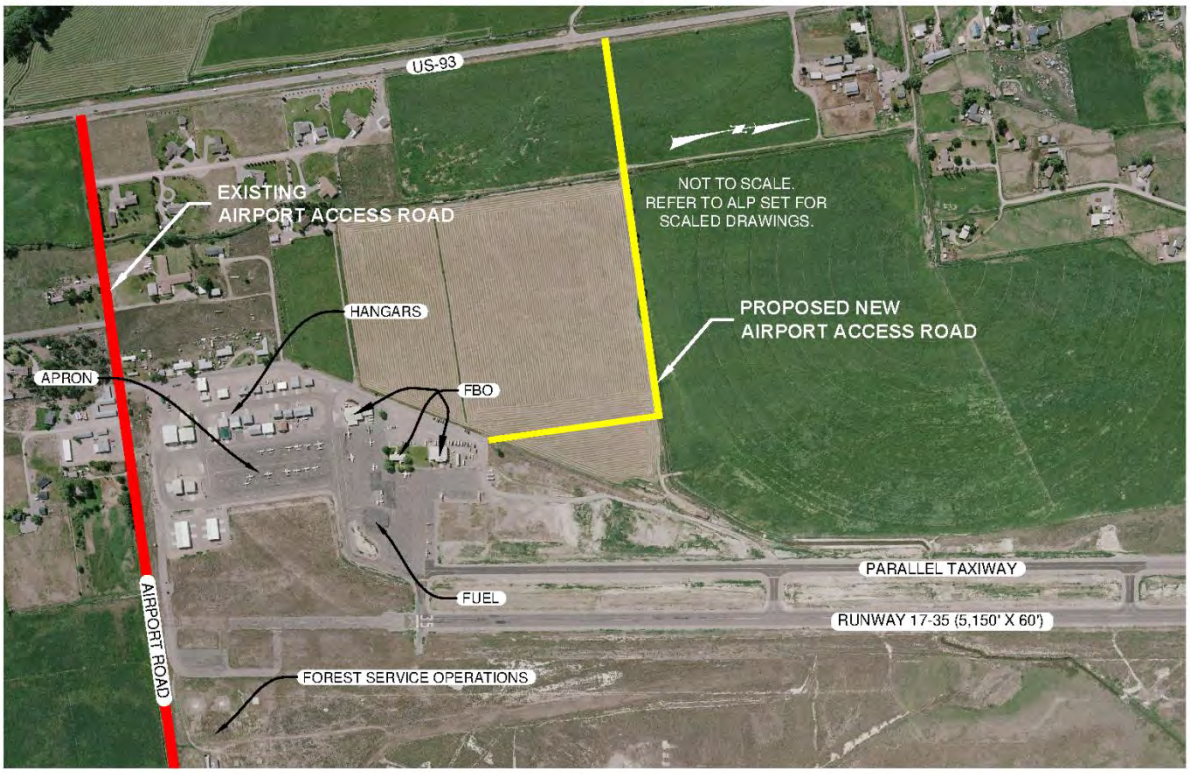
4.4.3 ACCESS

There is one defined roadway that provides access to existing landside facilities on the west side of the airport and connects to Airport Road. Airport Road is a fully improved, County owned, paved surface connecting with US Highway 93, west of the airport. Other access roads within the airport compound are either improved dirt or gravel surfaced. In the past, the Airport Board has expressed the desire for new airport access from Highway 93. Access from Airport Road to the central terminal area requires airport users to drive through a residential neighborhood and it is constrained and difficult to maintain. Analysis concludes that a new airport access road off of Highway 93 may be feasible. The new access road would provide more direct and less constrained access to airport facilities and would better facilitate new develop on the west side of the airport north of existing development.

The adjacent landowner was approached regarding the concept. He was generally favorable to the concept but will want access off the road to accommodate future development of adjacent land. It should be cautioned that this type of arrangement may negate FAA participation in the development of this road. While not an immediate need, it is recommended the Airport Board maintain communication and coordinate with the landowner, the FAA and Idaho Transportation Department for potential new access opportunities. **Figure 4-3** provides a depiction of a potential new airport access road alignment.

Note: Keep in mind the existing access road provides access to the county landfill as well as development on the East side of the airfield as such it needs to be maintained and possible improved.

FIGURE 4-3: POTENTIAL NEW AIRPORT ROAD ACCESS



Source: T-O Engineers Inc.

4.5 EAST SIDE DEVELOPMENT

The Airport Layout Plan designates an area on the east side of Runway 17-35 toward the Runway 35 end as a site for future construction of aprons, taxiways and hangars. The large parcel of land adjacent to airport property on the east side of the airport is owned by Lemhi County and is reserved for a commercial/industrial park. On the north side adjacent to the proposed development is a new 14 acre USFS Helitack facility.

Access to the development on the east side of the airport will come from existing Airport Road and Hot Springs Road. Utilities that exist in the vicinity of the development area include electrical power and potable water. Sewer service in this area will consist of holding tanks requires regular pumping. S disposal is not acceptable under current regulations.

It should be noted that any development on the east side of the airport *will be demand driven.* Development of landside/airport support facilities as necessary for East side development should be considered and implemented as demand requires. The Airport Board believes initial development will serve as an incentive to attract future aviation related businesses. It is believed however, that the construction of taxiways, aprons and hangar sites to support initial demand may serve to attract additional businesses to the east side. Therefore, a proactive planning approach is recommended to develop a preferred development concept for the east side. This

approach will provide the Airport Board appropriate long-term guidance in the event demand for development on the east side of the airport area comes to fruition during the planning period.

4.6 AIRPORT PROPERTY

4.6.1 EXISTING PROPERTY

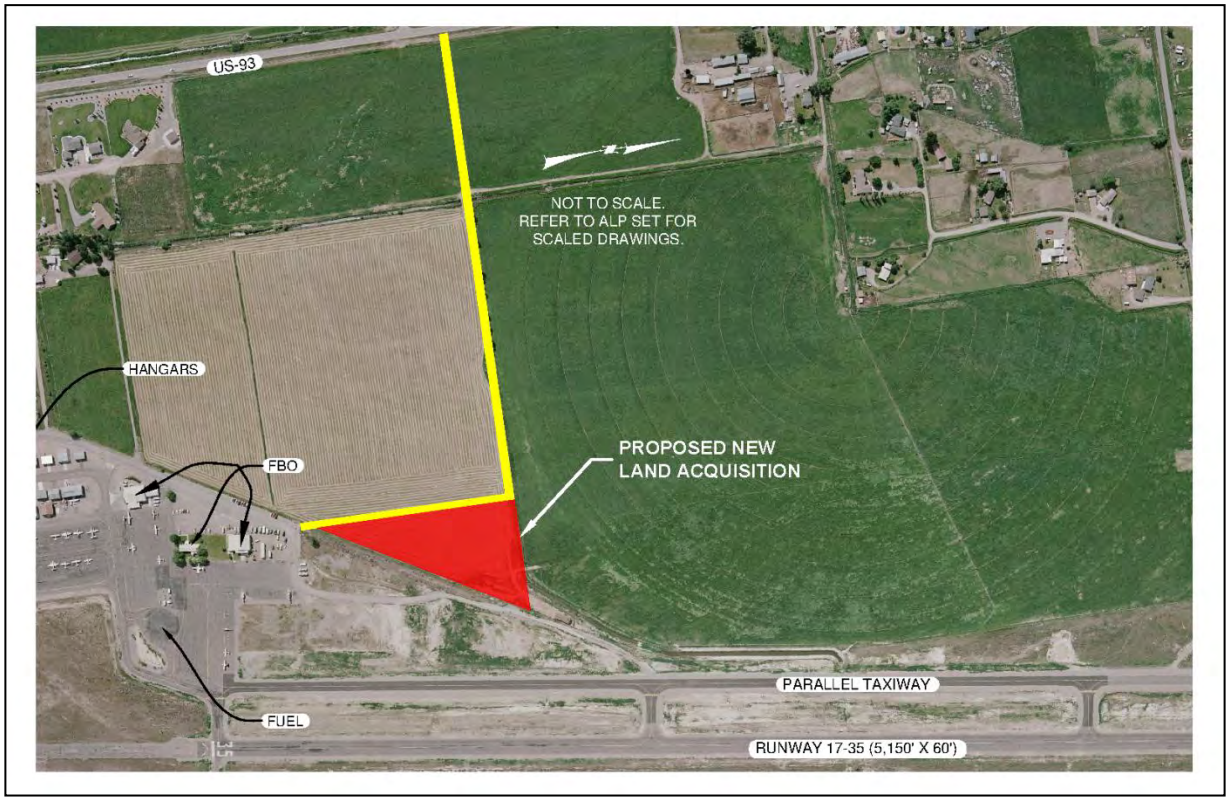
Total land area of the Lemhi County Airport is approximately 266 acres. The airport is situated about three and a half miles south of the City of Salmon. The existing site meets virtually all recommended FAA design criteria separations for a B-II airport reference code.

4.6.2 EXPANSION

While Lemhi County Airport controls much of the land around the airport, additional land should be acquired to provide for expansion and to control encroachment of non-compatible uses as necessary. The following paragraphs discuss these parcels and their importance to the future of the airport.

Land acquisition will be necessary for expansion of the West Apron area. Approximately 9.1 acres are needed to provide space for the tie-down apron, additional hangars and for construction of an access road from Highway 93 to the West Apron area. This acquisition must be a fee simple purchase for improvements that will be constructed on the land. **Figure 4-4** depicts future airport property needs on the west side of the airport

FIGURE 4-4: POTENTIAL WEST SIDE LAND ACQUISITION



Source: T-O Engineers Inc.

It is also recommended that Lemhi County monitor the status of land ownership at both the north and south ends of the existing airport property, and also give careful consideration to purposed changes in land use in the area for the purpose of protecting their ability to extend the runway to an approximate length of 6,200 feet should future airport activity justify this length.

4.6.3 FENCING AND SECURITY

The airport perimeter is fully fenced with 9-foot steel mesh wildlife fence that minimizes the prospects of large wildlife seeking to gain access to the airfield and also provides a security deterrent. There is an automated access gate at the main airport entrance. It is recommended that as land is acquired or new development takes place, fencing and gates should be installed as appropriate.

Current fencing with a code accessed automatic gate at the main airport entrance meet current security requirements for GA airports.

4.7 PAVEMENT MAINTENANCE

It is recommended that all airport pavements be monitored closely for deterioration and maintenance needs. The higher elevation of the airport and harsh weather conditions that are common lead to faster pavement deterioration and the need to be proactive in pavement maintenance practices. A routine of seal coats and crack sealing every three to five years will extend pavement life significantly at the airport. For more significant maintenance and repairs, nominal overlays will likely be required on various airport pavements during the planning period to ensure pavement integrity and quality.

4.8 SUMMARY OF REQUIREMENTS AND RECOMMENDATIONS

In summary, Lemhi Count Airport has been developed appropriately based on demand and well maintained over the past several years. Modest facility improvements over the course of the planning period are warranted to continue this trend.

It is understood that the need for full build-out of the airport as depicted on the ALP drawing set is speculative and not justified at present based on the aviation activity forecasts performed as part of this study. Nevertheless, recommendations have been developed based on a proactive planning philosophy whereby long-term guidance is presented to the County to assist them in facilitating logical and orderly development over the planning period. Many of the recommendations are demand driven and will only be considered when and if demand at the airport warrants.

Table 4-9 summarizes facility requirements and recommendations. Chapter 5 will present various alternatives to meet the recommended facility requirements.

TABLE 4-9: SUMMARY OF FACILITY REQUIREMENTS

Facility		Existing	Recommended
Runway			
	Length (usable)	5,150’	5,510’
	Width	60'	75’
	Strength	30,000 SWG	30,000 SWG
Taxiways			
	Type	Full Parallel	Full Parallel
	Width	35'	35'
	Strength	Same as RW	Same as RW
Apron			
	Strength	12,500 – 30,000 lbs.	Same as RW and TWY
	Fuel Island	Mid-Apron	Relocate w/ new Above Ground Tanks
Navaids, Visual Aids, and Lighting			
	Approach	GPS RNAV	GPS RNAV
	Automated Weather	AWOS	AWOS
	Runway Lights	MIRL	MIRL
	Taxiway Lights	Reflectors	MITL
	REILs	RW 17	RW 17 & RW 35
	Approach Slope Indicator	PAPI RW 17	PAPI RW 17
	Segmented Circle	No	Yes
Aircraft Storage			
	Box Hangars	37	47
Terminal & Buildings			
	Terminal Building/Pilot Lounge	None	Yes
	FBO	Yes (1)	Yes (1)
	Snow Removal	Provided by County	Equipment & storage building
Access and Parking			
	Automobile	Paved	Paved
Fuel			
	100LL	Yes	Yes
	Jet-A	Yes	Yes
	Fuel Service	24-hour reader	24-hour reader
Airport Property			
	Land envelope	266 acres	Additional 9.1 acres
Additional Requirements			
	Construct new airport access road from Highway 93 to west side (inc. land and ROW purchase)		
	Purchase land for west side development		
	East side development		
	New taxilanes to accommodate hangar development and apron development		
	Routine pavement maintenance including seal coat, crack seal and nominal overlay(s)		

Source: T-O Engineers, Inc.

5.0 CONCEPTUAL ALTERNATIVES

This chapter serves to describe and evaluate the various development alternatives considered for the Lemhi County Airport and to describe a preferred development plan that accommodates the identified demand and facility requirements and recommendations. Multiple options for both airside and landside alternatives were considered in arriving at the "preferred" alternative in each category. Input was solicited and received from County representatives and the Airport Board in selecting the preferred alternatives. These preferred alternatives serve as the basis for the Airport Layout Plan (ALP) drawing set shown in Chapter 7.

5.1 AIRPORT DEVELOPMENT ASSUMPTIONS

Previous chapters of the Airport Master Plan Update analyzed present and future conditions at the airport. This analysis leads to the creation of an overall development strategy for the airport which will meet current and future demand, along with multiple development alternatives within that strategy. Chapter 3, Aviation Activity Forecasts, outlined future demand for improvements to airport facilities. Chapter 4, Facilities Requirements, addressed the impact that future demand may have on specific airport features such as the runway, taxiways, aprons, hangar space, and landside areas. Consideration was also given to recommendations presented in the State Aviation System Plan. This chapter will take the process a step further and outline specific development alternatives and the rationale behind selection of specific alternatives.

The following sections describe specific considerations for development of the selected alternatives.

5.1.1 AIRPORT USERS

Chapter 3, Aviation Activity Forecasts, profiled typical users of the Lemhi County Airport today and over the course of the planning horizon. Currently, private pilots of single-engine piston aircraft are the primary users of the airport. This group will continue to dominate the demographic of the airport during the planning period. However, the forecast predicts a slight increase in multi-engine turbine and jet aircraft as well. Previously completed planning studies have also highlighted the potential for more demanding aircraft using this airport. The State System Plan also asserts that more demanding, high performance aircraft must be considered during the planning process.

5.1.2 ACTIVITY LEVELS

The level of activity at Lehmi County Airport is predicted to slowly increase during the planning period. Growth of both based aircraft and total number of operations reflects national and state trends of aviation activity. Details of projected growth are reflected in Chapter 3 and the recent ITD Idaho Airport System Plan.

5.1.3 FACILITIES CONFIGURATION

The configuration of existing facilities at Lemhi County Airport was also a determining factor when analyzing potential layout of future facilities. Layout of new aprons, taxiways and hangars

must be complementary to existing facilities to provide useable and cost effective options to the airport. This Airport Layout Plan seeks to make use of existing facilities to the greatest extent possible and enhance them for future development. Layout plan recommendations also consider the needs associated with potential requirements resulting from expected use by more demanding aircraft at some future time. Recommended improvements justified in the near term planning horizon by current demand should be compatible with, and in some cases, provide a first step in meeting projected long term needs.

5.1.4 INSTRUMENT APPROACH CAPABILITIES

Current instrument approach capabilities at Lemhi County Airport are described in Chapters 2 and 4 and include Area Navigation (RNAV) GPS and VOR/DME procedures. Due to terrain limitations, only circling minimums are available. As discussed in Chapter 4, FAA Flight Procedures advises that current approaches offer the best minimums allowed under current development criteria for RNAV/GPS approaches. The existing instrument Departure Procedure for Runway 35 may be impacted by a runway extension to Runway 17. Discussion of runway length alternatives is included below.

5.2 AIRPORT DEVELOPMENT GOALS

Realistic goals for development have been identified through this planning effort that reflect the role of Lemhi County Airport in the community with due consideration given to both the short term and long term needs, including, flexibility to accommodate changing demand, interest of airport users, compatibility with surrounding land use, safety, noise, financial and economic conditions. These goals include:

- Consideration of the role the airport fulfills in the overall State Aviation System.
- Preparation of a logical development program for the airport that meets current needs.
- Analysis that provides financially feasible projects at the airport.
- Develop improvements that enhance the airport's self-sustaining capability.
- Continued adherence to FAA design standards and rules and regulations.
- Preservation of existing private and public investment in the airport and related facilities through land use compatibility planning.

As mentioned in Chapter 4, demand for *full* build-out of the airport as depicted on the ALP drawing set is unlikely within the near term planning horizon based on the aviation activity forecasts performed as part of this study. Nevertheless, recommendations and alternatives have been developed based on a proactive planning approach. This long-term approach and the guidance derived from it have been presented to the County to assist them in facilitating logical and orderly development over the planning period, while protecting their investment by flexibility to accommodate future, unpredicted demands that may arise.

Recommendations are demand driven and will only be considered when and if demand at the airport justifies their implementation.

5.3 AIRSIDE ALTERNATIVES

During the planning period encompassed by this planning update, no deficiencies in capacity or related issues were identified at Lemhi County Airport resulting from existing or forecast aircraft activity. Primary airside facility improvements identified are a 360 foot extension of Runway 35 along with associated parallel taxiway extension. This extension is recommended and justified to accommodate all small Category A and B aircraft in Airplane Design Group II (ADG II). The following sections briefly describe these recommendations, the alternatives considered, and the rationale for selection of the preferred alternative.

5.3.1 RUNWAY EXTENSION

The runway length analysis conducted in Chapter 4 concluded that Runway 17-35 should be extended by 360 feet to a length off 5,510 feet. This new runway length will accommodate 100 percent of small, ADG II aircraft which encompasses the current fleet using the Lemhi County Airport with any frequency. Use of the "100 percent of the fleet criteria" in lieu of a more typical 75 percent is considered justifiable in this situation. "Chapter 4, FAA Advisory Circular (AC) 150/5325-4B, Runway Length Requirements for Airport Design" and "Planning Guidance No. 09-01, Runway Extension Justification Considerations" allow for "unusual circumstances" which include, "airports situated in isolated or remote areas that have special needs." The Lemhi County Airport is considered to meet this guidance as is described in Chapter 4.

It is also important to note and consider the recommendations presented in previous planning studies and the 2010 Idaho Airport System Plan (IASP) when considering the alternatives for increasing runway length. The IASP recommends a runway length of 6,070 feet or greater based on the placement of the airport in the "Regional Business Category." The previously completed December 1995 Airport Layout Plan Report recommended a runway length of 6,160 feet. This report also referred to a prior master plan which recommended a runway length of 6,000 feet. The planning team considers it appropriate to view a runway length of 6,160 to 6,190 feet to be an "ultimate" length for planning purposes which, while not justified by today's activity at the airport, could be justified by a relatively modest change in the use by a small number of more demanding aircraft. Such use could be easily triggered by a single change in local demographics, i.e. development of a business or recreational destination resort. The significance of this discussion is that in evaluation of the currently justifiable 360 foot runway extension, consideration should be given as to its compatibility or "fit" with what may be an ultimate extension of up to 1,040 feet.

The December 1995 planning study presented three alternatives for achieving a runway length of 6,160 feet, or an extension of 1,010 feet. **Table 5-1** below summarizes runway lengths for the Lemhi County Airport as evaluated in the December 1995 study and the 2010 IASP study.

TABLE 5-1: PREVIOUS STUDY RUNWAY LENGTHS FOR RUNWAY 17-35

	RUNWAY 35 (South) South	Runway 17 (North)
1995 ALP Update		
Alternative 1	1,010 feet	0 feet
Alternative 2	0 feet	1,010 feet
Alternative 3	700 feet	310 feet
2010 IASP	6,070 feet	

Source: T-O Engineers

The study that preceded the 1995 study recommended an 850 foot extension to the North. The 1995 study also identified that at one time Runway 17-35 originally extended approximately 1,250 feet south of the current runway threshold. The remnants of this abandoned portion of the runway are still visible. Extensions to the south would in effect be a reestablishment of a pre-existing runway element. The 1995 study concluded that Alternative 3, with partial extensions of 700 feet on the south end and 310 feet on the north end was the most cost effective with the lowest degree of associated negative impacts.

It is recommended that the 360 foot extension justified at this time be evaluated in the context of not only an immediate improvement but a first phase of what may become the ultimate runway length. Four alternatives were considered, as summarized below.

Alternative 1 is "No Action." Alternative 2 is an extension of 360 feet to the south, while Alternative 3 is an extension of 360 feet to the north, and Alternative 4 is the "Preferred Alternative.". In the interest of providing the most cost effective, practicable solution to meeting current demand and operational considerations, the alternatives also addressed the use of operational scenarios such as declared distances in conjunction with relocated or displaced thresholds.

Alternative 1 – No Action

Based on the current and forecast users and the justification developed in support of a modest runway extension at the airport, a No Action alternative does not meet the basic purpose and need associated with providing a safe operating environment meeting current and foreseeable needs. Therefore, this alternative was not considered viable.

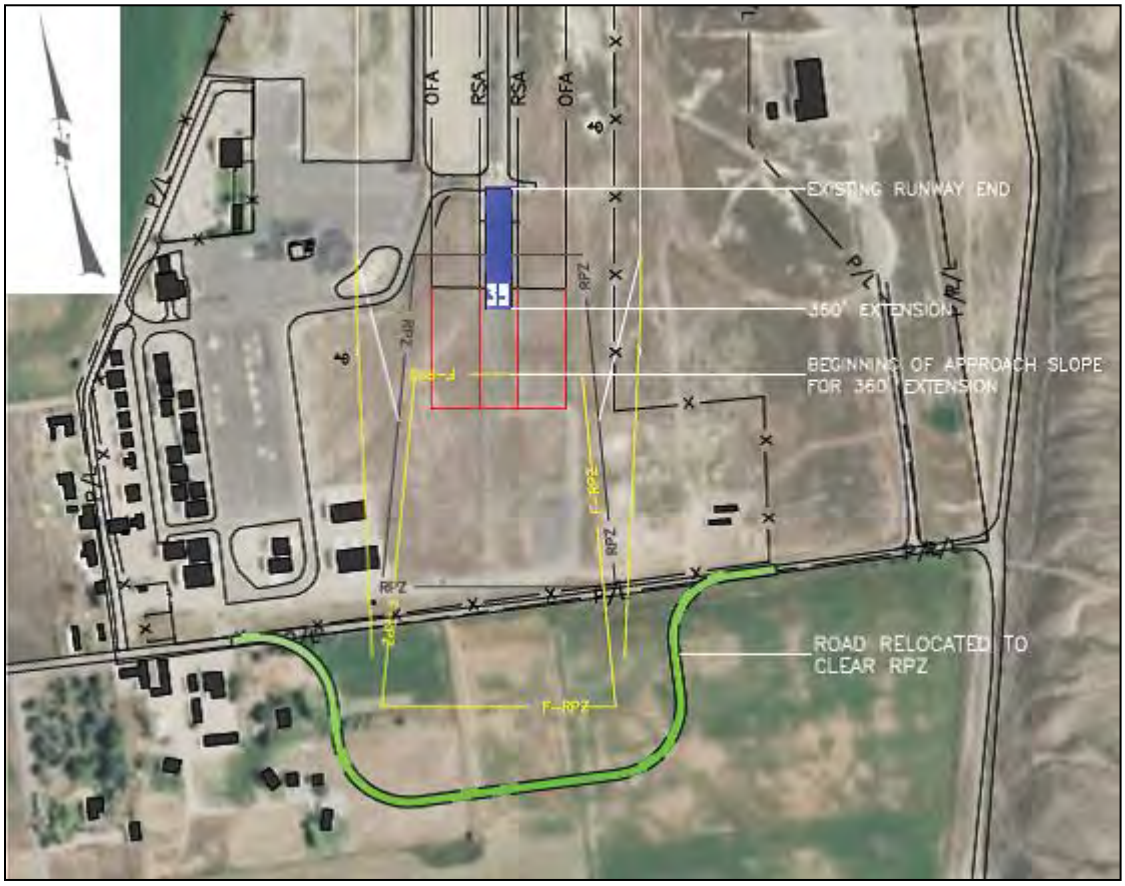
Alternative 2 – 360 foot Extension of Runway 35

A 360 foot runway extension to Runway 35 was analyzed. Runway Safety Area (RSA) and Object Free Area (OFA) requirements for this extension would be satisfied on existing airport property. The Runway Protection Zone (RPZ) associated with an extension to Runway 17 would require a shift of the RPZ to the south approximately 360 feet. As a result, Airport Road would penetrate the new RPZ. Per FAA guidance in AC 150/5300-13, Airport Design, the RPZ requires clearing of incompatible objects and activities which can have an adverse effect on the airport. Roads are considered incompatible objects. Further, FAA recommends that airport

sponsors control development and land uses in the RPZ via control of the ground either by acquiring fee simple or via easement, land within the RPZ.

To adequately address object clearing standards in the new RPZ, traditional mechanisms such as land purchase/easement and the relocation of Airport Road will be necessary. The Airport Board and County Commissioners expressed reservation with this alternative. Specifically, relocation of the regularly used Airport Road was not considered to be a viable, local option at this time. **Figure 5-1** depicts the RPZ and road relocation requirements for a runway extension to Runway 35 associated with Alternative 2.

FIGURE 5-1: ALTERNATIVE 2 - 360 FOOT EXTENSION OF RUNWAY 35



Source: T-O Engineers Inc.

Alternative 3 – 360 foot Extension of Runway 17

A 360 foot runway extension to Runway 17 was also analyzed. Like Alternative 2, Runway Safety Area (RSA) and Object Free Area (OFA) requirements for this extension would be satisfied on existing airport property. Similar to alternative 2, challenges as a result in a shift of the RPZ north approximately 360 feet would also be encountered requiring the need to relocate a County road and acquiring land for the RPZ. Complicating this alternative would be the potential need to relocate up to two residences. Residential relocation must follow the requirements of the Federal Uniform Relocation Assistance Act if Federal funds are involved in

the project; such funding would be expected in this instance. Adhering to the Act can add significant time and expense to a project.

As with Alternative 2, the Airport Board and County Commissioners expressed reservation with this alternative, due to the relocation of both the road and residences. **Figure 5-2** depicts the RPZ and road relocation requirements for a runway extension to Runway 17 associated with Alternative 3.

FIGURE 5-2: ALTERNATIVE 3 - 360 FOOT EXTENSION OF RUNWAY 17

Source: T-O Engineers Inc.

Alternative 4 - Preferred Alternative – Refined Extension to Runway 35

The preferred alternative incorporates a refined Alternative 2 with a runway extension to Runway 35 to the south. This concept provides extended, usable pavement in the form of a displaced threshold. The pavement before a displaced threshold is considered useable pavement and can be used in calculated runway length. Runway length calculations where a displaced threshold exists are accomplished through the use of declared distances. Declared distances consider aircraft performance requirements by identifying Takeoff Run Available (TORA), Takeoff Distance Available (TODA), Accelerated Stop Distance Available (ASDA) and

Landing Distance Available (LDA). With the exception of LDA when landing Runway 35; new runway length available via declared distances would be 5,510 feet. Only LDA for Runway 35 would be limited, remaining at the current runway length of 5,150 feet.

Per AC 150/5300-13, Appendix 14, use of displaced thresholds and declared distances can be considered for constrained airports where it is "impracticable" to provide RSA, OFA and/or RPZ. In this instance, road relocation to clear a new RPZ as proposed in Alternatives 2 and 3 is considered impracticable by the Airport Board and the County Commissioners. As proposed, adding 360 feet of pavement to Runway 35 and marking it as displaced allows both the Runway 35 arrival and departure RPZs to remain in the location of the current RPZ. This means no road relocation or land acquisition is necessary. **Figure 5-3** depicts the configuration of the preferred alternative utilizing a displaced threshold and declared distances on the Runway 35 end.

FIGURE 5-3: PREFERRED ALTERNATIVE 4 – RUNWAY 35 EXTENSION AND DISPLACED THRESHOLD

Source: T-O Engineers Inc.

Table 5-2 below provides the Declared Distances associated with the preferred alternative.

TABLE 5-2: PROPOSED DECLARED DISTANCES FOR LEMHI COUNTY AIRPORT

DECLARED DISTANCE				
	17		35	
	EXISTING	FUTURE	EXISTING	FUTURE
TORA	5,150	5,150	5,150	5,510
TODA	5,150	5,150	5,150	5,510
ASDA	5,150	5,510	5,150	5,510
LDA	5,150	5,510	5,150	5,150

Source: T-O Engineers Inc.

While the same concept was considered for Runway 17, operationally, the south end provides the greatest overall operational benefit to existing airport users. First, significant high terrain is located directly south of the airport. Wind permitting, the predominant direction of departure for most aircraft is to the north toward the open end of the valley. Aircraft operators advised that extended pavement on the south end would greatly aid in their take-offs to the north, the preferred direction of departure, and keep them from departing to the south toward rising terrain. Further, all existing aprons and support facilities are located on the south end of the runway providing immediate, access to the extended runway end. **Figure 5-4** depicts the terrain looking out from both runway ends.

FIGURE 5-4: RUNWAY 17-35 APPROACH/DEPARTURE CORRIDORS

RUNWAY 17 (LOOKING SOUTH) **RUNWAY 35 (LOOKING NORTH)**

Source: T-O Engineers Inc.

Further, there is currently an instrument Departure Procedure (DP) in place for Runway 35. The DP and associated Departure Surface is based on the existing departure end of Runway 35. Extending the Runway 17 end would require a revision of current instrument departure procedures by FAA Flight Procedures. Such a revision would take significant time to complete.

As discussed above, previous planning studies, including the 1995 Airport Layout Plan Update and the 2010 IASP, have both analyzed and indicated the need for a longer runway in the future based on increased activity of high performance aircraft. However, as the aviation activity forecasts completed as part of this study indicate, current activity levels and forecast demand simply do not justify a runway length greater than that necessary to support 100 percent of the small aircraft fleet.

To reiterate, the remoteness of the greater Lemhi/County area and the importance of aviation activity to the livelihood of the community, supported by the airport, cannot be understated. The preferred alternative provides a practical, cost effective and operationally sound solution that addresses current justified runway length needs at the airport and the “unusual circumstances”

that have been clearly demonstrated. As more demanding aircraft use the airport in the future, it is recommended that the alternatives for additional runway length as identified in the previous studies be reconsidered.

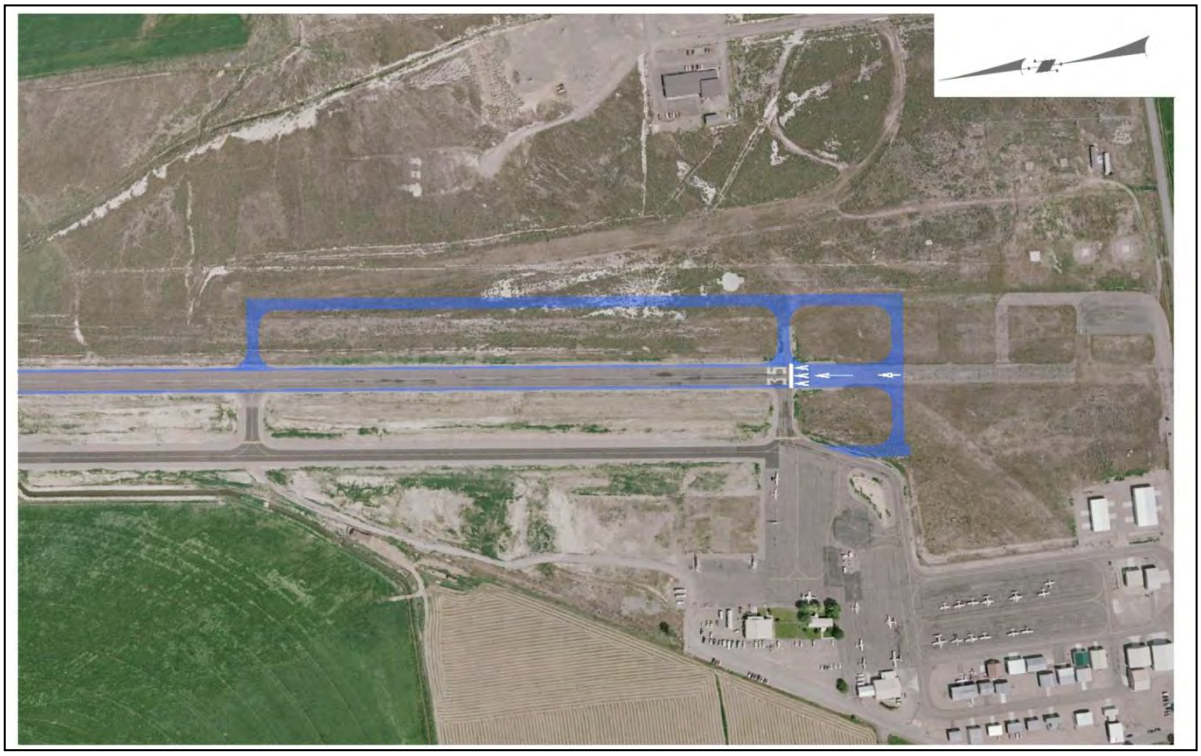
In the meantime, infrastructure developed based on the preferred alternative should be considered "Phase 1" of a larger project as such infrastructure will still be usable as part of a full runway extension solution. If and when future demand materializes, a runway extension project that utilizes traditional mechanisms to obtain full design standards including land acquisition and road relocations is recommended.

5.3.2 TAXIWAY

Extension of the existing parallel taxiway will be required if Runway 35 is extended. This taxiway extension will match the length of the runway extension at 360 feet and should be completed concurrent with the extension of the runway.

On the east side of the airport, a partial parallel taxiway is proposed to facilitate new aviation developed on the east side. A full parallel taxiway was considered, but terrain and wetlands north of midfield raise significant cost and environmental factors which when combined render a full length parallel taxiway on the east side impractical. Further, forecast activity does not justify a full parallel taxiway on the east side. The addition of the proposed partial parallel will provided access to new east side development as well as provide an increased level of safety for aircraft movement on the east side. **Figure 5-5** depicts the preferred taxiway layouts for the airport.

FIGURE 5-5: PREFERRED FUTURE AIRPORT TAXIWAYS



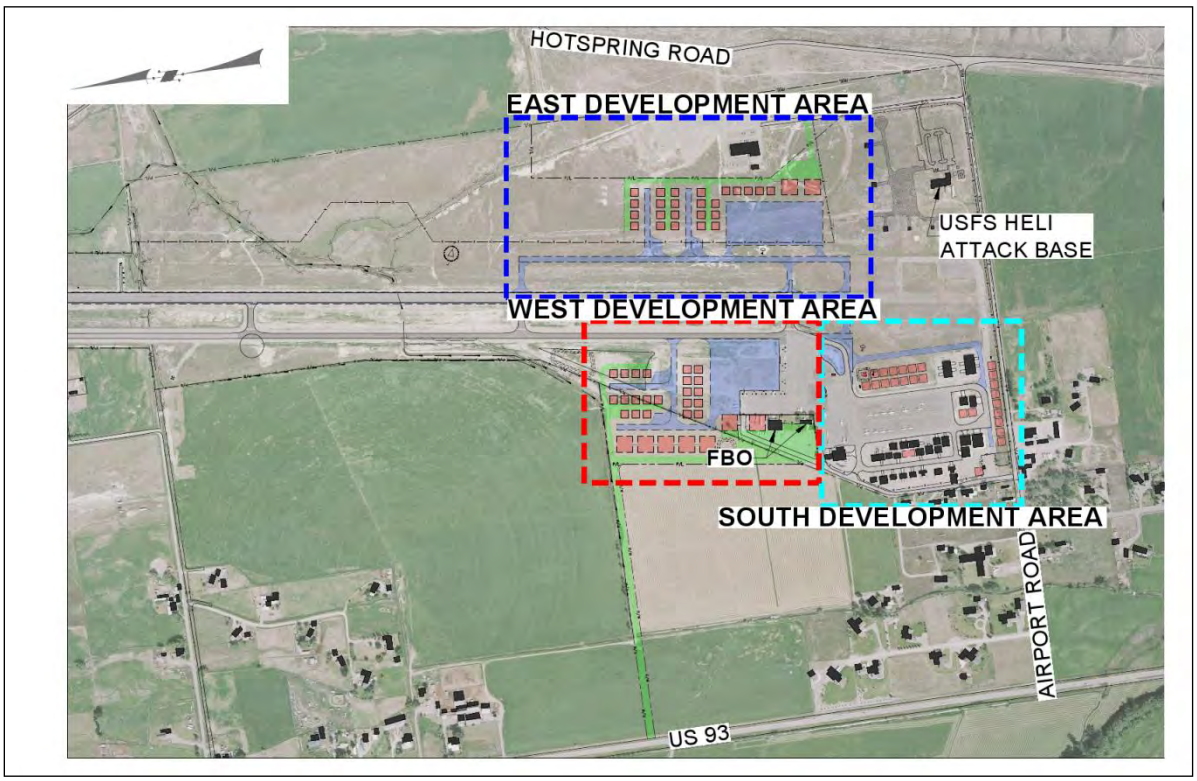
Source: T-O Engineers Inc.

5.4 LANDSIDE ALTERNATIVES

Lemhi County Airport has good potential for development of landside improvements. The following section discusses the alternatives considered during the process of determining the chosen landside development alternatives shown on the Airport Layout Plan (ALP).

Landside facility development includes aircraft parking aprons, aircraft storage facilities, airport access roads, vehicle parking and commercial development directly related to aeronautical activity. Three areas were studied for development opportunity at Lemhi County Airport. These areas are the West Side Development Area, South Side Development Area and East Side Development Area. **Figure 5-6** below identifies the three landside development areas.

FIGURE 5-6: LANDSIDE DEVELOPMENT AREAS



Source: T-O Engineers Inc.

5.4.1 AIRCRAFT STORAGE AND TIE-DOWN

Improvements related to the storage and tie-down of aircraft at Lemhi County Airport focused primarily on expanding area for GA aircraft hangars by making the best use of existing airport property without requiring land acquisition. Planning for aircraft hangars and tie-down aprons strives to coordinate with existing airfield facilities while providing opportunities for commercial development. This type of coordinated development is important because it serves to attract future airport users including revenue generating airport related businesses.

The majority of new hangars shown on the ALP are expected to support GA users with fewer large structures dedicated to on-airport businesses. Aircraft tie-down aprons are positioned to

support hangar development and optimize the use of existing airfield pavements. Roads are shown whenever possible to provide the required separation between automobile traffic and taxiing aircraft. Development of these facilities is limited to existing airport property whenever possible.

Strategically adding facilities to the west side is considered the most likely scenario while development of the east side is likely to be a more long term proposition.

5.4.2 WEST SIDE DEVELOPMENT

West Side Development primarily focused on the vacant land northwest of the existing FBO and associated facilities. For this area, four alternatives were considered. The four alternatives focused on a combination of hangar development space, tie-down apron area and a terminal building. The chosen alternative provides twenty-two 50 foot by 50 foot hangars, seven 100 foot by 100 foot hangars and apron space for nine additional tie-down spaces.

The option shown for West Side development also includes space for automobile parking and a new airport access road. Parking is included to serve the FBO and other West Side development. The new airport access road will provide access to the terminal/FBO area directly from Highway 93.

West Side Development facilities are shown in **Figure 5-7**.

FIGURE 5-7: WEST SIDE DEVELOPMENT

Source: T-O Engineers Inc.

5.4.3 SOUTH SIDE DEVELOPMENT

Development of the South Side focused on the area immediately around the General Aviation apron. The configuration chosen for the ALP was based on analysis of two alternatives. The chosen alternative includes twenty-five 50 foot by 50 foot hangars and space for above ground fuel tanks and associated fuel dispenser.

The chosen configuration for South Side development is shown with a new segment of taxiway to serve future hangar development. This taxiway will allow construction of a double row of hangars on the east side of the General Aviation apron, maximizing the use of available land.

South Side Development facilities are shown in **Figure 5-8**.

FIGURE 5-8: SOUTH SIDE DEVELOPMENT

Source: T-O Engineers Inc.

5.4.4 EAST SIDE DEVELOPMENT

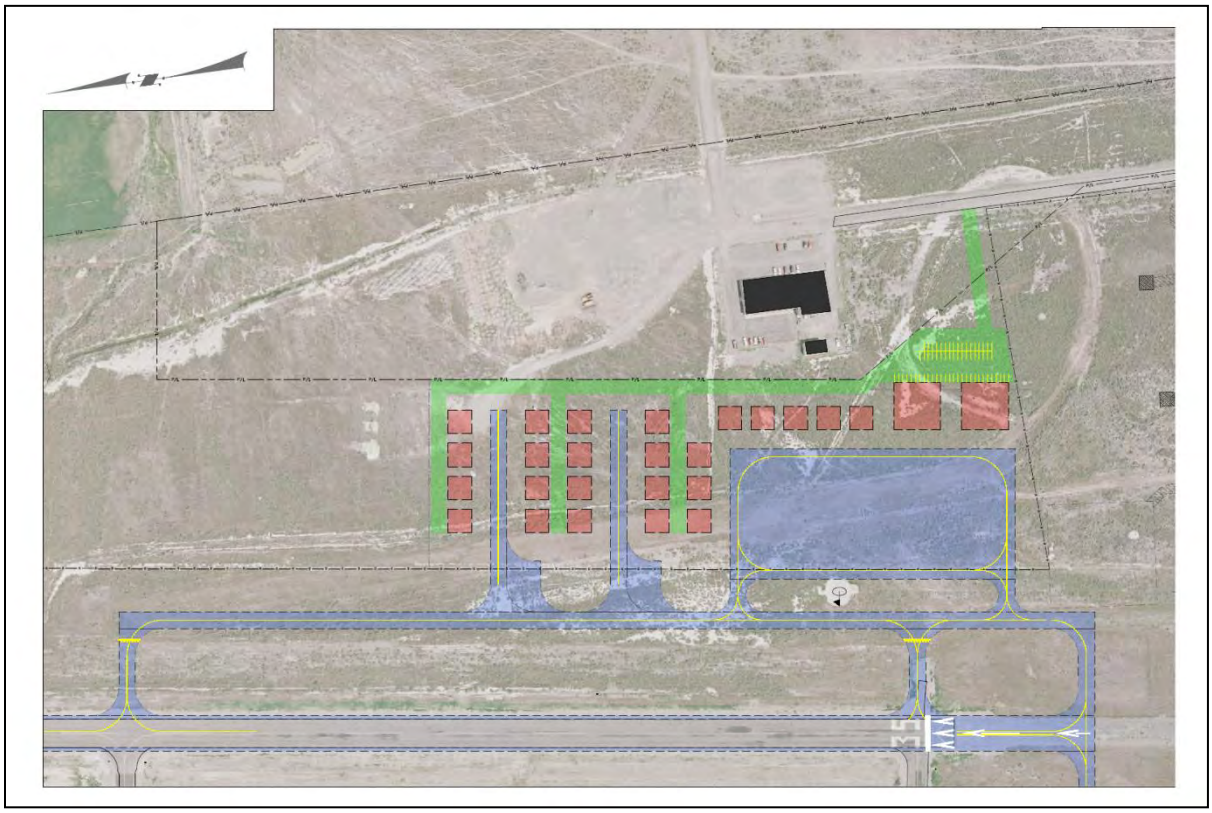
The configuration for East Side development shown on the ALP is based on analysis of three alternatives. The chosen configuration is a combination of elements from two of the alternatives studied and consists of twenty-eight 50 foot by 50 foot hangars, two 100 foot by 100 foot hangars and apron space for eleven new tie-down positions.

East Side development is configured to use a new partial parallel taxiway to provide access to Runway 17-35. Automobile access to East Side hangars is via extension of an existing road that connects to Airport Road. Parking is included in the layout to serve East Side development.

Construction of improvements on the east side of the airfield is considered to be a long term development which will be driven by demand not predictable at this time. Significant additional analysis and justification for major development on the east side of the airfield will be required in the future.

East Side Development facilities are shown in **Figure 5-9**.

FIGURE 5-9: EAST SIDE DEVELOPMENT



Source: T-O Engineers Inc.

5.4.5 TERMINAL BUILDING

Space is reserved in the West Side development area for a future terminal building. As mentioned in Chapter 4, Lemhi County Airport does not have a terminal building. One of the 100-foot by 100-foot spaces shown on the layout for the West Side development area should be reserved for the terminal building. This area is ideally suited for a terminal building as it is adjacent to the existing FBO and will be served by a new parking lot and airport access road.

5.4.6 FIXED BASE OPERATOR (FBO)

As aviation related facilities are developed in the East Side development area, space should be reserved for a second FBO with aircraft refueling capability. Providing fuel on the East Side would eliminate inefficient trucking of fuel to this area as well as unnecessary taxiing from the east side to the west.

5.4.7 FUELING FACILITIES

Chapter 4 notes that fueling facilities are available at Lemhi County Airport. However, the existing fueling facility is in an area that restricts aircraft movement and does not efficiently use the available apron space. A relocated fueling facility with new, above ground storage tanks is shown in the South Side development area. The location shown for this facility allows for unrestricted aircraft movement and expanded aircraft parking.

5.4.8 AIRPORT PROPERTY

The current need for land acquisition at the Lemhi County Airport is minimal. As noted in Chapter 4, approximately 9.1 acres are needed in the West Side development area to provide additional space for hangars and construction of the airport access road from Highway 93. Additional land acquisition may be required if operations by more demanding aircraft reach a level to justify a runway length beyond the 360' extension described in the runway alternatives section above.

5.4.9 AUTOMOBILE ACCESS

Improved automobile access to both the West Side and East Side development areas is shown on the ALP. Access to the West Side development area will be developed from Highway 93 to serve a new parking lot adjacent to the proposed Terminal building. East Side access improvements include a new road from Airport Road to the proposed hangar development.

5.5 SUMMARY OF ALTERNATIVES

The following are recommended development alternatives for the Lemhi County Airport.

- **Airside Facilities**
  - Extend Runway 17-35 at the 35 end by 360 feet for a total runway length of 5,510 feet
  - Extend Parallel Taxiway A by 360' to match the Runway 35 extension
  - Install Connector Taxiway A-5 to connect Runway 35 with Parallel Taxiway A
  - Install Connector Taxiway B-5 to connect Runway 35 to the USFS fixed wing apron (Non AIP)
  - Install REILs and edge and threshold lighting on extended Runway 35
  - Widen Runway 17-35 from 60 feet to 75 feet
  - Construct partial Parallel Taxiway B east of Runway 17-35
  - Construct Taxilanes to access new Hangar sites

- **Landside Facilities**
  - Provide lease space for 71 small box hangars, 9 large box hangars and 20 tie-down spaces
  - Continue South Side and West Side development
  - Expand GA facilities to the East Side
  - Expand infrastructure to serve new lease space

- **Terminal Building**
  - Reserve space in West Side development for future terminal building
  - Construct Terminal Building complex including road and automobile parking

- **Fixed Base Operator (FBO)**
  - Reserve space in East Side development for a future FBO
  - Construct road and automobile parking to serve future FBO

- **Fueling Facilities**
  - Relocate fueling facility during apron reconstruction/reconfiguration

- **Airport Property**
  - Acquire approximately 9.1 acres for West Side development and airport access road

- **Automobile Access**
  - Construct West Side airport access road from Highway 93
  - Construct East Side airport access road to connect to Airport Road

5.6 ENVIRONMENTAL OVERVIEW

This section provides a brief overview on the potential environmental consequences of the identified alternatives. The project Scope of Work did not include significant work associated with determining full environmental impacts of proposed development. More detailed environmental analysis will be required before proceeding with actual construction. This should include coordination with agencies such as FAA, United States Army Corps of Engineers, U.S. Fish and Wildlife Service, state and local health agencies, State Historical Preservation Office and others as deemed necessary.

At a minimum, it is expected that a documented Environmental Checklist may be necessary prior to construction of identified projects. A more detailed Environment Assessment will likely be required for the widening and extension of the runway and may be required for other developments, such as any projects that may impact wetlands. A determination on necessary action will be completed at the appropriate time to best facilitate the proposed project(s). With the exception of runway and apron improvements, the majority of new development at the airport is expected to be demand driven and will only be considered when, and if, demand at the airport warrants.

The primary reference for this overview is an environmental review prepared by Bionomics Environmental, Inc., completed in April 2011 (included as **Appendix C**). Additionally, an Environmental Assessment was prepared in 2007 for a large project at the airport that included land acquisition, perimeter fence construction and parallel taxiway relocation. As the project included nearly the entire perimeter of the airport, the scope of this assessment was very broad and extensive.

Both of these documents and this overview address topics found in the FAA Northwest Mountain Region – Airports Division, Categorical Exclusion (CatEx) Form. These topics reflect the National Environmental Protection Act (NEPA) topics applicable to airport developments. Current FAA Northwest Mountain Region Categorical Exclusion Form Categories are listed below and addressed in the following sections.

- Controversy
- Air Quality
- Coastal Resources
- Compatible Land Use
- Construction Impacts
- Section 4(f) Impacts
- Farmlands
- Fish, Wildlife and Plants
- Floodplains
- Solid Waste Impact
- Hazardous Materials
- Historical, Architectural, Archaeological and Cultural Resources
- Light Emissions and Visual Impacts
- Natural Resources, Energy Supply and Sustainable Design
- Noise
- Secondary (Induced) Impacts
- Socio-economic Impacts, Environment Justice, and Children's Environmental, Health and Safety Risks
- Water Quality
- Wetlands
- Wild and Scenic Rivers
- Cumulative Impacts

5.6.1 AIR QUALITY

No significant impacts anticipated.

5.6.2 CONTROVERSY

It is not anticipated that projects proposed at the Lemhi County Airport will be highly controversial due to environmental concerns. Future development is not expected to change the role of the airport nor is the aircraft fleet mix expected to change. Significant additional aviation related activity is not forecast over the planning period. This plan depicts future development in the East Side Development area where no current development exists. East Side development will occur on ground not previously used for aviation/commercial purposes. This will likely trigger the need for additional environmental study. No significant new impacts to surrounding neighbors are anticipated as a result of proposed development.

5.6.3 COASTAL RESOURCES

As Idaho is inland, this category is not applicable.

5.6.4 COMPATIBLE LAND USE

This planning effort includes an element recommending a continued effort on the part of Lemhi County to ensure compatible land use zoning ordinance and associated maps which will protect both airspace and the use of land around the airport from incompatible development. Proposed projects will be consistent with the recommended zoning around the airport and may require the acquisition of land. The land to be acquired as part of improvements to Lemhi County Airport will need to be zoned accordingly. Specific recommendations to the existing land use regulations for Lemhi County and the City of Salmon are discussed in Chapter 8.

5.6.5 CONSTRUCTION IMPACTS

Construction impacts are typically short-term and include air, water, and noise pollution, along with potential impacts from increased amounts of solid and/or hazardous wastes. All construction projects will need to include best management practices into the plans and specifications. These practices will limit construction-related impacts to the environment and surrounding community. A prime example includes stormwater pollution prevention and erosion control measures for all earth-moving projects. Additionally, efforts should be made during design to recycle on-site materials into the finished project (use of milled asphalt for shoulder construction, for example).

5.6.6 SECTION 4F IMPACTS

"Section 4F" refers to Section 4(f) of the Department of Transportation Act, which prohibits or limits projects that require the use of any publicly owned land from a public park, recreation area or wildlife refuge or any historic site. Proposed land acquisition is not expected to impact existing 4F lands. No publicly owned lands for recreation, wildlife or waterfowl area are known to exist on land adjacent to airport property. However, the 2007 Environmental Assessment identified the Gray Lateral and City Ditch, irrigation structures that cross the airport as eligible for the National Register of Historic Places. The projects currently identified will not impact these features, but a cultural resource survey will likely be required before proceeding with the identified projects.

5.6.7 FARMLANDS

No impacts anticipated.

5.6.8 FISH, WILDLIFE, AND PLANTS

An information request was sent to the Idaho Department of Fish & Game (IDFG) Conservation Data Center to determine if any sightings of Idaho special status species have occurred within a five mile radius of the airport. A list of species was returned from IDFG however, no field investigations were made to determine the presence and/or absence of these species in the project area or vicinity. A biological evaluation including field investigations will be necessary for any proposed improvements at the airport.

5.6.9 FLOODPLAINS

According to Federal Emergency Management Agency Flood Insurance Rate Maps, the Lemhi County Airport is listed as "Zone C" which is considered an area of minimal flooding and is outside of the 100-year flood stage. Therefore none of the development proposed by this study will impact the floodplain.

5.6.10 SOLID WASTE IMPACT

No significant impact anticipated.

5.6.11 HAZARDOUS MATERIALS

A review of available databases was conducted to search for existing, known, and potential sources of hazardous materials within the search radius of the airport. The Idaho DEQ database lists the underground fuel storage tanks on the airport as a potential source of hazardous material. A survey of the project sites should be conducted before any construction takes place. Projects that conflict with underground storage tanks should include removal of the tanks and replacement with aboveground storage tanks meeting current regulations (e.g., apron reconfiguration and fueling relocation).

5.6.12 HISTORICAL, ARCHITECTURAL, ARCHAEOLOGICAL AND CULTURAL RESOURCES

It is not anticipated that proposed projects will impact historical, architectural, archaeological or cultural resources with the exception of the Gray Lateral of Pope Ditch and the City Ditch. A more detailed investigation and coordination with the FAA regarding potential impacts to these resources may be necessary as projects progress in the future.

5.6.13 LIGHT EMISSIONS AND VISUAL IMPACTS

No significant impacts anticipated.

5.6.14 NATURAL RESOURCES, ENERGY SUPPLY AND SUSTAINABLE DESIGN

The proposed projects may cause an increase in demand for energy and natural resources during construction, but this will be temporary in nature and would not likely cause any significant impacts. Projects should be designed to use natural resources as efficiently as possible, including re-using available construction materials to the extent practical.

5.6.15 NOISE

Aviation activity forecasts completed as part of this plan indicate that activity levels at the airport over the planning period will not exceed 90,000 annual adjusted propeller operation or 700 annual adjusted jet operations. No significant noise impacts from future airport activity and proposed development is anticipated.

Construction of a new airport access road connecting directly to Highway 93 has the potential to cause additional surface transportation noise. Therefore, a surface transportation plan should be reviewed to determine if changes in traffic noise would result from construction of the new access road.

5.6.16 SECONDARY (INDUCED) IMPACTS

Proposed development may cause shifts in patterns of public service demand and changes in business and economic growth. Public service demand may be impacted as a result of the need for utility extensions to new development areas and new or improved access roads. Patterns in business activity and economic activity may be impacted due to the potential for new business and economic development at the airport. It is not anticipated that proposed development will result in a disruption to the community, rather it will benefit the community by providing improved public services and increased economic stimulus. It is expected that all new development at the airport will be subject to and conform to the local planning review and approval process.

5.6.17 SOCIO-ECONOMIC IMPACTS, ENVIRONMENT JUSTICE, AND CHILDREN'S ENVIRONMENTAL, HEALTH AND SAFETY RISKS

Proposed development will not require the relocation of residents or businesses. West Side development may result in alteration of traffic flow caused by the new vehicle access road onto Highway 93. Previous access to the airport has been limited to one access point at Airport Road. The level of traffic volume added to Highway 93 from this new access point is expected to be very minimal.

More detailed study of these issues may be necessary as part of a future environmental study or during the course of the local planning review and approval process.

5.6.18 WATER QUALITY

Construction of new pavements and buildings at the airport will create new impervious areas and generate additional storm water runoff. This storm water must be treated before disposal, in accordance with best management practices and applicable regulations. Off-site disposal should be avoided, if possible. Additionally, construction of the identified projects has significant potential to impact water quality. A National Pollutant Discharge Elimination System general construction permit and Storm Water Pollution Prevention Plan incorporating best management practices will be required for all projects.

5.6.19 WETLANDS

Wetlands on airport property were delineated in May 2006 as part of an environmental assessment for facility improvements. This report identified two irrigation systems and a pond on the east side of Runway 17-35. The Gray Lateral crosses under Runway 17-35 twice, once near the midpoint of the runway and also under the Runway 17 end. The City Ditch also crosses under the runway near the Runway 17 end. Both are identified as being under the jurisdiction of the Army Corps of Engineers due to their connection with the nearby Salmon River. Additional pre-identified ponded wetlands are located on the east and west sides of Runway 17-35.

Approximate limits of delineated wetlands are shown for reference on the Airport Layout Plan. A field survey and new delineation should be conducted prior to work on any project that may impact these wetland areas.

5.6.20 WILD AND SCENIC RIVERS

The Federal Wild and Scenic Rivers Act restricts development within 1,000 feet of rivers identified as wild and scenic. A portion of the Salmon River has been designated wild and scenic, but the closest distance from the airport to this portion of the river is approximately four miles, therefore none of the proposed projects at the airport are impacted by this act.

5.6.21 SUMMARY

This discussion provides a brief environmental overview summarizing potential consequences of the identified alternatives. As mentioned, it is expected that more detailed environmental analysis should be expected prior to construction. Proper coordination with the FAA should be conducted to obtain a determination on the necessary environmental action(s) to that will be necessary and the appropriate time to best facilitate the proposed project(s).

6.0 DEVELOPMENT PLAN/FINANCIAL OVERVIEW

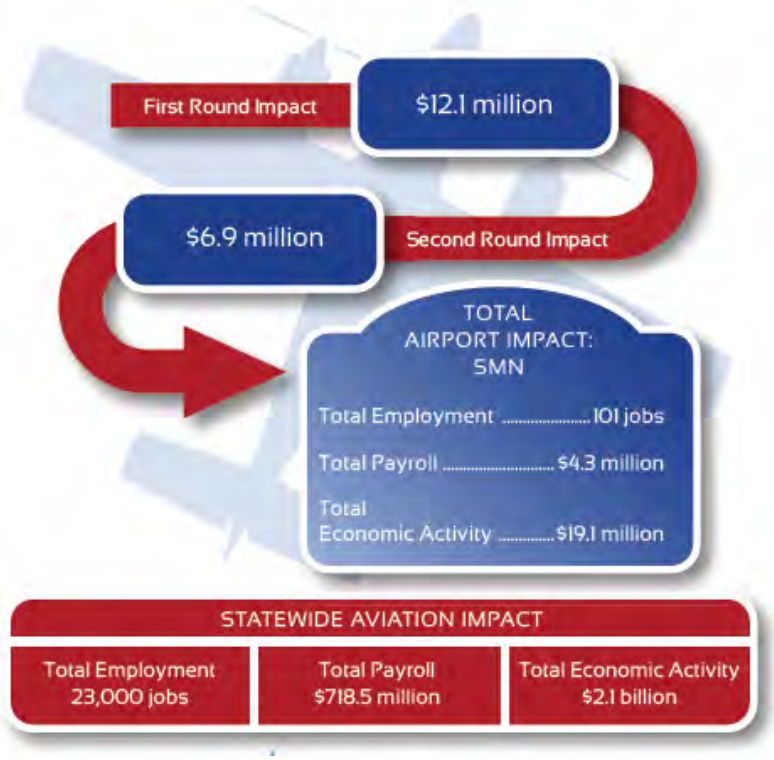
A goal of this Master Plan Update was to review the requirements and alternatives necessary for the Lemhi County Airport to meet their identified current and future demand. With this analysis complete, the financial commitment needed to implement the recommendations over the next 20 years can be estimated. This chapter outlines the Lemhi County Airport development plan (or capital improvement program), discusses the potential sources of funding for implementing the projects outlined in the development plan, presents an evaluation of the airport's current financial operating environment, and recommends enhancements to increase airport revenue.

The 2008 Economic Impact of Idaho Airports, developed under the guidance of the Idaho Transportation Department (ITD) Division of Aeronautics, evaluates the economic impact of Lemhi County Airport. The direct economic benefits related to on-airport business tenants and the indirect benefits associated with visitor related expenditures were determined for each study airport. The multiplier effect of these benefits was then calculated to determine the total airport related impact. The total economic activity is the sum of all direct (on-airport) and indirect (off-airport), and multiplier impacts. As presented in **Figure 6-1**, the overall economic impact of Lemhi County Airport is estimated at $19.1 million. The airport also directly and indirectly provides the community with 101 jobs. Additional detailed information relative to this analysis can be found in the IASP technical report available from ITD Division of Aeronautics. The individual airport summary for SMN created as output from the system plan is included in Appendix B for reference.

The report noted that Lemhi County Airport provides significant economic impact to the Salmon community, Lemhi County, and the entire region. The airport supports the operations of area light manufacturing, mining, lumber, and ranching businesses. The airport provides access to the rural mountain community as well as recreational and emergency access to remote areas in the central Idaho wilderness. Other intangible benefits of the airport and its activities such as environmental patrols, aerial firefighting activities, and Life Flight should not be overlooked as to their importance to the economy and overall well-being of the community.

When considering the financial implications of implementing this master plan and the possible increases or new fees needed to support development, it is important to discuss the inherent value of the airport to the community and the airport's economic contribution. The airport's economic value should be articulated to airport users, city decision-makers, and the general public to help understand why such fees and investment are justified and necessary.

FIGURE 6-1 IASP - ECONOMIC IMPACT OF LEMHI COUNTY AIRPORT (2008)



Source: ITD Division of Aeronautics

6.1 DEVELOPMENT PLAN AND COST ESTIMATES

A list of capital improvement projects has been assembled based on the preferred development alternatives established in Chapter 5 of this Master Plan Update. This project list has been coordinated with the Airport Layout Plan (ALP) drawing set and the development plan used to create the airport's Capital Improvements Program (CIP). The airport's CIP should be routinely updated by Airport management and submitted to the Federal Aviation Administration (FAA) and Idaho Division of Aeronautics. In addition to identifying improvement projects, this CIP also presents a reasonable order of implementation along with estimated total costs and anticipated funding sources of the projects. The plan was developed utilizing a phased approach rather than assigning projects to a specific year. Due to the fluid nature of FAA funding, the SEA-ADO cannot accurately determine where each of the projects identified in the "phases" will eventually fit into the Federal CIP. Proposed projects from this development plan are generally prioritized by project and timeframe.

When formulating the following development plan, only FAA, State and Local funding sources were considered. At this time, no private or other revenue sources have been identified to assist with any airport development. Also, all FAA cost shares are based on the current 95 percent Federal participation. 2.5 percent state participation is also assumed for eligible projects, with local funding making up the difference. Cost estimates were prepared using 2011 dollars.

It is important to note that inclusion of a project in a CIP provides no guarantee a project will be funded in that timeframe or year. Additionally all, or some component of a project, shown on the ALP may not be eligible for federal grant participation. The detailed funding plan for an individual project is typically defined during the predesign or formulation phase of the project.

Projects are organized by phases with Phase I (Short Term) in the 0-5 year timeframe; Phase II (Mid Term) in the 6-10 year timeframe; and Phase III (Long-term) in the 11-20 year timeframe. Project descriptions which relate to development based on demand are by nature general as projects will need to be planned in greater detail as specific project goals and need become more defined.

It should also be noted that the projects below are shown as individual projects however due to the remoteness of the area and the high cost of completing small projects, multiple projects should be combined into larger projects to reduce the overall cost.

6.1.1 SHORT TERM DEVELOPMENT - PHASE 1 (0-5 YEARS)

TABLE 6-1: SHORT-TERM DEVELOPMENT PROJECTS AND COST ESTIMATES- PHASE I

Project		Funding Source			Total Project Costs
ID	Description	Federal (95%)	State (2.5%)	Local	
1-1	Widen Runway 17-35 w/Signs(60' to 75')	$940,500	$24,750	$24,750	$990,000
1-2	Overlay Runway 17-35	$760,000	$20,000	$20,000	$800,000
1-3	Extend Runway 17-35 w/ Lights and REIL (360')	$285,000	$7,500	$7,500	$300,000
1-4	Extend West Side Parallel Taxiway and Construct Connector	$171,000	$4,500	$4,500	$180,000
1-5	Construct East Side Connector Taxiway			$70,000	$70,000
1-6	Reconstruct and Reconfigure Apron including Relocate Fueling	$1,135,250	$29,875	$29,875	$1,195,000
1-7	Construct Terminal Building/Pilot Lounge	$142,500	$3,750	$3,750	$150,000
	SHORT-TERM TOTAL	**$3,434,250**	**$90,375**	**$160,375**	**$3,685,000**

Source: T-O Engineers Inc.
Note: All estimates are in 2011 dollars

1-1 Widen Runway 17-35

This project will widen Runway 17-35 from 60 to 75 feet including the installation of hold signs along the taxiway connectors. The current lighting was installed with duct and cans to accommodate a future runway width of 75 feet so only minor modifications to the lighting will be required.

1-2 Overlay Runway 17-35

The current estimated PCI value for Runway 17-35 is 42, indicating the pavement is need of rehabilitation. The cost of this project was based on a 3-inch overlay. This project should be combined with the widening project due to reasons described above.

1-3 Extend Runway 17-35 w/Lights 350 feet

This project includes relocating the Runway 35 end 350 feet to the south. The estimated costs include runway lighting. This project should also be combined with the Widening and Overlay projects.

1-4 Extend West Side Parallel Taxiway and Construct Connecting Taxiway

This project includes extending the parallel taxiway to the extended end of Runway 17-35 and constructing a connecting taxiway to the new end of the runway. This project should be combined with the Runway projects.

1-5 Construct East Side Connecting Taxiway

This project involves constructing a connecting taxiway from the future end of Runway 35 to the existing US Forest Service Fixed Wing Apron on the East side of the airport. This project would not be AIP eligible but to lower costs and minimize impacts to the airport, it should be combined with a larger project such as the runway extension project. Possible funding sources are the USFS or local funds.

1-6 Reconstruct and Reconfigure Existing Apron

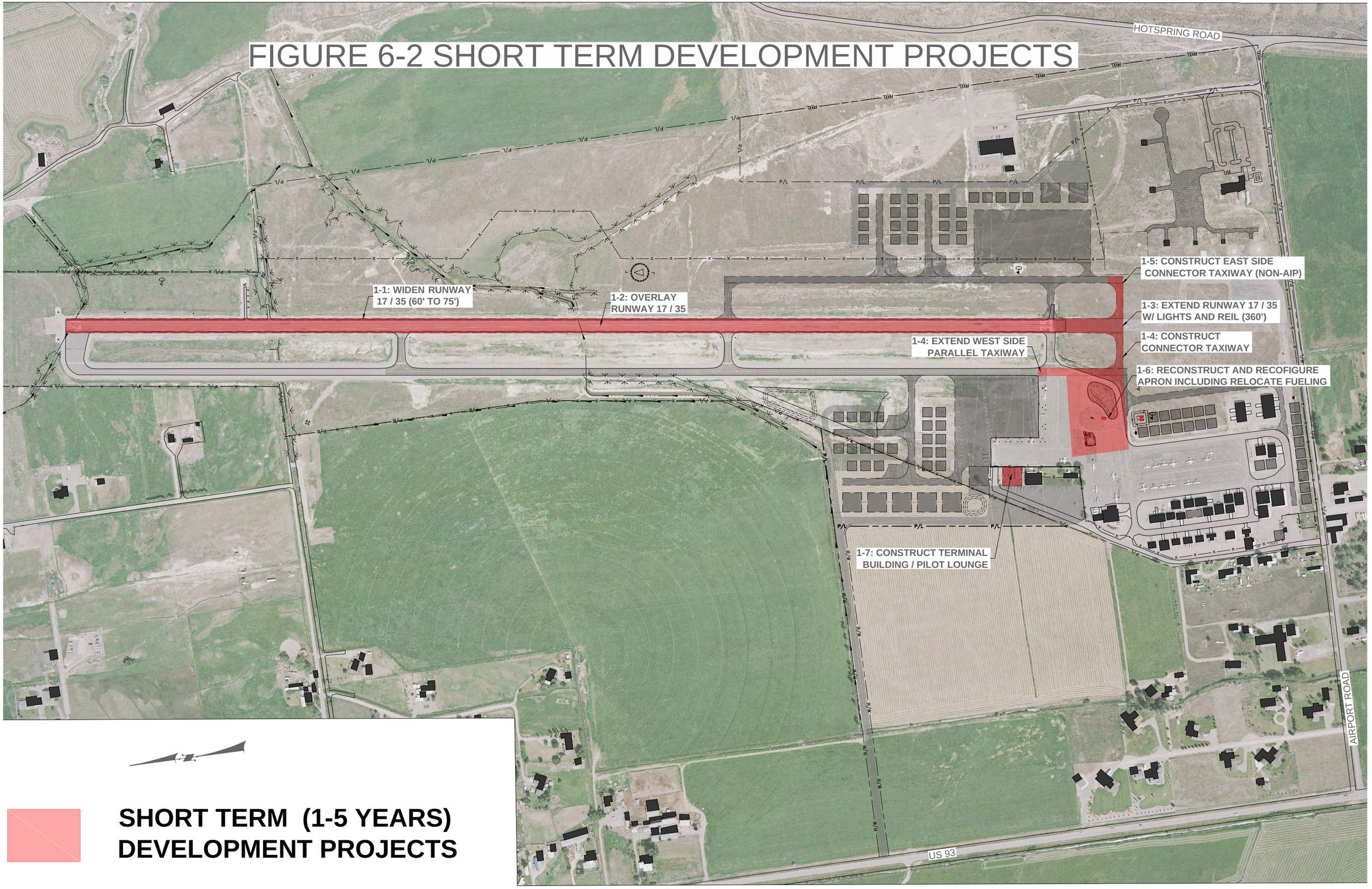
This project includes reconstructing the existing apron around the existing fuel facility and relocating the existing fuel facility and rotating beacon to the south.

1-7 Construct Terminal Building/Pilot Lounge

This project involves the construction of Terminal Building/Pilots Lounge including restrooms. This project is eligible for federal funding however it would be a low priority project and would not likely receive federal funding.

Figure 6-2 depicts Short Term Development projects in a graphical format.

FIGURE 6-2 SHORT TERM DEVELOPMENT PROJECTS



SHORT TERM (1-5 YEARS) DEVELOPMENT PROJECTS

6.1.2 MID-TERM DEVELOPMENT - PHASE 2 (5-10 YEARS)

TABLE 6-2: MID-TERM DEVELOPMENT PROJECTS AND COST ESTIMATES- PHASE II

Project		Funding Source			Total Project Costs
ID	Description	Federal (95%)	State (2.5%)	Local	
2-1	Reconstruct Transient Apron	$1,439,250	$37,875	$37,875	$1,515,000
2-2	Construct West Development Area Transient Apron	$1,277,750	$33,625	$33,625	$1,345,000
2-3	Construct South Development Area Taxilanes	$375,250	$9,875	$9,875	$395,000
2-4	Land Acquisition West Development Area (7 Ac.)	$598,500	$15,750	$15,750	$630,000
2-5	Land Acquisition West Side Access Road (2.1 Ac.)	$179,550	$4,725	$4,725	$189,000
2-6	Construct West Development Area Parking and Access Road	$418,000	$11,000	$11,000	$440,000
2-7	Construct West Side Airport Access Road	$185,250	$4,875	$4,875	$195,000
2-8	SRE Equipment and 3-Bay SRE Building	$427,500	$11,250	$11,250	$450,000
	MID-TERM TOTAL	**$4,901,050**	**$128,975**	**$128,975**	**$5,159,000**

Source: T-O Engineers Inc.
Note: All estimates are in 2011 dollars

2-1 Reconstruct Transient Apron

This project includes full depth reconstruction of both the aprons north and west of the existing fuel facility.

2-2 Construct West Side Transient Apron

This project includes the expansion of the existing transient apron to the north.

2-3 Construct South Development Area Taxilanes

This project includes the construction of taxilanes along the southern end of the airport near airport road as well as a connecting taxilane back to the parallel taxiway.

2-4 West Side Land Acquisition for Development

This project includes the acquisition of 7 acres of land for future aviation development. It is unlikely that the FAA will participate in this project if the road will be used for access to land other than the airport.

2-5 West Side Land Acquisition for Access Road

This project includes the acquisition of 2.9 acres of land for a new Airport Access road.

2-6 Construct West Side Vehicle Access Road and Parking

This project includes paving and expanding the existing parking lot near the FBO buildings as well as constructing an access road to the West Development Area.

2-7 Construct West Side Airport Access Road

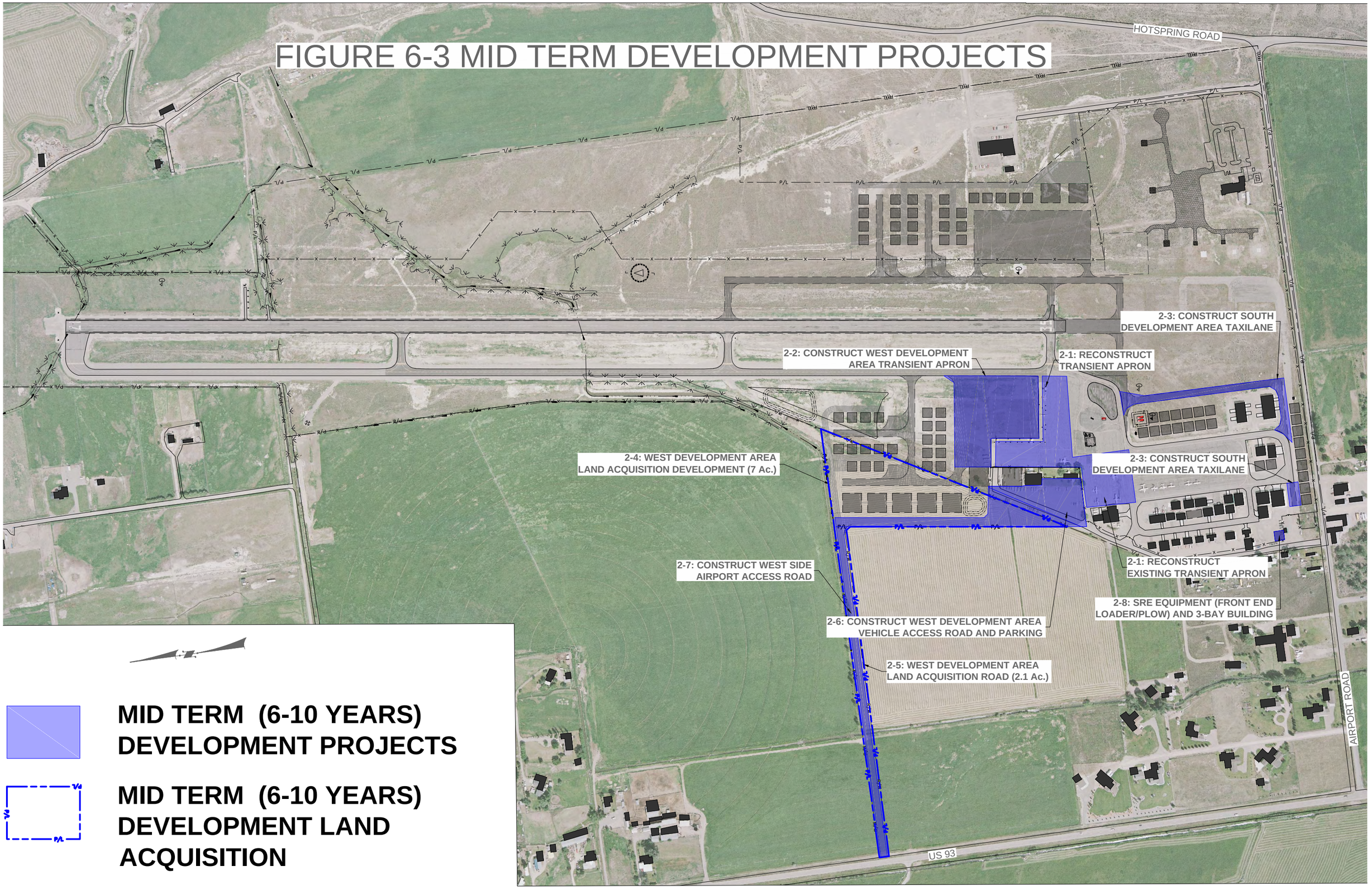
This project includes construction of an access road from Highway 93 to the FBO parking area. It is unlikely that the FAA will participate in this project if the road will be used for access to land other than the airport.

2-8 Acquire SRE Equipment and Construct SRE Building

This project includes the acquisition of a front end loader with plow, as well as construction of a building to store the equipment in.

Figure 6-3 depicts Mid Term Development projects in a graphical format.

FIGURE 6-3 MID TERM DEVELOPMENT PROJECTS



MID TERM (6-10 YEARS) DEVELOPMENT PROJECTS

MID TERM (6-10 YEARS) DEVELOPMENT LAND ACQUISITION

LONG TERM DEVELOPMENT - PHASE 3 (11-20 YEARS)

TABLE 6-3: LONG-TERM DEVELOPMENT PROJECTS AND COST ESTIMATES- PHASE III

Project ID	Project Description	Funding Source			Total Project Costs
		Federal (95%)	State (2.5%)	Local	
3-1	Construct West Development Area Taxilane and Hold Aprons	$541,500	$14,250	$14,250	$570,000
3-2	Construct West Development Area Vehicle Access Roads and Parking	$119,700	$3,150	$3,150	$126,000
3-3	Overlay West Side Parallel Taxiway	$522,500	$13,750	$13,750	$550,000
3-4	Overlay Existing South Apron and Taxilane Areas	$419,900	$11,050	$11,050	$442,000
3-5	Install West Side Parallel Taxiway Lighting (MITL)	$332,500	$8,750	$8,750	$350,000
	Subtotal	**$1,936,100**	**$50,950**	**$50,950**	**$2,038,000**
	East Side Development				
3-6	Construct East Side Partial Parallel Taxiway, (2,068')	TBD	TBD	TBD	$800,000
3-7	Construct East Development Area Transient Apron	TBD	TBD	TBD	$1,300,000
3-8	Construct East Development Area Taxilanes and Hold Aprons	TBD	TBD	TBD	$400,000
3-9	Construct East Development Area Vehicle Access Road and Parking	TBD	TBD	TBD	$300,000
	East Side Development Subtotal				**$2,800,000**
	LONG-TERM TOTAL	**$1,936,100**	**$50,950**	**$50,950**	**$4,838,000**

Source: T-O Engineers Inc.

Notes: All estimates are In 2011 dollars; TBD=To be determined based on demand and need; East side Development funding included only in total, not in funding source totals

3-1 Construct West Development Area Taxilanes and Hold Aprons

This project includes the construction of the hangar taxilanes and associated hold aprons in the West Development Area.

3-2 Construct West Development Area Vehicle Access Roads and Parking

This project includes the construction of access roads and parking for the West Development Area.

3-3 Overlay West Side Parallel Taxiway

This project includes an overlay of the entire west side parallel taxiway and connectors.

3-4 Overlay South Apron and Hangar Taxilanes

This project includes an overlay of the existing apron and taxilanes in the South Development Area.

3-5 Install West Side Parallel Taxiway Lighting (MITL)

This project includes the installation of Medium Intensity Taxiway Lighting (MITL) on the west side parallel taxiway

3-6 Construct East Side Partial Parallel Taxiway (2,086 feet)

This project includes the construction of a partial parallel taxiway (2,086 feet) on the East Side of the airport and connecting taxiways.

3-7 Construct East Development Area Transient Apron

This project includes the construction of a transient apron on the east side of the airport.

3-8 Construct East Development Area Hangar Taxilanes and Hold Aprons

This project includes the construction of two hangar taxilanes and associated hold aprons in the East Development Area.

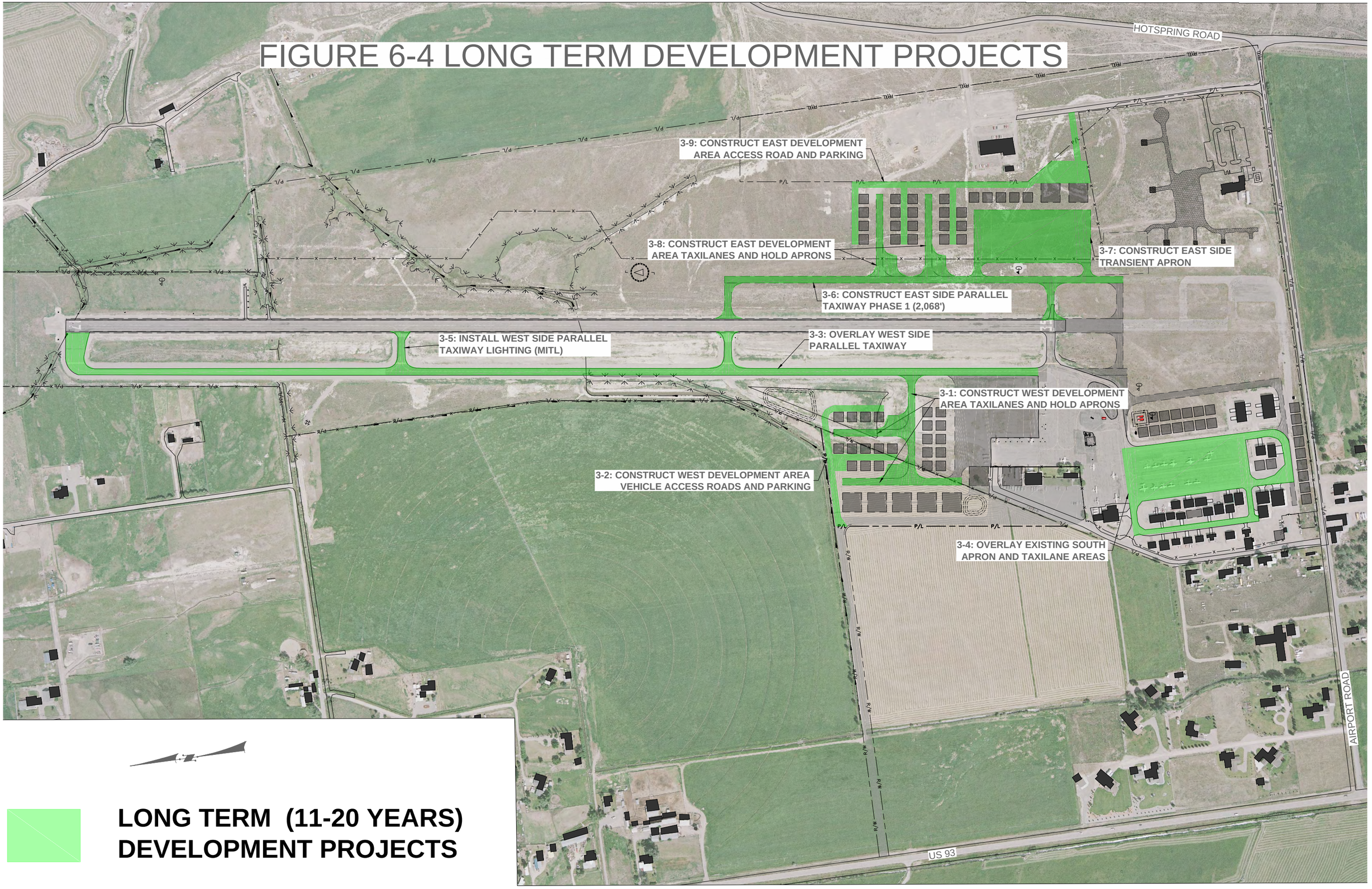
3-9 Construct East Development Area Vehicle Access Roads and Parking

This project includes the construction of access roads and parking for the East Development Area.

Figure 6-4 depicts Long Term Development projects in a graphical format.

It should be noted that development on the east side of the airport will be demand driven. It is assumed that the west side of the airport will be developed first, followed by the east side. However, it is possible that the demand will dictate development begin on the east side first. For example, if a potential light industrial user (light aircraft manufacturing or maintenance, for example) were to approach the airport, the east side is the logical location for such users and the airport's priorities may change.

FIGURE 6-4 LONG TERM DEVELOPMENT PROJECTS



LONG TERM (11-20 YEARS) DEVELOPMENT PROJECTS

COST ESTIMATE SUMMARY

Table 6-4 summarizes the total costs to implement the proposed development plan. The proposed 20 year development plan depicts the need for an average of approximately $680,000 of funding per year. It is important to reiterate that the development plan (and the Master Plan Update process in general) is a 20 year plan created using present day information and variables relevant at the time of its drafting. The funding and CIP process is very fluid in nature and changes frequently. To be successful, Lemhi County must work very closely with the FAA to schedule the projects presented in this ALP Update into the Federal CIP when appropriate and revise the plan as circumstances at the airport warrant.

TABLE 6-4: 20 YEAR DEVELOPMENT PLAN SUMMARY FOR LEMHI COUNTY AIRPORT

Phases	Cost Estimate and Funding Source			
	Federal	State	Local	Total Project Costs
Phase I (1-5 Years)	$3,434,250	$90,375	$160,375	$3,685,000
Phase II (6-10 Years)	$4,901,050	$128,975	$128,975	$5,159,000
Phase III (11-20 Years)	$1,936,100	$50,950	$50,950	$4,838,000
TOTAL 20 YEAR	**$10,271,400**	**$270,300**	**$340,300**	**$13,682,000**

Source: T-O Engineers
Note: All estimates are in 2011 dollars. Funding source estimates in Phase III do not sum to total, since the east side development costs have not been broken out.

6.2 CAPITAL IMPROVEMENT FUNDING

This section describes the funding sources available to Lemhi County to fund the proposed projects included in the development plan. As previously noted, the FAA's Airport Improvement Program (AIP) is expected to be the primary source of funding for all of the eligible projects. FAA, State of Idaho, local, and other funding sources will be described in greater detail below.

6.2.1 FAA FUNDING

The current FAA funding program, known as the Airport Improvement Program (AIP), was initially established by the Airport and Airway Improvement Act of 1982. Since 1992, the AIP program has been authorized and appropriated on a continuous basis. Funding for this program is located in a dedicated Trust Fund with revenues generated from a tax on airline tickets, freight waybills, international departure fees, a tax on general aviation fuel, and a tax on aviation jet fuel. This is a user fee-based program.

Current FAA legislation funds eligible airports and eligible projects up to a maximum of 95% of total project costs. The Lemhi County Airport is an eligible airport and has received FAA funds for previous projects. Recent project funding has been at the 95% level. The remaining 5% of capital construction costs are required to come from State and local sources. It should be noted that in prior times FAA participation has been limited to 90%.

The current AIP legislation funds the following programs: Non-Primary Entitlement (NPE) program, State Apportionment funds, and Discretionary funds. Since its inception in 2001, the NPE program has provided small General Aviation airports, on average, $150,000 a year in the

form of an entitlement for eligible projects. This program has given airports, such as SMN, the opportunity to enhance their facilities via maintenance and small capital improvement projects. The recommended development plan assumes the continuation of the NPE program throughout the planning period. In the event that the U.S. Congress changes the FAA NPE program, to the extent that this development plan is rendered ineffective, the airport sponsor should take immediate action to revise the development plan in order to satisfy the funding requirements resulting from the most current legislation in effect. Airports have the ability to carry over their NPE funds for three years so that they can be accumulated to accomplish a single larger project. This is often done in combination with State apportionment funds for large projects.

FAA State Apportionment (ST) funding is formulated for each of the 50 states. ST funding is a discretionary fund available to all eligible Non-Primary airports in Idaho. State Apportionment funding is typically reserved for large scale, high priority projects. It is anticipated that ST funding will be necessary to complete some or most of the projects included in the proposed development plan. As noted above, ST funds are often combined with NPE funds to accomplish larger projects.

FAA Discretionary (DI) funding is typically reserved for high cost, high priority projects at primary airports and large General Aviation Reliever airports. Such projects and airports compete for Discretionary funds on a national and regional basis. It is anticipated DI funding may be necessary to complete the runway extension/widening and taxiway extension projects. As noted above, DI funds are often combined with NPE funds to accomplish larger projects.

6.2.2 IDAHO TRANSPORTATION DEPARTMENT (ITD) FUNDING

State project funding is available from ITD Division of Aeronautics. It is common for local communities to utilize the funding from the Idaho Airport Aid Program (IAAP) for local match requirements of FAA AIP funded projects as well as airport improvement projects not eligible for FAA funding. IAAP funding comes from taxes applied to AvGas and Jet fuel sold in the state and is determined annually through appropriations from the State Legislature. In addition, ITD implements a pavement maintenance program to assist airports with pavement maintenance needs as warranted by the airport's specific PCI values. SMN is eligible to participate and has received such assistance in the past.

ITD also has two additional funding programs to assist Idaho airports. The first program, the Maintenance and Safety Supplies Program provides funding to airports for maintenance as safety-related supplies such as runway and taxiway lights. The second funding program, the Small Projects Program, provides grant funding for emergency or unscheduled improvements of less than $2,000.

6.2.3 LOCAL FUNDING

Local funds are those derived from income resulting from the operation of the airport itself, or contributions by the sponsoring agency (or agencies) of the airport from general or other funds. Local funds are typically used for FAA AIP grant local match requirements and to fund airport

operations; including administration, maintenance, or other projects not eligible for FAA or State funding support. FAA Grant Assurance #25 requires revenue generated by the airport be expended to improve the airport.

Idaho Airport Debt Amendment

In November 2010, Idaho voters approved a new constitutional amendment known as House Joint Resolution 5 (HJR 5). HJR 5 allows local governments that operate airports to issue revenue bonds for various public purposes so long as those revenue bonds are paid back exclusively through revenue derived from airport operations. Tax dollars will not be used to repay the revenue bonds. Based on this new amendment, local governments that operate airports like SMN are allowed to acquire land, improve facilities and develop public purpose projects without using property tax dollars or requiring a two-thirds vote of approval. Examples of these projects include terminals, runways, parking structures, storage facilities, and hangars. Due to the current limited airport revenue, it is unlikely that Lemhi County would issue such bonds in the near-term. However, it is recommended that the County monitor developments and opportunities to use this funding mechanism for future airport improvements.

6.2.4 PRIVATE FUNDING

Private funding sources are typically financial contributions to the airport or airport sponsor by an individual(s) or business entity. Typically such donors make extensive use of the airport and are contributing to the maintenance, expansion, and operation of the facility to further enhance their use of the facility. Considering the many expensive needs of airports and the limited amount of public funding available to meet these needs, the use of private funds to offset airport costs is a concept that continues to receive attention.

6.2.5 OTHER FUNDING

It is highly encouraged that Lemhi County research other potential funding sources to aid future development of the airport. Due to FAA and State eligibility limitations for certain types of development, communities and airports must look internally or to other sources of funding for utilities and infrastructure development such as hangars and terminal buildings. Additional sources of funding are available from federal and state agencies other than the FAA and ITD. However, it must be cautioned that federal funds from one source cannot be used as a match for federal funds from another source.

The airport, as an important part of planned economic growth, can sometimes be leveraged by agencies such as the Idaho Economic Development Association (EDA), farm loan boards, or the U.S. Department of Agriculture. In addition, if extensive aerial firefighting activity is taking place at an airport, supplemental funding from the U.S. Bureau of Land Management (BLM) and the U.S. Forest Service may be available to airport sponsors to support the needed facilities at the airport. A few of these programs that can be considered by Lemhi County are described in more detail in the following paragraphs.

Idaho Gem Grants

Rural communities with a population of less than 10,000 are eligible to receive Idaho Gem Grants (IGG). These grants are provided by the Idaho Department of Commerce to assist in rural economic development efforts. In recent years, Idaho Gem Grants have been used by several rural airports in Idaho for a hangar feasibility study, a business development study, and infrastructure improvements (septic and water). Lemhi County should investigate the availability of this funding source for future development that may not be funded by the FAA. In addition, these funds can be used for matching grants to economic development projects.

USDA Rural Development Grants

The U.S. Department of Agriculture (USDA) Rural Development offers grants, loans, and technical assistance for rural communities throughout the U.S. The USDA defines "Rural" as an area with a population of fewer than 50,000 and not adjacent to a city or town with 50,000 or more people. Through the Rural Business Opportunity Grant (RBOG) program, Lemhi County Airport may be able to obtain grant funding for planning projects that promote economic development, such as hangar feasibility studies or airport economic development plans. Guaranteed Community Facility Grants and Loans are also available from the USDA to improve public service facilities including airports in rural areas. This type of funding can be used for hangar development and land acquisition.

Air Service Development Funding

Lemhi County has identified the desire to improve air access for the region through the development of commercial air service at the airport. The development of Salmon, Idaho as an essential air service community has been included in the regional mobility plan developed by the ITD Division of Public Transportation's I-Way program (previously referred to as IMAP). The I-Way program was developed to coordinate and maximize the state's public transportation management resources. The state of Idaho is divided into six Local Mobility Management Networks (LMMN). Lemhi County and Salmon are included in LMMN 6A which also includes Custer County. I-way oversees the mobility planning process for the LMMNs and administers Federal Transit Authority Funding. The I-way program and the District 6 Mobility Manager could possibly assist the community with the development of air service and help find resources to fund this effort.

U.S. DOT Small Community Air Service Development Program (SCASD)

The Small Community Air Service Development Program is designed to provide financial assistance to small communities to help them enhance air service. The Department provides this assistance in the form of financial grants that are disbursed on a reimbursable basis. The FY 2010 Federal Aviation Administration Extension Act (P.L. 111-69) appropriated $6 million to the U.S. DOT to carry out the Small Community Program. The program is limited to a maximum of 40 grant awards, with a maximum of four grants per State, in each year the program is funded. There are no limits on the amounts of individual awards, and the amounts awarded will vary depending upon the features and merits of the proposals selected. Over the past nine years, the Department's individual grants have ranged from $20,000 to nearly $1.6 million.

The statute is general about the types of projects that can be authorized so that communities are provided greater flexibility in addressing their particular air service issues. Because circumstances may differ among communities, applicants have some latitude in identifying their own objectives and developing strategies for accomplishing them. One objective of the Small Community Program is to help communities secure enhancements that will be responsive to their air transportation/air fare needs on a long-term basis. There are many ways that a community might enhance its current air service or attract new service, such as: promoting awareness among residents of locally available service; attracting a new carrier through revenue guarantees or operating cost offsets; attracting new forms of service, such as on-demand air taxi service; or a market area study to identify the local demand for air service.

According to the US DOT, priorities for selection include:

a. average fares are higher than the fares for all communities;
b. a portion of the cost of the activity contemplated by the community is provided from local, non-airport revenue sources;
c. A public-private partnership has been or will be established to facilitate air carrier service to the public;
d. Improved service will bring the material benefits of scheduled air transportation to a broad section of the traveling public, including businesses, educational institutions, and other enterprises whose access to national air transportation system is limited; and
e. the assistance is used in a timely fashion.

Lemhi County is eligible to apply for a SCASD; however, due to the limited potential of success for the airport to receive such funding, this source was not included in this study.

6.3 LEMHI COUNTY AIRPORT FINANCIAL OVERVIEW

6.3.1 AIRPORT GRANT HISTORY

Receipt of airport improvement grants is an important piece of the financial puzzle at the airport. Such grants are the backbone for important capital improvement/development and maintenance projects. Lemhi County and Lemhi County Airport have an established history of receiving grants from the FAA Airport Improvement (AIP) fund and ITD Aeronautics Idaho Airport Aid Program (IAAP) for such projects. According to the FAA & ITD, since 1977, Lemhi County has received nearly $8 million from FAA AIP projects and over $100,000 from ITD for capital improvement projects. Over the same period, the County has used airport revenue to invest substantially into the airport for such things as local financial match for grants and standard operations and maintenance expenses. FAA and ITD grant histories, as provided by the FAA and ITD, are included in **Appendix D**. Continued use of such grant funds will be critical to the airport's long term viability.

6.3.2 CURRENT FISCAL POLICY

To gain a perspective of the future financial outlook of the airport, it is important to provide a brief summary of current fiscal policy.

Revenues and Expenses

Airport revenues are typically generated through user fees for airport facilities and services. Airport operating revenues are collected at SMN from AvGas and Jet A fuel sales, tie down fees, hangar rent, discount fuel cards, ground rent, and other revenues. Airport revenues are offset by airport expenses, which at SMN include fuel purchase expense, office/utility/accounting, maintenance, taxes, bank charges, insurance, and other expenses. SMN also includes the local capital costs associated with airport improvements. Certain components of airport revenue and expenses, such as fuel, fluctuate based on activity levels, while other components, such as office and administration costs, are fixed and will not change, even if activity increases.

Historic operating revenue and expenses for Lemhi County Airport over the last four calendar years are presented in **Table 6-5**. Revenues at the Airport declined 62 percent between 2007 and 2010, while operating expenses declined 65 percent. This decline in revenue and expenses coincides with the decline in aircraft activity and subsequent fuel sales. This fluctuation and decline makes it difficult to project future airport revenue. With the exception of 2009, the Airport has been self-sufficient, with operating revenue exceeding expenses. The airport's budget can and does fluctuate based on the need for grant match for FAA or state capital improvement projects.

TABLE 6-5 – LEMHI COUNTY AIRPORT OPERATING INCOME AND EXPENSES

Account Description	2007	2008	2009	2010
Income				
Fuel Sales	$605,679	$396,394	$206,193	$214,144
Hangar Rent	9,714	8,300	8,931	9,037
Tie-Down Fees	567	333	1,494	1,233
Discount Card Fees	0	300	225	200
Ground Rent	5,357	5,200	5,000	13,003
Other Income	13,520	5,007	22	777
Total Income	**$634,837**	**$415,534**	**$221,865**	**$238,394**
Expenses				
Fuel Expense	$561,924	$355,161	$194,281	$166,262
Office/Accounting/Utilities	8,045	12,127	8,652	9,096
Maintenance/Improvements	9,966	13,399	15,996	19,740
Insurance/Taxes/Charges	6,765	9,124	5,321	7,161
Airport Improvements	38,201	(6,640)	(398)	10,211
Other Expenses	1,198	5,103	2,534	2,517
Total Expenses	**$626,100**	**$388,272**	**$226,386**	**$214,987**
Net Operating Income	**$8,738**	**$27,262**	**$(4,522)**	**$23,407**

Source: Lemhi County

Fee Structure

User fees at the Lemhi County Airport have been established by the Salmon Airport Board based largely on market conditions. The existing user fees are as follows:

- Hangar Rent - $0.10 per square foot/month
- Tie Down Fee $108 per year
- Discounted Fuel Cards- $25 per year

6.4 POTENTIAL REVENUE ENHANCEMENT

It is the responsibility of an airport sponsor to ensure that the airport receives the fair market value of the products it offers, the property leases and the services it provides. In fact, FAA Grant Assurance #24 requires this. Further discussion of the Grant Assurances can be found in Chapter 9. It may be ideal for the airport to develop an Airport Business Plan. A business plan is a dynamic document created to assist an airport with current and future business decisions. A business plan provides airport-specific information, analysis, and recommendations for improved airport operation. Goals of a business plan often include:

- To operate as a financially self-supporting airport.
- To attract and retain a base of personal and business/corporate aircraft
- To promote the airport for use by transient and business/corporate aircraft operations
- To implement the airport's capital improvement plan.
- Support the region's economic development goals.

At a minimum, the airport should continually evaluate the regional market value for similar services and fees at competing airports annually. This evaluation should compare the airport's cost of providing services with the compensation it receives for providing these services with the goal of maintaining the profit margin necessary to continue to provide for these services and identifying the resources required to conduct the daily business of the airport. To this end, this section briefly explores the revenue enhancement options available to Lemhi County.

6.4.1 RATES AND CHARGES

In conducting its day-to-day business, SMN sells fuel, rents hangar space (which in turn generates personal property tax), and collects tie-down fees. Hanger rental and fuel sales are, and will continue to be, the largest revenue streams. The first step is to review the current rates and charges that the airport has established. These include tie down fees, hangar rental rates, ground lease rates, and the fuel card discounts offered.

It is strongly recommended that Lemhi County regularly monitor changing financial needs at the airport and consider adjustments to all fees on an annual basis or as airport activity and needs dictate. It is common for various state aviation agencies and other airports to conduct regular Rates and Charges studies to provide guidance on appropriate fees. It is recommended that the County utilize such resources as available to assist them in evaluating their fees.

Hangar rental rates should be adjusted annually per the Consumer Price Index. In addition to annual tie-down fees for based aircraft, Lemhi County could consider charging a daily tie-down fee for transient aircraft, with a not to exceed monthly charge.

Other fees that the airport could consider charging include:

- Fuel flowage fees
- Landing fees
- Licenses for various types of operations
- Over-night parking charges
- Other for fee services

Fuel Flowage Fees

Based on this limited review of airport financial records, while Lemhi County does make a small profit on the fuel it sells, the County does not currently charge a fuel flowage fee for the fuel sold by Salmon Air. Fuel flowage fees represent an effective and critical revenue source for many airports. One of the most immediate and beneficial sources of new revenue for the airport is the implementation of a fuel flowage fee. It is recommended that the County establish an agreement with the current FBO and fuel supplier to charge and collect such a fee as soon as possible. The revenue earned from this fee will greatly assist the airport with its maintenance and operation costs and help move toward the goal of a financially self-sustaining airport.

Landing Fees

While Lemhi County Airport currently does not have the fleet mix or overall activity to warrant or justify landing fees, if the airport is successful in attracting larger aircraft operations in the future, a graduated landing fee could be considered in the future to reflect the true cost of the size and type of aircraft using the airport. Faster and heavier turboprop and jet aircraft cause a higher cost to the airport and therefore could be charged a higher fee to utilize the airport. A sliding scale landing fee schedule could be considered in the future based on maximum certified take-off weight. The benefit of landing fees may be offset by the difficulty and cost of tracking and collecting such fees.

Operating Licenses

Lemhi County could consider charging an annual fee for certain types of businesses to operate at the airport. Airports often charge a fee for the following types of on airport businesses and activities:

- Fixed base operators
- Agriculture operations
- Aerial ambulance operations
- Firefighting operations
- Skydiving operations

Annual fees could range from $100 to $500.

Commercial Use Fees

Lemhi County Airport has the ability to provide products, property and services to several businesses. Fees associated with these businesses present a potential revenue source. Current low activity levels at the airport and the lack of many services does not warrant charging such a fee at this time. In the future, the County should examine the cost of providing services to airport businesses, the income generated by current sales and their existing profit margin as a source of revenue.

- A percentage of gross sales of services offered by FBO's, flight schools, aircraft power-plant and avionics shops, and other similar types of aviation businesses
- Rental car fees (if ever needed or made available at the airport)
- Retail sales (aeronautical charts, clothing, aviation accessories)
- Vending machines

6.4.2 EXPENSES

The airport, as part of a public entity, is eligible to purchase supplies and equipment on state and federal contracts in most cases. As discussed above, the Federal Surplus Equipment Program has many avenues for procurement of used government equipment, mostly military, ranging from computers to fire fighting vehicles and heavy equipment. The savings can be substantial, especially on big-ticket items such as airport vehicles and other large equipment.

A review of yearly maintenance costs should be performed to see if there are any tasks that can be done at lower cost by having those contracted or vice verse, current contracted work to be done by the County instead. Examples may include pavement maintenance such as crack sealing or airfield painting.

6.4.3 REVENUE ENHANCEMENT SUMMARY

In summary, it is often difficult for airports and communities like Lemhi County to generate significant airport related revenues to become self-sufficient. It is recommended that the County continue to monitor changing financial demands at the airport and consider adjustments to existing fees and new fees as airport activity and needs dictate.

6.5 SUMMARY

This chapter presents a development plan for recommended airport improvements including project descriptions and estimated costs. Some projects are needed to correct deficiencies in existing facilities ability to solve existing users i.e. runway width; while other projects are driven by anticipated demand. Revenue sources for financing of projects are also reviewed. The FAA/AIP grant program has been and will remain this primary source for funding eligible facility improvements. The applicability of this source to all desired airport improvements must be closely monitored. Some components of aircraft hangar development such as access roads, utilities and the hangars are not AIP eligible and will require a private funding source or some form of a private/public partnership to finance.

It should be a priority of Lemhi County to continue maintaining and operating the airport as self-sufficiently as possible. Doing so will serve to protect current investment and continue the airports valuable role as an economic contributor to the community and region. To do so will require monitoring of rates and charges in comparison to services provided and the aviation industry as a whole as well as seeking opportunities to enhance revenues consistent with management practices at peer airports. Suggestions are presented in the chapter for consideration.

7.0 AIRPORT LAYOUT PLAN (ALP) DRAWING SET

As discussed in the introduction portion of this narrative, this Master Plan Update for the Lemhi County Airport includes the preparation of a series of drawings depicting the existing airport and the proposed changes to the airport over the next twenty years. This drawing set is commonly referred to as the Airport Layout Plan (ALP). A description of each drawing and its contents is included below.

7.1 AIRPORT LAYOUT PLAN (ALP)

The ALP presents airport features, the wind rose, topographic date, elevations, runway details, taxiway details, aprons, RPZ details, approach details, visual approach aids, airport data table, runway data table, roads, building restriction lines (BRL) buildings, etc. The plan will also identify future development plans for the terminal area including hangars, taxilanes, access road and auto parking areas.

7.2 TERMINAL AREA PLAN

The Terminal Area plan presents airport features specific to the terminal area including hangars, taxilanes, access roads and auto parking areas.

7.3 AIRSPACE PLAN

The plan shows all areas under the imaginary surfaces as defined in FAR Part 77, “Objects Affecting Navigable Airspace” and includes 50 foot contours on sloping surfaces

7.4 INNER APPROACH PLAN

Plan and Profile of the Runway Protection Zones and Runway approach for each runway are depicted. Obstruction with the RPZ and approach will be identified and recommended action will be indicated.

7.5 AIRPORT PROPERTY MAP

The Airport Property Map is a drawing depicting current airport boundaries compiled from deed research, available mapping surveys, and field verification as required. A data table and/or notes show an inventory of all parcels by number, including grantor, grantee, type of interest, acreage, book and page, date of recording.

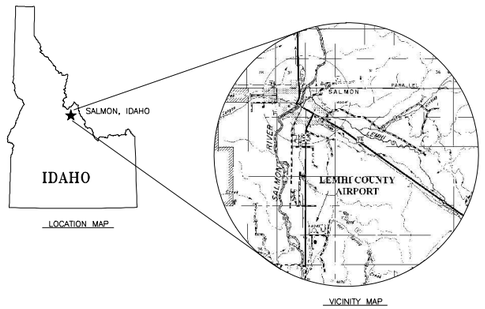
7.6 ON AND OFF AIRPORT LAND USE DRAWINGS

The Land Use Drawings depict the existing and recommended use of land located within the ultimate airport property and in the vicinity of the airport. The Off-Airport Land Use drawing classifies zoning and use types and general use categories as well as providing guidance for establishing appropriate zoning in the vicinity of the airport.

LEMHI COUNTY AIRPORT

LEMHI COUNTY, IDAHO

AIRPORT LAYOUT PLAN SET



SHEET INDEX

NUMBER	TITLE
SHEET 1	COVER SHEET
SHEET 2	AIRPORT LAYOUT PLAN
SHEET 3	AIRPORT AIRSPACE PLAN
SHEET 4	INNER APPROACH PLAN
SHEET 5	TERMINAL AREA PLAN
SHEET 6	ON AIRPORT LAND USE PLAN
SHEET 7	OFF AIRPORT LAND USE PLAN
SHEET 8	RUNWAY 35 DEPARTURE SURFACE PLAN
SHEET 9	AIRPORT PROPERTY MAP

FAA - AIP PROJECT No. 3-16-0032-012/013

JULY 2011

AIRPORT CONSULTANT

T-O ENGINEERS
9777 CHINDEN BLVD
BOISE, ID 83714

AIRPORT SPONSOR

LEMHI COUNTY, IDAHO
206 COURTHOUSE DRIVE
SALMON, ID 83467

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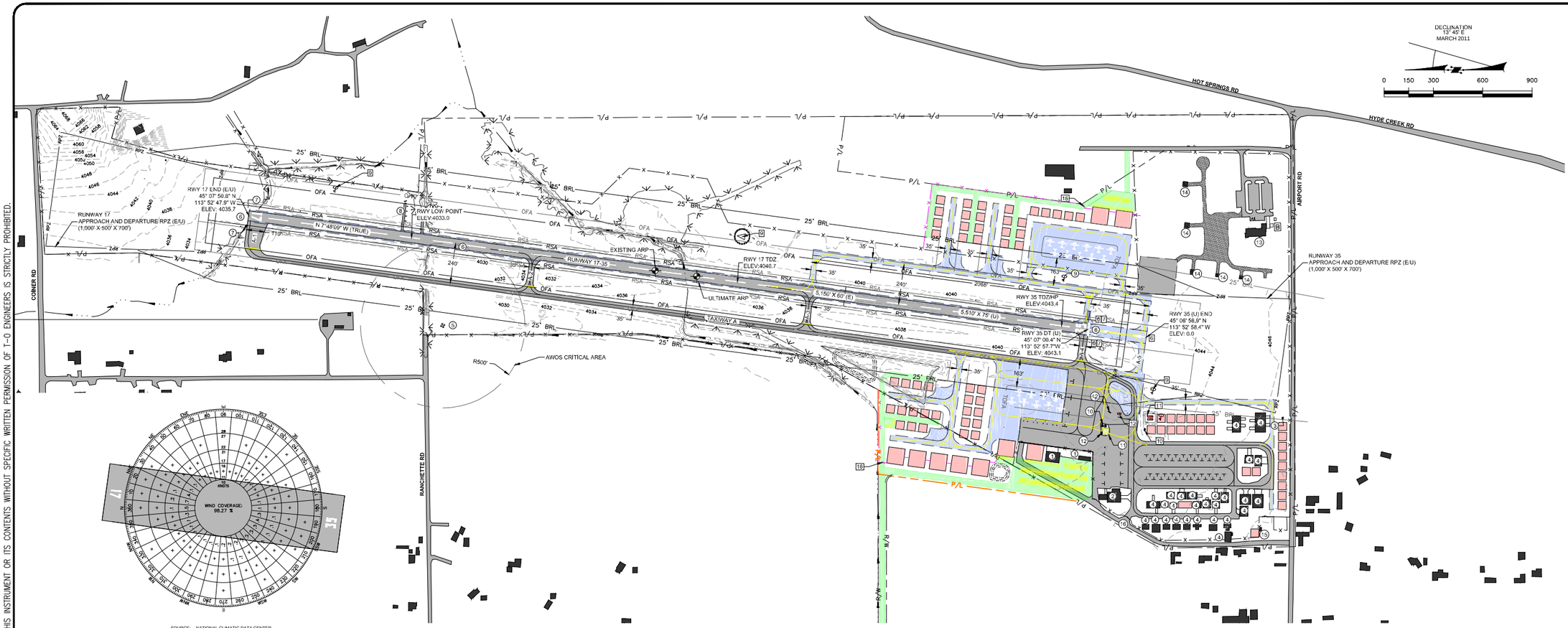
T-O ENGINEERS
CONSULTING ENGINEERS, SURVEYORS & PLANNERS
9777 CHINDEN BOULEVARD
BOISE, IDAHO 83714-2068
PHONE (208) 323-2288 FAX (208) 323-2399
OFFICES ALSO IN: COEUR D'ALENE, IDAHO

LEMHI COUNTY AIRPORT
LEMHI COUNTY, IDAHO
AIRPORT LAYOUT PLAN SET
COVER

DATE: JULY 2011
PROJECT: 09018

SHEET 1 OF 9



SOURCE: NATIONAL CLIMATIC DATA CENTER
OBSERVATIONS: JANUARY 2000 TO JANUARY 2009

WIND COVERAGE				
CONDITIONS	10.5 KNOT	13 KNOT	16 KNOT	20 KNOT
VISUAL	98.3 %	99.1 %	99.7 %	99.9 %
IFR (CEILING ≥ 1000 AND VISIBILITY ≥ 3 MILE)	98.2 %	99.0 %	99.7 %	99.9 %
IFR (CEILING ≥ 200 AND VISIBILITY ≥ 0.5 MILE)	99.6 %	99.8 %	99.9 %	100 %

AIRPORT DATA		
	EXISTING	ULTIMATE
AIRPORT ELEVATION	4043'	SAME
A R P COORDINATES (EST.)	45° 07' 26.4"N 113° 52' 52.7"W	45° 07' 23.9"N 113° 52' 30.4"W
MEAN MAXIMUM TEMPERATURE	87.3° F	SAME
AIRPORT REFERENCE CODE	B-I	B-II
DESIGN AIRCRAFT	KING AIR 200 / PC-12	SAME

BUILDING/FACILITIES		
EXISTING	FUTURE	DESCRIPTION
1		FBO
2		FBO MAINTENANCE HANGAR
3		ELECTRICAL VAULT
4		HANGAR PRIVATE
5		AWOS
6	6	THRESHOLD LIGHTS
7	7	REIL
8		PAPI
9	9	WINDCONE
10	10	ROTATING BEACON
11	11	FUEL TANKS
12	12	FUEL DISPENSER
13		FOREST SERVICE BUILDING
14		HELI-PAD
15		AIRPORT MANAGERS OFFICE
16	16	AUTOMATIC VEHICLE ACCESS GATE

LEGEND		
EXISTING	ULTIMATE	DESCRIPTION
		AIRPORT PAVEMENT
		ROADS PAVEMENT
		GRAVEL
P/L	P/L	AIRPORT PROPERTY LINE
X	X	SECURITY FENCE
		BUILDING
BRL	BRL	BUILDING RESTRICTION LINE (BRL)
RSA	RSA	RUNWAY SAFETY AREA (RSA)
OFA	OFA	RUNWAY OBJECT FREE AREA (OFA)
RPZ		RUNWAY PROTECTION ZONE (RPZ)
		IRRIGATION LATERAL
		NAVIGATIONAL AID INSTALLATION
		RUNWAY END INDICATOR LIGHT
		RUNWAY THRESHOLD LIGHTS
		LIGHTED BEACON
		AIRPORT REFERENCE POINT (ARP)
		AUTOMATED WEATHER STATION
		SECTION CORNER
4038		TOPOGRAPHIC CONTOURS
		DELINEATED WETLANDS
		SEGMENTED CIRCLE/WIND INDICATOR

NOTES
1. ?

FUTURE DECLARED DISTANCES				
RUNWAY	TORA	TODA	ASDA	LDA
17	5,150	5,150	5,500	5,500
35	5,500	5,500	5,500	5,150

NOTE: THERE ARE CURRENTLY NO DECLARED DISTANCES

RUNWAY DATA					
ITEM		RUNWAY 17-35			
		EXISTING		ULTIMATE	
		17	35	17	35
RUNWAY GRADIENT		0.14%		SAME	
WIND COVERAGE		98.3 % (SEE WIND ROSE)		99.1% (SEE WIND ROSE)	
MAXIMUM ELEVATION ABOVE MSL		4043		SAME	
LENGTH/WIDTH		5,150' X 60'		5,510' X 75'	
RUNWAY SURFACE TYPE		ASPHALT CONCRETE		SAME	
RUNWAY STRENGTH		42,000 LBS SW		SAME	
APPROACH - CATEGORY		UTILITY	UTILITY	LARGER THAN UTILITY	LARGER THAN UTILITY
	TYPE	VISUAL	VISUAL	NPI	NPI
	SLOPE	20:1	20:1	34:1	34:1
RUNWAY LIGHTING		MIRL		SAME	
RUNWAY MARKING		VISUAL	VISUAL	NPI	NPI
NAVIGATION AIDS		PAPI-4/REIL	NONE	SAME	REIL
RUNWAY SAFETY AREA					
	WIDTH	120'		150'	
	LENGTH PRIOR TO LANDING	240'		300'	
	LENGTH BEYOND RW END	240'		300'	
RUNWAY PROTECTION ZONE					
	LENGTH	1000'		SAME	
	INNER WIDTH	500'		SAME	
	OUTER WIDTH	700'		SAME	
	INTEREST	FEE	FEE	SAME	SAME

RUNWAY END DATA TABLE			
RUNWAY END		EXISTING (5,150)	ULTIMATE (5,500)
17	LATITUDE (NAD83)	45° 07' 50.8"N	SAME
	LONGITUDE (NAD83)	113° 52' 47.9"W	SAME
	TDZ ELEVATION	4040.8'	4040.8'
	END ELEVATION	4035.7'	4035.7'
35	LATITUDE (NAD83)	45° 07' 00.4"N	45° 06' 56.9"N
	LONGITUDE (NAD83)	113° 52' 57.7"W	113° 52' 58.4"W
	TDZ ELEVATION	4043.4'	4043.4'
	END ELEVATION	4043.1'	4043.1'

PAC AND SAC MONUMENTATION			
MONUMENT	LATITUDE (NAD83)	LONGITUDE (NAD83)	ELEVATION (NAVD88)
PAC	*	*	*
SAC	*	*	*

SOURCE: NGS *DOES NOT CURRENTLY EXIST

NON STANDARD CONDITIONS	PROPOSED DISPOSITION
RUNWAY 17-35 WIDTH IS 60'	WIDEN TO 75'

AIRPORT VICINITY MAP

AIRPORT LOCATION MAP

SPONSOR APPROVAL	
COMMISIONER, LEMHI COUNTY	DATE

FAA APPROVAL	
MANAGER, SEATTLE AIRPORTS DISTRICT OFFICE	APPROVAL LETTER DATED

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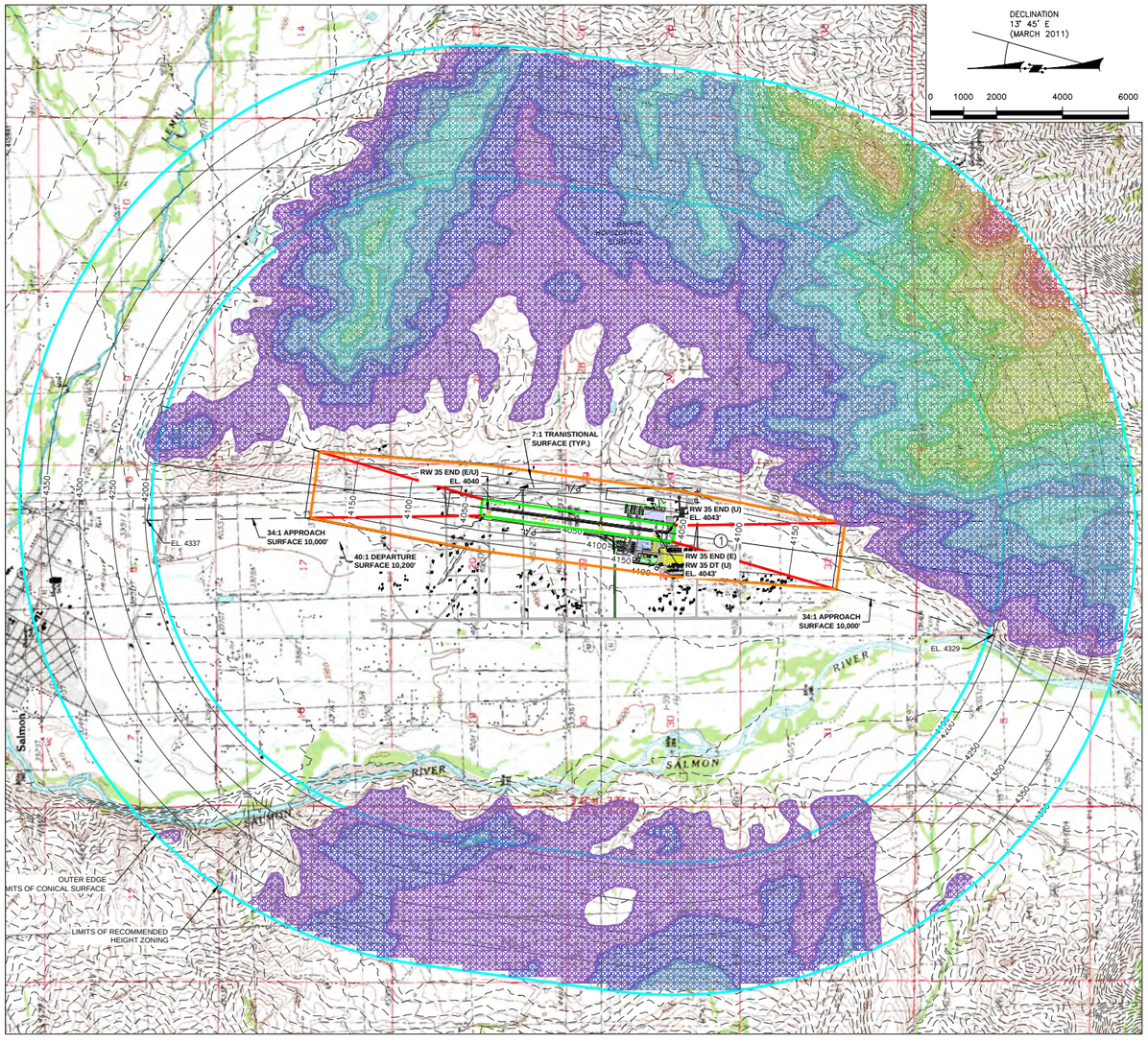
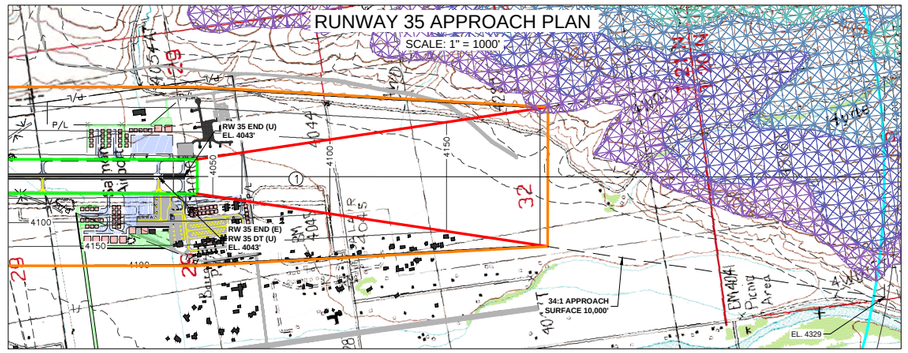
T-O ENGINEERS
CONSULTING ENGINEERS, SURVEYORS & PLANNERS
9777 CHINDEN BOULEVARD
BOISE, IDAHO 83714-2068
PHONE (208) 323-2288 FAX (208) 323-2399
OFFICES ALSO IN: COEUR D'ALENE, IDAHO

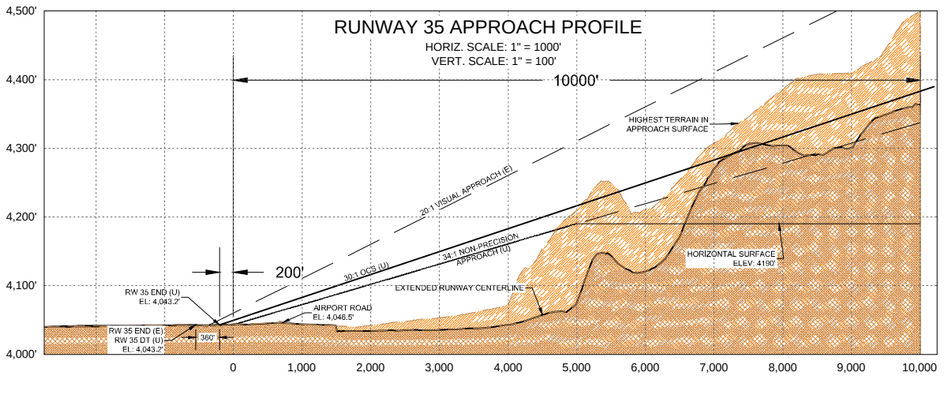
LEMHI COUNTY AIRPORT
LEMHI COUNTY, IDAHO
AIRPORT LAYOUT PLAN SET
AIRPORT LAYOUT PLAN

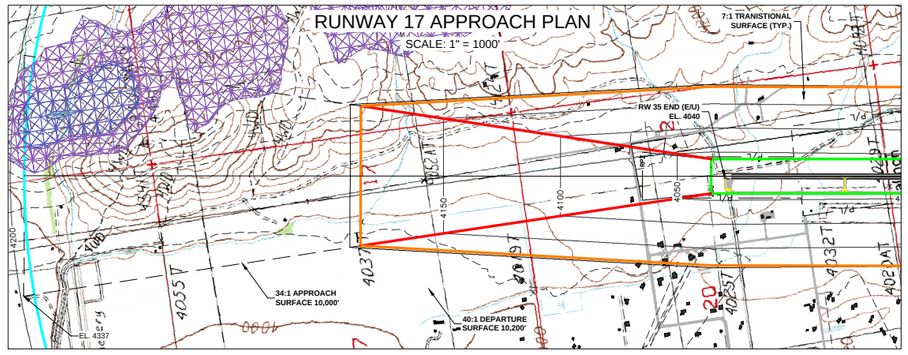
DATE: JULY 2011
PROJECT: 09018

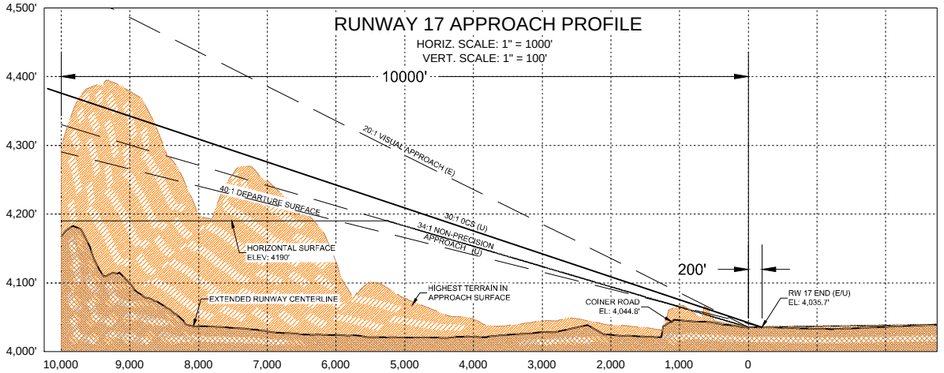
SHEET 2 OF 9











Ground Obstruction Legend		
Min. Penetration	*Max. Penetration*	*Color*
900	1033	
800	899	
700	799	
700	699	
500	599	
400	499	
300	399	
200	299	
100	199	
1	99	

PART 77 OBSTRUCTIONS					
No.	*OBJECT*	*SURFACE PENETRATED*	*TOP ELEVATION*	*PENETRATION*	*PROPOSED ACTION*
1	POWER LINE	34:1 APPROACH	4079'	-7'	NONE

NOTES

1. MISCELLANEOUS GROUND PENETRATIONS EXIST AS SHOWN. A DETAILED BREAKDOWN OF OBJECT PENETRATIONS NEAR THE AIRPORT IS SHOWN IN THE INNER APPROACH SURFACE PLAN AND PROFILE.

2. CONTOUR AND OBSTRUCTION SOURCE DATA - USGS, FAA FORM 5010, AND FAA OEAAA.

3. WHILE CURRENT APPROACH INSTRUMENTATION AND PROCEDURES LIMIT THE AIRPORT TO VISUAL FLIGHT RULES OR A CIRCLING NON PRECISION INSTRUMENT APPROACH, THIS AIRPORT LAYOUT PLAN SET HAS BEEN DEVELOPED TO PROTECT FOR POTENTIAL STRAIGHT-IN NON PRECISION INSTRUMENT APPROACH PROCEDURES FOR THE ULTIMATE AIRPORT DEVELOPMENT.

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T-O ENGINEERS
CONSULTING ENGINEERS, SURVEYORS & PLANNERS
9777 CHINDEN BOULEVARD
BOISE, IDAHO 83714-2068
PHONE (208) 323-2288 FAX: (208) 323-2399
OFFICES ALSO IN: COEUR D'ALENE, IDAHO

LEMHI COUNTY AIRPORT
LEMHI COUNTY, IDAHO
AIRPORT LAYOUT PLAN SET
AIRPORT AIRSPACE PLAN

DATE: JULY 2011
PROJECT: 0901B

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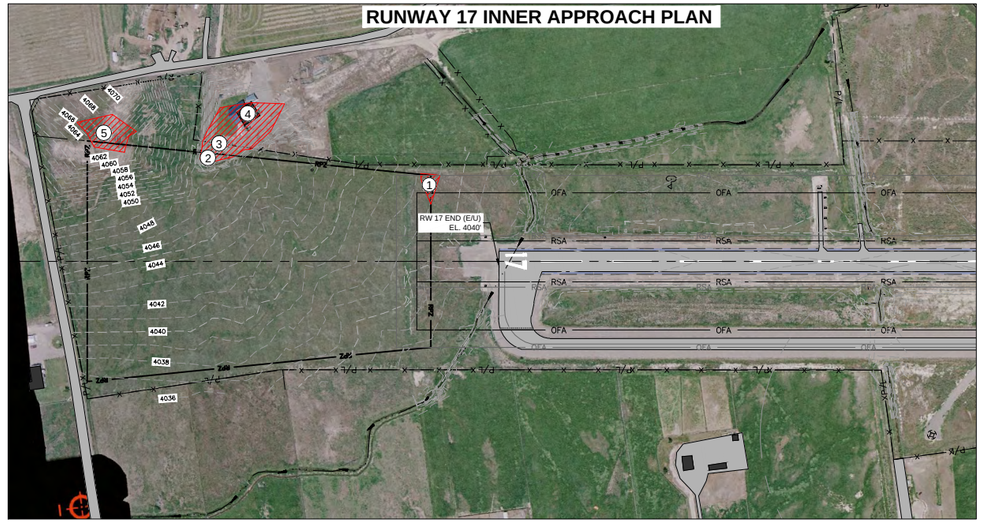
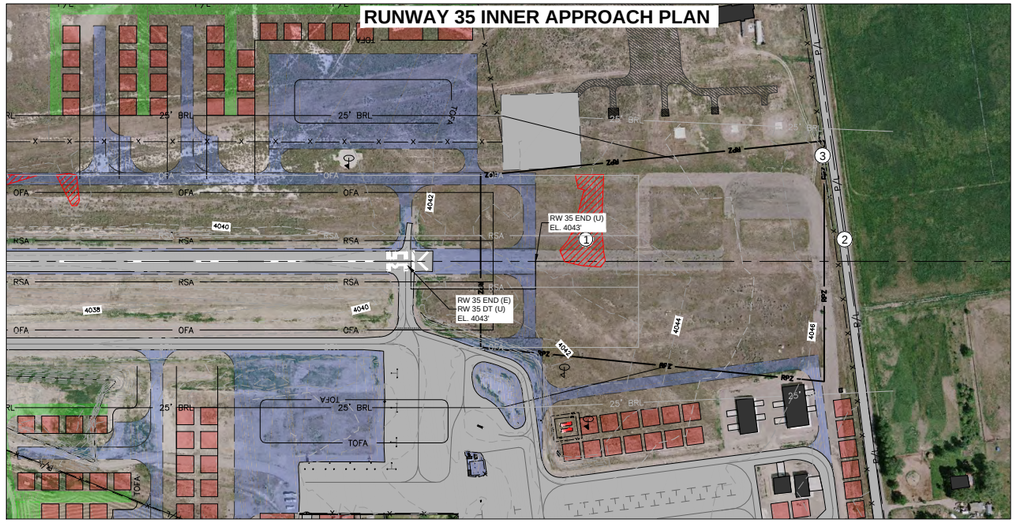
RUNWAY 17 INNER APPROACH PLAN



RUNWAY 35 INNER APPROACH PLAN

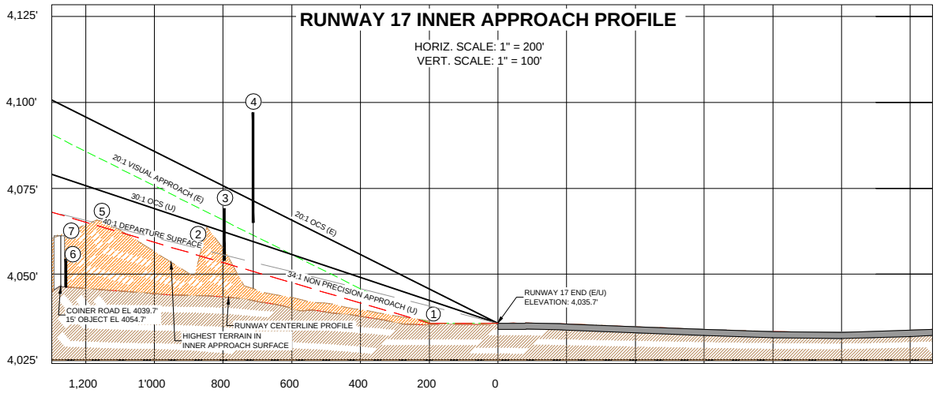


DECLINATION
13° 45' E
(MARCH 2010)

0 100 200 400 600

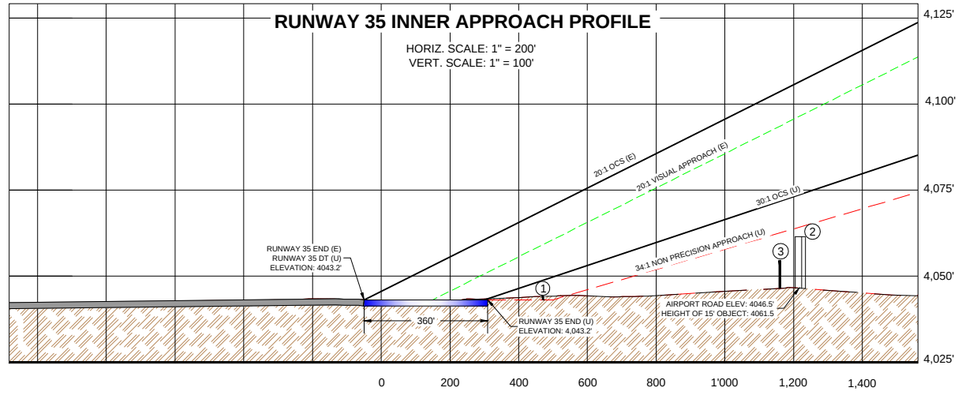
RUNWAY 17 INNER APPROACH PROFILE

HORIZ. SCALE: 1" = 200'
VERT. SCALE: 1" = 100'



RUNWAY 35 INNER APPROACH PROFILE

HORIZ. SCALE: 1" = 200'
VERT. SCALE: 1" = 100'



RUNWAY 17 INNER APPROACH OBSTRUCTIONS

No.	OBJECT	SURFACE PENETRATED	BASE HEIGHT	TOP ELEVATION	PENETRATION	PROPOSED ACTION
1	GROUND	34:1 APPROACH	4036'	4035'	1'	TRIM
2	GROUND	34:1 APPROACH/TRANSITIONAL	4060'	4060'	8'	TRIM
3	FENCE	TRANSITIONAL	4065'	4069'	15'	NONE (FENCE IS FRANGIBLE AND LIT)
4	HOUSE	TRANSITIONAL	4070'	4097'	44'	OBSTRUCTION LIGHT
5	GROUND	34:1 APPROACH/TRANSITIONAL	4067'	4067'	15'	TRIM
6	ROAD	34:1 APPROACH/TRANSITIONAL	4045'	4060'	-6'	
7	FENCE	34:1 APPROACH/TRANSITIONAL	4046'	4054'	-13'	

LEGEND

EXISTING	FUTURE	DESCRIPTION
		AIRPORT PAVEMENT
		AIRPORT ROADS AND PARKING
		GRAVEL
P/L	P/L	AIRPORT PROPERTY LINE
	R/W	AIRPORT RIGHT OF WAY
X	X	SECURITY FENCE
		BUILDING
BRL	BRL	BUILDING RESTRICTION LINE (BRL)
RSA	RSA	RUNWAY SAFETY AREA (RSA)
OFA	OFA	RUNWAY OBJECT FREE AREA (OFA)
RPZ		RUNWAY PROTECTION ZONE (RPZ)
		IRRIGATION LATERAL

RUNWAY 35 INNER APPROACH OBSTRUCTIONS

No.	OBJECT	SURFACE PENETRATED	BASE HEIGHT	TOP ELEVATION	PENETRATION	PROPOSED ACTION
1	GROUND	ULTIMATE 34:1 APPROACH	4044'	4044'	1'	TRIM
2	ROAD	ULTIMATE 34:1 APPROACH	4049'	4064'	-2.5'	NONE
3	FENCE	ULTIMATE 34:1 APPROACH	4046'	4054'	-8'	NONE

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T-O ENGINEERS
CONSULTING ENGINEERS, SURVEYORS & PLANNERS
9777 CHINDEN BOULEVARD
BOISE, IDAHO 83714-2068
PHONE (208) 323-2288 FAX: (208) 323-2399
OFFICES ALSO IN: COEUR D'ALENE, IDAHO

LEMHI COUNTY AIRPORT
LEMHI COUNTY, IDAHO
AIRPORT LAYOUT PLAN SET
INNER PORTION OF THE APPROACH SURFACE

DATE: JULY 2011
PROJECT: 09018

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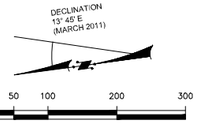

EXISTING BUILDINGS

NUMBER		OWNER	ELEVATION	OBSTRUCTION
1	FBO HANGAR	McCALL AVIATION	4066	NO
2	FBO OFFICE	SALMON AIR	4057	NO
3	FBO HANGAR	SALMON AIR	4068	NO
4	HANGAR PRIVATE	WOLTERS-SCHROEDER	4058	NO
5	HANGAR PRIVATE	GRANT HAVEMANN	4060	NO
6	HANGAR PRIVATE	NANCY BILLS	4059	NO
7	HANGAR PRIVATE	HOLT QUINN	4060	NO
8	HANGAR PRIVATE	NELSON, JUZA, BERNT, HURLEY	4060	NO
9	HANGAR PRIVATE	ASHER-MURRELL	4064	NO
10	HANGAR PRIVATE	LENNY SKUNKBERG	4063	NO
11	HANGAR PRIVATE	LENNY SKUNKBERG	4060	NO
12	HANGAR PRIVATE	FLYING RESORT RANCHES	4064	NO
13	HANGAR PRIVATE	LENNY SKUNKBERG	4063	NO
14	HANGAR PRIVATE	CLARENCE SEHER	4065	NO
15	HANGAR PRIVATE	LENNY SKUNKBERG	4065	NO
16	HANGAR PRIVATE	GEORGE LUSHER	4063	NO
17	HANGAR PRIVATE	WOLTERS - SCHROEDER	4065	NO
18	HANGAR PRIVATE	JON BILLS	4066	NO
19	HANGAR PRIVATE	TED ISSACSON	4080	NO
20	HANGAR PRIVATE	KAREN GALLOGLY	4068	NO
21	HANGAR PRIVATE	ARCHIE BISHOP	4066	NO
22	HANGAR PRIVATE	LENNY'S AIRMOTIVE INC.	4066	NO
23	HANGAR PRIVATE	TED O'MALLEY AVIATION LLC	4066	NO
24	HANGAR PRIVATE	KEN LINN	4066	NO
25	HANGAR PRIVATE	NEP LYNCH	4072	NO
26	HANGAR PRIVATE	QB CORPORATION	4072	NO
27	HANGAR PRIVATE	DAVE SHALLOW	4072	NO
28	HANGAR PRIVATE	RONALD McLAUGHLIN	4067	NO
29	HANGAR PRIVATE	JAMES ROBERT INFANGER	4062	NO
30	HANGAR PRIVATE	JAMES ROBERT INFANGER	4062	NO
31	AIRFIELD ELECTRICAL VAULT	LEMHI COUNTY AIRPORT	4057	NO
32	AIRPORT OFFICE/STORGAGE	LEMHI COUNTY AIRPORT	4061	NO
33	HELIBASE	USAF	4064	NO
34	RAPPEL TOWER	USAF	4082	NO
35	EQUIPMENT SHED	FUEL TANKS	4050	NO

BUILDING/FACILITIES

EXISTING	FUTURE	DESCRIPTION
1		HELIPAD
2		WIND CONE
3	3	FUELING FACILITY
4	4	FUEL TANKS
5	5	ROTATING BEACON
6	6	AUTOMATIC VEHICLE ACCESS GATE
7	7	MANUAL VEHICLE ACCESS GATE
	8	BOX HANGAR 50' X 50'
	9	BOX HANGAR 100' X 100'
	10	BOX HANGAR 40' X 80'

LEGEND

EXISTING	FUTURE	DESCRIPTION
		AIRPORT PAVEMENT
		AIRPORT ROADS AND PARKING
		GRAVEL
P/L	P/L	AIRPORT PROPERTY LINE
	R/W	AIRPORT RIGHT OF WAY
X	X	SECURITY FENCE
		BUILDING
BRL	BRL	BUILDING RESTRICTION LINE (BRL)
RSA	RSA	RUNWAY SAFETY AREA (RSA)
OFA	OFA	RUNWAY OBJECT FREE AREA (OFA)
RPZ	RPZ	RUNWAY PROTECTION ZONE (RPZ)
		IRRIGATION LATERAL

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		MSD		

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9777 CHINDEN BOULEVARD
BOISE, IDAHO 83714-2068
PHONE (208) 323-2288 FAX (208) 323-2399
OFFICES ALSO IN: COEUR D'ALENE, IDAHO

LEMHI COUNTY AIRPORT
LEMHI COUNTY, IDAHO
AIRPORT LAYOUT PLAN SET
TERMINAL AREA PLAN

DATE: JULY 2011
PROJECT: 09018

SHEET 5 OF 9

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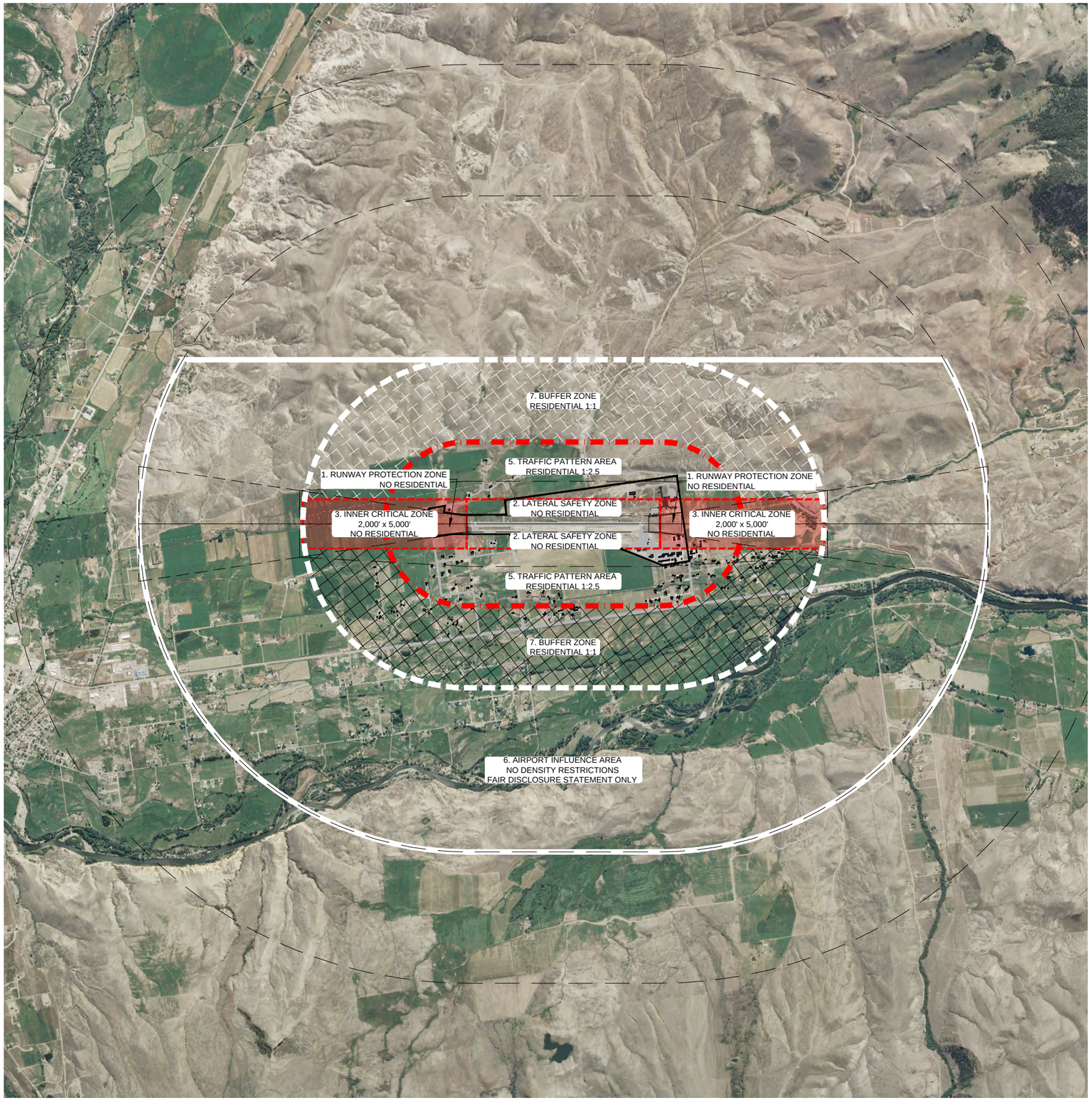
LEMHI COUNTY AIRPORT
LEMHI COUNTY, IDAHO
AIRPORT LAYOUT PLAN SET
ON AIRPORT LAND USE PLAN

DATE: JULY 2011
PROJECT: 09018

SHEET 6 OF 9



LEGEND

- AIRPORT INFLUENCE AREA
- CRITICAL ZONES
- TRAFFIC PATTERN AREA
- BUFFER ZONE
- AIRPORT PROPERTY LINE

0 750 1500 3000 4500

NOTES:

1. AIRPORT COMPATIBLE LAND USE ZONES HAVE BEEN ESTABLISHED FOR THE PURPOSE OF REGULATING THE DEVELOPMENT OF NOISE SENSITIVE LAND USES TO PROMOTE COMPATIBILITY BETWEEN THE AIPORT AND THE SURROUNDING LAND USES, TO
2. PROTECT THE AIRPORT FROM INCOMPATIBLE DEVELIOPMENT AND TO PROMOTE THE HEALTH, SAFETY AND GENERAL WELFARE OF PROPERTY USERS.
3. EXCEPT AS OTHERWISE PROVIDED IN THE ORDINANCE, NOTHING SHALL BE ERECTED, ALTERED, MAINTAINED, OR ALLOWED TO GROW IN ANY AIRPORT ZONE CREATED BY THE ORDINANCE TO A HEIGHT GREATER THAN THE HEIGHT LIMIT ESTABLISHED FOR SUCH ZONE.

ATTACHMENT A
LAND USE COMPATIBILITY TABLE

Land Use *	1 Runway Protection Zone	2 Lateral Safety Zone	3 Inner Critical Zone	4** Outer Critical Zone	5 Traffic Pattern Area	6 Airport Influence Area	7 Buffer Transition Zone
Residential							
Single-family, nursing homes, multi-family, apartments, condominiums, mobile home parks	X	X	X	C (1,2,6)	C (1,3,6)	C (1,6)	C (1,4)
Transient lodging (i.e. hotels and motels)	X	X	X	C (1,6)	C (1,6)	C (1,6)	C (1)
Services							
Schools, libraries, churches	X	X	X	X	C (1,6)	C (1,6)	C (1,6)
Parking and cemeteries	X	P	P	P	P	P	P
Manufacturing, Transportation, Trade & Extraction							
Offices, retail trades, light industrial, general manufacturing, utilities, extractive industry	X	C (1)	C (1,5)	C (1,6)	C (1)	C (1)	C (1)
Airport revenue-producing enterprises	X	C (1)	C (1,5)	C (1,6)	C (1)	C (1)	C (1)
Agricultural, Cultural, Entertainment and Recreation							
Cropland	P	P	P	P	P	P	P
Livestock breeding, zoos, golf courses, riding stables, water recreation	X	X	C (6,7)	C (6,7)	C (7)	P	C (7)
Outdoor spectator sports, parks, playgrounds	X	X	X	C (1,6)	C (1,6)	C (1,6)	C (1,6)
Amphitheaters	X	X	X	X	C (1,6)	C (1,6)	C (1,6)
Open space	P	P	P	P	P	P	P
Bird and Wildlife Attractants							
Sanitary Landfills	X	X	X	X	X	C (7)	X
Water treatment plants, water impoundments	X	X	X	X	X	C (7)	X
Wetlands Mitigation	X	C (7)	C (7)	C (7)	C (7)	C (7)	C (7)

Land Use Compatibility Criteria
X - Not Allowed, P - Permitted, C – Conditional
*Land use activities represented herein compare with Appendix L of the Lemhi County Development Code, page 129. For further clarification of land use activities, please refer to Appendix L of the Development Code.
**OUTER CRITICAL NOT APPLICABLE TO LEMHI COUNTY AIRPORT

CONDITIONS
All facilities should be configured to comply with FAR Part 77 requirements.

1. If allowed, Fair Disclosure Statement must be required as a condition of development.
2. Limit residential density to 1 unit per 5 acres.
3. Limit residential density to a maximum of 1 unit per 2.5 acres. It is recommended that the County utilize cluster development or other similar land use planning mechanisms where reasonable and necessary in the Traffic Pattern Area to ensure minimum residential density while providing for maximum safety of aircraft operators and surrounding residents as well as reduced impacts on the quality of life of residents. Refer to the Lemhi County Development Code, as amended.
4. Limit residential density to 1 unit per 1 acre.
5. Avoid High Intensity commercial uses such as large retail box stores (i.e. Walmart, Home Depot). Use should be located as far from extended centerline as possible.
6. If no reasonable alternative exists, use should be located as far from extended centerline as possible.
7. Such uses may present a bird and wildlife attractant. If allowed, consideration of the proximity of the airport and potential negative impacts should be considered. Refer to FAA Advisory Circulars (AC) 150/5200-33B and 150/5200-34A, as amended, for guidance.

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PHONE (208) 323-2288 FAX (208) 323-2399
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LEMHI COUNTY AIRPORT
LEMHI COUNTY, IDAHO
AIRPORT LAYOUT PLAN SET
OFF AIRPORT LAND USE

DATE: JULY 2011
PROJECT: 09018

SHEET 7 OF 9

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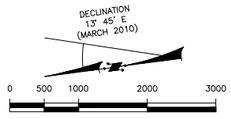
RUNWAY 35 DEPARTURE SURFACE PLAN

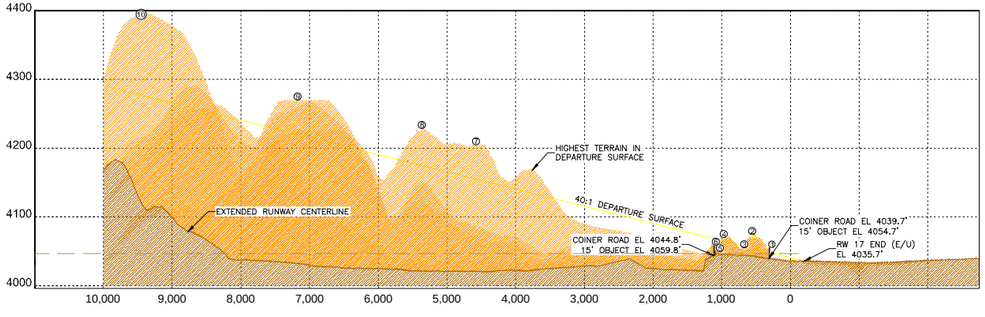


Departure Surface Penetration Legend		
Min. Penetration	*Max. Penetration*	*Color*
0.00	49.00	
50.00	99.00	
100.00	124.00	

LEGEND		
EXISTING	FUTURE	DESCRIPTION
		AIRPORT PAVEMENT
		GRAVEL
P/L	P/L	AIRPORT PROPERTY LINE
	R/W	AIRPORT RIGHT OF WAY
X	X	SECURITY FENCE
		BUILDING
BRL	BRL	BUILDING RESTRICTION LINE (BRL)
RSA	RSA	RUNWAY SAFETY AREA (RSA)
OFA	OFA	RUNWAY OBJECT FREE AREA (OFA)
RPZ		RUNWAY PROTECTION ZONE (RPZ)

RUNWAY 35 DEPARTURE SURFACE PROFILE

HORIZ. SCALE: 1" = 1000'
VERT. SCALE: 1" = 100'



RUNWAY 17 DEPARTURE SURFACE OBSTRUCTIONS						
No.	*OBJECT*	*SURFACE PENETRATED*	*BASE HEIGHT*	*TOP ELEVATION*	*PENETRATION*	*PROPOSED ACTION*
1	ROAD	40:1 DEPARTURE	4040'	4055'	6'	
2	HOUSE	40:1 DEPARTURE	4070'	4097'	43'	OBSTRUCTION LIGHT
3	GROUND	40:1 DEPARTURE	4060'	4060'	3'	TRIM
4	GROUND	40:1 DEPARTURE	4067'	4067'	3'	TRIM
5	FENCE	40:1 DEPARTURE	4046'	4054'	-17'	NONE (FENCE IS FRANGIBLE AND LIT)
6	ROAD	40:1 DEPARTURE	4045'	4060'	-10'	
7	GROUND	40:1 DEPARTURE	4205'	4205'	50'	
8	GROUND	40:1 DEPARTURE	4230'	4230'	55'	
9	GROUND	40:1 DEPARTURE	4270'	4270'	50'	
10	GROUND	40:1 DEPARTURE	4401'	4401'	124'	

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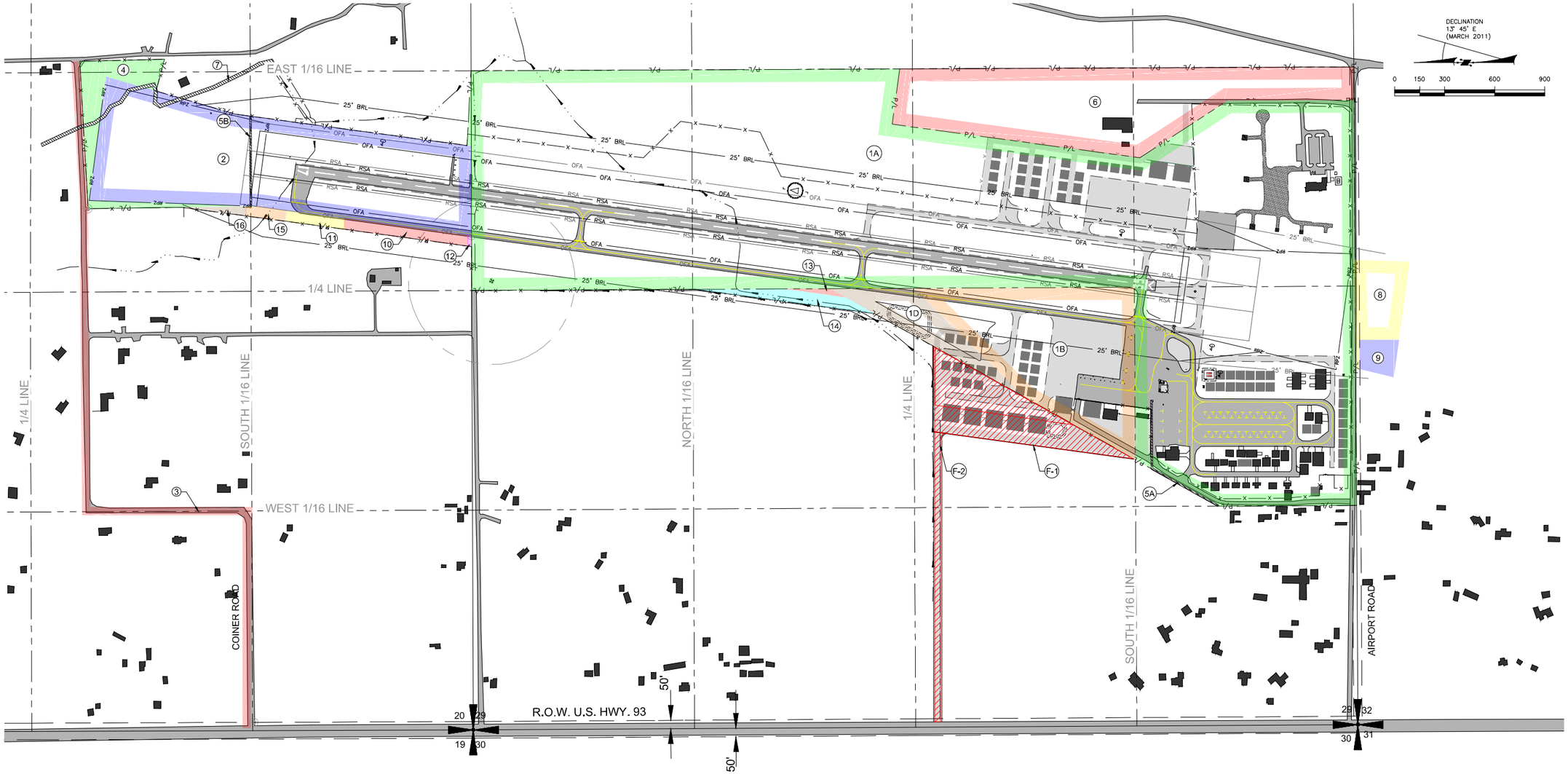
LEMHI COUNTY, IDAHO
AIRPORT LAYOUT PLAN SET
RUNWAY 35 DEPARTURE SURFACE PLAN

DATE: JULY 2011
PROJECT: 09018



AIRPORT PROPERTY OWNERSHIP INFORMATION

PARCEL	GRANTOR	GRANTEE	REC. DATE	INFO.	INTEREST	AC	FAA PROJECT NO.	PURPOSE
1A	F.W. HANMER HELEN HANMER	LEMHI COUNTY	AUG. 8, 1947	INST. # 66687 BOOK 40, PAGE 369	2/3 INTEREST FEE SIMPLE	2/3 OF 200.09		
1A	CITY OF SALMON	LEMHI COUNTY	JULY 12, 1976	INST. # 133387	1/3 INTEREST FEE SIMPLE	1/3 OF 200.09		
1B	CITY OF SALMON	LEMHI COUNTY	DEC. 12, 1979	INST. # 160839	FEE SIMPLE	20.02		
1D	J.R. HAMILTON MILDRED HAMILTON	LEMHI COUNTY	JULY 16, 1979	INST. # 149376	FEE SIMPLE	3.78 SUB TOT.-220.12		
2	CHATHAM IDAHO CORPORATION	LEMHI COUNTY	DEC. 14, 1983	INST. # 170230	FEE SIMPLE	30.40	3-16-0032-01-0182	
3	CHATHAM IDAHO CORPORATION	LEMHI COUNTY	DEC. 14, 1983	INST. # 170230	FEE SIMPLE	5.96	3-16-0032-01-0182	
4	CHATHAM IDAHO CORPORATION	LEMHI COUNTY	DEC. 14, 1983	INST. # 170230	FEE SIMPLE	2.81 TOTAL-259.29		
10	HIBBERT	LEMHI COUNTY	JAN. 27, 2000	INST. # 243284	FEE SIMPLE	1.14	3-16-0032-06	
11	HEFFNER AND HATHHORN	LEMHI COUNTY	JAN. 27, 2000	INST. # 243283	FEE SIMPLE	0.54	3-16-0032-06	
12	LEMHI COUNTY	LEMHI COUNTY				0.04		
13	HOFFMAN	LEMHI COUNTY	FEB. 4, 2000	INST. # 243425	FEE SIMPLE	0.17	3-16-0032-06	
14	HOFFMAN	LEMHI COUNTY	APRIL 29, 2008	INST. # 275980	FEE SIMPLE	1.24	3-16-0032-10	
15	LINGER	LEMHI COUNTY	APRIL 29, 2008	INST. # 275981	FEE SIMPLE	0.36	3-16-0032-10	
16	GARRETT	LEMHI COUNTY	APRIL 29, 2008	INST. # 275981	FEE SIMPLE	0.24	3-16-0032-10	

FUTURE AIRPORT PROPERTY ACQUISITION INFORMATION

PARCEL	GRANTOR	GRANTEE	REC. DATE	INFO.	INTEREST	AC	REMARKS
F-1	HOFFMAN	LEMHI COUNTY	N/A		FEE	7	
F-2	HOFFMAN	LEMHI COUNTY	N/A		FEE	1.4	

AIRPORT PROPERTY EASEMENT INFORMATION

PARCEL	GRANTOR	GRANTEE	REC. DATE	INFO.	INTEREST	AC	REMARKS
5A	LEMHI COUNTY	IDAHO POWER	OCT. 18, 1989	INST. # 173825	ENCUMBERING EASEMENT	0.15	10' WIDE UTILITY EASEMENT
5B	HUGH M. COINER LEILA L. COINER	IDAHO POWER	JUNE 13, 1963	INST. # 98934	ENCUMBERING EASEMENT	0.12	10' WIDE UNDERGROUND POWER LINE EASEMENT
6	CITY OF SALMON	LEMHI COUNTY	AUG. 20, 1992	INST. # 215378	RESERVATION EASEMENT FOR INDUSTRIAL PARK	22.65	
7	CHATHAM IDAHO CORPORATION	LEMHI COUNTY	OCT. 11, 1984	BOOK 6, PAGE 1-2	ENCUMBERING EASEMENT		20' WIDE DITCH EASEMENT
8	MICHAEL J. TYACKE	LEMHI COUNTY	MAY 13, 1998	INST. # 23622	AUGMENTING EASEMENT	3.30	3-16-0032-05
9	JERROLD M. GREGSON	LEMHI COUNTY	MAY 13, 1998	INST. # 236621	AUGMENTING EASEMENT	1.03	3-16-0032-05

LEGEND		
EXISTING	FUTURE	DESCRIPTION
		AIRPORT PAVEMENT
		AIRPORT ROADS AND PARKING
		GRAVEL
P/L	P/L	AIRPORT PROPERTY LINE
	R/W	AIRPORT RIGHT OF WAY
X	X	SECURITY FENCE
		BUILDING
BRL	BRL	BUILDING RESTRICTION LINE (BRL)
RSA	RSA	RUNWAY SAFETY AREA (RSA)
OFA	OFA	RUNWAY OBJECT FREE AREA (OFA)
RPZ		RUNWAY PROTECTION ZONE (RPZ)
		IRRIGATION LATERAL
		SECTION CORNER CONTROL
		1/16 LINES
		EASEMENT LINE

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PHONE (208) 323-2288 FAX: (208) 323-2399
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LEMHI COUNTY AIRPORT
LEMHI COUNTY, IDAHO
AIRPORT LAYOUT PLAN SET
AIRPORT PROPERTY MAP

DATE: JULY 2011
PROJECT: 09018

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8.0 LAND USE POLICY REVIEW AND RECOMMENDATIONS

This chapter reviews land use policy in the vicinity of the Lemhi County Airport, generally describing existing land use policies and recommending actions that will protect the airport as well as the community from future incompatible development. The following pages contain the background, logic, and justification underpinning the necessity of each action.

8.1 THE IMPORTANCE OF LAND USE PLANNING AROUND AIRPORTS

Perhaps one of the greatest threats to the viability of airports today is the encroachment of incompatible land use. The encroachment of incompatible land uses around airports can diminish the quality of life of surrounding residents as a result of byproducts that sometimes originate from an airport and its operations, including noise, dust, and fumes. Such encroachment can also result in adverse impacts that compromise the safety of aircraft operators by obstructing airspace surfaces, obscuring dangerous objects and introducing serious and life threatening risks to aircraft operators. Further, ineffective airport land use planning degrades the daily business and functionality of the airport and interdicts its growth potential, introducing significant obstacles to community economic development that can be achievable as a result of a protected, successful airport.

Effective compatible land use planning addresses three primary components; height, safety and noise and provides for the following:

- Adherence with applicable federal and state law requiring the protection of airspace and the assurance the airport sponsor will take appropriate action to ensure land use compatibility around the Airports.
- Safety of both airport users and the surrounding neighbors/community. Also protects the quality of life of airport neighbors from the by-products of airport operations such as noise, dust and fumes.
- Protection of a local, state and federal investment.
- Protection of a valuable economic community asset.

In many instances, a community's willingness to be proactive in addressing compatible land use planning prevents the need to be reactive and prevents more severe conflicts down the road.

8.2 EXPECTATIONS OF THE FAA AND IDAHO AERONAUTICS

As an airport that receives both federal and state airport improvement funds, Lemhi County is bound by various grant assurances. Grant Assurances describe the commitment made by the airport sponsor to carryout the intent of the grantor (FAA and State of Idaho) for the use of the airport. Failure to abide by the grant assurances may result in the request for full repayment of monies to the grantor and/or forfeiture of future funding. The purpose of a grant assurance is to protect the significant investment made by the FAA, State and County, and ultimately the taxpayer, to develop and maintain the airport leaving it accessible to the general flying public.

Currently there are 39 FAA and 17 state grant assurances. A copy of both FAA and State grant assurances is included in **Appendix E.**

While all grant assurances are important and need to be understood and fulfilled by Lemhi County, included in the FAA grant assurances are specific assurances applicable to airspace protection and compatible land use. Current state grant assurances are less specific about airspace and land use protection; however existing Aeronautics enabling legislation is more specific. Following is a brief summary of FAA and state requirements and considerations associated with the grant assurances and airspace and compatible land use planning.

8.2.1 FAA LAND USE GRANT **ASSURANCES** AND REQUIREMENTS

Local Plans
Development around the airport should conform with local plans for development.

FAA Grant Assurance #6 states, "Consistency with Local Plans. The project is reasonably consistent with plans (existing at the time of submission of this application) of public agencies that are authorized by the State in which the project is located to plan for the development of the area surrounding the airport."

Airport sponsors should conform with this grant assurance by developing local plans that incorporate the airport and consider its unique aviation related needs as part of their planning process. Sponsor efforts should include detailed goals, policies and implementation strategies to protect the airport as part of the local Comprehensive and Transportation plans as a key strategy in meeting the requirements of this grant assurance.

Airspace
Code of Federal Regulations (CFR), 49 CFR Part 77, Objects Affecting Navigable Airspace (Part 77), provides the basis for airspace protection requirements at public-use airports at the Federal level by identifying and defining critical airspace surfaces. Airspace requirements are determined by the weight of the aircraft that predominantly operate at an airport and the type of instrument approach, if any exists or is planned.

FAA Grant Assurance #20 states, "Hazard Removal and Mitigation. Airport sponsors will take appropriate action to assure that such terminal airspace as is required to protect instrument and visual operations to the airport will be adequately cleared and protected…"

Communities protect the Part 77 airspace surfaces by defining them in the ALP and further identifying them in ordinance or code and requiring that no object penetrates these airspace surfaces as a result of development. Communities also protect airspace by encouraging those land uses that are likely to be compatible with the airport operations and prohibiting those uses that are likely to be incompatible with the airport operations. The airspace map included in the ALP reflects the minimum applicable airspace dimensions at Lemhi County Airport that should be protected. Per Part 77, proponents proposing development at certain height above the

ground or within a certain proximity to the airport, are required to submit FAA Form 7460-1 to the FAA for FAA determination that such development will not adversely impact airspace or the safety of aircraft operators. Lemhi County should consider the FAA's determination as a condition of their approval process.

Compatible **Land Use**
FAA Grant Assurance #21 states, "Compatible Land Use: Airport sponsor will take appropriate action, to the extent reasonable, including the adoption of zoning laws, to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operation…"

The FAA does not have statutory authority to mandate to airport sponsors the specific land use methods they must use to meet this grant assurance. Rather, the action(s) taken by the sponsor must be considered reasonable to the FAA. There are many resources available to airport sponsors to provide guidance in implementing compatible land use planning around airports. A primary resource for the County is the Idaho Airport Land Use Guidelines recently released by the Idaho Division of Aeronautics.

8.2.2 STATE OF IDAHO GRANT ASSURANCES AND REQUIREMENTS

Current Aeronautics' grant assurances related to airspace and compatible land use planning are less specific than FAA grant assurances. However, current state Idaho Administrative Rules, Title 4, Chapter 2 - Rules Governing Marking of Hazards to Air Flight, and Idaho Statute, Title 21 AERONAUTICS, Chapter 5 – Airport Zoning Act, include more specific state requirements related to airspace and use of land around airports.

Unlike the FAA, current enabling legislation in Title 21, Chapter 5, provides the state statutory authority to control land uses around airports. This said, it has not been Aeronautics policy to enforce this authority. As with the FAA, the State would rather rely on the local decision-makers to develop land use guidelines that adequately protect the airspace and uses of land around their airports. As discussed above, the recently released Idaho Airport Land Use Guidelines provide detailed guidance and examples of current airport land use planning best practices. Many of the recommendations included in the state specific Guidelines have been considered as part of this planning effort. Lemhi County is highly encouraged to review and consider the Land Use Guidelines in their future planning process.

The guidelines can be found on the Division of Aeronautics' website at: http://itd.idaho.gov/aero/Publications/publications.htm

8.3 LAND USE POLICY FORMATION PROCESS

One of the first and most important steps to controlling land uses around airports is by simply referencing the adopted Airport Master Plan and ALP by name in the Comprehensive Plan. Per current Idaho Statue, Title 67, Chapter 65, Local Land Use Planning Act, inclusion of airport related goals and strategies, such as compatible land use planning, in the Comprehensive Plan creates the necessary legal mechanism for the airport sponsor to consider and implement land

uses around airports as part of the local development process. The Airport Master Plan and ALP is the primary document summarizing airport goals and strategies. Once referenced in the Comprehensive Plan, Lemhi County and other surrounding jurisdictions like the City of Salmon can move forward in integrating more specific land use compatibility policies with each update of local plans and ordinances. Subsequent updates to more specific regulatory instruments will further implement the Airport Master Plan by regulating the type, size and height of land uses abutting the airport.

Land use compatibility plans should detail specific language in the Zoning Ordinance, Development Code, Subdivision Ordinance, City Code, City of Salmon Annexation Plan or Planned Unit Development Code. The language will establish buffer intensity, outlines proximity requirements through a zoning matrix that separates out the types of permissible uses by location, protects Part 77 airspace surfaces and approach paths and overall provisions that protect the safety of the flying and the health and welfare of the general public. It is most critical for communities to create these land use compatibility tools early enough for them to be effective and preemptive.

8.3.1 OFF-AIRPORT LAND USES

It is important to recognize the impacts of the airport upon the community and the community impacts on the airport. Land uses are made up of people, property and structures that exist for a specific reason and function. These land uses can be distinguished as sensitive, mindful or indifferent to aircraft operations. Airport impacts to nearby land uses can be mediated by 1) prohibiting the close proximity of sensitive land uses to the airport, 2) carefully considering the proximity of mindful land uses to the airport and 3) encouraging close proximity of indifferent land uses to the airport.

Land Use Sensitivity & Compatibility Matrix	Encourage	Conditional	Prohibit
Sensitive			X
Mindful		X	
Indifferent	X		

By limiting the exposure of sensitive land uses to the impacts of the airport, allowing moderately impacted land uses through a conditional use process and encouraging the land uses which are indifferent to the impacts of the airport the community is planning to locate compatible land uses together and create a harmonious land use context for existing and future uses in the vicinity of the airport that complements the land use fabric of the entire County.

8.3.2 ON-AIRPORT LAND USES

The ALP depicts the existing and planned future configuration of the airport. The ALP shows the existing configuration and how expanding uses and users can be distributed on the property in a safe, useful and efficient manner in accord with federal, state and local guidelines and regulations. The airport sponsor should keep the ALP up to date and current. The airport sponsor should adopt policies that define, address and control the design elements used on the airport property in order to create a marketable brand and create an identifiable ambiance for the airport. This element should create standards for such things as advertising signage, provisions and accommodations for aviation activity and access.

8.3.3 ZONING

The good news for communities is that the worst case scenario can be avoided by exercising a few highly effective methods for acknowledging and protecting the airport that are commonly and successfully used in many communities. In many instances, the use of zoning is the most proactive mechanism used to ensure compatible land uses around an airport.

When discussing land use compatibility zoning around an airport, there is a very distinct difference between height restriction zoning and basic land use zoning. As its name implies, height restriction zoning generally conforms to FAR Part 77 with the intent of protecting the airspace around an airport from objects or structures that may pose hazards to aircraft operators. On the other hand, the intent of land use zoning should be to prevent incompatible land uses from being allowed near an airport where the impacts of airport operations, such as noise and/or aircraft accidents, can have a potentially negative impact on surrounding neighbors. One of the most obvious examples of an incompatible land use is residential development within various areas around an airport. A good, comprehensive airport land use zoning ordinance takes such considerations into account and incorporates both height restrictions and basic land use restrictions. Coupled with other proactive measures, such as inclusion of Fair Disclosure Notification, voluntary noise abatement programs and selective fee-simple land acquisition, such a mechanism will protect *both* the airport and the surrounding community.

8.3.4 CONTINUAL PLANNING PROCESS

In order to achieve a fully integrated airport land use policy that will stand the test of time, the airport sponsor should define an iterative policy development cycle that is drafted, changed and improved repeatedly –over many policy cycles, years, appointments, terms and generations as the needs of the community and its airport change throughout time. The airport should create a formal process for policy development that identifies the airport land use planning process as a critical component of its community and comprehensive planning process. To assist in developing effective airport land use policy, it is also important to establish, in advance, the airport stakeholders who should be invited to participate in the policy review process (i.e. airport users, FBO, special interest groups, engineers, home owner associations, governmental agencies, et cetera) and identify the specific policy implementation tools available for use, such

as: regulation, administrative procedure and process, emergent technology, fiscal policy and the creation, modification or destruction of the tools already in effect.

Lastly, it is critical that the County monitor and update the Airport Master Plan. It is the airport's Master Plan that identifies the specific needs of the airport and provides a foundation around which policy can and should be developed. On average, it is recommended that the airport master plan be updated every 7-10 years or as circumstances at the airport warrant.

8.4 EXISTING LAND USE REGULATIONS IN LEMHI COUNTY

8.4.1 LEMHI COUNTY COMPREHENSIVE PLAN (LCCP)

The Lemhi County Airport is located within the land use jurisdiction of Lemhi County, which recently adopted an update to its Comprehensive Plan in 2007. The plan references the general operations of the airport, including air taxi service and the frequency that flights are offered to Boise and McCall, air charter services servicing multiple areas and a flight training education center.

The Implementation chapter, Element 14, lists "protecting the airport airspace" as a high priority (LCCP, 72). In addition, this chapter identifies a medium priority task of "promoting the local industrial park at the Lemhi County Airport and ensure that they are ready to receive tenants; utility extensions are in place, as well as information pertaining to code enforcement, building permit information, and workforce population statistics."

The Transportation chapter, Element 9, specifically references many of the built and planned improvements at the airport as being partially funded by the FAA (LCCP, 39) and calls for the airport facilities to be maintained accordingly (LCCP, 41).

The Public Services, Facilities and Utilities chapter, Element 8, specifically authorizes the incorporation of FAA recommended regulations into the Lemhi County Development Code in order to protect the airport's airspace (i.e. FAR Part 77 airspace surfaces). This chapter further authorizes the exploration of implementation tools, such as impact fees, to accomplish this goal and identifies the need to create a mechanism to educate and warn future residents about issues such as noise, building restrictions and operational hours when developing in or near an airport zone (LCCP, 37).

Lastly, the Comprehensive Plan references the All Hazard Mitigation Planning effort (AHMP) as a document being drafted at the time the Comprehensive Plan was adopted (LCCP, 28). The LCCP was clearly written to protect the community from adverse impacts on the airport; however, the plan neither references the most recent edition of the Airport Master Plan nor the ALP for guiding the continued development of the airport.

8.4.2 ALL HAZARDS MITIGATION PLAN (AHMP)

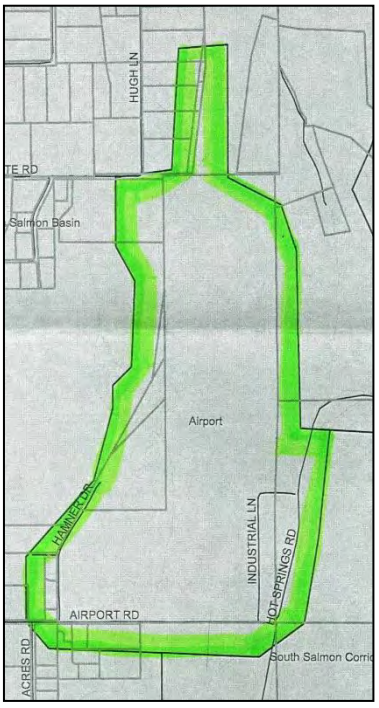
The AHMP was completed in 2008 and the Lemhi County Commissioners approved and adopted it in 2009 one year after the LCCP was adopted. The plan lists "Airport Approach Zones" as a man-made hazard in the County. The AHMP is a public health and safety plan forged to identify threats, create general action plans, mitigation protocols, funding sources and implementation steps to prevent injury and reduce property damages for Lemhi County (AHMP, 28). The AHMP identifies three hazard mitigation strategies in its Implementation Roadmap section, to:

1. "Keep the hazard away from people, property and structures,
2. Keep people, property and structures away from the hazard, and
3. Reduce the impact of the hazard on victims" (AHMP, 177).

The AHMP also identifies "obtaining accurate information through complete hazard identification and impact studies" as a critical success factor for effective mitigation. The AHMP provides a list of proposed mitigation projects. One of the mediation measures addressing public safety was the immediate (2009-2010) installation and upgrade of instrument and lighting systems at the Lemhi County Airport to be executed by the Airport Administrator (AHMP, 195).

8.4.3 LEMHI COUNTY DEVELOPMENT CODE (LCDC)

Lemhi County utilizes Lemhi County Development Code to regulate land use in the county. The LCDC establishes Zoning Districts that separate land uses geographically creating a distinctive land use pattern. Lemhi County identifies an "Airport Zoning District" and an "Airport Safety Overlay Zoning District."



Existing Airport Zoning District
Source: Lemhi County

The Airport Zoning District currently corresponds to the existing airport property boundary. The LCDC establishes performance measures that developments must achieve. Per these performance standards, land use in the Airport Zoning District shall be compatible with the continued operation of the Lemhi County Airport and meet additional performance standards for landscaped buffers and signage (LCDC 41). In addition, no small scale development is allowed in the Airport Zoning District (LCDC 24).

Chapter 8 of the LCDC is the "Airport Safety Overlay Zoning District" (ASOD). The ASOD is a zoning convention that currently requires the built environment to perform to the standard of the FAR Part 77 Airspace (LCDC, 44). The LCDC uses specific regulatory language to enable regulation of land use compatibility, protection for airspace surfaces and protocols for mitigating adverse impacts to the airport; in order "to provide for the safety of aircraft pilots and passengers and protect a substantial investment of public funds by ensuring that land

development and construction activities within the ASOD are compatible with the safe continued use of the Lemhi County Airport" (LCDC, 44). The ordinance also includes definitions in the glossary for Primary, Transitional, Approach, Conical and Horizontal surfaces (LCDC, 63).

8.4.4 LEMHI COUNTY TRANSPORTATION PLAN

As of the time of writing this master plan, efforts are underway by Lemhi County to develop a more detailed Transportation Plan to better assist the County in planning for the future use of its transportation system. The Transportation Plan will include an element related to the airport. Coordination efforts with the County were completed to ensure the level of planning related to the airport was sufficient in the context of compatible land use planning ensuring for the protection and accessibility of the airport as part of the overall countywide transportation system.

8.5 EXISTING LAND USE REGULATIONS IN THE CITY OF SALMON

As previously mentioned, a key to successful airport land use planning is a cooperative planning process among all jurisdictions impacted by the airport and it's operational and land use needs. While the Lemhi County Airport is currently owned and operated by Lemhi County, the airport represents an important asset to the overall Lemhi County/Salmon community. While the airport is currently under the jurisdiction of Lemhi County, a proactive planning approach between the County and the City of Salmon should be implemented to properly plan for future City growth toward the airport. Following is a brief summary of current City of Salmon Comprehensive Plan and inclusion of the airport.

8.5.1 CITY OF SALMON COMPREHENSIVE PLAN (SCP)

The City of Salmon is in the process of updating its current Comprehensive Plan adopted in 1992. The following information references the most recent draft of the new Comprehensive Plan available, dated February, 2010. The draft refers to the airport in several places; however, the SCP neither references the most recent edition of the Airport Master Plan nor the ALP.

Element 4: Economic Development

- Identifies the airport as a regional economic driver and identifies the Industrial Park Incubator near the airport as a viable economic development tool.
- POLICY I-m-3: *The City of Salmon should encourage labor training programs that match the mix of skills and occupations with the employment requirements of businesses now operating in the community or that are suitable prospects for locating in Salmon to catch a skilled labor force and prevent leakage to communities outside the region. The City shall also continue to promote and enhance the utilization of the Salmon Valley Business Innovation Center (SVBIC), the Incubator and the Industrial Park at the Salmon Airport.*

Element 8: Public Services Utilities and Facilities

- Identifies the airport as a public facility

Element 9: Transportation

- Identifies Commercial and Private Air Service as a transportation mode servicing the region and identifies the FAA as a partial funder of airport improvements.

- POLICY I-i-10: *The City of Salmon should coordinate with Lemhi County to protect the approach and departure zones designated for the Salmon Airport and to protect the clearance areas needed for the hospital helicopter pad.*

8.6 RECOMMENDED IMPROVEMENTS TO EXISTING LAND USE REGULATIONS IN LEMHI COUNTY AND THE CITY OF SALMON

Various levels of community vision, technical regulations, land use regulations and mitigation tools to identify the airport and its unique needs have been crafted in some level of detail in the County's and City's separate planning documents as reviewed above. While the existing language and strategies form a good foundation, additional improvements can be made to better protect the future the airport and surrounding community in the future.

8.6.1 RECOMMENDED ACTIONS

The below actions should be considered by Lemhi County for implementation.

1. Include more specific language about the airport and its unique aviation and land use planning needs in the Comprehensive and Transportation Plans. This should include a specific reference to the most current airport master plan and ALP. To assist Lemhi County in this effort, sample ordinance language and a land use compatibility zoning map have been created as part of this planning effort. Specific recommended Comprehensive and Transportation plan language is included in **Appendix F** of this report.

2. Lemhi County should keep the airport master plan and ALP drawing set up to date and current with regard to ongoing airport improvements and/or changes in role, use, or operations of significance.

3. Recognize the airport impacts to the community and the community impacts upon the airport and commit to an effective and cooperative airport land use planning effort that is designed to protect and preserve airport operations, economic prosperity, and quality of life realities in addition to safety provisions for both the community and its airport.

4. Adhere to appropriate state and FAA requirements and guidance regarding airspace protection and prohibit land uses which are incompatible to airport operations. The mechanism to achieve this goal should include improvements to Chapter 8, Airport Overlay Zoning District, included as part of Lemhi County Development Code. Improvements should include revised ordinance language addressing both airspace and land use restrictions. Revisions should also include the creation of a land use map that delineates land uses by 1) prohibiting the close proximity of sensitive land uses to the airport, 2) carefully considering the proximity of mindful land uses to the airport and 3) encouraging the close proximity of indifferent land uses to the airport. Improvements should also include a Fair Disclosure Notification to prospective and new property owners. Model zoning ordinance with recommended improvements to Chapter 8 as well as a model Disclosure Statement are included in Appendix F of this report.

5. Create a formal process for policy development that identifies the airport land use planning process as a critical and continual component of its community and comprehensive planning process.

6. Coordinate with the City of Salmon to ensure multi-jurisdictional cooperation as it relates to the airport and land use planning as future city growth migrates toward the airport.

RESOURCES AND REFERENCES

State of Idaho, Idaho Division of Aeronautics, Idaho Airport System Plan, Land Use Compatibility Guidelines
http://itd.idaho.gov/aero/Publications/publications.htm

FAA Noise Compatibility Tool Kit
http://www.faa.gov/about/office_org/headquarters_offices/aep/planning_toolkit/

FAA Land Use Compatibility and Airports Guidebook
http://www.faa.gov/about/office_org/headquarters_offices/aep/planning_toolkit/media/III.B.pdf

Federal Aviation Regulation (FAR) Part 77
http://www.access.gpo.gov/nara/cfr/waisidx_07/14cfr77_07.html

9.0 AIRPORT COMPLIANCE AND MANAGEMENT BEST PRACTICES

This chapter discusses the elements that should be considered for an inclusive airport operation and management program for the Lemhi County Airport. The FAA encourages implementation of such programs in promoting sound operating practices and ongoing compliance with regulatory requirements. The FAA recommends that the issue of compliance be addressed during the airport planning process through the review of various airport documents such as an approved ALP, Exhibit "A" Property Map, Airport Ordinance, Zoning Ordinance, Rules and Regulations, Minimum Standards, airport budgets, leases, easements, permits, and other documents.

A management program based on the FAA's "Planning for Compliance" guidance and the adoption of airport management "Best Practices" will serve to aid the airport sponsor in avoiding violation of compliance requirements which could have significant consequences. "Planning for Compliance" guidance, as provided by the FAA, can be found in **Appendix G**. Airport management "Best Practices" are guides that are developed to provide timely information and guidance related to good management practices and safe airport operations for airport managers and sponsors. The practices outlined herein are designed for use by the Lemhi County Airport for evaluating and improving their current and future operation and management program.

Recommended best practices have been developed in accordance with FAA and state compliance requirements and guidelines. Airport sponsors must comply with various federal obligations through agreements and/or property conveyances. These are outlined in FAA Order 5190.6B, Airport Compliance Manual. The contractual federal obligations that a sponsor accepts when receiving federal grant funds or transfer of federal property can be found in a variety of documents including:

- Grant agreements issued under the Federal Airport Act of 1946, the Airport and Airway Development Act of 1970, and the Airport and Airport Improvement Act of 1982. Included in these agreement are the requirement for airport sponsors to comply with:
    - Grant Assurances
    - Advisory Circulars
    - Application commitments
    - FAR procedures and submittals
    - Special conditions
- Surplus airport property instruments of transfer
- Deeds of conveyance
- Commitments in environmental documents prepared in accordance with FAA requirements.
- Separate written requirements between a sponsor and the FAA.

Land use compliance and compatible land use planning is often a significant compliance issue for airports, including Lemhi County Airport. Existing land use controls and recommended improvements were discussed in detail in Chapter 8.0 Land Use Policy Review and Recommendations. Additional discussion regarding compliance and suggested best practices are discussed under the following subheadings in this chapter:

- Airport Compliance with Federal and State Grant Assurances
- Environmental Compliance
- Airport User Compliance
- Other Airport Operational Policies and Procedures

This chapter will analyze potential compliance issues at the Lemhi County Airport and provide recommendations for remedying potential compliance related issues as well as proactive efforts to avoid noncompliance. Recommended strategies and tools for Lemhi County's consideration to assist in effectively maintaining and operating the airport and ensuring compliance with sponsor obligations are included under each compliance heading. Each of these items lays the groundwork for an effective airport operation and management program and provides the county with the tools to educate airport stakeholders on the importance of airport compliance and the adoption of best practices.

Federal guidance and other resources regarding each of the best practices and compliance items discussed in this chapter can be found in the "References and Resources" section at the end of the chapter.

9.1 AIRPORT COMPLIANCE WITH FEDERAL AND STATE GRANT ASSURANCES

As a recipient of both federal and state airport improvement grant funds, Lemhi County is contractually bound to various sponsor obligations typically referred to as "Grant Assurances". These obligations, presented in detail in federal and state grants and state statute and administrative code, document the commitments made by the airport sponsor to fulfill the intent of the grantor (FAA and State of Idaho) required in association with acceptance necessary of federal and/or state funding for airport improvements. Failure to comply with the grant assurances may result in a finding of noncompliance and/or forfeiture of future funding. Grant assurances and their associated requirements are to protect the significant investment made by the FAA, state and the county, to preserve and maintain the nation's airports as a valuable national transportation asset. This principle is in fact mandated by Congress.

9.1.1. FAA ASSURANCES

Interpretation, administration, and oversight of federal sponsor obligations contained in grant assurances is generally carried out by the FAA via its Airport Compliance Program. Currently, FAA Order 5190.6B, Airport Compliance Manual, sets forth policies and procedures for the Airport Compliance Program. It is not regulatory and is not controlling with regard to airport

sponsor conduct; rather, it establishes the policies and procedures for FAA personnel to follow in carrying out the FAA's responsibilities for ensuring compliance by the sponsor.

Order 5190.6B states: the FAA Airport Compliance Program is, "…designed to monitor and enforce obligations agreed to by airport sponsors in exchange for valuable benefits and rights granted by the United States in return for substantial direct grants of funds and for conveyances of federal property for airport purposes. The Airport Compliance Program is designed to protect the public interest in civil aviation. Grants and property conveyances are made in exchange for binding commitments (federal obligations) designed to ensure that the public interest in civil aviation will be served. The FAA bears the important responsibility of seeing that these commitments are met. This Order addresses the types of these commitments, how they apply to airports, and what FAA personnel are required to do to enforce them."

To better understand the intent and need for the FAA Compliance Program, it is important to understand the FAA's goals for a national airport system. The national airport system is known as the FAA National Plan of Integrated Airport Systems (NPIAS). The guiding principles of the NPIAS have been in place since 1946 and, for the most part, have remained unchanged since. According to the FAA, cooperation between the FAA, state and local agencies should result in an airport system with the following attributes:

- Airports should be safe and efficient, located at optimum sites, and be developed and maintained to appropriate standards.
- Airports should be operated efficiently both for aeronautical users and the government, relying primarily on user fees and placing minimal burden on the general revenues of the local, state, and federal governments.
- Airports should be flexible and expandable, able to meet increased demand and accommodate new aircraft types.
- Airports should be permanent, with assurance that they will remain open for aeronautical use over the long term.
- Airports should be compatible with surrounding communities, maintaining a balance between the needs of aviation and the requirements of residents in neighboring areas.
- Airports should be developed in concert with improvements to the air traffic control system.
- The airport system should support national objectives for defense, emergency readiness, and postal delivery.
- The airport system should be extensive, providing as many people as possible with convenient access to air transportation, typically not more than 20 miles of travel to the nearest NPIAS airport.
- The airport system should help air transportation contribute to a productive national economy and international competitiveness.

Currently there are 39 FAA grant assurances included in order 5190.6B. A detailed description of each assurance can be found in Appendix E.

The assurances are classified by type in **Table 9-1**. While Sponsors should understand and comply all grant assurances, there are several assurances that are common "stumbling blocks" or recurring issues for airport sponsors throughout the country. These are highlighted in the table and discussed in more detail below.

TABLE 9-1: THE FAA'S AIRPORT SPONSOR GRANT ASSURANCES

Project Planning/Design & Contracting	General Airport	Airport Operations and Land Use	Day-to Day Airport Management
2- Sponsor Responsibility 3- Sponsor Fund Availability 6- Consistent with Local Plans 7- Local Interest Consideration 8- User Consultation 9- Public Hearings 10-Air & Water Quality Stds 13- Project Accounting/ Reporting 14- Minimum Wage Rates 15- Veteran Preference 16- Plan Conformity 18- Planning Projects 30- Civil Rights 33- Foreign Market Restrictions 34- Following FAA Policy 35- Property Acquisition & Relocation 37- DBE Program	1-Federal Requirements 4- Good Title 5-Preserving Rights 29- Up to Date Airport Layout Plan 31- Disposal of Land	11- Pavement Maintenance 19-Operation and Maintenance 20-Hazard Removal & Mitigation 21- Compatible Land Use	22- Economic Nondiscrimination 23- Exclusive Rights Prohibition 26- Reporting Requirements 38- Hangar Construction
	Project Construction	**Leases & Financial**	**Other**
	17-Construction Approval 32-Contracting Engineering Services	24- Fee and Rental Structure 25- Airport Revenue	12-Air Carrier Terminal Development 27-Use by Government Aircraft 28-Land for Federal Facilities 36- Access by Intercity Buses 39- Air Carrier Access

Note: Highlighted assurances represent common airport stumbling blocks.

Source: FAA Order 5190-6B

As the airport sponsor, Lemhi County is responsible for the direct control and operation of Lemhi County Airport. Familiarity and proper implementation of your sponsor obligations, FAA grant assurances in particular, are the key to successful compliances. Order 5190.6B and communication with the FAA Northwest Mountain Region Compliance Office are both excellent resources for the county in helping to understand policy and achieve compliance with that policy.

The airport sponsor should have a clear understanding of and comply with all assurances. The following sections describe the selected assurances highlighted in Table 9-1 in more detail.

Duration

The terms, conditions and assurance of a grant agreement with the FAA remain in effect for the useful life of a development project, which is typically 20 years from the receipt of the last grant.

However, terms, conditions and assurances associated with land purchased with federal funds do not expire.

Project Planning/Design and Contracting

Sponsor Fund Availability (Assurance #3)
Once a grant is given to an airport sponsor, the receiving sponsor commits to providing the funding to cover their portion of the total project cost. Currently this amount is five percent of the total eligible project cost, although it may be higher depending on the particular project components or makeup. Once the project has been completed, the receiving airport also commits to having adequate funds to maintain and operate the airport in the appropriate manner to protect the investment in accordance with the terms of the assurances attached to and made a part of the grant agreement.

Consistency with Local Plans (Assurance #6)
All projects must be consistent with city and county comprehensive plans, transportation plans, zoning ordinances, development code, and hazard mitigation plans. The airport sponsor and planners should all familiarize themselves with local planning documents before a project is considered and ensure that all projects follow local plans and ordinances.

In addition to understanding local plans, airport sponsors should be proactive in order to prevent noncompliance with this assurance. The airport sponsor should assist in the development of local plans that incorporate the airport and consider its unique aviation related needs. Sponsor efforts should include the development of goals, policies, and implementation strategies to protect the airport as part of local plans and ordinances.

Accounting System, Audit, and Record Keeping (Assurance #13)
All project accounts and records must be made available at any time. Records should include documentation of cost, how monies were actually spent, funds paid by other sources and any other financial record associated with the project at hand. Any books, records, documents, or papers that pertain to the project should be available at all times for an audit or examination.

General Airport

Good Title (Assurance #4)
The airport owner must have a Good Title to affected property when considering projects associated with land, building or equipment. Good Title means the sponsor can show complete ownership of the property without any legal questions, or show it will soon be acquired.

Preserving Rights and Powers (Assurance #5)
No actions are allowed which might take away any rights or powers from the sponsor which are necessary for the sponsor to perform or fulfill any condition set forth by the assurance included as part of the grant agreement. If there is an action taken or activity permitted that might hinder any of those rights or powers it should be discontinued. An example of an action which can adversely affect the rights and powers of the airport is a Through-the-Fence (TTF) activity. TTF

activities allow access to airport facilities from off-airport users. In many instances, the airport sponsor cannot control the activities of those operating off the airport resulting in less sponsor control. This loss of control can potentially have an adverse impact to airport users, For example, TTF activities many times do not pay the same rates and charges as on-airport users, resulting in an unfair competitive advantage for business/users located off-airport versus those on-airport.

Airport Layout Plan (ALP) (Assurance #29)

The airport should at all times keep an up-to-date ALP which should include on it both current and future boundaries, facilities/structures, and the location of any non-aviation areas and existing improvements. No changes should be made at the airport to hinder the safety of operations; also no changes should be made to the airport that are not in conformity with the ALP. Any changes of this nature could adversely affect the safety, utility or efficiency of the airport. If any changes are made to the airport without authorization, the alteration must be changed back to their original condition or the airport will have to bear all cost associated with moving or changing the alteration to an acceptable design or location. Additionally, no federal participation will occur for improvement projects not shown on an approved ALP.

Disposal of Land (Assurance #31)

Land purchased with the financial participation of an FAA Grant cannot be sold or disposed of by the airport sponsor at their sole discretion. Disposal of such lands are subject to FAA approval and a definitive process established by the FAA. If airport land is no longer considered necessary for airport purposes, and the sale is authorized by the FAA, the land must be sold at fair market value. Proceeds from the sale of the land must either be repaid to the FAA or reinvested into another eligible airport improvement or noise compatibility project. Land disposal requirements typically arise when a community is building a new airport and the land on which the airport was located is sold with the proceeds used to offset costs of the new airport. In general, land purchased with FAA funds is rarely sold by a sponsor.

Airport Operations and Land Use

Pavement Preventative Maintenance (Assurance #11)

Since January 1995, the FAA has mandated that it will only give a grant for airport pavement replacement or reconstruction projects if an effective airport pavement maintenance-management program is in place. The program should identify the maintenance of all pavements funded with Federal financial assistance. The Idaho Transportation Department Aeronautic Division has had an active statewide pavement maintenance program since the 1980s. ITD provides airports with a report of their pavement conditions every three years to assist airports in making decisions regarding pavement maintenance and ensure compliance with the federal mandate. The report provides a pavement condition index (PCI) rating (0 to 100) for various section of aprons, runways, taxiways, and a score for overall airport. In the IASP, Idaho recommends that runways in the state be maintained at a PCI of 81 or greater.

Operations and Maintenance (Assurance #19)

All federally funded airport facilities must operate at all times in a safe and serviceable manner. The airport sponsor should not allow for any activities which inhibit or prevent this. The airport sponsor must always promptly mark and light any hazards on the airport, and promptly issue Notices to Airmen (NOTAMs) to advice of any conditions which could affect safe aeronautical use. Exceptions to this assurance include when temporary weather conditions make it unreasonable to maintain the airport. Further, this assurance does not require the airport sponsor to repair conditions which have happened because of a situation beyond the control of the sponsor.

Compatible Land Use (Assurance #21)

Land uses around an airport should be planned and implemented in a manner which ensures surrounding development and activities are compatible with the airport. To ensure compatibility, the sponsor is expected to take appropriate action, to the extent reasonable, including the adoption of zoning laws to guide land use in the vicinity of airports under their jurisdiction. Incompatible land use around airports represent one of the greatest threats to the future viability of airports. Further discussion of compatible land use is included in Chapter 8.0 - Land Use Policy Review and Recommendations.

Day to Day Airport Management

Economic Non-Discrimination (Assurance #22)

Any reasonable aeronautical activity offering service to the public should be permitted to operate at the airport as long as the activity complies with airport established standards for that activity. Any contract or agreement made with the airport will have provisions making certain the person, firm or corporation will not be discriminatory when it comes to services rendered as well as rates or prices charged to customers. Provisions include:

- All FBOs on the airport should be subject to the same rate fees, rentals and other charges.
- All persons, firms or corporations operating aircraft can work on their own aircraft with their own employees.
- If the airport sponsor at any time exercises the rights and privileges of this assurance they will be under all of the same conditions as any other airport user would be.
- The sponsor can establish fair conditions which need to be met by all airport users to make the airport safer and more efficient.

The sponsor can prohibit any type, kind or class of aeronautical activity if it is for the safety of the airport. An example of an activity which may be considered for prohibition is sky diving. It is important to point out that the FAA will review such prohibitions and will make the final determination as to whether or not a particular activity type is deemed unsafe at the airport based on current operational dynamics.

Exclusive Rights (Assurance #23)

Exclusive Rights at an airport is often a complicated subject usually specific to individual airport situations. The assurance states the sponsor "will permit no exclusive right for the use of the airport by any person providing, or intending to provide, aeronautical services to the public…" There are exceptions to this rule. If the airport sponsor can prove that permitting a similar business would be unreasonably costly, impractical or result in a safety concern, the sponsor may consider granting an exclusive right. To deny a business opportunity because of safety, the sponsor must demonstrate how that particular business will compromise safety at the airport. Exclusive rights are very often found in airport relationships with fixed base operations (FBO) but exclusive rights can also be established with any other business at the airport which could assist in the operation of an aircraft at the airport. If an unapproved exclusive rights agreement exists, it must be dissolved before a future federal grant is awarded to the airport.

If a sponsor is contemplating denial of a business use at the airport, it is strongly encouraged that they contact their FAA ADO in order to ensure that they have all necessary information and that denial of access is not going to be seen as unjust discrimination. For more in depth information on exclusive rights reference Advisory Circular 150/5190-6, "Exclusive Rights at Federally Obligated Airports."

Leases and Financial

Fee and Rental Structure (Assurance #24)

Simply put, the fee and rental structure at the airport must be implemented with the goal of generating enough revenue from airport related fees and rents to become self-sufficient in funding day to day operational needs. The airport sponsor should routinely monitor its fee and rental structure to ensure reasonable fees are being charged to meet this goal. Common fees charged by airports include fuel flowage, tie-down, and landing fees and hangar rent.

Airport Revenue (Assurance #25)

All airport revenue and local taxes on aviation fuel should be used toward the operating costs of the airport, the local airport system, or other local facilities which are owned by the same owner of the airport which will directly impact air transportation passengers or property or for noise mitigation on or off airport property. In other words, revenue generated by airport activities must be used to support the continued operation and maintenance of the airport. Use of airport revenue to support or subsidize other non-aviation activities or functions of the sponsor is not allowed and is considered revenue diversion. Revenue diversion is a significant compliance issue subject to cause scrutiny by the FAA.

9.1.2. OTHER FAA COMPLIANCE REQUIREMENTS

Other Federal Contracting and Procurement Documents

Whenever an airport sponsor accepts an Airport Improvement Program (AIP) grant from the FAA, the sponsor agrees to adhere to various federal contracting and procurement requirements. Advisory circulars are required for use in AIP funded projects. Included in each

grant request is a federal funding checklist that identifies the requirements an airport should consider before accepting the grant. The following items are noted in the checklist:

- ALPs should be up to date
- Exhibit A Property Map may need to updated if acquiring additional property
- Land Inventory may need to be updated if you have recently acquired land with federal assistance
- Airports must hold good title to the airport landing area
- Appropriate signage and markings must be in place
- RPZ and approach surface deficiencies must be identified and steps to address deficiencies must be noted
- RSAs must meet FAA standards if planning a runway project
- DBE program goals must be met on projects more than $250,000
- Procedures should be in place to handle bid protests
- Open AIP grant projects need to be identified
- Project closeout form must be submitted within 90 days of work completion
- A “Certification of Economic Justification” must be included for routine pavement maintenance projects
- A “Revenue Generating Facility Eligibility Evaluation” must be completed for hangar construction or fueling facilities
- A “Reimbursable Agreement” and “Non-Fed Coordination” must be completed for navigational aid projects
- A “Relocation Plan” must be completed if a project requires residences or businesses to be relocated.

Special Conditions

In addition to the standard grant assurances discussed above, the state or the FAA may require “Special Conditions” to individual grants which supplement or expand the standard grant assurances. Special Conditions are unique to an individual airport and can be project or administrative in nature. Airport sponsors need to be aware of such conditions that may be applied to their airport.

Multijurisdictional Challenges

In some instances, airports are jointly owned and operated by more than one airport sponsor. In other instances, airports may be located within multiple jurisdictions. While the official airport sponsor is ultimately responsible for adherence with the grant assurance, the actions, or inactions, of surrounding jurisdictions can and do impact the airport sponsor’s ability in meeting its sponsor obligations. This is particularly true with land use compatibility issues around airports. As a result, it is important in either circumstance that all jurisdictions affected by the airport understand the operational needs and complexities of having and airport within its jurisdiction. Mutual agreements addressing airport operational or land use protection needs, or other cooperative measures, are recommended by all jurisdictions to both protect the functionality of the airport as well as the safety and well-being of airport user and neighbors.

9.1.3. STATE ASSURANCES

Like the FAA, the Idaho Division of Aeronautics has sponsor obligations associated with receipt of Idaho Airport Aid Program (IAAP) funds. Currently, there are 17 state grant assurances. In addition to the grant assurances, the state also has requirements in state statute and administrative code imposed by receipt of IAAP funding. Unlike the FAA, the Division of Aeronautics does not actively maintain an official Compliance Program. Currently, oversight and enforcement of the state's airport grant assurances and other requirements is carried out by the Administrator of the Idaho Division of Aeronautics and Aeronautics staff.

Below is a list of state grant assurances and requirements to be aware of as a result of receiving IAAP funds. State requirements are clearly similar in intent of the requirements compared to the FAA requirements.

- SPONSOR agrees to hold said airport open to the flying public for the useful life of the facilities developed under this project.
- SPONSOR acceptance of this offer shall remain in full force and effect… not to exceed twenty (20) years from the date of acceptance.
- SPONSOR should have proof of ownership or lease of all land upon which any project is proposed in order to protect the investment of public funds.
- SPONSOR cannot allow any activity or action on the airport that would interfere with its use for airport purposes.
- SPONSOR shall grant no exclusive use or operating agreements, to any person, company, or corporation; that failure to abide by such agreement shall automatically obligate the immediate and full return of all State of Idaho money expended in behalf of the project to the State of Idaho.

The state grant assurances and requirements are summarized in **Table 9-2** and described in detail in Appendix E.

TABLE 9-2: ITD AIRPORT AID PROGRAM GRANT ASSURANCES

Project Related	General Airport Operations
Timely Completion	Develop Airport According to ITD Standards
Completion According to Plans	Remain Open
Follow Construction Bidding Procedures	No Exclusive Use
Property Appraisals for Acquisitions	No Activities that Interfere with Operations
Proof of Funding	Allow All Safe Aeronautical Activities
Costs Eligibility	Allow People to Service Own Aircraft
Commencement Date Report	Airport Generated Revenue Should be Used for Airport Purposes
Progress Reports	
Approval for Changes	
Completion Report/Inspection Request	
Allocation Agreement	

Source: ITD Division of Aeronautics

To reiterate, the above information only provides a brief summary of the grant assurances. The airport sponsor is encouraged to read all grant assurances and become familiar with the requirements of your sponsor obligations using the available resources as provided by the FAA. Compliance with grant assurances, or lack thereof, is frequently a legal consideration the resolution of which requires expert legal advice preferably from legal counsel familiar with FAA policy and compliance.

9.1.4. LEMHI COUNTY AIRPORT RECOMMENDATIONS FOR FAA AND STATE GRANT ASSURANCE COMPLIANCE

As the recipient of federal and state funds, Lemhi County Airport should comply with all grant assurances. The Lemhi County Airport Committee has adopted its Rules and Regulations and Minimum Standards to help the airport adhere to the grant assurances. The Airport Committee has been consistent in applying the Rules and Regulations and Minimum Standards and updates both frequently in order to address issues that arise. The most recent updates occurred in early 2011.

Although the state does not actively enforce its assurances, the FAA does periodic compliance reviews and safety inspections at airports. The FAA's most recent inspection for Lemhi County Airport was completed in summer 2009. The FAA rated the Airport on the following categories: maintenance of facilities, protection of approaches, control and operation, use of surplus property, use of revenues, exclusive/civil rights, conformity to ALP, and continuing special conditions (if relevant). As confirmed by the FAA's compliance inspection in 2009, Lemhi County Airport does not appear to be in noncompliance of any of the grant assurances. In its "Planning for Compliance" guidance, the FAA points out several specific potential compliance issues that should be addressed in an airport planning document. They include:

- **Incompatible land uses and the absence of appropriate zoning controls** – As discussed in Chapter 8, appropriate zoning controls are lacking around the Airport. Sample ordinance language and a land use compatibility zoning map have been created as part of this planning effort. Continued, active development and implementation of compatible land use around the airport is necessary.
- **Existing "through the fence" access for aircraft based off airport property –** Lemhi County does not permit any "Through-the-Fence" access or activity. Airport and County policy should continue to discourage such activity in the future.
- **Revenue diversion (including improper use of airport property)** – No indications of revenue diversion were identified at the airport. In fact, the current airport fee structure has collection methods utilized by the County that have resulted in the airport being financially self-sufficient in recent years. The County should continue to analyze all existing uses of airport property to ensure that all tenants are appropriately contributing to the airport's revenue stream.

- **On-Airport residential use** – There are no on-airport residential uses at this time. The Airport should consult the FAA, if ever considering any type of residential use on airport property.
- **Non-aeronautical local events closing the airport or a runway -** The Lemhi County Airport does not host or support any non-aeronautical events that would close the runway or airport. Such events should continue to be discouraged.
- **Trees or structures** – currently no unidentified structures of concern are located within the defined airport safety areas or Part 77 imaginary surfaces. As discussed in Chapter 8.0, improvements to the current airspace zoning ordinance are recommended to prevent future hazards.
- **Anything else in conflict with assurance or sound operation of airport** – With the exception of land use zoning, airport management and the County are maintaining a proactive approach to compliance. There does not appear to be any concerning grant assurance compliance issues at Lemhi County Airport.

Several additional recommendations for Lemhi County Airport related to continued compliance with FAA and Idaho grant assurances include:

- **Familiarize the existing County Commissioners** and new Commissioners (when appointed) with all FAA and Idaho grant assurances.
- Continue to **use airport facilities for aeronautical purposes only**, unless otherwise specified by the airport and approved by the FAA.
- **Perform services in a non-discriminatory manner** regardless of race, creed, color, national origin, or sex.
- As noted above, Lemhi County Airport is currently self-sufficient and does not rely on any additional county funds to operate. In addition, all airport revenue and taxes on fuel are currently spent on the operation of the Airport. Lemhi County should annually **compare the Airport's fees and rental structure with those offered at other airports in the region** and evaluate market value for similar services and fees.
- The County should **continually monitor the financial demands of the Airport** and consider adjustments to existing fees and adding new fees as airport activity and needs dictate. Possible new fees to consider include fuel flowage, overnight parking fees, commercial user fees, and special events that could generate income.

Utilizing data presented here, develop a recurring educational program to educate County Commissioners, the Airport Board, legal counsel, FBO, Tenants, and the general public about the sponsor obligations and the grant assurances. It is particularly important to target the County Commissioners and the Airport Board as members of these bodies can and do change often. Educating new members about sponsor obligations is critical to ensure informed decisions while maintaining compliance with grant assurances.

9.2 AIRPORT ENVIRONMENTAL COMPLIANCE

As a good steward, Lemhi County must balance the issues of environmental protection and public protection. Stormwater pollution prevention, spill prevention control and countermeasures, and wildlife hazard mitigation at airports have become significant environmental considerations facing airport sponsors in operating their airports. A preliminary environmental overview was performed for the Lemhi County Airport, the results of this analysis are summarized **Appendix C**.

An Environmental Assessment (EA) was completed at the Airport in 2006 in conjunction with the taxiway relocation and widening project. The EA found no significant environmental considerations at the Airport as part of these projects. The study noted that the airport is not located in a flood plain, does not contain suitable habitat for the endangered species that live within Lemhi and contains no water bodies that are capable of supporting fish. While there are wetlands and a historic canal located on the Airport, there are no current environmental concerns.

Often state environmental agencies have authority over stormwater pollution prevention and spill prevention regulation requirements. However, Idaho is still under the jurisdiction of EPA Region 10 and airports are bound by EPA regulations. Currently, EPA regulations are only applicable where stormwater runoff and/or oil discharge from a spill is reasonably certain to enter into or upon waters of the U.S. By definition, most Idaho airports are not required to obtain an NPDES permit, formally prepare a Stormwater Pollution Prevention Plan (SWPPP), or maintain a Spill Prevention Control and Countermeasures plan (SPCC) because no runoff directly interacts with waters of the U.S. This said, there are state and local requirements associated with activities on airport which need to be considered because stormwater and spills from the airport could interact with the wetlands and canals surrounding the Airport. It is recommended Lemhi County Airport be proactive in identifying and managing stormwater discharge and spill prevention measures.

9.2.1. STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

The Clean Water Act prohibits any point source (a drainage ditch, pipe or other outfall) from discharging pollutants into surface waters. Pollutant discharges are controlled through the National Pollutant Discharge Elimination System (NPDES) program. A primary mechanism used by airports to prevent stormwater pollution is the development of a Stormwater Pollution Prevention Plan (SWPPP). The purpose of the SWPP is to identify potential pollutant sources and document the management practices and storm water pollution prevention measures that are in place or will be implemented at the airport. The Idaho Department of Environmental Quality (DEQ) Regional Office in Idaho Falls an important resource for Lemhi County to utilize in regard to stormwater pollution potential. When contacted, DEQ did not find any of the waterways that they monitor to be impacted by potential stormwater runoff at the Airport. However, they noted that some of the irrigation ditches that are used by surrounding farmland may be impacted.

Industrial activities discharging stormwater into the water of the U.S., including airports, are bound by the EPA's National Pollution Discharge Elimination System (NPDES) and Multi-Sector General Permit (MSGP) requirements. Even though it may be not mandated by law, it should be a goal of airports to balance safe airport operations with the need to be good stewards of the environment. This includes preventing stormwater pollution through the development of an SWPPP.

9.2.2. SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC)

As established by the United State Environmental Protection Agency (EPA), a Spill Prevention, Control and Countermeasures Plan (SPCC) identifies sources of oil at an airport and outline procedures to prevent the discharge of oil and oil products or hazardous substances to navigable waters. It is the responsibility of the facility's owner or operator to prepare a SPCC plan which then must be approved by a Professional Engineer (PE).

The EPA's SPCC regulations currently apply to above ground oil storage facilities greater than 1,320 U.S. gallons or underground storage capacity greater than 42,000 gallons. Lemhi County Airport currently has one 12,000 gallon underground avgas tank and one 12,000 gallon Jet A fuel tank located on the airport property. Lemhi County Airport does not currently have an SPCC plan that identifies precautions to prevent and emergency procedures for clean-up of unexpected discharges of oil or other hazardous materials. It is recommended that the Airport develop an SPCC plan in the near term.

9.2.3. WILDLIFE HAZARD ASSESSMENT AND MITIGATION

Regardless of airport location, wildlife of all types on or in the immediate vicinity of an airport pose a threat to public safety. Every airport's airport environment and wildlife situation is unique.

The Lemhi County Airport has historically had a wildlife concerns with big game such as deer finding their way onto the Airport property and near the runway. Between 2005 and 2007, the Airport installed nine foot steel mesh wildlife fence around its full perimeter in order to secure the airport and limit wildlife incursions. Idaho Department of Environmental Quality (DEQ) Regional Office in Idaho Falls can also help mitigate future wildlife occurrences.

Currently, formal Wildlife Hazard Assessment (WHA) and Wildlife Management Hazard Plans (WHMP) are recommended only for Part 139 airports, not general aviation airports such Lemhi County. This said, airport sponsors should be aware that liability for wildlife incursions and wildlife control is typically born by the airport operator. To help reduce this liability, appropriate steps to prevent wildlife incursions and avoid legal implications should be taken. These steps include:

- Build an ongoing relationship with Idaho Fish and Game Regional Office in Salmon- Local contacts will provide expertise on regional species and habitats.

- Assess threats to safe airport operations- Identify attractive habitats on or close to airfield such as open water, nesting sites, food sources such as landfills, waste transfer sites, or agriculture. Remove these habitats, if possible.
- Develop a Wildlife Control Program- This could include daily removal of trash and litter, covering garbage cans and dumpsters, removing dead animals, and prohibiting wildlife feeding. Fencing and other exclusion efforts, chemical repellants, pyrotechnics, or other techniques may also be considered.
- Document control efforts- Wildlife control should be part of the airport's daily self-inspection and should be documented to provide historical documentation. Identification of birds and mammals affecting the airfield is also an important step to reducing hazards.

Starting in 2015, the FAA plans to begin requiring all general aviation airports to prepare, at minimum, a Wildlife Hazard Site Assessment. All publicly-owned general aviation airports will be classified into one of four groups based on the number of jets based at the airport or the number of annual operations. Larger general aviation airports with more than 20 based jets or more than 30,000 annual operations will be required to develop and adopt a more complex Wildlife Hazard Assessment or Wildlife Hazard Management Plan. Smaller airports will be required to develop a less complex Wildlife Hazard Site Assessment.

When this happens, the airport should work with a qualified specialty consultant to prepare an official plan. In the meantime, the airport should continue to be proactive in monitoring, assessing wildlife threats has they have done in the past. Current and future FAA guidance regarding wildlife hazard management should be followed.

9.2.4. LEMHI COUNTY AIRPORT ENVIRONMENTAL COMPLIANCE

It is important that Lemhi County Airport adhere to environmental requirements discussed above. Environmental compliance recommendations for Lemhi County Airport include:

- **Develop a SWPPP** to minimize possible stormwater pollution. Work with the Idaho Department of Environmental Quality (DEQ) Regional Office in Idaho Falls to identify stormwater pollution potential.
- With 12,000 gallon tanks of AvGas and Jet A fuel, Lemhi County should **develop a SPCC Plan** to appropriately respond to spill and leak emergencies.
- **Assess wildlife hazards and develop an informal Wildlife Control Program**. Frequent discussions with the Idaho Fish and Game Salmon Region Office can help identify species of concern near the airport. It is recommended that the Airport document wildlife controls as part of daily self-inspections and develop a wildlife mitigation plan as recommended by FAA.
- **Follow future FAA guidance regarding required wildlife hazard mitigation** plans and site assessments.

9.3 AIRPORT USER COMPLIANCE

Airport rules and regulations, minimum standards, and lease agreements are intended for the safe, orderly, and efficient operation of an airport. Lemhi County Airport currently has each of these in place. The Lemhi County Airport Rules and Regulations and Minimum Standards were adopted in 1993. These items are discussed briefly in this section.

9.3.1. EXCLUSIVE RIGHTS

The FAA's Grant Assurance #23, Exclusive Rights, prohibits allowing the existence of an exclusive right. The FAA has concluded that exclusive rights limit the usefulness of airports and deprives the public of the benefits of competition. Airport owners and managers can prevent exclusive rights violations through the proper use of Minimum Standards and appropriate leases. The Lemhi County Airport Committee had adopted language to restrict exclusive rights in its Rules and Regulations and Minimum Standards.

9.3.2. RULES AND REGULATIONS & MINIMUM STANDARDS

Rules and regulations govern all airport activities and apply to all persons using the airport for any reason. Minimum standards, on the other hand, govern the basic requirements to provide a commercial aeronautical service on an airport. Both are tailored for the airport to which they will be applied. Businesses and individuals that conduct commercial aeronautical activities on airport property typically must sign a lease or contract in which they agree to comply with minimum standards and rules and regulations set by the airport owner/operators

Flexibility is an important aspect of maintain minimum standards and periodic reviews can ensure that they continue to be reasonable as the public's demand for general aviation products and services changes. A primary goal of minimum standards is to establish a level playing field for comparative aviation uses and they are intended to protect the level and quality of services offered to aircraft owners, pilots, and the public at large. The FAA stresses that, where minimum standards are adopted, they should be applied objectively and uniformly to all on-airport commercial aeronautical activities.

The Lemhi County Airport Committee adopted combined Airport Rules and Regulations and Minimum Standards for Commercial and General Aviation Activities in 1993 and they have been revised accordingly over the years, most recently in August 2009. The airport manager and the Airport Committee have the power to administer and enforce these rules. The following sections are included in Lemhi County Airport's Rules and Regulations:

- Section 1: Definitions
- Section 2: General (Business Activity, Advertising, Animals, Airport Property, Aircraft Operation, FAA Air Traffic Rules, Flight Rules, Brakes Required, Securing Unattended Aircraft, Airport Liability, Takeoffs and Landings, Aerobatics Prohibited, Influence of Intoxicants, Disabled Aircraft, Damage to Airport Property, Disorderly Conduct, Sanitation, Sports Events, Model Airplanes, Hours of Operations, Use of the Airport,

FBOs, Sale of Aviation Fuel, Storage of Gasoline and Inflammable Material, Fire Equipment)
- Section 3: Motor Vehicles Regulations (Prohibited Actions)
- Section 4: Fire Hazards (Cleaning of Aircraft, Open Flame Operation, Smoking, Fire Regulations, Aviation Fuel, Fire code for buildings)
- Section 5:Taxiing Rules (Responsibility, Speed, Defective Brakes, Starting Aircraft, Holding Line, Unauthorized)
- Section 6: Landing and Take Off Rules (Unicom, Active Runway, Traffic Pattern, Right-of-Way, Intersection Takeoff, Rotorcraft, Responsibility)
- Section 7: Ground Rules (Run-Up, Parking, Repairs, Restricted Areas, Instructors, Owners, Damages)
- Section 8: Aircraft Fueling and Defueling (Engine Running, Smoking, Electrical Switches, Grounding Devices, Fuel Overflow, Fire Extinguishers, Equipment, MoGas)
- Section 9: Rental, Charges, Fees for Use of Airport (Rental, Leases, and FBO Fees, Building, Aerial Applicators)
- Section 10: Indemnity Insurance
- Section 11:Authority of Airport Manager
- Section 12: Rules and Regulations
- Section 13: Penalties
- Section 14: Previous Ordinance
- Section 15: Unconstitutionality
- Section 16: Effect and Passage
- Special Restrictions on Airport Land and Facility Use (No exclusive rights)
- Application Process for Leases or Other Permission Request (Minimum Information, Supporting Documents)
- Cause for Denial of Application
- Lease or Contract
- Standards for Specific Activities (Public Fuel Oil Sales and Services, Aircraft Charter and Taxi Service, Minimum Requirements for Construction of FBO Office Space, Minimum Requirements for FBO Hangar Construction, Crop Dusting and Spraying, Flying Clubs)

Additional sections or revisions to consider to further improve airport rules and regulations include:

- Airport accident procedures
- Ground transportation
- Aircraft registration
- Additional security requirements and procedures (general aircraft security/operating area security)
- Compliance with airport SWPPP and SPCC as appropriate. Compliance with such requirements in particularly important for existing and future fueling facilities and ag spray facilities and operators.
- Environmental restrictions and protections

9.3.3. TENANT OPERATING AGREEMENTS AND LEASES

Airports prepare and administer contracts and agreements with various commercial and noncommercial tenants. Parts of a lease and operating agreements typically include terms and conditions, rates and charges, insurance requirements, lessee rights, and other stipulations. The contract between an airport and various airport tenants are also used to enforce performance standards, minimum standards, and other arrangements. A proper contract also specifies the required insurance coverage and obligations of each party responsible for claims and losses that might arise.

Like other rules and standards, it is important for the airport to be consistent and uniform in the administration and enforcement of lease agreements. As a federally obligated airport, Lemhi County must also ensure that certain grant obligations are being met with regard to airport leasing policy. Lemhi County Airport currently has only one lease agreement in place to ensure safe airport operations and protect the airport- Private Hangar Lease Agreement. Additional agreements for tie-downs, FBOs, agricultural spraying operations, flight instruction should be considered. Guidance for the development of additional leases is provided in the Airport's Rules and Regulations.

The Airport Cooperative Research Program's (ACRP) The Small Airport Managers Handbook notes that a concise airport facility familiarization program should accompany the signing of any lease agreement to provide education on airport operating boundaries, communications, safety and security procedures, and vehicle and personnel requirements This should not only be required for those signing the agreement, but also for the tenant's employees.

Although Lemhi County Airport currently does not have through the fence operations or agriculture production on airport property, agreements with these possible tenants are discussed below for reference.

Through the Fence Agreements

A through the fence (TTF) agreement authorizes a person or entity to access the airport from property located outside of the airport property boundary. Due to safety, security, and land use concerns, the FAA strongly discourages through the fence agreements. The FAA has now taken a position prohibiting TTF residential type developments such as a single family residence with an attached hangar. The FAA guidance includes sponsor considerations when preparing TTF agreements. TTF agreements should include a section on term, termination, lease transfer, rates, and reversion. The FAA ADO should review any TTF agreements prior to them being signed to ensure compliance to federal obligations. Lemhi County does not have TTF operations or developments.

Agricultural Leases

Lemhi County Airport has successfully managed leases for hay crops and grazing in the past. Should the airport consider agricultural leases in the future, the following should be considered. Because most, if not all, agricultural crops can attract hazardous wildlife during some phase of

production, the FAA recommends against the use of airport property for agricultural uses. According to the FAA, the cost of wildlife control and potential accidents should be weighed against the income produced by the on-airport crops when deciding whether to allow crops on the airport. If it is beneficial for the airport to enter into a lease agreement with a tenant for agricultural production, the FAA's Advisory Circular 150/5300-13 Airport Design, should be consulted for appropriate distances between crops and various airport features. An agricultural lease agreement should address the following items:

- Location and height of crops relative to Part 77 Obstruction Surfaces Areas
- Ingress/egress of equipment to leased areas
- Temporary storage of equipment
- Wildlife attractant qualities of crops
- Mediation of damages to airport surfaces

The required FAA distances between crops and airport runway centerline, runway end, taxiway centerline, and apron edge are presented in Table 9-3. Lemhi County Airport has an ARC of B-II and should adhere to those standards listed below for the Aircraft Approach Category and Design Group II.

TABLE 9-3: FAA MINIMUM DISTANCES BETWEEN CERTAIN AIRPORT FEATURES AND ANY ON AIRPORT AGRICULTURAL CROPS

Aircraft Approach Category and Design Group	Distance in Feet from Runway Centerline to Crop		Distance in Feet from Runway End to Crop		Distance in Feet from Centerline of Taxiway to Crop	Distance in Feet from Edge of Apron to Crop
	Visual & ≥ 3/4 mile	<3/4 mile	Visual & ≥ 3/4 mile	<3/4 mile		
Category A & B Aircraft						
Group I	200 [1]	400	300 [1]	600	45	40
Group II	250	400	400 [1]	600	66	58
Group III	400	400	600	800	93	81
Group IV	400	400	1,000	1,000	130	113
Category C, D, & E Aircraft						
Group I	530 [2]	575 [2]	1,000	1,000	45	40
Group II	530 [2]	575 [2]	1,000	1,000	66	58
Group III	530 [2]	575 [2]	1,000	1,000	93	81
Group IV	530 [2]	575 [2]	1,000	1,000	130	113
Group V	530 [2]	575 [2]	1,000	1,000	160	138
Group VI	530 [2]	575 [2]	1,000	1,000	193	167

Notes:

If the runway will serve only small airplanes (12,500 lb. and under) in Design Group I, this dimension may be reduced to 125 feet; however, this dimension should be increased where necessary to accommodate visual navigational aids that may be installed. For example, farming operations should not be allowed within 25 feet of a Precision Approach Path Indicator (PAPI) light box.

These dimensions reflect the Obstacle Clearance Surface (OCS) as defined in AC 150/5300-13 Appendix 2. The OCS cannot be penetrated by any object. Under these conditions, the TSS is more restrictive and the OFA and the dimensions shown here are to prevent penetration of the TSS by crops and farm machinery.

Source: FAA AC 150/5300-13

9.3.4. LEMHI COUNTY AIRPORT USER COMPLIANCE

Adhering to airport rules, standards, and lease agreements ensures all airport users strive for safe airport operations. Lemhi County Airport currently has airport rules and regulations and minimum standards that were adopted in 1993 (as revised) and most recently updated in 2011. In addition, the Airport a hangar lease agreement in place with airport tenants

The following recommendations for improved user compliance should be considered by Lemhi County Airport:

- **Maintain a current and up-to-date aircraft roster of all based aircraft**, this should include but not be limited to; aircraft tail number, aircraft type, aircraft model, and aircraft owner's name.
- **Update Rules and Regulations/Minimum Standards** to include additional items discussed above including accident procedures and additional airport security procedures.

- **Develop additional lease agreements** based on the appropriate category of tenant. Lease agreements for tie-down tenants, for agricultural spraying operations, and permits for flight instruction and aircraft rental should be considered.
- Review lease agreements on a regular basis and update as appropriate.

9.4 OTHER AIRPORT OPERATIONAL POLICIES AND PROCEDURES

There are several safety related procedures that Lemhi County Airport should adopt to promote a safe and secure operating environment. The plans and procedures should be shared with all airport tenants so if an emergency does occur, everyone at the airport is on the same page. A brief description of recommended plans and procedures which Lemhi County Airport should have in place are provided below. In 1995, ITD Aeronautics published an airport operational safety manual. This manual provides additional insight into several subjects not discussed here including, safety during construction, fueling system and hazardous materials safety, snow and ice safety, agricultural safety, and air show safety. This document should be reviewed by the Airport.

9.4.1. AIRPORT SECURITY PLANS

The TSA provides federally endorsed security measures to airport owners, operators, sponsors, and other entities charged with oversight of general aviation airports. An airport security plan helps maintain security at an airport, the surrounding community, as well as the region, state, and world. A security plan organizes communication between airport tenants and managers, and local law enforcement including the Local Police Department and Fire Department. Elements in the plan should include:

- List of suspicious activities to be reported
- Notification system, including Alert Roster or Contact Tree
- Identification and responsibilities of all stakeholders
- Airport signage
- Incorporation of security technology (remote cameras, noise sensors, gates, etc.)
- Challenge procedures of unauthorized personnel.
- Routine patrols by Local Police Department
- Annual security exercise
- Continual assessment of potential threats

Lemhi County Airport should develop an airport security plan. An example that the Airport can tailor to their needs can be found in **Appendix H**.

9.4.2. AIRPORT EMERGENCY PLAN

Although small airports not certified under FAR Part 139 are not required to develop and maintain an airport emergency plan (AEP), a plan should be developed to facilitate the appropriate response to natural or man-made emergencies occurring on or near an airport. An AEP establishes the delegation of duties, assigns agency responsibilities, coordinates response efforts, and provides an inventory of what will be needed in an emergency event. A plan should

be coordinated with local law enforcement, rescue and firefighting, medical personnel, airport commercial tenants, and others who have responsibilities under the plan. Airport personnel should be properly trained and should be familiar with their assignments. The AEP should be reviewed annually to ensure that it is current and all parties are familiar with their responsibilities.

Potential emergencies and response scenarios should be discussed in the AEP under the following headings:

- Aircraft Incidents and Accidents
- Search and Rescue
- Natural Disasters (Tornado/ Thunderstorm/Flood)
- Terrorism (Bomb Incidents/Security Breach)
- Structural Fires
- Hazardous Materials
- Power Failure
- Crowd Control
- Unlawful Interference with Operations
- Wildlife encroachment on airfield

Lemhi County Airport should develop a detailed airport emergency plan with responses to various emergencies noted above. The most important thing to have in place for all emergencies is a contact list or communication tree and an emergency checklist. These can be found in Appendix H.

Appropriate response to a few of the emergencies listed above are outlined here.

Aircraft Accidents and Incidents

- Contact:
    - County Sheriff (911)
    - City of Salmon Police Department (Fire & Police)
    - NTSB 206-870-2200
    - FAA NW Mountain Region- Regional Operations Center 24 hour accident line 425-227-1389
    - Idaho State Police (possible)
    - Hospital (if needed)
- Set up first response/execute life safety activities
- Secure the scene- establish and inner and outer perimeter, restrict access to authorized personnel (FAA, police/fire/EMS, other emergency service agencies)
- Call in NOTAM to FSS/rescind when appropriate
- Preserve evidence and document wreckage and witnesses
- Remove wreckage
- Administer press inquiries

Missing Aircraft

- Report Missing Aircraft to:
  - Lemhi County Sheriff Department
  - Idaho Division of Aeronautics 800-426-4587
  - Idaho State Communications (if after normal office hours) 800-632-8000
  - FAA Flight Service Station 800-WXBRIEF
- Check Airport
- Route Search (Obtain a radar track and monitor for ELT transponder)
- Grid Search

Terrorism (such as bomb threats)

- Contact:
  - 911 and Salmon Police Department
  - FBI- has investigative jurisdiction
- Coordinate scene and prohibit access
- Administer isolation and evacuation,
- Search all areas threatened
- Administer press inquiries

Structural Fire

- Call 911 to engage local fire department and other regional emergency squads
- Evacuate premises
- Provide coordination between various agencies
- Issue NOTAM/rescind when appropriate

Natural Disasters

- FAA FSS will notify airport management when severe weather warning advisories have been received.
- Notify airport tenants and advise aircraft owners to disperse aircraft to airports outside of danger area, move into hangars, or tie down securely
- Assume supervision of emergency response

9.4.3. AIRPORT SELF-INSPECTIONS

An airport operator should have a self-inspection program that identifies and monitors changing airport conditions and provides for prompt corrective actions. Self-inspections should occur daily and include inspections of the following areas: pavements, safety areas, markings and signs, night inspection, and wildlife. Additional safety inspections shall be conducted whenever required by the following circumstances:

- During and after construction activity
- During rapidly changing meteorological conditions
- Immediately after any incident or accident
- After any other unusual condition on the airport

In addition, Idaho airports are required to perform monthly drive-by pavement inspections as part of ITD's pavement maintenance program and the FAA's grant assurance #11, Preventative Pavement Maintenance. This inspection is intended to identify any changes in pavement conditions since the last monthly inspection and record maintenance activities. Each month, this inspection should be submitted to the ITD Division of Aeronautics.

The FAA requires appropriate training and documentation of self-inspections. Training on self-inspections should occur prior to preforming duties and at least once every 12 months thereafter. Methods and procedures for airport self-inspections developed by the FAA can be found here:

Lemhi County Airport does not currently have a self-inspection program in place. An example self-inspection sheet for the airport can be found in Appendix H. In addition to daily inspections, it is recommended that ongoing training be scheduled for those inspecting the airport.

9.4.4. FAA REQUIRED NOTICES

FAR Part 77 Notification

In FAR Part 77, Objects Affecting Navigable Airspace, the FAA mandates that any object or structure that penetrates any of the "imaginary surfaces" is considered an obstruction to air navigation and forms the basis for height-restriction zoning ordinances as discussed in Chapter 7- Land Use Policy Review and Recommendations. FAR Part 77 requires that anyone intending to sponsor construction activities or alterations must notify the FAA prior to construction for the following conditions:

- Any construction or alteration that exceeds 200 feet above ground level
- Any construction or alteration:
    - Within 20,000 feet of a public-use or military airport that exceeds a 100:1 surface from any point on the runway of each airport, with at least one runway more than 3,200 feet
    - Within 10,000 feet of a public-use or military airport that exceeds a 50:1 surface from any point on the runway of each airport, with its longest runway no more than 3,200 feet
    - Within 5,000 feet of a public-use heliport that exceeds a 25:1 surface
- Any highway, railroad, or other traverse way for which the prescribed adjusted height would exceed the above-noted standards
- When requested by the FAA
- Any construction or alteration located on a public-use airport or heliport regardless of height or location.

Notification to the FAA for off-airport development is done through the FAA Obstruction Evaluation/Airport Airspace Analysis (OE/AAA) page which allows for electronic filing of the Notice of Proposed Construction or Alteration (FAA Form 7460-1).
Website: **https://oeaaa.faa.gov/oeaaa/external/portal.jsp**

NOTAM Issuance

The Notice to Airmen (NOTAM) system was established to provide timely information to aircraft operators to describe conditions on or around the airport that may affect aircraft operations. Typically, a NOTAM is issued and canceled by the airport owner or operator. The following steps should be taken when initiating a NOTAM:

- Call FAA Flight Data Center 1-877-US-NTMS
- Identify affected airport and person issuing the NOTAM
- Describe the conditions for the affected facility that prompted the NOTAM
- Furnish month, day, and time for beginning and end of conditions or effective time. In addition to listing outage time, NOTAMs should specify an expected time of return to service or previous conditions

The NOTAM is then disseminated by the FSS until canceled by the person or agency originating the NOTAM by calling the same 1-877 number. The NOTAM can be verified by calling the pilot briefing line at 1-800-WXBRIEF. Appropriate procedures must be in place to notify local tenants and coordinate any updates as conditions change.

A NOTAM log should be used to record the issuing date and time, NOTAM information, initials of the person issuing the NOTAM, and initials of the FSS individual receiving the information. The log should also include the cancellation date and time and initials of the individual canceling the NOTAM. The NOTAM log should be retained for event documentation and liability purposes.

9.4.5. LEMHI COUNTY AIRPORT OPERATIONAL POLICIES AND PROCEDURES RECOMMENDATIONS

Airport operational policies and procedures should be put in place in order to respond quickly and efficiently to issues and emergencies that may occur. The following items are recommended for Lemhi County Airport to improve current policies and procedures:

- **Develop an Airport Security Plan** and educate airport tenants on appropriate security procedures. An example is found in Appendix H.
- **Put an airport emergency plan (AEP) in place**, including an up-to-date emergency contact list. Educate those responsible for the maintenance and operation of the airport and local law enforcement on the appropriate responses in the event of various types of emergencies. An example phone list and emergency response checklist for airport sponsors is included in Appendix H.
- **Develop a routine self-inspection** program including the completion of a safety inspection checklist. See Appendix H.

- **Perform daily self-inspections.**
- **Review appropriate procedures for required NOTAM and Part 77 FAA notifications.**

REFERENCES AND RESOURCES

GENERAL REFERENCE:

ACRP Guidebook for Managing Small Airports
http://onlinepubs.trb.org/onlinepubs/acrp/acrp_rpt_016.pdf

FAA & STATE GRANT ASSURANCE COMPLIANCE:

FAA COMPLIANCE

FAA Order 5190.6B, FAA Airport Compliance Manual
http://www.faa.gov/airports/resources/publications/orders/compliance_5190_6/

AOPA's Guide to FAA Airport Compliance
http://www.aopa.org/asn/airport_compliance.pdf

Current FAA Advisory Circulars Required for Use in AIP funded Projects
http://www.faa.gov/airports/aip/media/aip_pfc_checklist_June2010.pdf

STATE COMPLIANCE

Idaho Airport Aid Program Grant and Project Guidelines
http://itd.idaho.gov/aero/

ENVIRONMENTAL COMPLIANCE:

STORMWATER POLLUTION PREVENTION PLAN

EPA National Pollutant Discharge Elimination System (NPDES)
http://cfpub.epa.gov/npdes/index.cfm

EPA Multi-Sector General Permit (MSGP)
http://cfpub.epa.gov/npdes/stormwater/msgp.cfm

SPILL PREVENTION CONTROL & COUNTERMEASURES

EPA SPCC Rule 40 Code of Federal Regulation (CFR) Part 112
http://www.epa.gov/lawsregs/search/40cfr.html

WILDLIFE HAZARD MITIGATION

FAA Wildlife Hazard Management at Airports
http://wildlife-mitigation.tc.faa.gov/wildlife/downloads/2005_FAA_Manual_complete.pdf

FAA AC 150/5200-33B: Hazardous Wildlife Attractants on or Near Airports August 2007
http://wildlife-mitigation.tc.faa.gov/wildlife/downloads/150_5200_33b.pdf

FAA AC 150/5200-32A: Reporting Wildlife Aircraft Strikes December 2004
http://wildlife-mitigation.tc.faa.gov/wildlife/downloads/150_5200_32a.pdf

AIRPORT USER COMPLIANCE:

EXCLUSIVE RIGHTS
FAA AC 150/5190-6, Exclusive Rights at Federally Obligated Airports
http://www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.information/documentNumber/150_5190-6

MINIMUM STANDARDS
FAA AC 150/5190-7, Minimum Standards for Commercial Aeronautical Activities
http://www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.information/documentNumber/150_5190-7

AOPA's Minimum Standards for Commercial Aeronautical Activities
http://www.aopa.org/asn/minimum_standards.pdf

THROUGH THE FENCE
FAA Compliance Guidance Letter 2009–1 - Through-the-Fence and On-Airport Residential Access to Federally Obligated Airports
http://www.faa.gov/airports/new_england/airport_compliance/media/through_the_fence.pdf

AGRICULTURAL LEASES
FAA AC150/5200-33A, Hazardous Wildlife Attractants On or Near Airports
http://www.faa.gov/documentLibrary/media/advisory_circular/150-5200-33B/150_5200_33b.pdf

OPERATIONAL POLICIES AND PROCEDURES:

SECURITY PLAN
TSA Security Guidelines for General Aviation Airports
http://www.tsa.gov/assets/pdf/security_guidelines_for_general_aviation_airports.pdf

EMERGENCY PLAN
FAA Airport Emergency Plan, AC 150/5200-31A
http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgAdvisoryCircular.nsf/0/c453094a5893400a86256c690074eb50/$FILE/150-5200-31a.pdf

NTSB Responding to an Aircraft Accident for Police and Public Safety Personnel
http://www.ntsb.gov/family/LEO_brochure.pdf

FAA First Responder Safety at a Small Aircraft or Helicopter Accident (for Fire, EMS, and Police)
http://www.faa.gov/aircraft/gen_av/first_responders/

SELF INSPECTIONS

FAA AC 150/5200-18C, Airport Safety Self Inspection
http://www.faa.gov/regulations_policies/advisory_circulars/index.cfm/go/document.information/documentID/23179

Idaho Airport Operational Safety Manual, Idaho Transportation Department, 1995

Idaho Aviation System Pavement Maintenance Program
http://itd.idaho.gov/aero/Publications/Pavement/Pavement.htm

LEMHI COUNTY AIRPORT MASTER PLAN

APPENDICES

Appendix A: Glossary of Terms
Appendix B: Idaho Airport System Plan Summary for Lemhi County Airport
Appendix C: Environmental Overview for Lemhi County Airport
Appendix D: Lemhi County Airport FAA and ITD Grant Histories
Appendix E: FAA and State Grant Assurances
Appendix F: Land Use Map and Documentation for Lemhi County Airport
Appendix G: FAA “Planning for Compliance” Guidance
Appendix H: Airport Management Best Practices Sample Plans and Worksheets

APPENDIX A

Glossary of Terms

GLOSSARY OF AVIATION TERMS

abandoned runway: A runway permanently closed to all aircraft operations, which may be marked in accordance with current FAA standards for marking and lighting of deceptive, closed and hazardous areas on airports.

access taxiway: A taxiway that provides access to a particular location or area.

active aircraft: Aircraft registered with the FAA and reported or estimated to have been flown at least one hour during the preceding year.

active runway: The runway at an airport that is being used for landing, taxiing or takeoff operations.

actual runway length: The length of a full-width usable runway from end to end of full strength pavement where those runways are paved.

Advisory Circular (AC): A series of external FAA publications consisting of all non-regulatory material of a policy, guidance and informational nature.

AGL: Above Ground Level

aircraft: A device that is used or intended to be used for flight in the air (FAR Part 1).

aircraft approach category: A grouping of aircraft based on 1.3 times their stall speed in their landing configuration at their maximum certificated landing weight. The categories are as follows:

Category A: Speed less than 91 knots.
Category B: Speed 91 knots or more but less than 121 knots.
Category C: Speed 121 knots or more but less than 141 knots.
Category D: Speed 141 knots or more but less than 166 knots.
Category E: Speed 166 knots or more.

aircraft mix: The type of aircraft which are to be accommodated at the airport.

aircraft operations: The airborne movement (landing or take-off) of aircraft in controlled or uncontrolled airport terminal areas and about given en route fixes or at other points where counts can be made. There are two types of operations - local and itinerant.

local operations are performed by aircraft which: Operate in the local traffic pattern or within sight of the airport (if: training). Are known to be departing for or arriving from flight in local

practice area within a 20-mile radius of the airport. Execute simulated instrument approaches or low passes at the airport.

itinerant operations are all aircraft operations other than local operations.

aircraft tiedowns: Positions on the ground surface that are available for securing aircraft.

Airplane Design Group (ADG): A grouping of planes based on their wingspan. The groups are as follows:

Group I: Up to but not including 49 feet.
Group II: 49 feet up to but not including 79 feet.
Group III: 79 feet up to but not including 118 feet.
Group IV: 118 feet up to but not including 171 feet.
Group V: 171 feet up to but not including 214 feet.
Group VI:214 feet up to but not including 262 feet.

airport: An area of land or water that is used or intended to be used for the landing and takeoff of aircraft, and includes its buildings and facilities, if any.

airport beacon: A visual navigation aid displaying alternating white and green Rashes to indicate a lighted airport or white flashes only for an unlighted airport.

airport elevation: The highest point of an airport's usable runways measured in feet above mean sea level.

airport imaginary surfaces: Imaginary surfaces established at an airport for obstruction determination purposes and consisting of primary, approach/departure, horizontal, vertical, conical, and transitional surfaces.

Airport Improvement Program (AIP): The Airport Improvement Program of the Airport and Airways Improvement Act of 1982 as amended by the Airport and Airway Safety and Capacity Expansion Act of 1987. Under this program, the FAA provides funding assistance for the planning, design and development of airports and airport facilities.

Airport Layout Plan (ALP): A graphic presentation, to scale, of existing and proposed airport facilities, their location on the airport, and the pertinent clearance and dimensional information required to show conformance with applicable standards. To be eligible for AIP funding assistance, an airport must have an FAA approved airport layout plan.

Airport Master Plan: Presents the planner's conception of the ultimate development of a specific airport. It presents the research and logic from which the plan was evolved and displays the plan in a graphic and written report.

Airport Reference Code (ARC): The ARC combines two separate factors of aircraft design (aircraft approach category and wingspan) into one code. The first designator, represented by letters A through E, is the "aircraft approach category" and relates to an aircraft's speed as it approaches an airport for landing. The second designator, represented by Roman numerals I through VI, is the airplane "design group", and relates to an aircraft's wingspan.

Airport Reference Point (ARP): The latitude and longitude of the approximate center of the airport.

airport sponsor: A public agency or tax-supported organization such as an airport authority, that is authorized to own and operate the airport, to obtain property interests, to obtain funds, and to be legally, financially, and otherwise able to meet all applicable requirements of current laws and regulations.

airspace: Space in the air above the surface of the earth or a particular portion of such space, usually defined by the boundaries of an area on the surface projected upward.

approach and runway protection zone layout: A graphic presentation to scale of the imaginary surfaces defined in FAR Part 77.

approach area: The defined area the dimensions of which are measured horizontally beyond the threshold over which the landing and takeoff operations are made.

approach slope ratio: The ration of horizontal to vertical distance indicating the degree of inclination of the approach surface.

Approach surface: An imaginary surface longitudinally centered on the extended centerline of the runway, beginning at the end of the primary surface and rising outward and upward to a specified height above the established airport elevation.

apron: A defined area, on a land airport, intended to accommodate aircraft for purposes of loading or unloading passengers or cargo, refueling, parking, or maintenance.

Automated Weather Observation System (AWOS):
This equipment automatically gathers weather data from various locations on an airport and transmits the information directly to pilots by means of computer generated voice messages over a discrete frequency.

Avigation easement: A land use easement permitting the unlimited operation of aircraft in the airspace above the land area involved.

based aircraft: The total number of active general aviation aircraft which use or may be expected to use an airport as a "home base."

building area: An area on an airport to be used, considered, or intended to be used, for airport buildings or other airport facilities or rights-of-way, together with all airport buildings and facilities located thereon.

building restriction line (BRL): A line shown on the airport layout plan beyond which airport buildings must not be positioned in order to limit their proximity to aircraft movement areas.

commercial service: Commercial service airports are public use airports which receive scheduled passenger service aircraft, and which annually enplane 2,500 or more passengers.

conical surface: A surface extending from the periphery of the horizontal surface outward and upward at a slope of 20 to 1 for the horizontal distances and the elevations above the airport elevation as prescribed by FAR Part 77.

controlled airspace: Airspace in which some or all aircraft may be subject to air traffic control to promote safe and expeditious flow of air traffic.

crosswind: A wind blowing across the line of flight of an aircraft.

crosswind component: A wind component that is at a right angle to the longitudinal axis of the runway or the flight path of the aircraft.

crosswind runway: A runway additional to the primary runway to provide for wind coverage not adequately provided by the primary runway.

downwind leg: A flight path in the traffic pattern parallel to the landing runway in the direction opposite to landing. It extends to the intersection of the base leg.

executive aircraft operator: A corporation, company, or individual which operates owned or leased aircraft, flown by pilot(s) whose primary duties involve pilotage of aircraft, as a means of transportation or personnel or cargo in the conduct of company business.

exit taxiway: A taxiway used as an exit from a runway to the apron or other aircraft operating area.

FAR Part 77: Contains obstruction requirements at or near airports.

Federal Aviation Administration (FAA): Created by the act that established the Department of Transportation. Assumed all of the responsibilities of the former Federal Aviation Agency.

fixed base operator (FBO): An individual or company located at an airport, and providing commercial general aviation services.

flight plan: Specified information relating to the intended flight of an aircraft, which is filed orally or in writing with air traffic control.

fuel flowage fees: Fees levied by the airport operator per gallon of aviation gasoline and jet fuel sold at the airport.

general aviation: That portion of civil aviation which encompasses all facets of aviation except air carriers holding a certificate of convenience and necessity from the Civil Aeronautics Board, and large aircraft commercial operators.

general aviation airports: Those airports with fewer than 2,500 annual enplaned passengers and those used exclusively by private and business aircraft not providing common-carrier passenger service.

general aviation itinerant operations: Takeoffs and landings of civil aircraft (exclusive of air carrier) operating on other than local fights.

hangar: A building used to store one or more aircraft, and/or conduct aircraft maintenance.

horizontal surface: A specified portion of a horizontal plane located 150 feet above the established airport elevation which establishes the height above which an object is determined to be an obstruction to air navigation.

IFR airport: An airport with an authorized instrument approach procedure.

IFR conditions: Weather conditions below the minimum for flight under visual fight rules.

ILS Category I: An ILS which provides acceptable guidance information from the coverage limits of the ILS to the point at which the localizer course line intersects the glide path at a height of 100 feet above the horizontal plane containing the runway threshold. A Category I ILS supports landing minima as low as 200 ft. HAT and 1800 ft. RVR.

instrument approach: An approach to an airport, with intent to land, by an aircraft flying in accordance with an IFR flight plan, when the visibility is less than 3 miles and/or when the ceiling is at or below the minimum initial altitude.

instrument approach runway: A runway served by an electronic aid providing at least directional guidance adequate for a straight-in approach.

Instrument Flight Rules (IFR): Rules governing the procedures for conducting instrument flight. Pilots are required to follow these rules when operating in controlled airspace with a visibility of less than three miles and/or a ceiling lower than 1,000 feet.

Instrument Landing System (ILS): A system which provides in the aircraft, the lateral, longitudinal, and vertical guidance necessary for a landing.

itinerant operations: All aircraft arrivals and departures other than local operations.

jet noise: The noise generated externally to a jet engine in the turbulent jet exhaust.

landing gear: That part of an aircraft which is required for landing. Gear may be configured as Single Wheel Gear (SWG), Dual Wheel Gear (DWG), or Dual Tandem Wheel Gear (DTWG).

landing roll: The distance from the point of touchdown to the point where the aircraft can be brought to a stop, or exit the runway.

landside operations: Those parts of the airport designed to serve passengers including the terminal buildings, vehicular circular drive, and parking facilities.

land use plan: Shows on-airport land uses as developed by the airport sponsor under the master plan effort and off-airport land uses as developed by surrounding communities.

large aircraft: Aircraft of more than 12,500 pounds maximum certificated takeoff weight.

Ldn: A quantity indicating a day-night noise exposure level calculated using the Ldn noise-forecasting methodology. This quantity can be used to predict community response to projected levels of aircraft activity.

local traffic: Aircraft operating in the local traffic pattern or within sight of the tower, or aircraft known to be departing for or arriving from flight in local practice areas, or aircraft executing simulated instrument approaches at the airport.

location map: Shown on the airport layout plan drawing, it depicts the airport, cities, railroads, major highways, and roads within 20 to 50 miles of the airport.

marking: On airports, a pattern of contrasting colors placed on the pavement, turf, or other usable surface by paint or other means to provide specific information to aircraft pilots and sometimes to operators of ground vehicles, on the movement areas.

minimums: Minimum altitude a pilot can descend to when conducting an instrument approach. Also refers to the minimum visibility a pilot must have to initiate an instrument approach.

MIRL: Medium Intensity Runway Lighting.

Multi-engine aircraft: Reciprocating, turbo-prop or jet powered fixed wing aircraft having more than one engine.

municipally operated airport: An airport owned by a city and run as a department of the city, with policy direction by the city council and, in some cases, by a separate airport commission or advisory board.

National Plan of Integrated Airport Systems (NPIAS): A plan prepared by the FAA which identifies, for the Congress and the public, the composition of a national system of airports together with the airport development necessary to anticipate and meet the present and future needs of civil aeronautics, to meet requirements in support of the national defense, and to meet the special needs of the postal service. The plan includes both new facilities and qualitative improvements to existing airports to increase their capacity, safety, technological capability, etc.

NAVAID: Any facility used as, available for use as, or designed for use as an aid to air navigation, including landing areas, lights, any apparatus or equipment for disseminating weather information, for signaling, for radio direction-finding, or for radio or other electronic communication, and any other structure or mechanism having similar purpose and controlling flight in the air or the landing or takeoff of aircraft.

navigable airspace: Airspace at and above the minimum flight altitudes prescribed in the FARs, including airspace needed for safe takeoff and landing.

non-precision instrument runway: A runway having an existing instrument approach procedure utilizing air navigation facilities with only horizontal guidance for which straight-in non-precision instrument approach procedure has been approved.

non-precision approach procedure: A standard instrument approach procedure in which no electronic glide slope is provided.

non-precision instrument approach aid: An electronic aid designed to provide an approach path for aligning an aircraft on its final approach to a runway. It lacks the high accuracy of the precision approach equipment and does not provide descent guidance. The VHF Omnirange (VOR) and the non-directional beacon (NDB) are two examples of non-precision instrument equipment.

Notice to Airmen (NOTAM): A notice containing information (not known sufficiently in advance to publicize by other means) concerning the establishment, condition, or change in any component (facility, service, or procedure) of, or hazard in the National Airspace System, the timely knowledge of which is essential to personnel concerned with flight operations.

obstruction: An object which penetrates an imaginary surface described in the FAA's Federal Aviation Regulation (FAR) Part 77.

parking apron: An apron intended to accommodate parked aircraft.

pavement structure: The combination of runway base and subbase courses and surface course which transmits the traffic load to the subgrade.

pavement subgrade: The upper part of the soil, natural or constructed, which supports the loads transmitted by the runway pavement structure.

pavement surface course: The top course of a pavement, usually Portland cement concrete or bituminous concrete, which supports the traffic load.

precision approach: A standard instrument approach using a precision approach procedure. See precision approach procedure.

Precision Approach Path Indicator (PAPI): A system of lights on an airport that provides visual descent guidance to the pilot of an aircraft approaching a runway.

precision approach procedure: A standard instrument approach procedure in which an electronic glide slope is provided, such as ILS and PAR.

Primary Surface: A rectangular surface longitudinally centered about a runway. Its width is a variable dimension and it usually extends 200 feet beyond each end of the runway. The elevation of any point on this surface coincided with the elevation of its nearest point on the runway centerline or extended runway centerline.

public airport: An airport for public use, publicly owned and under control of a public agency.

ramp: A defined area, on a land airport, intended to accommodate aircraft for purposes of loading or unloading passengers or cargo, refueling, parking, or maintenance.

rotating lighted beacon: An airport aid allowing pilots the ability to locate an airport while flying under VFR conditions at night.

runway: A defined rectangular area on a land airport prepared for the landing and takeoff run of aircraft along its length.

runway bearing: The magnetic or true bearing of the runway centerline as measured from magnetic or true north.

runway configuration: Layout or design of a runway or runways, where operations on the particular runway or runways being used at a given time are mutually dependent. A large airport can have two or more runway configurations operating simultaneously.

runway direction number: A whole number to the nearest tenth of the magnetic bearing of the runway and measured in degrees clockwise from magnetic north.

runway end identification lights (REIL): An airport lighting facility in the terminal area navigation system consisting of one flashing white high intensity light installed at each approach end corner of a runway and directed toward the approach zone, which enables the pilot to identify the threshold of a usable runway.

runway environment: The runway threshold or approach lighting aids or other markings identifiable with the runway.

runway gradient (effective): The average gradient consisting of the difference in elevation of the two ends of the runway divided by the runway length may be used provided that no intervening point on the runway profile lies more than 5 feet above or below a straight line joining the two ends of the runway. In excess of 5 feet, the runway profile will be segmented and aircraft data will be applied for each segment separately.

runway lights: Lights having a prescribed angle of emission used to define the lateral limits of a runway. Runway light intensity may be controllable or preset, and are uniformly spaced at intervals of approximately 200 feet.

runway markings: (1) Basic marking-markings on runways used for operations under visual flight rules, consisting of centerline marking and runway direction numbers, and if required, letters. (2) Instrument marking-markings on runways served by nonvisual navigation aids and intended for landings under instrument weather conditions, consisting of basic marking plus threshold marking. (3) All-weather marking- markings on runways served by nonvisual precision approach aids and on runways having special operational requirements, consisting of instrument markings plus landing zone marking and side strips.

runway orientation: The magnetic bearing of the centerline of the runway.

runway protection zone (formerly called the "clear zone"): A runway protection zone is a trapezoidal area at ground level, under the control of the airport authorities, for the purpose of protecting the safety of approaches and keeping the area clear of the congregation of people. The runway protection zone begins at the end of each primary surface and is centered upon the extended runway centerline.

runway safety area: A runway safety area is a rectangular area, centered on the runway centerline, which includes the runway (and stopway, if present) and the runway shoulders. The portion abutting the edge of the runway shoulders, runway ends, and stopways is cleared, drained, graded, and usually turfed. Under normal conditions, the runway safety area is capable

of supporting snow removal, firefighting, and rescue equipment and accommodating the occasional passage of aircraft without causing major damage to the aircraft.

runway strength: The assumed ability of a runway to support aircraft of a designated gross weight for each of single-wheel, dual-wheel, and dual-tandem-wheel gear types.

segmented circle: A system of visual indicators designed to provide traffic pattern information at an airport without an operating control tower.

shoulder: As pertaining to airports, an area adjacent to the edge of a paved surface so prepared to provide a transition between the pavement and the adjacent surface for aircraft running off the pavement, for drainage and sometimes for blast protection.

single runway: An airport having one runway.

small aircraft: Aircraft of 12,500 pounds or less maximum certificated takeoff weight.

straight-in approach (IFR): An instrument approach wherein final approach is commenced without first having executed a procedure turn (not necessarily completed with a straight-in landing).

straight-in approach (VFR): Entry into the traffic pattern by interception of the extended runway centerline without executing any other portion of the traffic pattern.

taxiway: A defined path, usually paved, over which aircraft can taxi from one part of an airport to another.

taxiway safety area: A cleared, drained and graded area, symmetrically located about the extended taxiway centerline and adjacent to the end of the taxiway safety area.

terminal area: The area used or intended to be used for such facilities as terminal and cargo buildings, gates, hangars, shops and other service buildings; automobile parking, airport motels and restaurants, and garages and vehicle service facilities used in connection with the airport; and entrance and service roads used by the public within the boundaries of the airport.

T-hangar: An aircraft hangar in which aircraft are parked alternately tail to tail, each in the T-shaped space left by the other row of aircraft or aircraft compartments.

threshold: The designated beginning of the runway that is available and suitable for the landing of airplanes.

threshold crossing height (TCH): The height of the straight-line extension of the visual or electronic glide slope above the runway threshold.

threshold lights: Lighting arranged symmetrically about the extended centerline of the runway identifying the runway threshold. They emit a fixed green light.

total operations: All arrivals and departures performed by military, general aviation and air carrier aircraft.

touchdown: (1) The point at which an aircraft first makes contact with the landing surface. (2) In a precision radar approach, the point on the landing surface toward which the controller issues guidance instructions.

touchdown zone: The area of a runway near the approach end where airplanes normally align.

traffic pattern: The traffic flow that is prescribed for aircraft landing at, taxiing on, and taking off from an airport. The usual components of a traffic pattern are upwind leg, crosswind leg, downwind leg, base leg, and final approach.

transient: Operations or other activity performed by aircraft not based at the airport.

transitional surface: A surface which extends outward and upward from the sides of the primary and approach surfaces normal to the runway centerline which identifies the height limitations on an object before it becomes an obstruction to air navigation.

turning radius: The radius of the arc described by an aircraft in making a self-powered turn, usually given as a minimum.

UNICOM: Frequencies authorized for aeronautical advisory services to private aircraft. Only one such station is authorized at any landing area. The frequency 123.0 MHz is used at airports served by airport traffic control towers, and 122.8 MHz is used for other landing areas. Services available are advisory in nature, primarily concerning the airport services and airport utilization.

utility airport (or runway): An airport (or runway) which accommodates small aircraft excluding turbojet powered aircraft.

VFR airport: An airport without an authorized or planned instrument approach procedure.

VHF Omnidirectional Range (VOR): A radio transmitter facility in the navigation system radiating a VHF radio wave modulated by two signals, the relative phases of which are compared, resolved and displayed by a compatible airborne receiver to give the pilot a direct indicating of bearing relative to the facility.

vicinity map: Shown on the airport layout plan drawing, it depicts the relationship of the airport to the city or cities, nearby airports, roads, railroads, and built-up areas.

visual approach: An approach wherein an aircraft on an IFR flight plan, operating in VFR conditions under the control of a radar facility and having an air traffic control authorization, may deviate from the prescribed instrument approach procedure and proceed to the airport of destination, served by an operational control tower, by visual reference to the surface.

visual approach aid: Any device, light, or marker used to provide visual alignment and/or descent guidance on final approach to a runway. Also see REIL, VASI.

Visual Flight Rules (VFR): Rules that govern the procedures for conducting flight under visual conditions (FAR Part 91).

visual runway: A runway intended solely for the operation of aircraft using visual approach procedures, with no straight-in instrument approach procedure and no instrument designation indicated on an FAA-approved airport layout plan, a military service approved military airport layout plan, or by a planning document submitted to the FAA by competent authority (FAR Part 77).

VORTAC: Very High Frequency Omni Range Facility (VOR co-located with a Tactical Air Navigation (TACAN) facility.

wind cone: A free-rotating fabric truncated cone which when subjected to air movement indicates wind direction and wind force.

windrose: A diagram for a given location showing relative frequency and velocity of wind from all compass directions.

Zulu time (Z): Time at the prime meridian in Greenwich, England.

APPENDIX B

Idaho Airport System Plan Summary for Lemhi County Airport

Idaho Airport System Plan

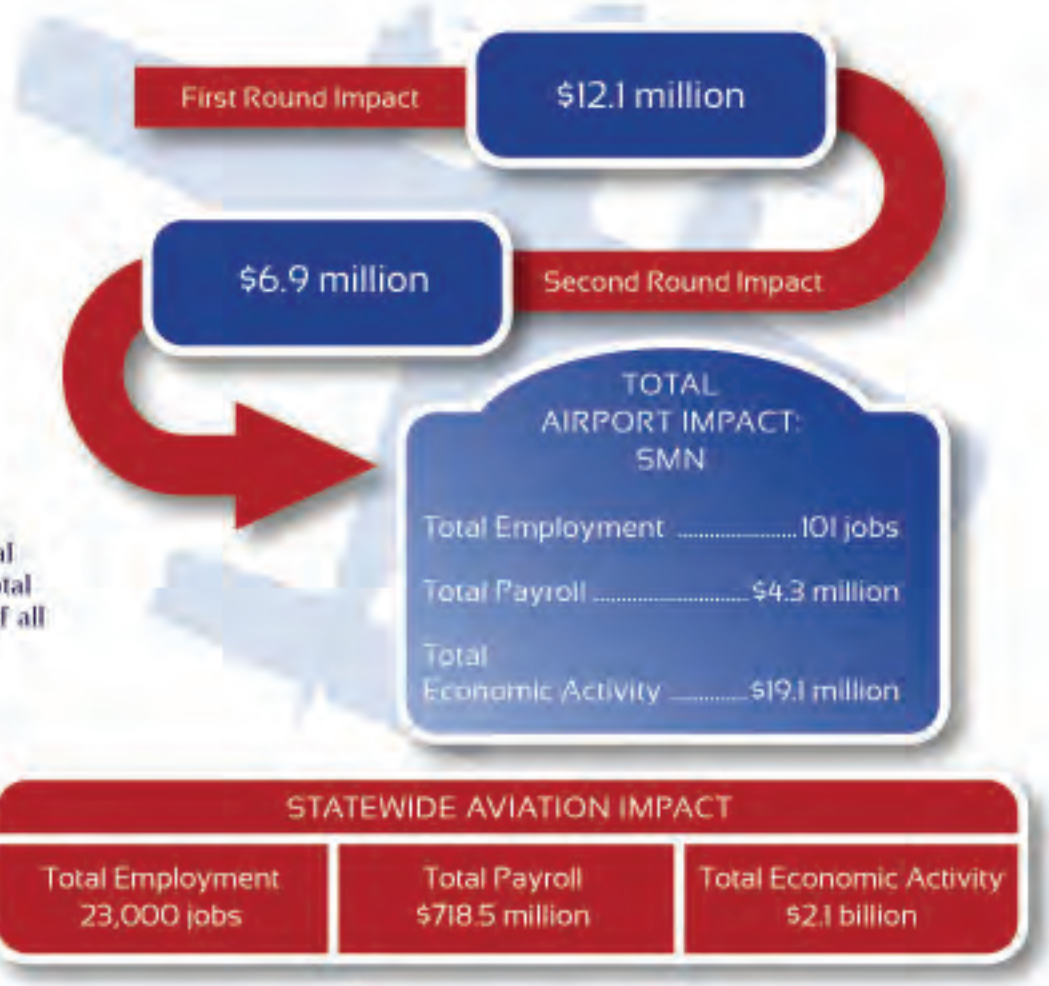
Lemhi County Airport

SMN

INDIVIDUAL AIRPORT SUMMARY | 2009

Economic Benefit to Idaho

The system plan quantifies the total economic activity of each airport in the Idaho system. Through a comprehensive survey process, the direct economic benefits related to on-airport business tenants and the indirect benefits associated with visitor related expenditures were determined for each system airport. The multiplier effect of these benefits was then calculated to ascertain the total airport-related impacts. The total economic activity is the sum of all direct (on-airport), indirect (off-airport visitor industry), and multiplier impacts. The study finds that aviation-related businesses located on airports support thousands of jobs and produce billions of dollars of economic impact.



Compatible Land Use

The development of land uses that are not compatible with airports and aircraft noise is a growing concern across the country. In addition to aircraft noise, there are other issues such as safety and environmental impacts to land uses around airports which need to be considered when addressing the overall issue of land use compatibility. Although several federal programs include noise standards or guidelines as part of their funding-eligibility and performance criteria, the primary responsibility for integrating airport considerations into the local land use planning process rests with local governments. ITD Division of Aeronautics has long been an advocate for compatible land use planning around airports. Through the IASP, an Airport Land Use Guidebook was developed for use by the airports, local governments, and the Division of Aeronautics. The Idaho Airport Land Use Guidebook not only informs and educates airports, communities, and local governments but it also provides the necessary tools for implementing compatible land use planning.

IDAHO TRANSPORTATION DEPARTMENT
AERONAUTICS

For more information contact:

IDAHO TRANSPORTATION DEPARTMENT | DIVISION OF AERONAUTICS
3483 RICKENBACKER STREET, BOISE, ID 83705 | P.O. BOX 7129, BOISE, ID 83707-1129
PHONE: 1-208-334-8775 | IN-STATE TOLL FREE: 1-800-426-4587 | FAX: 1-208-334-8789
HTTP://ITD.IDAHO.GOV/AERO/

Prepared by: Wilbur Smith Associates and T-O Engineers

Understanding the Airport

Salmon-Lemhi County Airport is located in the mountains of central Idaho, along US Highway 93. The airport has experienced steady growth in activity and based aircraft over recent years. With a runway length of over 5,000 feet the airport can handle a variety of aircraft.

The airport serves several area businesses, including QB Corporation, UPS, and Idaho Power. Cargo as well as passengers are flown in and out of Salmon each and every day.

Salmon-Lemhi County Airport serves as a gateway to the backcountry with flights for hunting, backpacking, and rafting expeditions during the respective seasons. Environmental patrols, as well as firefighting activities are based here during the summer. The U.S. Forest Service bases one of its largest operations in the state out of Salmon during the fire season. Life Flight Network also operates at the airport, transporting patients and supplies from Salmon to facilities in Missoula and Idaho Falls.

There are several aviation-related business located on airport property: McCall Aviation and Lenny's Airmotive. These businesses provide aircraft services, charter flights, and fuel.

The airport provides the city of Salmon and Lemhi County with travel options in a mountain environment, where other forms of travel may be cost-prohibitive, as well as transferring cargo in and out of the area. Recreational users and seasonal visitors to the area use the airport for access to the Middle Fork Salmon River and central Idaho wilderness areas.

Salmon-Lemhi County Airport adds value to the area by supplying operations such as mining, lumber, and ranching, as well as light industrial manufacturing. By providing access to several fly-in only areas in the mountains, and by transporting passengers and cargo throughout this area of Idaho, Salmon-Lemhi County Airport has a significant economic impact on the area it serves.

Airport Roles

The Idaho Airport System Plan (IASP) has identified five functional roles for the 75 public-use airports included in the study. These roles expand on the Federal Aviation Administration's (FAA) role categories of commercial service and general aviation airports. Airports that are included in the FAA's National Plan of Integrated Airport Systems (NPIAS) are eligible for federal funding.

Role Summary	
IASP Role →	Regional Business
Federal Role →	General Aviation
NPIAS →	Yes

Forecasts

When planning for new or additional airport facilities, projections in the form of based aircraft and annual operations can be helpful in determining the type and size of necessary improvements. Historical demand and local socioeconomic indicators, as well as state and national trends and the airport's master plan were reviewed in developing the airport's forecast.

The table below highlights the forecast activity for Lemhi County Airport.

Activity Forecast Summary		
ACTIVITY	2007	2027
Based Aircraft	53	67
Annual Operations	24,500	30,800

Facilities & Services and Recommended Development Costs

Facility and service objectives were developed for each of the five role categories of the IASP. These objectives provide guidance on the minimum level of facilities and services needed for the airport to fulfill its identified role in the system.

In order to continue to serve the aviation needs of surrounding communities and the State of Idaho, the IASP has identified several important projects for the airport. Many of these projects are eligible for federal and/or state funding. Recommended development costs include projects needed to meet each of the recommendations of the Idaho Airport System Plan as well as projects from the airport's capital improvement plan (CIP). While these projects are included as part of the IASP, it is recognized that execution of these projects is dependent on the local economic environment. Further, if the minimum system objective is exceeded, then maintenance of that objective is recommended.

The following table summarizes current facilities and services, the airport's facility and service objectives, projects recommended to meet the objectives within the context of the system plan, and the estimated development costs to implement the projects. Planning and environmental recommendations serve as guidance

related to the development needed for the airport to fulfill its role in the overall statewide system.

Lemhi County Airport is an integral component to the State's system of airports. It provides access to our nation's air transportation network, provides community benefits, and generates economic activity. The proposed development improvements will ensure that Lemhi County Airport continues to provide area residents and businesses with the aviation infrastructure necessary for the 21st century.

	EXISTING	SYSTEM OBJECTIVE	RECOMMENDATION	DEVELOPMENT COST
AIRSIDE FACILITIES				
Primary Runway Length	5,150 feet	6,070 feet or greater	Extend 920 feet	$698,300**
Runway Width	60 feet	75 feet	Widen 15 feet	$1,117,600**
Runway Strength	12,500 Lbs SW	30,000 Lbs SW	None	$0
Taxiway Type	Full Parallel	Full/Partial Parallel	None	$0
Instrument Approach	Non-Precision	Non-Precision (Near-Precision desired)	None	$0
Visual Aids	Rotating Beacon	Rotating Beacon	None	$0
	Lighted Wind Cone	Lighted Wind Cone	None	$0
	REILS	REILS	None	$0
	PAPI	PAPI/VASI	None	$0
Runway Lighting/Reflectors	MIRL	MIRL/HIRL	None	$0
Weather Reporting Facilities	AWOS	AWOS/ASOS	None	$0
LANDSIDE FACILITIES				
Terminal with Public Restroom	None	Yes	Construct Terminal	$190,000**
Hangar Storage	99 Spaces	37 Spaces	None	$0
Apron Spaces	58 Spaces	31 Spaces	None	$0
Auto Parking	None	Parking Spaces	Add 10 Spaces	$22,000**
SERVICES				
Phone	Yes	Yes	None	$0
Restroom	Yes	Yes	None	$0
FBO	Yes	Yes	None	$0
Maintenance Facilities	Yes	Yes	None	$0
Fuel	AvGas and Jet A	AvGas and Jet A	None	$0
Ground Transportation	Rental Car	Rental Car	None	$0
PAVEMENT MAINTENANCE, PLANNING/ENVIRONMENTAL AND MISCELLANEOUS				
Pavement Maintenance				$1,553,100**
Master Plan/ALP/Environmental				$150,000**
Airside Development				$776,600**
Segmented Circle				$9,500**
Other CIP Projects				$2,123,400*
TOTAL				$6,640,500

**Airport Capital Improvement Plan (CIP) Project* | ***Idaho Airport System Plan (IASP) Project*

APPENDIX C

Environmental Overview for Lemhi County Airport

Introduction

The purpose of this section is to provide an environmental overview of potential environmental issues associated with the proposed improvements at the Lemhi County Airport. The review is not meant to satisfy requirements outlined in FAA Order 5050.4B, National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions, or to fulfill requirements under NEPA. This environmental review will assist in planning future improvements at the airport. The following environmental resources are considered in this environmental review, where applicable:

- Air Quality
- Coastal Resources
- Compatible Land Use
- Construction Impacts
- Department of Transportation Act: Section 4(f)
- Farmlands
- Fish, Wildlife, and Plants
- Floodplains
- Hazardous Materials
- Historical and Cultural Resources
- Light Emissions
- Natural Resources and Energy Supply
- Noise
- Induced Impacts
- Socioeconomic Impacts, Environmental Justice, and Children's Environmental Health and Safety Risks
- Water Quality
- Wetlands
- Wild and Scenic Rivers

Air Quality

Lemhi County is considered an attainment area for all National Ambient Air Quality Standards criteria pollutants established by the Clean Air Act.

According to the FAA Environmental Desk Reference for Airport Actions, if the proposed improvements occur at an airport having less than 180,000 general aviation operations and less than 1.3 million enplanements, an air quality analysis is not needed. Since the enplanements are forecasted to be significantly less than 1.3 million enplanements and the general aviation operations less than 180,000, no significant impacts can be expected from the proposed improvements.

Coastal Resources

The Lemhi County Airport is located in Idaho which is inland; therefore, this resource is not considered or applicable.

Compatible Land Use

According to the Lemhi County Zoning Map and associated ordinances dated November 26, 2007, the airport is currently zoned as an Airport Zoning District and the adjacent lands are zoned as Agriculture/Residential, Industrial or Commercial. The land to be acquired as part of the proposed improvements will need to be zoned appropriately.

Construction Impacts

Construction impacts are commonly short-term and temporary in nature. Typical impacts resulting from an airport construction project include air, water, and noise pollution, as well as potential impacts resulting from generation and disposal of increased amounts of solid and/or hazardous waste.

All on-site construction activities must be conducted in accordance with FAA AC 150/5370-10A, *Standards for Specifying Construction of Airports,* and incorporate best management practices into project plans. Implementing these measures will prevent or minimize most potential construction-related impacts to the environment and surrounding community.

Department Transportation Act; Section 4(f)

Section 4(f) of the Department of Transportation Act provides that the Secretary of Transportation will not approve any program or project that requires the use of any publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance or land from an historic site of national, State or local significance as determined by the officials that have jurisdiction thereof, unless there is no feasible and prudent alternative to the use of such land and such program, and the project includes all possible planning to minimize harm resulting from the use. Within the airport property boundaries, the Gray Lateral and City Ditch were found to be eligible for the National Register of Historic Places. As presented, the proposed improvements at the airport would not impact either of these features. A cultural resource survey would need to be conducted prior to project implementation to determine if any new cultural resources may exist in the project area and if the site has local significance. Review of existing databases and maps did not reveal any public owned land within or proposed for the identified improvements.

Farmlands

Prime farmland, as identified by the US Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor, and without intolerable soil erosion. The Farmland Protection Policy Act (FPPA) regulates Federal actions with the potential to convert farmland to non-agricultural uses. Review of the soil survey for Lemhi County indicates the soils as not considered prime farmland. Further, according to the FPPA, lands already committed to urban development, such as the airport; do not meet the definition of prime or unique farmlands.

Fish, Wildlife, and Plants

Table 1 identifies the federally listed threatened, endangered and candidate species that occur in Lemhi County, Idaho.

Table 1. List of Threatened, Endangered and Candidate Species for Lemhi County, Idaho.

Species	Scientific Name	Federal Status
Greater Sage-Grouse	*Centrocercus urophasiunus*	Candidate for Listing
Yellow-billed cuckoo	*Coccyzus americanus*	Candidate for Listing
Canada lynx	*Lynx canadensis*	Listed Threatened
Gray wolf	*Canis lupus*	Listed Experimental Nonessential
Wolverine	*Gulo gulo*	Listed Candidate
Bull trout	*Salvelinus confluentus*	Listed Threatened/Designated Critical Habitat
Sockeye salmon	*Oncorhynchus nerka*	Endangered
Chinook salmon	*Oncorhynchus tshawytscha*	Threatened
Steelhead	*Oncorhynchus mykiss*	Threatened
Source: USFWS Species List for Lemhi County, Idaho updated on December 13, 2010.		

An information request was sent to the Idaho Department of Fish & Game (IDFG) Conservation Data Center to determine if any sightings of Idaho special status species have occurred within a five mile radius of the airport. The following species were identified in the Idaho Fish and Wildlife Information request from the IDFG:

Animals

- Bald eagle (*Haliaeetus leucocephalus*)
- Bohemian waxwing (*Bombycilla garrulus*)
- Columbia spotted frog (*Rana luteiventris*)
- Common grackle (*Quiscalus quiscula*)
- Common loon (*Gavia immer*)
- Flammulated owl (*Otus flammeolus*)
- Harlequin duck (*Histrionicus histrionicus*)
- Long-eared myotis (*Myotis evotis*)
- Long-legged myotis (*Myotis volans*)
- Merlin (*Falco columbarius*)
- Peregrine falcon (*Falco peregrinus*)
- Shortspire pondsnail (*Stagnicola idahoensis*)
- Townsend's big-eared bat (*Corynorhinus townsendii*),
- Columbia River redband trout (*Oncorhynchus mykiss gairdneri*),
- Cutthroat trout (*Oncorhynchus clarkii*),
- Westslope cutthroat trout (*Oncorhynchus clarkii lewisi*), and
- White sturgeon (*Acipenser transmontanus*)

Plants

- Lemhi penstemon (*Penstemon lemhiensis*)
- Salmon twin bladderpod (*Physaria didymocarpa* var. *lyrata*)
- Blue gramma (*Bouteloua gracilis*)
- Idaho range lichen (*Xanthoparmelia idahoensis*)

Insects

- Sagebrush spur-throat grasshopper (*Melanoplus artemesiae*)

No field investigations were made to determine the presence and/or absence of these species in the project area or vicinity. A biological evaluation including field investigations will be necessary for any proposed improvements at the airport.

Floodplains

According to Federal Emergency Management Agency Flood Insurance Rate Maps, community panel numbers 160092 0540 A and 160092 0655 A dated February 5, 1986, the Lemhi County Airport is listed as "Zone C" which is considered an area of minimal flooding and outside of the 100-year flood stage. Therefore, it's assumed none of the proposed improvements at the airport will impact floodplain resources in the area.

Hazardous Materials

The project area was searched for existing, known, and potential sources of hazardous materials using all available databases. The search radius was taken from the American Society for Testing and Materials Standard E 1527-05.

Review of existing databases identified one record within the search radius of the airport. The Idaho Department of Environmental Quality's database indicates three underground storage tanks used for gasoline at the airport. The tanks are located adjacent to a new building to be constructed as part of the proposed improvements. A survey of the site, as well as an update of the databases reviewed should be conducted prior to project implementation to ensure minimal risk during construction.

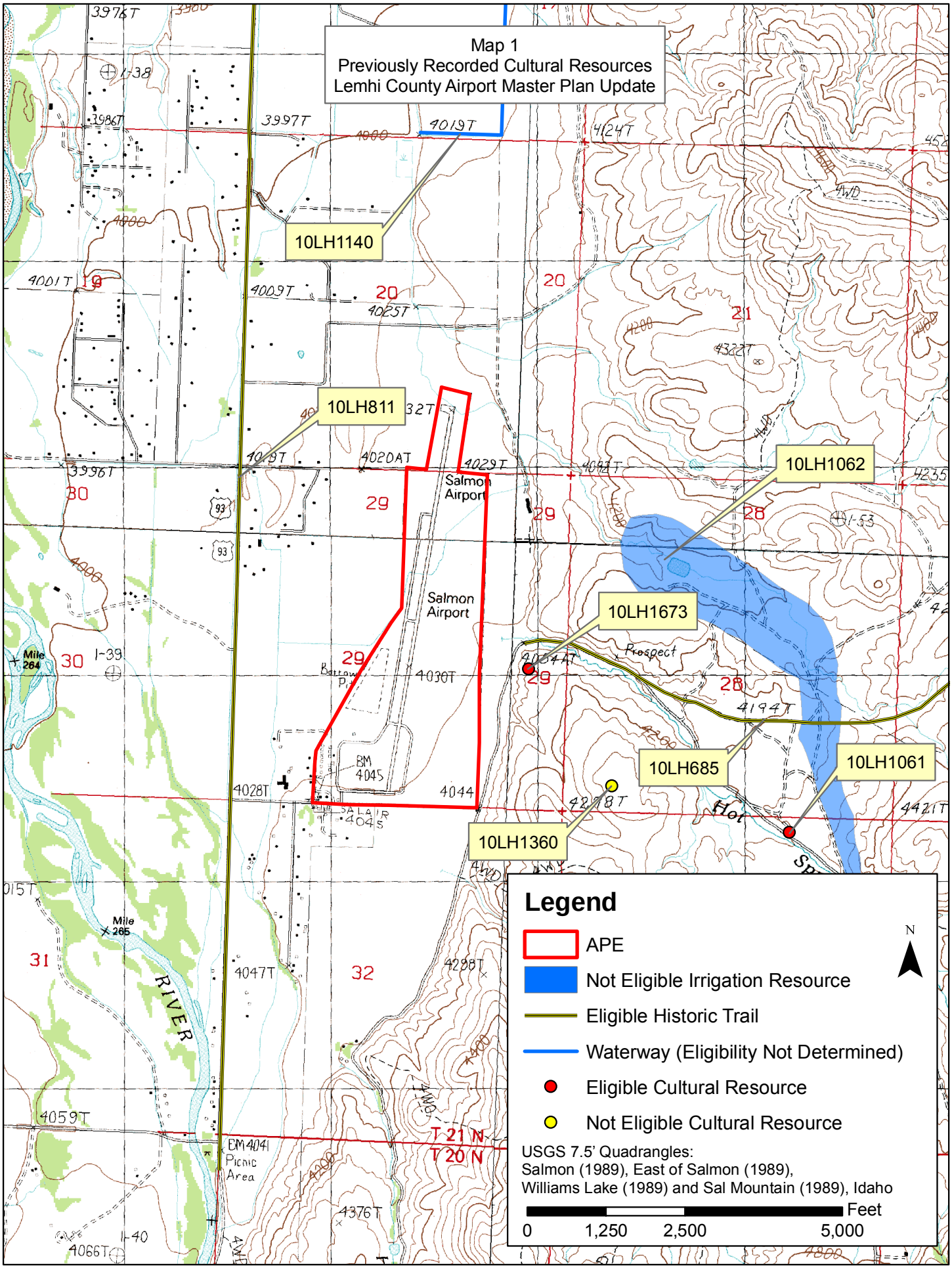
Historic and Archeological Resources

A record search was completed at the Idaho State Historic Preservation Office on March 15th, 2011 to identify all known historic and/or archaeological sites within the project area and surrounding vicinity. The results of the search found 27 reports have been previously completed with seven cultural resources located within one mile of the airport boundaries (see Table 2 and Previously Recorded Cultural Resources map). Four of these cultural resources are considered eligible for or are on the National Register of Historic Places. No previously recorded sites were identified within the airport boundaries.

Table 2. Previously Recorded Sites within the Project Vicinity.

Site No.	Name/Type of Site	National Register Eligibility	Proximity to Airport
10LH685	Lewis and Clark Trail	Eligible	¼ mile east
10LH811	Historic Wagon Road	Eligible	¼ mile west
10LH1061	Lithic Scatter	Eligible	1 mile southeast
10LH1062	2 ditches; 2 reservoirs	Not Eligible	¼ to ½ mile east
10LH1140	Ditch	Not Determined	1 mile north
10LH1360	Lithic Scatter	Not Eligible	½ mile southeast
10LH1673	Lithic Scatter	Eligible	¼ mile east

In addition to the sites recorded above, an EA was completed in March 2007 that identified two canals (the Gray Lateral of the Pope Ditch and the City Ditch) that did not appear in our SHPO previous research. The EA determined these sites to be eligible for the NRHP, and identified each of them as significant to the Shoshone-Bannock Tribe.


Map 1
Previously Recorded Cultural Resources
Lemhi County Airport Master Plan Update
10LH1140
10LH811
10LH1062
10LH1673
10LH685
10LH1061
10LH1360
Salmon Airport
Salmon Airport
Legend
APE
Not Eligible Irrigation Resource
Eligible Historic Trail
Waterway (Eligibility Not Determined)
Eligible Cultural Resource
Not Eligible Cultural Resource
N
USGS 7.5' Quadrangles:
Salmon (1989), East of Salmon (1989),
Williams Lake (1989) and Sal Mountain (1989), Idaho
Feet
0
1,250
2,500
5,000

The proposed improvements at the airport will require an intensive survey of the project area in accordance with Section 106 of the National Historic Preservation Act of 1966. In addition, government-to-government consultation with the Shoshone-Bannock Tribe and the FAA will be required for the purposed improvements and should be initiated early in the process.

Light Emissions

Light emissions are considered to the extent to which any lighting associated with an action will create annoyance among people in the vicinity or interfere with their normal activities. Because of the relatively low levels of light intensity compared to background levels associated with most air navigation facilities and other airport development actions, light emission impacts are unlikely to have an adverse impact on human activity or the use or characteristics of the protected properties.

Natural Resources and Energy Supply

Airport development actions have the potential to change energy requirements or use consumable natural resources. Typical actions that could cause such impacts include airside/landside expansion, land acquisition, significant changes in air traffic and airfield operations, and significant construction activity.

FAA guidance typically states that airport improvement projects do not generally increase the consumption of energy or natural resources to the point that significant impacts would occur unless it is found that implementation of a proposed project would cause demand to exceed supply.

The proposed improvements at the Lemhi County Airport may cause an increase in demand for energy during construction; however, this will be temporary in nature and likely would not cause significant impacts to energy supply.

Noise

In accordance with FAA Order 1050.1E, Appendix A, Section 16, “no noise analysis is needed for proposals involving Design Group I and II airplanes (wingspan less than 79 feet) in Approach Categories A through D (landing speed less than 166 knots) operating at airports whose forecast operations in the period covered by the environmental assessment do not exceed 90,000 annual propeller operations or 700 jet operations. These numbers of general aviation propeller and jet operations result in Day-Night Average Sound Level (DNL) 60 decibel (dB) contours of less than 1.1 square miles that extend no more than 12,500 feet from start of takeoff roll. The DNL 65 dB contour areas would be 0.5 (one-half) square mile or less and extend no more than 10,000 feet from start of takeoff roll”. The Lemhi County Airport accommodates aircraft in Airport Design Group I and II in Approach Categories A and B with forecast operations at 30,795 annual operations.

As part of the improvements, two new access roads are proposed at the airport. Both of these roads will provide access to the proposed vehicle parking lots and to buildings and hangars at the airport. The access road on the west side of the airport would connect directly east to Highway 93. According to FAA’s Environmental Desk Reference for Airport Actions, new, expanded, or re-aligned airport access roads have the potential to cause surface transportation noise, therefore, a surface transportation plan should be reviewed to determine if it would change traffic noise in

the affected area. If any of the surface transportation impacts potentially exist, a noise analysis using accepted highway noise methodologies (i.e., Federal Highway Administration Procedures for Abatement of Highway Traffic Noise and Construction Noise) should be conducted.

Induced Impacts

Induced impacts include shifts in patterns of population movement and growth; public service demands; and changes in business and economic activity to the extent influenced by the airport development. Induced impacts will normally not be significant except where there are also significant impacts in other categories, especially noise, land use, or direct social impacts.

The proposed improvements are not anticipated to cause significant shifts in population movement and growth, impacts to public services, or economic activity in the area.

Socioeconomic Impacts, Environmental Justice, and Children's Environmental Health and Safety Risks

According to FAA Order 1050.1D, significant social impact thresholds include:

- Extensive relocation of residents is required, but sufficient replacement housing is unavailable.
- Extensive relocation of community businesses and that relocation would create economic hardship for the affected community.
- Disruptions of local traffic patterns that substantially reduce the levels of service of the roads serving the airport and its surrounding communities.
- A substantial loss in community tax base.

The proposed improvements at the airport would not require relocation of residents and/or businesses nor disrupt local traffic patterns or cause a loss in community tax base.

Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations", provides that "each federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations". The Council on Environmental Quality environmental justice guidance under NEPA was used to clearly define what a "disproportionately adverse effect to minority or low-income populations" would be. It states that a minority population should be identified where either the minority population of the affected area exceeds 50% or when the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population.

The project area includes Census Tract 9803, Block Group 2. Census 2000 information for Census Tract 9803, Block Group 2 confirmed an ethnic population of 28 persons (2.1%) compared to a citywide ethnic population of 101 persons (3.2%). Additionally, Census 2000 information for Census Tract 9803, Block Group 2 revealed 166 persons (12.6%) living in poverty compared to 578 persons (19.5%) living in poverty citywide. Because the minority and low-income population percentages of the affected area are not greater than the minority and low-income population percentages in the general population, as defined by CEQ, it can be

concluded that a minority or low-income population would not be disproportionately affected by the proposed improvements at the Lemhi County Airport.

Water Quality

As land is developed, surfaces are covered with non-porous materials such as asphalt. Without interception and depression storage, nearly all the rainfall on the impermeable surfaces (roofs, streets, driveways) becomes runoff, which dissolves or dislodges pollutants and discharges to creeks, rivers, lakes, drainage ditches and irrigation systems.

The proposed improvements at the Lemhi County Airport would create new impervious surfaces that result in an increase in storm water runoff from the airport. An irrigation system and a ponded wetland were identified as part of an environmental assessment conducted in 2007 for facility improvements at the airport. Water resources within the airport boundaries include Gray Lateral (transects the airport twice flowing from east to west under the northern end of the runway, and from west to east under the center of the runway), City Ditch (transects the airport flowing from east to west under the center of the runway), Hot Springs Creek, and a ponded wetland located on the east side of the runway. The proposed improvements at the airport will require a National Pollutant Discharge Elimination System general construction permit and Storm Water Pollution Prevention Plan incorporating best management practices. In addition, Hot Springs Creek is listed as a 303(d) impaired water body for impaired biota. Currently, A Total Maximum Daily Load has not been calculated for this water body. Review of the proposed improvements did not indicate the potential to impact this water body.

The project area is not located over a sole source aquifer.

Wetlands

A wetland delineation was performed in May 2006 as part of the environmental assessment for facility improvements at the airport. The report identified two irrigation systems and a ponded wetland located on the eastern side of the runway. The Gray Lateral transects the airport twice flowing from the west to east under the center of the runway, and from east to west under the northern end of the runway. The City Ditch transects the airport flowing from east to west approximately under the center of the runway. It was determined that the wetlands and the irrigation system identified are under the jurisdiction of the Army Corps of Engineers due to their hydrological connectivity to the Salmon River, located west of the airport.

In addition to these irrigation systems and wetlands, review of existing information (USFWS NWI maps, topographic maps and aerial photographs) indicates two natural drainages to the east of the airport which appear to feed the pre-identified ponded wetland on the east side of the airport. In addition, a wetland area to the west of the runway and north of the fixed based operators was identified by NWI maps.

A field survey should be conducted to determine the presence or absence of waters of the US, including wetlands within the area of the proposed developments. A CWA Section 404 permit may be required to place dredged or fill materials into waters of the U.S. including wetlands.

Wild and Scenic Rivers

The Federal Wild and Scenic Rivers Act (PL 90-542 as amended) describes those areas eligible to be included in a system afforded protection under the Act as free flowing and processing

Waters Identified within Lemhi County Airport Property Boundaries
Legal Description: Township 21 North, Range 22 East, Sections 20, 29 and 32
USGS 7.5' Quadrangles: Salmon (1989), East of Salmon (1989), Williams Lake (1989) and Sal Mountain (1989), Idaho

"…outstandingly remarkable, scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values". The Act restricts development within 1,000 feet of rivers identified as wild and scenic. Research of the National Wild and Scenic River System's National Inventory of Wild and Scenic Rivers indicated that a portion of the Salmon River was designated wild and scenic on July 23, 1980. The designated reach includes the segment of the main stem from the mouth of the North Fork of the Salmon River downstream to Long Tom Bar. This segment is located approximately four miles north of the Lemhi County Airport; therefore, the proposed improvements at the airport would not impact the designated segment of the Salmon River.

References

Federal Aviation Administration. Environmental Desk Reference for Airport Actions, dated October 2007.

Federal Emergency Management Agency Department of Homeland Security. Flood Insurance Rate Map, Community Panel 160092 0540 A, dated February 5, 1986.

Federal Emergency Management Agency Department of Homeland Security. Flood Insurance Rate Map, Community Panel 160092 0655 A, dated February 5, 1986.

North Wind, Inc. Environmental Assessment for Facility Improvements at the Lemhi County Airport, Salmon, Idaho, dated March 2007.

Web Soil Survey. [web application]. Available at: http://websoilsurvey.nrcs.usda.gov/app/. (Accessed: March 10, 2011).

APPENDIX D

Lemhi County Airport FAA and ITD Grant Histories

Report located:
F:SEA600/EXCEL/RENEE/
RENEE/PSR ID.XLS

Updated:	12/15/2009 13:23	10/7/2009			Opened/	Project
Location	Airport Name	Project #	Year	Description	Closed	Amount
Salmon	Lemhi County	3-16-0032-01	1982	Acquire land (Parcels 2 and 3);	C	184,173.00
Salmon	Lemhi County	3-16-0032-02	1983	Reconstruct & mark RW 17/35; Construct & mark partial parallel & connecting TWs; Expand aircraft parking apron, including tiedowns; Construct access road;	C	808,500.00
Salmon	Lemhi County	3-16-0032-03	1987	Overlay Runway 16/34 (60'x5150'), taxiways, and aprons; Prepare updated Airport Layout Plan;	C	437,178.00
Salmon	Lemhi County	3-16-0032-04	1989	Improve drainage between Runway 17/35 and parallel taxiway; Construct apron; including lighting and relocation of existing fixed-based operator building	C	495,248.00
Salmon	Lemhi County	3-16-0032-05	1998	Acquire avigation easements for the Hyde Parcel and the Gregson Parcel, Update Exhibit A	C	15,750.00
Salmon	Lemhi County	3-16-0032-06	2001	Extend/construct partial (north end) parallel taxiway, incld. marking, land acquisition (parcels 10, 11,&13); Revise As-built ALP and environmental; Construct hangar access taxilanes;	O	1,416,547.00
Salmon	Lemhi County	3-16-0032-07	2004	Rehabilitate runway 17/35 lighting (revise as-built ALP and electrical building; Replace airport beacon	C	396,214.00
Salmon	Lemhi County	3-16-0032-008	2005	Install fencing and gates including relocating and upgrading for wildlife and updating the ALP (Phase 1)	O	198,782.00
Salmon	Lemhi County	3-16-0032-009	2006	Install perimeter fence, including environmental and engineering studies (Phase 1); Construct taxiway, including environmental and relocating and widening design (Phase 1)	C	305,004.00
Salmon	Lemhi County	3-16-0032-010	2007	Install perimeter fence, including land acquisition, Parcels A1, A2, and C (Phase 2A); Construct taxiway, including relocation and widening (Phase 2)	O	1,111,240.00
Salmon	Lemhi County	3-16-0032-011	2008	Construct taxiway, including relocation and widening (Phase 3)	O	603,760.00
Salmon	Lemhi County	3-16-0032-012	2009	Conduct an airport master plan update (Phase 1)	O	48,693.00
Salmon	Lemhi County	3-16-0032-013	2009	Conduct an airport master plan update (Phase 2)	O	101,307.00
Salmon	**Summary**	**13 grants**				**6,122,396.00**
	FAAP Dollars	0.00				
	ADAP Dollars	0.00				
	PGP Dollars	0.00				
	AIP Dollars	6,122,396.00				
	Total Salmon Federal Dollars	**6,122,396.00**				

AIP — FAA PROJECTS

AIRPORT: NAME: SALMON

OWNER: LEMHI COUNTY

NUMBER: 3 -16- 0032 — SEQ. NO.

SEQ. NO.	PROJECT DESCRIPTION	GRANT F.Y.	FINAL COSTS TOTAL	FAA	STATE	
01	LAND ACQUISITION	1982		184,173.00	7,225.00	
02	CONST. R/W, T/W, & APRON	1983		808,500.00	13,200.00	
03	OVERLAY R/W, T/W, & APRON	1987	485,754.05	437,178.00	24,287.72	
04	Apron, drainage improvement, ~~misc. [illegible]~~	1989	550,276.00	495,248.00	27,513.80	*
05	LAND ACQ	1998	17,500.00	15,750.00	700.00	*
06	EXT PARTIAL PARALLEL TWY; CONST HANGAR TAXILANE; ACQ LAND; ALP & EA	2001		1,721,551	65,036	
NPE02	Carry over 02 Non Primary Entitlement	2002 NPE			8,333.00	
NPE3	Match for FY03 AIP Nonprimary Entitlement	2003			8,333	
007	Replace beacon, electrical and fencing plus some carryover	2004	157,895	150,000	3,947	
008	Fencing	2005			5,362	
009	Construct TW and Perimeter fence.	2006			7,894	
010	Land, Fencing and Taxiway	2008	1,052,634	1,000,000	26,317	
011	Widen Taxiway	2009	593,432	563,760	1,020	

NPE - Non Primary Entitlement

AIP – FAA PROJECTS

AIRPORT: NAME: Salmon

OWNER: Lemhi County

NUMBER: 3-16-0032 – SEQ. NO.

SEQ. NO.	PROJECT DESCRIPTION	GRANT F.Y.	FINAL COSTS		
			TOTAL	FAA	STATE
012/013	Master Plan	2010	157,895	150,000	3,947

STATE PROJECTS

AIRPORT: NAME: SALMON

OWNER: LEMHI COUNTY

NUMBER: 4 -SP- 0032 - SEQ. NO.

SEQ. NO.	PROJECT DESCRIPTION	GRANT F.Y.	FINAL COSTS TOTAL	FINAL COSTS STATE
01	MASTER PLAN	1977	12,000.00	9,000.00
02	ADVANCE DESIGN AND LAND ACQUISITION	1981	48,689.68	24,344.84
03	UNICOM	1982	2,014.50	500.00
04	NDB			
05	MIRL, LTGD WNDSK, R. BEACON	1983		
06	SEAL COAT RWY, TWY, APRON	1996	$35,330.05	17,665.03

APPENDIX E

FAA And State Grant Assurances

Attachment D: Project Assurances

There are a number of assurances that are a standard part of all IAAP grants that must be complied with. Most of these requirements are effective for the life of the facilities developed (not to exceed 20 years from the date of grant acceptance).

The Airport Sponsor agrees to comply with the regulations relative to non-discrimination in State assisted programs of the Idaho Transportation Department.

The Sponsor shall:

Diligently and expeditiously complete this project and likewise pursue appropriate measures as may be agreed upon by the SPONSOR and AERONAUTICS to remedy project delays, including but not limited to litigation or condemnation.

Carry out and complete the project in accordance with the plans and specifications, as they may be revised or modified, with approval of AERONAUTICS.

All contracts for construction involved in this project shall be bid competitively in accordance with bidding procedures otherwise authorized for public entities.

In connection with the acquisition of real property for the project, the SPONSOR shall secure at least two written appraisals by licensed appraisers. The SPONSOR shall not pay in excess of the highest appraisal without the written consent of AERONAUTICS or except as directed by a court of competent jurisdiction after a contested trial and a judgment not resulting from agreement between the parties.

No State funds will be paid to the SPONSOR in any case until it certifies in writing that it has funds available and will spend at least the amount designed in **Table 3.1** above, solely for the project in question.

The SPONSOR agrees to hold said airport open to the flying public for the useful life of the facilities developed under this project.

The SPONSOR shall grant no exclusive use or operating agreements, to any person, company, or corporation; that failure to abide by such agreement shall automatically obligate the immediate and full return of all State of Idaho money expended in behalf of the project to the State of Idaho.

The allowable costs of the project shall not include any costs determined by AERONAUTICS to be ineligible.

SPONSOR shall report project commencement date.

SPONSOR shall make periodic progress reports as appropriate.

SPONSOR shall receive approval prior to any change in the scope of the project

SPONSOR shall report project completion date and request final inspection and payment.

Such allocation agreement shall become effective upon the SPONSOR acceptance of this offer and shall remain in full force and effect throughout the useful life of the facilities developed under the project but in any event not to exceed twenty (20) years from the date of acceptance.

SPONSOR must develop the airport in accordance with current Idaho Division of Aeronautics design and construction standards.

SPONSOR cannot allow any activity or action on the airport that would interfere with its use for airport purposes

SPONSOR must allow all types, kinds, and classes of aeronautical activities use the airport. This includes such activities as parachute jumping and ultralight vehicles. One possible reason for **not** allowing an aeronautical activity on the airport is if it cannot be conducted safely. The final safety determination is the responsibility of the Idaho division of Aeronautics.

SPONSOR must allow people to service their own aircraft according to all applicable Federal Aviation Regulations (FARs).

The Idaho Division of Aeronautics prefers that all revenue generated on the airport by the Sponsor be used for airport purposes only.

ASSURANCES
Airport Sponsors

A. General.

1. These assurances shall be complied with in the performance of grant agreements for airport development, airport planning, and noise compatibility program grants for airport sponsors.

2. These assurances are required to be submitted as part of the project application by sponsors requesting funds under the provisions of Title 49, U.S.C., subtitle VII, as amended. As used herein, the term "public agency sponsor" means a public agency with control of a public-use airport; the term "private sponsor" means a private owner of a public-use airport; and the term "sponsor" includes both public agency sponsors and private sponsors.

3. Upon acceptance of this grant offer by the sponsor, these assurances are incorporated in and become part of this grant agreement.

B. Duration and Applicability.

1. Airport Development or Noise Compatibility Program Projects Undertaken by a Public Agency Sponsor. The terms, conditions and assurances of the grant agreement shall remain in full force and effect throughout the useful life of the facilities developed or equipment acquired for an airport development or noise compatibility program project, or throughout the useful life of the project items installed within a facility under a noise compatibility program project, but in any event not to exceed twenty (20) years from the date of acceptance of a grant offer of Federal funds for the project. However, there shall be no limit on the duration of the assurances regarding Exclusive Rights and Airport Revenue so long as the airport is used as an airport. There shall be no limit on the duration of the terms, conditions, and assurances with respect to real property acquired with Federal funds. Furthermore, the duration of the Civil Rights assurance shall be specified in the assurances.

2. Airport Development or Noise Compatibility Projects Undertaken by a Private Sponsor. The preceding paragraph 1 also applies to a private sponsor except that the useful life of project items installed within a facility or the useful life of the facilities developed or equipment acquired under an airport development or noise compatibility program project shall be no less than ten (10) years from the date of acceptance of Federal aid for the project.

3. Airport Planning Undertaken by a Sponsor. Unless otherwise specified in the grant agreement, only Assurances 1, 2, 3, 5, 6, 13, 18, 30, 32, 33, and 34 in section C apply to planning projects. The terms, conditions, and assurances of the grant agreement shall remain in full force and effect during the life of the project.

C. **Sponsor Certification.** The sponsor hereby assures and certifies, with respect to this grant that:

1. **General Federal Requirements.** It will comply with all applicable Federal laws, regulations, executive orders, policies, guidelines, and requirements as they relate to the application, acceptance and use of Federal funds for this project including but not limited to the following:

Federal Legislation

a. Title 49, U.S.C., subtitle VII, as amended.
b. Davis-Bacon Act - 40 U.S.C. 276(a), et seq.[1]
c. Federal Fair Labor Standards Act - 29 U.S.C. 201, et seq.
d. Hatch Act - 5 U.S.C. 1501, et seq.[2]
e. Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 - Title 42 U.S.C. 4601, et seq.[1 2]
f. National Historic Preservation Act of 1966 - Section 106 - 16 U.S.C. 470(f).[1]
g. Archeological and Historic Preservation Act of 1974 - 16 U.S.C. 469 through 469c.[1]
h. Native Americans Grave Repatriation Act - 25 U.S.C. Section 3001, et seq.
i. Clean Air Act, P.L. 90-148, as amended.
j. Coastal Zone Management Act, P.L. 93-205, as amended.
k. Flood Disaster Protection Act of 1973 - Section 102(a) - 42 U.S.C. 4012a.[1]
l. Title 49, U.S.C., Section 303, (formerly known as Section 4(f))
m. Rehabilitation Act of 1973 - 29 U.S.C. 794.
n. Civil Rights Act of 1964 - Title VI - 42 U.S.C. 2000d through d-4.
o. Age Discrimination Act of 1975 - 42 U.S.C. 6101, et seq.
p. American Indian Religious Freedom Act, P.L. 95-341, as amended.
q. Architectural Barriers Act of 1968 - 42 U.S.C. 4151, et seq.[1]
r. Power Plant and Industrial Fuel Use Act of 1978 - Section 403- 2 U.S.C. 8373.[1]
s. Contract Work Hours and Safety Standards Act - 40 U.S.C. 327, et seq.[1]
t. Copeland Anti Kickback Act - 18 U.S.C. 874.1
u. National Environmental Policy Act of 1969 - 42 U.S.C. 4321, et seq.[1]
v. Wild and Scenic Rivers Act, P.L. 90-542, as amended.
w. Single Audit Act of 1984 - 31 U.S.C. 7501, et seq.[2]
x. Drug-Free Workplace Act of 1988 - 41 U.S.C. 702 through 706.

Executive Orders

Executive Order 11246 - Equal Employment Opportunity[1]
Executive Order 11990 - Protection of Wetlands
Executive Order 11988 – Flood Plain Management
Executive Order 12372 - Intergovernmental Review of Federal Programs
Executive Order 12699 - Seismic Safety of Federal and Federally Assisted New Building Construction[1]
Executive Order 12898 - Environmental Justice

Federal Regulations

a. 14 CFR Part 13 - Investigative and Enforcement Procedures.
b. 14 CFR Part 16 - Rules of Practice For Federally Assisted Airport Enforcement Proceedings.
c. 14 CFR Part 150 - Airport noise compatibility planning.
d. 29 CFR Part 1 - Procedures for predetermination of wage rates.[1]
e. 29 CFR Part 3 - Contractors and subcontractors on public building or public work financed in whole or part by loans or grants from the United States.[1]
f. 29 CFR Part 5 - Labor standards provisions applicable to contracts covering federally financed and assisted construction (also labor standards provisions applicable to non-construction contracts subject to the Contract Work Hours and Safety Standards Act).[1]
g. 41 CFR Part 60 - Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor (Federal and federally assisted contracting requirements).[1]
h. 49 CFR Part 18 - Uniform administrative requirements for grants and cooperative agreements to state and local governments.[3]
i. 49 CFR Part 20 - New restrictions on lobbying.
j. 49 CFR Part 21 - Nondiscrimination in federally-assisted programs of the Department of Transportation - effectuation of Title VI of the Civil Rights Act of 1964.
k. 49 CFR Part 23 - Participation by Disadvantaged Business Enterprise in Airport Concessions.
l. 49 CFR Part 24 - Uniform relocation assistance and real property acquisition for Federal and federally assisted programs.[1] [2]
m. 49 CFR Part 26 – Participation by Disadvantaged Business Enterprises in Department of Transportation Programs.
n. 49 CFR Part 27 - Nondiscrimination on the basis of handicap in programs and activities receiving or benefiting from Federal financial assistance.[1]
o. 49 CFR Part 29 – Government wide debarment and suspension (nonprocurement) and government wide requirements for drug-free workplace (grants).
p. 49 CFR Part 30 - Denial of public works contracts to suppliers of goods and services of countries that deny procurement market access to U.S. contractors.
q. 49 CFR Part 41 - Seismic safety of Federal and federally assisted or regulated new building construction.[1]

Office of Management and Budget (OMB) Circulars

a. A-87 - Cost Principles Applicable to Grants and Contracts with State and Local Governments.
b. A-133 - Audits of States, Local Governments, and Non-Profit Organizations

[1] These laws do not apply to airport planning sponsors.

[2] These laws do not apply to private sponsors.

[3] 49 CFR Part 18 and OMB Circular A-87 contain requirements for State and Local Governments receiving Federal assistance. Any requirement levied upon State and Local Governments by this regulation and circular shall also be applicable to private sponsors receiving Federal assistance under Title 49, United States Code.

Specific assurances required to be included in grant agreements by any of the above laws, regulations or circulars are incorporated by reference in this grant agreement.

2. Responsibility and Authority of the Sponsor.

a. **Public Agency Sponsor:** It has legal authority to apply for the grant, and to finance and carry out the proposed project; that a resolution, motion or similar action has been duly adopted or passed as an official act of the applicant's governing body authorizing the filing of the application, including all understandings and assurances contained therein, and directing and authorizing the person identified as the official representative of the applicant to act in connection with the application and to provide such additional information as may be required.

b. **Private Sponsor:** It has legal authority to apply for the grant and to finance and carry out the proposed project and comply with all terms, conditions, and assurances of this grant agreement. It shall designate an official representative and shall in writing direct and authorize that person to file this application, including all understandings and assurances contained therein; to act in connection with this application; and to provide such additional information as may be required.

3. Sponsor Fund Availability. It has sufficient funds available for that portion of the project costs which are not to be paid by the United States. It has sufficient funds available to assure operation and maintenance of items funded under this grant agreement which it will own or control.

4. Good Title.

a. It, a public agency or the Federal government, holds good title, satisfactory to the Secretary, to the landing area of the airport or site thereof, or will give assurance satisfactory to the Secretary that good title will be acquired.

b. For noise compatibility program projects to be carried out on the property of the sponsor, it holds good title satisfactory to the Secretary to that portion of the property upon which Federal funds will be expended or will give assurance to the Secretary that good title will be obtained.

5. Preserving Rights and Powers.

a. It will not take or permit any action which would operate to deprive it of any of the rights and powers necessary to perform any or all of the terms, conditions, and assurances in the grant agreement without the written approval of the Secretary, and will act promptly to acquire, extinguish or

modify any outstanding rights or claims of right of others which would interfere with such performance by the sponsor. This shall be done in a manner acceptable to the Secretary.

b. It will not sell, lease, encumber, or otherwise transfer or dispose of any part of its title or other interests in the property shown on Exhibit A to this application or, for a noise compatibility program project, that portion of the property upon which Federal funds have been expended, for the duration of the terms, conditions, and assurances in this grant agreement without approval by the Secretary. If the transferee is found by the Secretary to be eligible under Title 49, United States Code, to assume the obligations of the grant agreement and to have the power, authority, and financial resources to carry out all such obligations, the sponsor shall insert in the contract or document transferring or disposing of the sponsor's interest, and make binding upon the transferee all of the terms, conditions, and assurances contained in this grant agreement.

c. For all noise compatibility program projects which are to be carried out by another unit of local government or are on property owned by a unit of local government other than the sponsor, it will enter into an agreement with that government. Except as otherwise specified by the Secretary, that agreement shall obligate that government to the same terms, conditions, and assurances that would be applicable to it if it applied directly to the FAA for a grant to undertake the noise compatibility program project. That agreement and changes thereto must be satisfactory to the Secretary. It will take steps to enforce this agreement against the local government if there is substantial non-compliance with the terms of the agreement.

d. For noise compatibility program projects to be carried out on privately owned property, it will enter into an agreement with the owner of that property which includes provisions specified by the Secretary. It will take steps to enforce this agreement against the property owner whenever there is substantial non-compliance with the terms of the agreement.

e. If the sponsor is a private sponsor, it will take steps satisfactory to the Secretary to ensure that the airport will continue to function as a public-use airport in accordance with these assurances for the duration of these assurances.

f. If an arrangement is made for management and operation of the airport by any agency or person other than the sponsor or an employee of the sponsor, the sponsor will reserve sufficient rights and authority to ensure that the airport will be operated and maintained in accordance with Title 49, United States Code, the regulations and the terms, conditions and assurances in the grant agreement and shall ensure that such arrangement also requires compliance therewith.

g. It will not permit or enter into any arrangement that results in permission for the owner or tenant of a property used as a residence, or zoned for residential use, to taxi an aircraft between that property and any location on airport.

6. **Consistency with Local Plans.** The project is reasonably consistent with plans (existing at the time of submission of this application) of public agencies that are authorized by the State in which the project is located to plan for the development of the area surrounding the airport.

7. **Consideration of Local Interest.** It has given fair consideration to the interest of communities in or near where the project may be located.

8. **Consultation with Users.** In making a decision to undertake any airport development project under Title 49, United States Code, it has undertaken reasonable consultations with affected parties using the airport at which the project is proposed.

9. **Public Hearings.** In projects involving the location of an airport, an airport runway, or a major runway extension, it has afforded the opportunity for public hearings for the purpose of considering the economic, social, and environmental effects of the airport or runway location and its consistency with goals and objectives of such planning as has been carried out by the community and it shall, when requested by the Secretary, submit a copy of the transcript of such hearings to the Secretary. Further, for such projects, it has on its management board either voting representation from the communities where the project is located or has advised the communities that they have the right to petition the Secretary concerning a proposed project.

10. **Air and Water Quality Standards.** In projects involving airport location, a major runway extension, or runway location it will provide for the Governor of the state in which the project is located to certify in writing to the Secretary that the project will be located, designed, constructed, and operated so as to comply with applicable air and water quality standards. In any case where such standards have not been approved and where applicable air and water quality standards have been promulgated by the Administrator of the Environmental Protection Agency, certification shall be obtained from such Administrator. Notice of certification or refusal to certify shall be provided within sixty (60) days after the project application has been received by the Secretary.

11. **Pavement Preventive Maintenance**. With respect to a project approved after January 1, 1995, for the replacement or reconstruction of pavement at the airport, it assures or certifies that it has implemented an effective airport pavement maintenance-management program and it assures that it will use such program for the useful life of any pavement constructed, reconstructed or repaired with Federal financial assistance at the airport. It will provide such reports on pavement condition and pavement management programs as the Secretary determines may be useful.

12. **Terminal Development Prerequisites.** For projects which include terminal development at a public use airport, as defined in Title 49, it has, on the date of submittal of the project grant application, all the safety equipment required for certification of such airport under section 44706 of Title 49, United States Code, and all the security equipment required by rule or regulation, and has provided for

access to the passenger enplaning and deplaning area of such airport to passengers enplaning and deplaning from aircraft other than air carrier aircraft.

13. Accounting System, Audit, and Record Keeping Requirements.

a. It shall keep all project accounts and records which fully disclose the amount and disposition by the recipient of the proceeds of the grant, the total cost of the project in connection with which the grant is given or used, and the amount or nature of that portion of the cost of the project supplied by other sources, and such other financial records pertinent to the project. The accounts and records shall be kept in accordance with an accounting system that will facilitate an effective audit in accordance with the Single Audit Act of 1984.

b. It shall make available to the Secretary and the Comptroller General of the United States, or any of their duly authorized representatives, for the purpose of audit and examination, any books, documents, papers, and records of the recipient that are pertinent to the grant. The Secretary may require that an appropriate audit be conducted by a recipient. In any case in which an independent audit is made of the accounts of a sponsor relating to the disposition of the proceeds of a grant or relating to the project in connection with which the grant was given or used, it shall file a certified copy of such audit with the Comptroller General of the United States not later than six (6) months following the close of the fiscal year for which the audit was made.

14. Minimum Wage Rates. It shall include, in all contracts in excess of $2,000 for work on any projects funded under the grant agreement which involve labor, provisions establishing minimum rates of wages, to be predetermined by the Secretary of Labor, in accordance with the Davis-Bacon Act, as amended (40 U.S.C. 276a-276a-5), which contractors shall pay to skilled and unskilled labor, and such minimum rates shall be stated in the invitation for bids and shall be included in proposals or bids for the work.

15. Veteran's Preference. It shall include in all contracts for work on any project funded under the grant agreement which involve labor, such provisions as are necessary to insure that, in the employment of labor (except in executive, administrative, and supervisory positions), preference shall be given to Veterans of the Vietnam era and disabled veterans as defined in Section 47112 of Title 49, United States Code. However, this preference shall apply only where the individuals are available and qualified to perform the work to which the employment relates.

16. Conformity to Plans and Specifications. It will execute the project subject to plans, specifications, and schedules approved by the Secretary. Such plans, specifications, and schedules shall be submitted to the Secretary prior to commencement of site preparation, construction, or other performance under this grant agreement, and, upon approval of the Secretary, shall be incorporated into this grant agreement. Any modification to the approved plans, specifications, and

schedules shall also be subject to approval of the Secretary, and incorporated into the grant agreement.

17. Construction Inspection and Approval. It will provide and maintain competent technical supervision at the construction site throughout the project to assure that the work conforms to the plans, specifications, and schedules approved by the Secretary for the project. It shall subject the construction work on any project contained in an approved project application to inspection and approval by the Secretary and such work shall be in accordance with regulations and procedures prescribed by the Secretary. Such regulations and procedures shall require such cost and progress reporting by the sponsor or sponsors of such project as the Secretary shall deem necessary.

18. Planning Projects. In carrying out planning projects:

a. It will execute the project in accordance with the approved program narrative contained in the project application or with the modifications similarly approved.
b. It will furnish the Secretary with such periodic reports as required pertaining to the planning project and planning work activities.
c. It will include in all published material prepared in connection with the planning project a notice that the material was prepared under a grant provided by the United States.
d. It will make such material available for examination by the public, and agrees that no material prepared with funds under this project shall be subject to copyright in the United States or any other country.
e. It will give the Secretary unrestricted authority to publish, disclose, distribute, and otherwise use any of the material prepared in connection with this grant.
f. It will grant the Secretary the right to disapprove the sponsor's employment of specific consultants and their subcontractors to do all or any part of this project as well as the right to disapprove the proposed scope and cost of professional services.
g. It will grant the Secretary the right to disapprove the use of the sponsor's employees to do all or any part of the project.
h. It understands and agrees that the Secretary's approval of this project grant or the Secretary's approval of any planning material developed as part of this grant does not constitute or imply any assurance or commitment on the part of the Secretary to approve any pending or future application for a Federal airport grant.

19. Operation and Maintenance.

a. The airport and all facilities which are necessary to serve the aeronautical users of the airport, other than facilities owned or controlled by the United States, shall be operated at all times in a safe and serviceable condition and in accordance with the minimum standards as may be required or prescribed by applicable Federal, state and local agencies for maintenance and operation. It will not cause or permit any activity or action thereon

which would interfere with its use for airport purposes. It will suitably operate and maintain the airport and all facilities thereon or connected therewith, with due regard to climatic and flood conditions. Any proposal to temporarily close the airport for non-aeronautical purposes must first be approved by the Secretary. In furtherance of this assurance, the sponsor will have in effect arrangements for-

(1) Operating the airport's aeronautical facilities whenever required;
(2) Promptly marking and lighting hazards resulting from airport conditions, including temporary conditions; and
(3) Promptly notifying airmen of any condition affecting aeronautical use of the airport. Nothing contained herein shall be construed to require that the airport be operated for aeronautical use during temporary periods when snow, flood or other climatic conditions interfere with such operation and maintenance. Further, nothing herein shall be construed as requiring the maintenance, repair, restoration, or replacement of any structure or facility which is substantially damaged or destroyed due to an act of God or other condition or circumstance beyond the control of the sponsor.

b. It will suitably operate and maintain noise compatibility program items that it owns or controls upon which Federal funds have been expended.

20. Hazard Removal and Mitigation. It will take appropriate action to assure that such terminal airspace as is required to protect instrument and visual operations to the airport (including established minimum flight altitudes) will be adequately cleared and protected by removing, lowering, relocating, marking, or lighting or otherwise mitigating existing airport hazards and by preventing the establishment or creation of future airport hazards.

21. Compatible Land Use. It will take appropriate action, to the extent reasonable, including the adoption of zoning laws, to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations, including landing and takeoff of aircraft. In addition, if the project is for noise compatibility program implementation, it will not cause or permit any change in land use, within its jurisdiction, that will reduce its compatibility, with respect to the airport, of the noise compatibility program measures upon which Federal funds have been expended.

22. Economic Nondiscrimination.

a. It will make the airport available as an airport for public use on reasonable terms and without unjust discrimination to all types, kinds and classes of aeronautical activities, including commercial aeronautical activities offering services to the public at the airport.

b. In any agreement, contract, lease, or other arrangement under which a right or privilege at the airport is granted to any person, firm, or corporation to conduct or to engage in any aeronautical activity for furnishing services to the public at the airport, the sponsor will insert and enforce provisions requiring the contractor to-

(1) furnish said services on a reasonable, and not unjustly discriminatory, basis to all users thereof, and
(2) charge reasonable, and not unjustly discriminatory, prices for each unit or service, provided that the contractor may be allowed to make reasonable and nondiscriminatory discounts, rebates, or other similar types of price reductions to volume purchasers.

c. Each fixed-based operator at the airport shall be subject to the same rates, fees, rentals, and other charges as are uniformly applicable to all other fixed-based operators making the same or similar uses of such airport and utilizing the same or similar facilities.

d. Each air carrier using such airport shall have the right to service itself or to use any fixed-based operator that is authorized or permitted by the airport to serve any air carrier at such airport.

e. Each air carrier using such airport (whether as a tenant, non tenant, or subtenant of another air carrier tenant) shall be subject to such nondiscriminatory and substantially comparable rules, regulations, conditions, rates, fees, rentals, and other charges with respect to facilities directly and substantially related to providing air transportation as are applicable to all such air carriers which make similar use of such airport and utilize similar facilities, subject to reasonable classifications such as tenants or non tenants and signatory carriers and non signatory carriers. Classification or status as tenant or signatory shall not be unreasonably withheld by any airport provided an air carrier assumes obligations substantially similar to those already imposed on air carriers in such classification or status.

f. It will not exercise or grant any right or privilege which operates to prevent any person, firm, or corporation operating aircraft on the airport from performing any services on its own aircraft with its own employees [including, but not limited to maintenance, repair, and fueling] that it may choose to perform.

g. In the event the sponsor itself exercises any of the rights and privileges referred to in this assurance, the services involved will be provided on the same conditions as would apply to the furnishing of such services by commercial aeronautical service providers authorized by the sponsor under these provisions.

h. The sponsor may establish such reasonable, and not unjustly discriminatory, conditions to be met by all users of the airport as may be necessary for the safe and efficient operation of the airport.

i. The sponsor may prohibit or limit any given type, kind or class of aeronautical use of the airport if such action is necessary for the safe operation of the airport or necessary to serve the civil aviation needs of the public.

23. Exclusive Rights. It will permit no exclusive right for the use of the airport by any person providing, or intending to provide, aeronautical services to the public. For purposes of this paragraph, the providing of the services at an airport by a

single fixed-based operator shall not be construed as an exclusive right if both of the following apply:

a. It would be unreasonably costly, burdensome, or impractical for more than one fixed-based operator to provide such services, and
b. If allowing more than one fixed-based operator to provide such services would require the reduction of space leased pursuant to an existing agreement between such single fixed-based operator and such airport.

It further agrees that it will not, either directly or indirectly, grant or permit any person, firm, or corporation, the exclusive right at the airport to conduct any aeronautical activities, including, but not limited to charter flights, pilot training, aircraft rental and sightseeing, aerial photography, crop dusting, aerial advertising and surveying, air carrier operations, aircraft sales and services, sale of aviation petroleum products whether or not conducted in conjunction with other aeronautical activity, repair and maintenance of aircraft, sale of aircraft parts, and any other activities which because of their direct relationship to the operation of aircraft can be regarded as an aeronautical activity, and that it will terminate any exclusive right to conduct an aeronautical activity now existing at such an airport before the grant of any assistance under Title 49, United States Code.

24. Fee and Rental Structure. It will maintain a fee and rental structure for the facilities and services at the airport which will make the airport as self-sustaining as possible under the circumstances existing at the particular airport, taking into account such factors as the volume of traffic and economy of collection. No part of the Federal share of an airport development, airport planning or noise compatibility project for which a grant is made under Title 49, United States Code, the Airport and Airway Improvement Act of 1982, the Federal Airport Act or the Airport and Airway Development Act of 1970 shall be included in the rate basis in establishing fees, rates, and charges for users of that airport.

25. Airport Revenues.

a. All revenues generated by the airport and any local taxes on aviation fuel established after December 30, 1987, will be expended by it for the capital or operating costs of the airport; the local airport system; or other local facilities which are owned or operated by the owner or operator of the airport and which are directly and substantially related to the actual air transportation of passengers or property; or for noise mitigation purposes on or off the airport. Provided, however, that if covenants or assurances in debt obligations issued before September 3, 1982, by the owner or operator of the airport, or provisions enacted before September 3, 1982, in governing statutes controlling the owner or operator's financing, provide for the use of the revenues from any of the airport owner or operator's facilities, including the airport, to support not only the airport but also the airport owner or operator's general debt obligations or other facilities, then this limitation on the use of all revenues generated by the airport (and, in the case of a public airport, local taxes on aviation fuel) shall not apply.
b. As part of the annual audit required under the Single Audit Act of 1984, the sponsor will direct that the audit will review, and the resulting audit

report will provide an opinion concerning, the use of airport revenue and taxes in paragraph (a), and indicating whether funds paid or transferred to the owner or operator are paid or transferred in a manner consistent with Title 49, United States Code and any other applicable provision of law, including any regulation promulgated by the Secretary or Administrator.

c. Any civil penalties or other sanctions will be imposed for violation of this assurance in accordance with the provisions of Section 47107 of Title 49, United States Code.

26. Reports and Inspections. It will:

a. submit to the Secretary such annual or special financial and operations reports as the Secretary may reasonably request and make such reports available to the public; make available to the public at reasonable times and places a report of the airport budget in a format prescribed by the Secretary;

b. for airport development projects, make the airport and all airport records and documents affecting the airport, including deeds, leases, operation and use agreements, regulations and other instruments, available for inspection by any duly authorized agent of the Secretary upon reasonable request;

c. for noise compatibility program projects, make records and documents relating to the project and continued compliance with the terms, conditions, and assurances of the grant agreement including deeds, leases, agreements, regulations, and other instruments, available for inspection by any duly authorized agent of the Secretary upon reasonable request; and

d. in a format and time prescribed by the Secretary, provide to the Secretary and make available to the public following each of its fiscal years, an annual report listing in detail:

   1) all amounts paid by the airport to any other unit of government and the purposes for which each such payment was made; and

   2) all services and property provided by the airport to other units of government and the amount of compensation received for provision of each such service and property.

27. Use by Government Aircraft. It will make available all of the facilities of the airport developed with Federal financial assistance and all those usable for landing and takeoff of aircraft to the United States for use by Government aircraft in common with other aircraft at all times without charge, except, if the use by Government aircraft is substantial, charge may be made for a reasonable share, proportional to such use, for the cost of operating and maintaining the facilities used. Unless otherwise determined by the Secretary, or otherwise agreed to by the sponsor and the using agency, substantial use of an airport by Government aircraft will be considered to exist when operations of such aircraft are in excess of those which, in the opinion of the Secretary, would unduly interfere with use of the landing areas by other authorized aircraft, or during any calendar month that –

a. Five (5) or more Government aircraft are regularly based at the airport or on land adjacent thereto; or

b. The total number of movements (counting each landing as a movement) of Government aircraft is 300 or more, or the gross accumulative weight of Government aircraft using the airport (the total movement of Government aircraft multiplied by gross weights of such aircraft) is in excess of five million pounds.

28. Land for Federal Facilities. It will furnish without cost to the Federal Government for use in connection with any air traffic control or air navigation activities, or weather-reporting and communication activities related to air traffic control, any areas of land or water, or estate therein, or rights in buildings of the sponsor as the Secretary considers necessary or desirable for construction, operation, and maintenance at Federal expense of space or facilities for such purposes. Such areas or any portion thereof will be made available as provided herein within four months after receipt of a written request from the Secretary.

29. Airport Layout Plan.

a. It will keep up to date at all times an airport layout plan of the airport showing (1) boundaries of the airport and all proposed additions thereto, together with the boundaries of all offsite areas owned or controlled by the sponsor for airport purposes and proposed additions thereto; (2) the location and nature of all existing and proposed airport facilities and structures (such as runways, taxiways, aprons, terminal buildings, hangars and roads), including all proposed extensions and reductions of existing airport facilities; and (3) the location of all existing and proposed nonaviation areas and of all existing improvements thereon. Such airport layout plans and each amendment, revision, or modification thereof, shall be subject to the approval of the Secretary which approval shall be evidenced by the signature of a duly authorized representative of the Secretary on the face of the airport layout plan. The sponsor will not make or permit any changes or alterations in the airport or any of its facilities which are not in conformity with the airport layout plan as approved by the Secretary and which might, in the opinion of the Secretary, adversely affect the safety, utility or efficiency of the airport.

b. If a change or alteration in the airport or the facilities is made which the Secretary determines adversely affects the safety, utility, or efficiency of any federally owned, leased, or funded property on or off the airport and which is not in conformity with the airport layout plan as approved by the Secretary, the owner or operator will, if requested, by the Secretary (1) eliminate such adverse effect in a manner approved by the Secretary; or (2) bear all costs of relocating such property (or replacement thereof) to a site acceptable to the Secretary and all costs of restoring such property (or replacement thereof) to the level of safety, utility, efficiency, and cost of operation existing before the unapproved change in the airport or its facilities.

30. Civil Rights. It will comply with such rules as are promulgated to assure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or handicap be excluded from participating in any activity conducted with or

benefiting from funds received from this grant. This assurance obligates the sponsor for the period during which Federal financial assistance is extended to the program, except where Federal financial assistance is to provide, or is in the form of personal property or real property or interest therein or structures or improvements thereon in which case the assurance obligates the sponsor or any transferee for the longer of the following periods: (a) the period during which the property is used for a purpose for which Federal financial assistance is extended, or for another purpose involving the provision of similar services or benefits, or (b) the period during which the sponsor retains ownership or possession of the property.

31. Disposal of Land.

a. For land purchased under a grant for airport noise compatibility purposes, it will dispose of the land, when the land is no longer needed for such purposes, at fair market value, at the earliest practicable time. That portion of the proceeds of such disposition which is proportionate to the United States' share of acquisition of such land will, at the discretion of the Secretary, (1) be paid to the Secretary for deposit in the Trust Fund, or (2) be reinvested in an approved noise compatibility project as prescribed by the Secretary, including the purchase of nonresidential buildings or property in the vicinity of residential buildings or property previously purchased by the airport as part of a noise compatibility program.

b. For land purchased under a grant for airport development purposes (other than noise compatibility), it will, when the land is no longer needed for airport purposes, dispose of such land at fair market value or make available to the Secretary an amount equal to the United States' proportionate share of the fair market value of the land. That portion of the proceeds of such disposition which is proportionate to the United States' share of the cost of acquisition of such land will, (1) upon application to the Secretary, be reinvested in another eligible airport improvement project or projects approved by the Secretary at that airport or within the national airport system, or (2) be paid to the Secretary for deposit in the Trust Fund if no eligible project exists.

c. Land shall be considered to be needed for airport purposes under this assurance if (1) it may be needed for aeronautical purposes (including runway protection zones) or serve as noise buffer land, and (2) the revenue from interim uses of such land contributes to the financial self-sufficiency of the airport. Further, land purchased with a grant received by an airport operator or owner before December 31, 1987, will be considered to be needed for airport purposes if the Secretary or Federal agency making such grant before December 31, 1987, was notified by the operator or owner of the uses of such land, did not object to such use, and the land continues to be used for that purpose, such use having commenced no later than December 15, 1989.

d. Disposition of such land under (a) (b) or (c) will be subject to the retention or reservation of any interest or right therein necessary to ensure that such

land will only be used for purposes which are compatible with noise levels associated with operation of the airport.

32. **Engineering and Design Services.** It will award each contract, or sub-contract for program management, construction management, planning studies, feasibility studies, architectural services, preliminary engineering, design, engineering, surveying, mapping or related services with respect to the project in the same manner as a contract for architectural and engineering services is negotiated under Title IX of the Federal Property and Administrative Services Act of 1949 or an equivalent qualifications-based requirement **prescribed** for or by the sponsor of the airport.

33. **Foreign Market Restrictions.** It will not allow funds provided under this grant to be used to fund any project which uses any product or service of a foreign country during the period in which such foreign country is listed by the United States Trade Representative as denying fair and equitable market opportunities for products and suppliers of the United States in procurement and construction.

34. **Policies, Standards, and Specifications.** It will carry out the project in accordance with policies, standards, and specifications approved by the Secretary including but not limited to the advisory circulars listed in the Current FAA Advisory Circulars for AIP projects, dated _____ and included in this grant, and in accordance with applicable state policies, standards, and specifications approved by the Secretary.

35. **Relocation and Real Property Acquisition.** (1) It will be guided in acquiring real property, to the greatest extent practicable under State law, by the land acquisition policies in Subpart B of 49 CFR Part 24 and will pay or reimburse property owners for necessary expenses as specified in Subpart B. (2) It will provide a relocation assistance program offering the services described in Subpart C and fair and reasonable relocation payments and assistance to displaced persons as required in Subpart D and E of 49 CFR Part 24. (3) It will make available within a reasonable period of time prior to displacement, comparable replacement dwellings to displaced persons in accordance with Subpart E of 49 CFR Part 24.

36. **Access By Intercity Buses**. The airport owner or operator will permit, to the maximum extent practicable, intercity buses or other modes of transportation to have access to the airport; however, it has no obligation to fund special facilities for intercity buses or for other modes of transportation.

37. **Disadvantaged Business Enterprises.** The recipient shall not discriminate on the basis of race, color, national origin or sex in the award and performance of any DOT-assisted contract or in the administration of its DBE program or the requirements of 49 CFR Part 26. The Recipient shall take all necessary and reasonable steps under 49 CFR Part 26 to ensure non discrimination in the award and administration of DOT-assisted contracts. The recipient's DBE program, as required by 49 CFR Part 26, and as approved by DOT, is incorporated by reference in this agreement. Implementation of this program is a legal obligation and failure to carry out its terms shall be treated as a violation of this agreement. Upon notification to the Recipient of its failure to carry out its approved program,

the Department may impose sanctions as provided for under Part 26 and may, in appropriate cases, refer the matter for enforcement under 18 U.S.C. 1001 and/or the Program Fraud Civil Remedies Act of 1986 (31 U.S.C. 3801).

38. Hangar Construction. If the airport owner or operator and a person who owns an aircraft agree that a hangar is to be constructed at the airport for the aircraft at the aircraft owner's expense, the airport owner or operator will grant to the aircraft owner for the hangar a long term lease that is subject to such terms and conditions on the hangar as the airport owner or operator may impose.

39. Competitive Access.

a. If the airport owner or operator of a medium or large hub airport (as defined in Section 47102 of Title 49, U.S.C.) has been unable to accommodate one or more requests by an air carrier for access to gates or other facilities at that airport in order to allow the air carrier to provide service to the airport or to expand service at the airport, the airport owner or operator shall transmit a report to the Secretary that-
   (1) Describes the requests;
   (2) Provides an explanation as to why the requests could not be accommodated; and
   (3) Provides a time frame within which, if any, the airport will be able to accommodate the requests.

b. Such report shall be due on either February 1 or August 1 of each year if the airport has been unable to accommodate the request(s) in the six (6) month period prior to the applicable due date.

APPENDIX F

Land Use Map and Documentation for Lemhi County Airport

Land Use Map for Lemhi County Airport

Proposed Revision to Lemhi County Comprehensive Plan

Proposed Revision to Lemhi County Development Code Language

Proposed Disclosure Statement

ELEMENT 9: Transportation

With the creation and adoption of the Lemhi County Comprehensive Plan a general plan was established to guide development of the county's transportation systems. Anticipated limits to growth and development were still concepts. Currently there is still much work to be done in planning for growth and the connectivity of the transportation system. This will include identifying areas best suited for growth including transportation routes and alternatives such as trail systems; that can provide more connections within and between developments, community centers and the county's cities.

A newly developed Transportation Plan will review and define open space policies, access policies and standards, as well as limits of the resulting transportation systems. Cities in Lemhi County have also begun to recognize potential limits on access to public land within their jurisdictions. This recognition requires the planning in Lemhi County to reach a new level of maturity, from a level that establishes general guidelines for growth, to a level that defines specific magnitudes and locations for an anticipated finite level of future growth without loss of access to public land. The update to the Transportation Element of the *Lemhi County Comprehensive Plan* reflects this maturation, and recognizes the efforts to develop a more detailed Transportation Plan that will help to guide governmental agencies, developers and citizens in planning for future use of the transportation system in the county. To that end, this plan contains the transportation goals and objectives, as well as a plan for developing policies and projects that address specific transportation needs and challenges facing Lemhi County.

There are approximately four-hundred miles of county maintained roads within the county and over 3,500 miles of un-maintained roads on federal and state lands. The county is ninety-two percent public land and eight percent private land. Because of this, Lemhi County is at a disadvantage for lack of a large taxable base to support programs involving paved walking and bike trails, etc.

Major Roadways

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Public and Commercial Transportation

None of the communities in Lemhi County have public transportation systems of their own. There is a public transportation service available to the area through CART out of Salmon, Idaho which provides service to Idaho Falls. There are several commercial entities that provide transportation within and out of the county, mostly in the form of shipping, provided by both four major shipping companies.

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The nearest commercial bus service is located in Idaho Falls and Missoula, Montana.

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The Lemhi County Airport (SMN), located five miles south of Salmon, serves the county. SMN is a public-use general aviation airport with limited air taxi and air charter services to Boise and other communities and cities. Many of the built and planned improvements at the airport are partially funded by the Federal Aviation Administration. There is also a another small public-use airport in Leadore.

Both facilities are identified as part of Idaho's statewide airport system. Lemhi County intends that its aviation system comport with the mission of the Idaho Transportation Department's Aeronautics Division:

> The Idaho Transportation Department's Division of Aeronautics serves to provide the highest quality, most effective, efficient, and safest airport system for all users of aviation services. To this end, the Division of Aeronautics plans and implements essential programs, services and projects to develop, encourage, and foster an exemplary system of airports that meet the current and future requirements of a growing and diverse Idaho aviation community. (http://itd.idaho.gov/aero/)

SMN is important part of local and national transportation infrastructure.

SMN is owned, operated and managed by Lemhi County. SMN is Lemhi County's only aviation facility that is part of the federal National Plan of Integrated Airport Systems (NPIAS). As part of this system, SMN is considered necessary to provide a safe, efficient, and integrated system of nation-wide public-use airports adequate to anticipate and meet the needs of: commercial air service; civil aeronautics; the national defense requirements of the Secretary of Defense; emergency air medical evacuation; BLM and USFS fire response support; as well as ground carriers such as Fed Ex, UPS, and the United States Postal Service. As such it is also the only in Lemhi County that receives federal funding via the Federal Aviation Administration (FAA) and it is subject, therefore, to FAA design standards, regulations, rules, Sponsor responsibilities, and policies.

Policy Statements

To coordinate the transportation policies with desired growth and development patterns in the county and with in the regional context.

I. To develop an efficient, safe and cost-effective public road and trail network which separates traffic by function.

Goals:

A. Transportation planning shall be relevant to the county's social and economic land use. The Transportation Plan, when finalized, shall be implemented through a capital improvement program, which shall be updated as needed, as well as through such other mechanisms such as site plan and development reviews.

B. The county shall coordinate with local residents; other city, county, federal and state agencies in the development and implementation of the transportation plan.

C. All new developments shall be encouraged to locate near appropriate transportation corridors and shall dedicate their share of right-of-way for any county or state road or highway shown on the transportation plan on which the right-of-way widths specified in the county road requirements and public access to bordering public lands. Current specifications and design standards for county road needs should be met where existing roads and trails are in existence.

D. Consideration shall be given to pedestrian, bicycle and/or other uses of road rights-of-way during the design and construction of all road improvements.

E. To improve, maintain, and insure the integrity of the transportation system, the county shall pursue, to the extent possible, alternative funding sources.

F. Safety shall be addressed with the improvement of highway segments and by a concerted effort where possible to separate modes of transport. Safety improvements, including appropriate signing, shall be made in anticipation of problems rather than reaction to them.

G. The control of access shall be implemented by discouraging driveway cuts on all Classifications higher than local access, developing access control plans for classifications higher than minor arterial, the use of turning lanes where appropriate, and requiring new developments to minimize the number and dictate the spacing of access points to the highway system.

H. Public access and private roads through all proposed developments shall be designed and constructed to *Lemhi County Road Standards and Specifications,* and shall be sufficient for egress by emergency vehicles, and public access shall be considered and reviewed by the Lemhi County Transportation Committee and/or county commission board. Private roads shall be maintained by private owners through road user agreements and other tools.

I. When funds are available, roads with highest identified needs will be considered first for paving or dust abatement at the county's discretion.

J. All new developments shall mitigate impacts directly related to new access, historical uses, current and total use.

K. All new development shall construct roads and driveways to adopted standards that permit emergency vehicle access.

L. Support the promotion of the Salmon River Scenic and Sacajawea Historic Byways.

II. To maintain a Level of Service on the county's road network, to ensure a stable flow of traffic without significant delays.

Goals:

A. Public or private roadway capacity improvements will be developed in a manner that considers alternative modes of transportation, such as bicycles, and pedestrians, in the improvement to add "people carrying" capacity to the roadway and not just vehicular capacity where possible.

B. Access control standards shall be enforced concerning access to any public road.

III. To maintain the facilities at the highest level of quality, commensurate with available resources.

Goals:

A. The county's investment in the existing roadway system shall be protected by emphasizing maintenance of existing facilities over the provision of new facilities. All new county facilities and developments should be designed to minimize future maintenance costs.

B. Priority shall be given to the rehabilitation of the county's arterial and collector roadways through the use of Road and Bridge Fund revenues. Local access roadways, within developed areas or roadways that serve special interests such as industrial development, shall be rehabilitated through special assessments or other funding mechanisms. Primary funding responsibilities shall be assigned to the users benefiting from these improvements.

C. A roadway management system shall be implemented and comprehensive inventories of roadways and bridges shall be maintained to assist in prioritization of projects.

IV. To provide the necessary infrastructure improvements to accommodate alternative modes, such as transit, air traffic, and non-motorized methods of travel, or managing the demand for travel.

Goals:

A. The county shall encourage the planning and construction of bikeways and pedestrian walkways, which shall be an integral part of the transportation system. Bikeways and sidewalks shall be provided in new large-scale developments where warranted.

B. Lemhi County is a critical access area; therefore, airport facilities will be maintained accordingly.

C. A county-wide trails plan, serving both transportation and recreation purposes, shall be developed as part of the Transportation Plan. Trails shall provide for pedestrian, bicycle, and/or other uses where each is warranted. New development shall provide for designated trails, which run through or adjacent to their properties where appropriate.

D. With all new development areas, as well as in existing developments, where existing roads or trails on public land abut to private land, access will be provided to preserve historical use.

V. Protect the operation of the Lemhi County Airport and facilitate orderly expansion.

Goals:

A. Adhere to guidelines provided in the Airport Master Plan and/or the Airport Layout Plan and associated drawings when evaluating land use compatibility issues associated with new development in areas near or influenced by operations at the airport.

B. Planning and expansion of SMN should account for existing economic activity and transportation infrastructure so as to integrate with, complement or augment them.

C. Encourage aviation-related economic development opportunities in appropriate locations surrounding the airport.

D. Adopt a combination of criteria, standards and zoning techniques that will protect the airport and aviation uses from incompatible development. Include special airport overlay zoning, height restrictions, building restrictions in high noise areas, and development siting criteria for evaluating land uses or activities in key areas adjacent to the airport.

E. Encourage commercial and industrial uses in the proximity of the airport that benefit from and do not conflict with aircraft operations.

F. Prohibit uses in airport areas, which attract birds, create visual hazards, and emit transmissions, which may interfere with aviation communications, or otherwise obstruct or conflict with airport operations.

G. Require avigation easement and/or disclosure notification for new or substantial redevelopment of lots, buildings, structures and activities near the airport. The easement and disclosure should notify that the property is both near an airport and may experience low overhead flights, noise and other aviation impacts.

H. Allow uses that promote the efficient mobility of goods and services consistent with regional economic development and transportation goals.

I. Encourage open space and clear areas within key safety areas adjacent to the airport to protect the airport and to reduce safety risk exposure of people on the ground and in the air.

J. Work to ensure that all surrounding jurisdictions establish consistent development guidelines and regulations that utilize local, state and FAA guidelines, standards, rules, regulations and other best management practices encouraging compatible land uses adjacent to an airport.

K. Evaluate future planning activities to ensure they will not result in an increase to incompatible land uses or development adjacent to an airport.

VI. To provide for the safe and convenient accommodation of special mobility requirements of the county's elderly and physically challenged population.

Goals:

A. Viable transportation services for elderly and physically handicapped persons shall be supported.

B. Access shall be improved through the construction or improvement of key links in the roadway and bikeway systems, including the disabled, and by encouraging improved transit service and access to existing transportation systems commiserate with available resources.

VII. To seek and support measures in the planning, design, construction, operation, and maintenance of the transportation facilities to minimize air and noise pollution impacts.

Goals:

A. New developments shall use site planning techniques, such as setbacks, screening, berming, and landscaping to mitigate potential negative impacts and to add visibility to roadway.

B. The county shall monitor any visibility hazard such as landscaping, signage or fencing that limits line of sight at intersections or right-of-way. Dangerously high overhanging trees or limbs will be eliminated. (Refer to VII. D)

VIII. To preserve and enhance public enjoyment of such facilities as mountain roads, bridges, scenic overlooks, and landscape plantings.

Goals:

A. Preserving access, especially access on public lands that has been motorized, will be a high priority in Lemhi County.

B. High priority will be given to preserving all historical accesses across private land to public lands.

C. In mountainous and other scenic areas, road, bridge, and other transportation improvements will be designed to meet and protect natural environment where transportation hazards do not exist.

D. Standards for planning for and reserving areas along public roads for turnouts or other identified safety needs will be encouraged. These will take into consideration future transportation safety and expansion needs for these corridors.

IX. To continue to systematically plan for future transportation needs within the context of minimizing impacts to fish and wildlife resources.

Goals:

A. Continue to ensure fish passage in the design and construction of transportation infrastructure.

B. Encourage wildlife-friendly fence specifications along public highways and streets to facilitate safe movement of wildlife across roads where appropriate.

C. Identify and warn motorists of wildlife crossings and coordinate with the Idaho Transportation Department and Idaho Department of Fish and Game to install appropriate signage and driving restrictions to mitigate wildlife-vehicle collisions.

D. Identify and warn motorists of wildlife crossings and coordinate with the Idaho Transportation Department and Idaho Department of Fish and Game to install appropriate signage and wildlife passage structures to mitigate wildlife-vehicle collisions.

E. Provide education to accomplish the tasks above.

PROPOSED REVISON TO LEMHI COUNTY COMPREHENSIVE PLAN

ELEMENT 9: Transportation

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H. Allow uses that promote the efficient mobility of goods and services consistent with regional economic development and transportation goals.

I. Encourage open space and clear areas within key safety areas adjacent to the airport to protect the airport and to reduce safety risk exposure of people on the ground and in the air.

J. Work to ensure that all surrounding jurisdictions establish consistent development guidelines and regulations that utilize local, state and FAA guidelines, standards, rules, regulations and other best management practices encouraging compatible land uses adjacent to an airport.

K. Evaluate future planning activities to ensure they will not result in an increase to incompatible land uses or development adjacent to an airport.

VI. To provide for the safe and convenient accommodation of special mobility requirements of the county's elderly and physically challenged population.

Goals:

A. Viable transportation services for elderly and physically handicapped persons shall be supported.

B. Access shall be improved through the construction or improvement of key links in the roadway and bikeway systems, including the disabled, and by encouraging improved transit service and access to existing transportation systems commiserate with available resources.

VII. To seek and support measures in the planning, design, construction, operation, and maintenance of the transportation facilities to minimize air and noise pollution impacts.

Goals:

A. New developments shall use site planning techniques, such as setbacks, screening, berming, and landscaping to mitigate potential negative impacts and to add visibility to roadway.

B. The county shall monitor any visibility hazard such as landscaping, signage or fencing that limits line of sight at intersections or right-of-way. Dangerously high overhanging trees or limbs will be eliminated. (Refer to VII. D)

VIII. To preserve and enhance public enjoyment of such facilities as mountain roads, bridges, scenic overlooks, and landscape plantings.

Goals:

A. Preserving access, especially access on public lands that has been motorized, will be a high priority in Lemhi County.

B. High priority will be given to preserving all historical accesses across private land to public lands.

C. In mountainous and other scenic areas, road, bridge, and other transportation improvements will be designed to meet and protect natural environment where transportation hazards do not exist.

D. Standards for planning for and reserving areas along public roads for turnouts or other identified safety needs will be encouraged. These will take into consideration future transportation safety and expansion needs for these corridors.

IX. To continue to systematically plan for future transportation needs within the context of minimizing impacts to fish and wildlife resources.

Goals:

A. Continue to ensure fish passage in the design and construction of transportation infrastructure.

B. Encourage wildlife-friendly fence specifications along public highways and streets to facilitate safe movement of wildlife across roads where appropriate.

C. Identify and warn motorists of wildlife crossings and coordinate with the Idaho Transportation Department and Idaho Department of Fish and Game to install appropriate signage and driving restrictions to mitigate wildlife-vehicle collisions.

D. Identify and warn motorists of wildlife crossings and coordinate with the Idaho Transportation Department and Idaho Department of Fish and Game to install appropriate signage and wildlife passage structures to mitigate wildlife-vehicle collisions.

E. Provide education to accomplish the tasks above.

DRAFT
FAIR DISCLOSURE STATEMENT
DISCLOSURES BY (OWNER) (BUYER)
OF REAL PROPERTY IN LEMHI COUNTY, IDAHO

This is a notification, disclosure, and acknowledgement by (Owner) (Buyer) of real property located in the vicinity of the Lemhi County Airport in Lemhi County, Idaho.

(Owner) (Buyer) hereby acknowledges the following:

AIRPORT

1. Proximity to the Airport

The subject parcel, located in Section ___ Township ___ Range ____, is located within the Lemhi County Airport Airport Influence Area as defined in Chapter 8, of the Lemhi County Development Code. As result, the subject property is located in the airport's Federal Aviation Regulation Part 77 Airspace and one of seven land use compatibility zones. A this location, aircraft may fly at low elevations over the parcel as they operate to, from, or at the airport. The airport is operational 24 hours per day. Flights may occur at all hours of the day or night.

2. Airspace

The subject parcel property lies under the Airport's FAR Part 77 Airspace and is subject to Federal law and Chapter 8 of the County Code of Lemhi County, Idaho. As such, it may be necessary to clear and keep clear the Airspace of any portions of buildings, structures, or improvements of any and all kinds, of trees, vegetation, or other objects. This includes reserving the right of the County to; remove or demolish those portions of such buildings, structures, improvements, trees or any other objects which extend into the Airspace; cut to the ground level and remove any trees which extend into the Airspace; the right to mark and light, or cause or require to be marked or lighted, as obstructions to air navigation, any and all buildings, structures, or other improvements, and trees or other objects now upon, or that in the future may be upon, said Parcel, and which extend into the Airspace

3. Future Improvements and Aircraft Operations

The airport may wish to expand its facilities and operations in the future. Expansion plans include, but are not limited to those shown on the approved Airport Layout Plan (ALP). These improvements may result in increased aircraft operations, operations by larger aircraft, and increased nighttime operations, which could increase the noise levels within the vicinity of the airport.

4. Disclosure of Airport Impacts

Due to the proximity of the parcel to the Lemhi County Airport and the airport's area of influence; owner(s) / buyer(s) should expect frequent overflight and varying degrees of noise and other impacts from these overflying aircraft, which some persons may find intrusive. Further, owner(s)/buyer(s) should expect varying degrees of vibration, fumes, dust, fuel, fuel particles, or other effects that may be caused by the operation of aircraft landing at, taking off from, or operating on or at public airport facilities.

CERTIFICATION

This undersigned owner(s) / purchaser(s) of said parcel of land certify(ies) that (he/she/they) (has/have) read the above disclosure statement and acknowledge(s) the preexistence and potential of improvements/expansion of the airport named above and the noise and other exposure due to the operation of said airport.

_____

(SIGNED) Date

ORDINANCE NO. _____

AN ORDINANCE OF LEMHI COUNTY, IDAHO, ENACTING A REVISION OF CHAPTER 8 AND CHAPTER 12 OF THE COUNTY DEVELOPMENT CODE OF LEMHI COUNTY, IDAHO, TO BE KNOWN AS THE AIRPORT SAFETY OVERLAY DISTRICT ZONE WITH DEFINITIONS; PROVIDING FOR THE PURPOSE OF THE AIRPORT SAFETY OVERLAY DISTRICT ZONE; RECITING THE AUTHORITY ENABLING THE COUNTY TO ENACT THE AIRPORT SAFETY OVERLAY DISTRICT ZONE; SPECIFYING THE APPLICABILITY OF THE AIRPORT SAFETY OVERLAY DISTRICT ZONE; DEFINING TERMS; ESTABLISHING THE AIRPORT SAFETY OVERLAY DISTRICT ZONE; PROVIDING FOR HEIGHT LIMITATIONS AND LAND USE REGULATIONS WITHIN THE AIRPORT SAFETY OVERLAY DISTRICT ZONE; PROVIDING FOR USE RESTRICTIONS WITHIN THE ZONE; ADDRESSING NONCONFORMING USES; PROVIDING FOR GENERAL PROCEDURES CONCERNING THE AIRPORT SAFETY OVERLAY DISTRICT ZONE: PROVIDING FOR THE GENERAL DEFINITIONS PRESENTED IN THIS UPDATE; AND PROVIDING AN EFFECTIVE DATE.

BE IT ORDAINED BY THE BOARD OF COUNTY COMMISSIONERS, LEMHI COUNTY IDAHO, as follows:

Section 1: That a new Chapter 8 of the County Development Code of Lemhi County, Idaho, establishing an Airport Safety Overlay District zone be and the same is hereby enacted to provide as follows:

CHAPTER 8
AIRPORT SAFETY OVERLAY ZONING DISTRICT

8.1. What This Chapter Does. The purpose of the Airport Safety Overlay Zoning District (ASOD) is to provide for the safety of aircraft pilots and passengers and protect a substantial investment of public funds by assuring that land development and construction activities within the ASOD are compatible with the safe continued use of the Lemhi County Airport. Private aircraft landing fields, as defined under 12.8 (page 62), shall be considered a large scale development which requires a special use permit for approval anywhere within the county. In approving such a permit the county may use the standards set forth within this Airport Safety Overlay Zone as a guide. The purpose of the Airport Safety Overlay District (ASOD) is to protect the viability of the Lemhi County Airport (the Airport) as a significant resource to the community by encouraging compatible land uses, densities and reducing aviation hazards that may endanger the lives and property of the public and aviation users. The ASOD classification creates a series of appropriate zones that have historically been prone to hazards associated with aircraft and airports as well as negatively affecting the quality of life of the surrounding community. The ASOD establishes the boundaries of the zones; provides for changes in the restrictions and boundaries of such zones; defines certain terms used herein; references the

Airport's FAR Part 77 Airspace Drawing and Airport Land Use Zone Map, which are incorporated in and made a part of this Ordinance. This chapter is based on aircraft accident data from the National Transportation Safety Board (NTSB), Federal Aviation Regulations (FAR) Part 77 Imaginary Surfaces, FAA and State airport land use compatibility recommendations and other airport land use planning best practices. The District is established over the existing Lemhi County zoning districts. Densities and land use requirements of the underlying zoning districts are consistent with the FAA and State of Idaho recommendations and provide for maximum protection to the public, health, safety and general welfare of the community and for those citizens working and residing within the Airport Influence Area.

Accordingly, it is declared that:

- The Airport fulfills an essential community purpose; and
- The creation or establishment of an aviation hazard is a public nuisance and will injure the region served by the Airport; and

- The encroachment of noise sensitive or otherwise incompatible land uses within certain areas as set forth herein endangers the health, safety, and welfare of the owners, occupants, or users of the land; and

- It is necessary in the interest of the public health, safety, and general welfare that the creation of aviation hazards be prevented; and

- Joint cooperation between all governing boards having jurisdiction within or adjoining the airport's hazard areas is encouraged as a mechanism to prevent aviation hazards.

8.1.1. Authority. The legislature of the State of Idaho has delegated the responsibility to local governments to adopt regulations within its jurisdiction to promote the public health, safety, and general welfare of its citizenry (Idaho Statute: Title 67, Chapter 65).

8.1.2. Applicability. The provisions of this chapter shall apply to all lands, buildings, structures, natural features or uses located within those areas that are defined by the ASOD Airport Safety Overlay District Zone designated on the Lemhi County Airport Airspace Drawing and Airport Land Use Zone Map that are located within the jurisdiction of Lemhi County, Idaho, at present time or in the future.

8.1.3. Creation, Adoption & Maintenance of Airspace Map. In order to accomplish and illustrate more fully the objectives and purpose of this chapter, the several height zones identified above shall be shown and identified on the Airport's Federal Aviation Regulation (FAR) Part 77 Airspace Drawing.

8.1.3.1. One (1) original, official copy of the FAR Part 77 Airspace Drawing reflecting the boundaries of the Airport Height Zones of Lemhi County, Idaho, is hereby adopted, and the County is hereby authorized to sign and attest the map as the official Lemhi County Airport FAR Part 77 Airspace Drawings of County of

Lemhi, Idaho. The most current version of the map as included in approved Airport Layout Plan (ALP) drawing set will be kept on file with the building and planning departments.

8.1.3.1. The current map shall be as much of this ordinance and chapter as if fully described herein.

~~8.2. Height Limitation Zones. This overlay zoning district is composed of several height limitation zones, which include all land lying beneath the approach surfaces, transitional surfaces, horizontal surfaces, and conical surfaces appurtenant to the Lemhi County Airport.~~
SENTENCE MOVED TO 8.2 (Below)

~~8.2.1. Utility Runway Visual Approach Zone. The inner edge of the approach zone coincides with the width of the primary surface and is two hundred fifty (250) feet wide. The approach zone expands outward uniformly to a width of one thousand two hundredfifty (1,250) feet at a horizontal distance of five thousand (5,000) feet from the primary surface. Its centerline is the continuation of the centerline of the runway.~~

~~8.2.2. Transitional Zones. The transitional zones are the areas beneath the transitional surfaces.~~

~~8.2.3. Horizontal Zone. The horizontal zone is established by swinging arcs of five thousand (5,000) feet from the center of each end of the primary surface and connecting the adjacent arcs by drawing lines tangent to those arcs. The horizontal zone does not include the approach and transitional zones.~~

~~8.2.4. Conical Zone. The conical zone is the area that commences at the periphery of the horizontal zone and extends outward there from a horizontal distance of four thousand (4,000) feet.~~

8.2. Airport Height Zones Established. In order to carry out the provisions of this chapter, zones are hereby established which include all of the land lying beneath the approach surfaces, transitional surfaces, horizontal surfaces, and conical surfaces as they apply to the Lemhi County Airport. The imaginary air surfaces are those air spaces above and around airports that require protection from potential obstructions that might interfere with airport traffic. The size of the imaginary surfaces are based upon the category of each runway. Such zones are shown on the Airport's Federal Aviation Regulation (FAR) Part 77 Airspace Drawing. These zones are shown on the Official Zoning Map of Lemhi County established by 4.3 (page 22). An area located in more than one of these zones is considered to be in the zone with the more restrictive height limitation. Each portion of an area located in more than one (1) of the following zones shall be evaluated independently according to the zone in which it is located. The various zones are defined below. Height limitations associated with each of the following zones are presented in Section 8.3 below.

8.2.1. Non-Precision Instrument Runway Approach Zone (Larger Than Utility). The inner edge of this approach zone coincides with the width of the primary surface and is five hundred feet (500) wide for Runway 17/35. The approach zone expands outward

uniformly to a width of 3,500 feet at a horizontal distance 10,000 feet from the primary surface. Its centerline is the continuation of the centerline of the runway.

8.2.2. Transitional Zone. Transitional zones are the areas beneath the transitional surfaces.

8.2.3. Horizontal Zone. Horizontal zones are established by swinging arcs of ten thousand feet (10,000) radii from the center of each end of the primary surface of each runway and connecting the adjacent arcs by drawing lines tangent to those arcs. The Horizontal zone does not include approach and transitional zones.

8.2.4. Conical Zone. The Conical zone is established as the area commencing at the periphery of the horizontal zones and extending outward for a horizontal distance of four thousand feet (4,000).

~~8.3. Height Limitations. Except as provided in 8.3.5 (page 45), or by variance (see 8.7 on page 45), no structure or tree shall be allowed to exceed the height limitations established here.~~

~~8.3.1. Utility Runway Visual Approach Zone. Slopes twenty feet outward for each foot upward beginning at the end of and at the same elevation as the primary surface and extending to a horizontal distance of five thousand (5,000) feet along the extended runway centerline.~~

~~8.3.2. Transitional Zones. Slope seven (7) feet outward for each one (1) foot upward beginning at the sides of and at the same elevation as the primary surface and the approach surface, and extending to a height of 150 feet above the airport elevation. In addition, there are transitional sloping seven (7) feet outward for each one (1) foot upward beginning at the sides of and at the same elevation as the approach surface, and extending to where they intersect the conical surface.~~

~~8.3.3. Horizontal Zone. One hundred-fifty (150) feet above the airport elevation.~~

~~8.3.4. Conical Zone. Slopes twenty (20) feet outward for each foot upward beginning at the edge of the horizontal zone and at one hundred-fifty (150) feet above the airport elevation, and extending to a height of three hundred-fifty (350) feet above the airport elevation.~~

~~8.3.5. Exception from Height Limitations. Nothing in this chapter shall prohibit the construction or maintenance of any structure of thirty-five (35) feet or less in height, or the growth of any tree to a height up to thirty-five (35) feet above the surface of the land, except in the approach zones.~~

8.3. Airport Zone Height Limitations: Except as provided in 8.3.5 (page 45), or by variance (see 8.7 on page 45) no structure shall be erected, altered, or maintained and no tree shall be allowed to grow in any zone, as defined in this chapter, to a height in excess of the applicable height limit established for that zone. The applicable height limitations for each of the zones are established as follows:

8.3.1. Non-Precision Instrument Runway Approach Zone (Larger Than Utility). Slopes thirty-four feet (34') outward for each foot upward (34:1) beginning at the end of and at the same elevation as the primary surface and extending to a horizontal distance of ten thousand feet (10,000') along the extended runway centerline.

8.3.2. Transitional Zones. Slope seven feet (7') outward for each foot upward (7:1) beginning at the sides of and at the same elevation as the primary surface and the approach surface, and extending to a height of one hundred fifty feet (150') above the airport elevation.

8.3.3. Horizontal Zone. One hundred fifty feet (150') above the airport elevation or at a height of four thousand one hundred and ninety three (4,193') above mean sea level.

8.3.4. Conical Zone. Slopes twenty feet (20') outward for each foot upward (20:1) for four thousand feet (4,000') beginning at the periphery of the horizontal zone and at one hundred fifty feet (150') above the airport elevation and extending to a height of three hundred fifty feet (350') above the airport elevation.

8.3.5. Excepted Height Limitations. In the area lying within the limits of the Horizontal and Conical Zones, nothing in this chapter shall be construed as prohibiting the construction, maintenance, or growth of anything to a height that is less than thirty five (35) feet above the surface of the land, except when, because of terrain, land contour or topographic features, such structure or growth would extend above the height limits prescribed herein.

8.4. Creation, Adoption & Maintenance of Airport Land Use Zone Map. The boundaries of the Airport Land Use Zones set out herein shall be delineated upon the Airport's Airport Land Use Zone Map, with said map being adopted by reference and made a part of this chapter as fully as if the same were set forth herein in detail.

8.4.1. One (1) original, official copy of the Airport Land Use Zone Map that reflects the boundaries of the Airport Land Use Zones of Lemhi County, Idaho, is hereby adopted, and the County is hereby authorized to sign and attest the map as the official Lemhi County Airport Land Use Zone Map of Lemhi County, Idaho. The map will be kept on file with the building and planning department.

8.4.2. The map shall be as much of this ordinance and chapter as if fully described herein.

8.5. Land Use Regulation. The permissible land and building uses for any particular airport zone shall be delineated in the Airport Compatible Land Use Table, found in Attachment "A" hereto. No land shall be used and no structure or other object shall be erected, altered, converted, or modified in any particular airport zone other than for those permitted in the above-referenced table. If said table is silent to a particular land or building use in a particular airport zone, such use shall be allowed if the use is determined compatible per the intent of this chapter by the

board and is permitted by the underlying comprehensive zoning districts as specified in County Development Code.

8.5.1. Where the uses identified in the Airport Compatible Land Use Table conflicts with any other provision of County Development Code, the Airport Compatible Land Use Table and this chapter shall apply.

8.6. Airport Compatible Land Use Overlay Zones, Boundaries, Maps & Regulations. Airport Compatible Land Use Overlay Zones (Land Use Zones). The controlled area of the Airport is divided into Airport Compatible Land Use Overlay Zones (Land Use Zones). The purpose of such zones shall be to regulate the development of noise sensitive land uses; promote compatibility between the Airport and the surrounding land uses; protect the Airport from incompatible development; and promote the health, safety and general welfare of property users. The Airport Land Use Zones established herein shall be known as:

- Runway Protection Zone (RPZ)
- Lateral Safety Zone (LSZ)
- Inner Critical Zone (ICZ)
- Outer Critical Zone (OCZ)
- Traffic Pattern Area (TPA)
- Airport Influence Area (AIA)
- Buffer Zone (BZ)

8.6.1. Airport Compatible Land Use Overlay Boundaries. The Airport Land Use Zone boundary lines shown on the official Airport Land Use Zone Map shall be located and delineated along contour lines established for the Airport. Where uncertainty exists as to the boundaries of the Airport Land Use Zones as shown on the official Map, the following rules shall apply:

- Boundaries shall be scaled from the nearest runway end shown on the map.
- Boundaries shall be scaled from the nearest physical feature shown on the map.
- Distances not specifically indicated on the original Airport Land Use Zone Map shall be determined by a scaled measurement on the map.

8.6.1.1. Where physical features on the ground differ from the information shown on the official Airport Land Use Zone Map or when there arises a question as to how or where a parcel of property is zoned and such questions cannot be resolved by the application of Section 8.6, the property shall be considered to be classified as the most restrictive Airport Land Use Zone.

8.6.1.2. Where a parcel of land lies within more than one (1) Airport Land Use Zone, the zone within which each portion of the property is located shall apply individually to each portion of the development.

8.6.1.3. On property within the Airport Land Use Zone Map jurisdiction, but outside the jurisdictional limits of Lemhi County, Idaho, 8.8.1 shall be used to

formulate land use recommendations or responses to land use comment requests from other jurisdictions.

8.6.1.4. In the event of conflict between this section and any aviation hazard restriction, the most restrictive provision shall apply.

8.6.2. General Land Use Provisions. General dangers to the airport and aircraft operations, which may not be specifically defined by this section, are prohibited and can be generally identified by the following:

8.6.2.1. Notwithstanding other provisions of this chapter or sections of County Development Code, no use shall be made of land, water, or structures within any zone established by this chapter in such a manner as to create electrical interference with navigational signals or radio communication between the airport and aircraft, make it difficult for pilots to distinguish between airport lights and other lights, result in glare in the eyes of pilots using the airport, impair visibility in the vicinity of the airport, create bird strike hazards, or in any way endanger or interfere with the operation of aircraft.

8.~~5~~7. Nonconforming Uses. Additional Regulations. Nonconforming uses and buildings are regulated by the provisions of 1.6 (page 2) and, within this overlay zoning district, these additional requirements.

8.~~5~~7.1 Nonconforming uses, may include trees, and shall be required to permit the installation, operation, and maintenance of any markers and/or lights the county deems necessary to indicate their presence to the operators of aircraft. Such markers and lights shall be installed, operated, and maintained at the expense of the county.

8.7.1.1. Affect Not Retroactive. The regulations prescribed by this chapter shall not require the removal or alteration of any structure or tree not conforming to this chapter on its effective date. The repair and, under specified circumstances, replacement of nonconforming uses and buildings is permitted by 1.6 (page 2), but no nonconforming use, building, or tree shall be permitted to become a greater hazard to air navigation than it was on the effective date of this ordinance. The regulations of this chapter shall not interfere with the continuance of such nonconforming use. Nothing contained herein shall require a change in the construction, alteration, or intended use of any structure whose construction or alteration commenced prior to the effective date of this Ordinance and whose construction is being diligently pursued.

8.7.1.2. Marking and Lighting. The owner of any existing nonconforming structure or tree shall permit the installation, operation, and maintenance of markers and lights deemed necessary by the County to indicate to the operators of aircraft the presence of obstructions. The markers and lights shall be installed, operated, and maintained at the expense of the County.

8.68 Permits. Additional Requirements. Permit requirements for development activity are established in 3.2 (page 7). Within this overlay zoning district, permit requirements shall be expanded to include the planting of any tree with a growth habit of more than thirty five (35) feet and the construction of any building or structure that is more than thirty five (35) feet in height and is exempted from the requirement for a permit by 3.3 (page 7), (this includes agricultural outbuildings and similar accessory structures).

8.8.1. Future Uses. Except as specifically provided in 8.8.1.1 and 8.8.1.2 hereunder, no material change shall be made in the use of land, no structure shall be erected or established, and no tree shall be planted in any zone hereby created without a properly authorized permit. Each application for a permit shall indicate the action to be permitted and shall provide enough detail shall be provided, including a map or drawing showing the heights and location of the permitted action in relation to the Height and Land Use Zones, to allow a determination of whether the resulting use, structure, or tree will conform to the regulations prescribed herein. An FAA Form 7460-1, *Notice of Proposed Construction or Alteration*, shall accompany each application. Receipt of an FAA Determination of No Hazard is required before issuing a permit. It should be noted at FAA review time of the Form 7460-1 can take up to 90 days. No permit for a use inconsistent with the provisions of this chapter shall be granted unless a variance has been approved in accordance with Sections 9-24-14(C) and 9-24-14(D).

8.8.1.1. No permit shall be required by this Ordinance for any tree or structure less than 200 feet above ground level that is located in the area lying within the limits of the approach, transitional, horizontal, and conical zones, and which is lower than an imaginary surface extending outward and upward at a slope of 100 feet horizontal for each 1 foot vertical within 20,000 feet (3.8 statute miles) beginning at the closest point of the closest runway.

8.8.1.2. Nothing contained in any of the foregoing exceptions shall be construed as permitting or intending to permit any construction, or alteration of any structure, or growth of any tree which results in a height in excess of any of the height limits established by this Ordinance.

8.8.2. Special Use Permit. With the exception of the Inner Critical Zones, Lateral Safety Zone and Runway Protection Zones as defined in this chapter and identified on the Land Use Zone Map and the Airport Compatible Land Use Table, a person desiring to use property in a manner which is not in accordance with the regulations prescribed in this Ordinance, shall apply to the County for a special use permit from the affecting regulations as outlined in County Development Code. In addition to County Development Code requirements, an application for a special use permit shall also be accompanied by a determination by the Lemhi County Airport Advisory Board, the Federal Aviation Administration and the Idaho Division of Aeronautics concerning the affect of the proposal on the operation of air navigation facilities, the safe, efficient use of the navigable airspace, and the safety of airport users as well as the safety and quality of life of surrounding residents. Such special use shall be permitted if it is determined that: a literal application or enforcement of the regulations would result in unnecessary hardship

which could be relieved by the special use, and if it is determined that the special use will not be contrary to the public interest, will not create an aviation hazard, will do no substantial injustice, and will be in accordance with the spirit of this Ordinance. A special use permit requested pursuant to this section shall only be considered by the County after the airport manager, or designated representative, has been given an opportunity to review the application for safety and aeronautical affects and has submitted written comments to the County. If the airport manager's opinion has not been submitted within fifteen (15) days after receipt of the application, the County shall act upon the application without such advice.

8.8.2.1. Variance. The variance procedure is described in 3.13 (page 15). A person desiring to erect or increase the height of any structure, or permit the growth of a tree, or use property in a manner which is not in accordance with the regulations prescribed in this chapter, shall apply to the County for a variance from the affecting regulations as outlined in County Development Code. In addition to County Development Code requirements, an application for a variance shall also be accompanied by a determination by the County of Lemhi County Airport Advisory Board, the Federal Aviation Administration and the Idaho Division of Aeronautics concerning the effect of the proposal on the operation of air navigation facilities and on the safe, efficient use of the navigable airspace. Such variance shall be viewed favorably if it is determined that: a literal application or enforcement of the regulations would result in unnecessary hardship which could be relieved by the variance, and if it is determined that the variance will not be contrary to the public interest, will not create an aviation hazard, will do no substantial injustice, and will be in accordance with the spirit of this chapter. The County shall only consider a variance, requested pursuant to this section, after the airport manager or designated representative has been given an opportunity to review the application for its aeronautical affects and has submitted written comments to the County. If the airport manager's opinion has not been submitted within fifteen (15) days after receipt of the application, the County shall act upon the application without such advice.

~~8.7 Variances. Any application for a variance of the height limitations established in this chapter shall be accompanied by a determination from the Federal Aviation Administration as to the effect of the proposal on the operation of air navigation facilities and the safe, efficient use of navigable airspace.~~

8.8.2.2. Obstruction Marking and Lighting. In granting a variance permit, the County may, if such action is deemed advisable to fulfill the purpose of this Ordinance, place conditions upon the variance which require the owner of the structure or tree in question to install, operate, and maintain at the owner's expense such markings and lights as are considered to be necessary. If deemed proper by the County, this condition may be modified to require the owner to allow the County, at the County’s expense, to install, operate, and maintain the necessary markings and lights.

~~8.8 Obstruction Marking and Lighting. The approval of any application for a permit or variance may be conditioned on the installation, operation, and maintenance, at the owner's expense, of the markings and/or lights necessary to indicate the presence of an obstruction to aircraft operators.~~

8.8.2.3. Existing Uses. A permit shall not be granted if it would allow the establishment or creation of an obstruction or would allow a nonconforming use, structure, or tree to become a greater hazard to air navigation than it was prior to the effective date of this Ordinance, the effective date of any amendment to this Ordinance, or the application date of a permit.

8.8.2.4. Non-conforming Uses Abandoned or Destroyed. If the Planning and Zoning Commission determines that a nonconforming tree or structure has been abandoned or that more than eighty percent (80%) of it has been demolished, deteriorated, or decayed, then a permit that would allow such structure or tree to exceed the applicable height limit or otherwise deviate from the zoning regulations shall not be granted.

8.9. Disclosure. A Fair Disclosure Statement shall be provided to any applicant for a permit within an airport zone, or any prospective buyers of any structure or property within in such zones. Further, the Fair Disclosure Statement shall serve to notify prospective buyers of property near airports that subject property is subject to the provisions of this Ordinance and lies within the Airport Influence Area and under the Airport's FAR Part 77 Airspace. As such, it may be necessary to clear and keep clear the Airspace of any portions of buildings, structures, or improvements of any and all kinds, and of trees, vegetation, or other objects. This includes reserving the right of the County to: remove or demolish those portions of such buildings, structures, improvements, trees or any other objects which extend into the Airspace; cut to the ground level and remove any trees which extend into the Airspace; the right to mark and light, or cause or require to be marked or lighted, as obstructions to air navigation, any and all buildings, structures, or other improvements, and trees or other objects now upon, or that in the future may be upon, said Parcel, and which extend into the Airspace. The Fair Disclosure Statement shall also notify applicant for permit or prospective buyers that they may be exposed to potentially impactive levels of aircraft overflight, including but not limited to noise, vibration, fumes, dust, fuel or fuel particles, and other effects that may be caused by normal aircraft operations in around an airports.

8.9.1. Before the County issues a permit, the applicant shall sign the Fair Disclosure Statement and the Fair Disclosure Statement will be recorded in the deed records of the County. Upon the applicant's refusal, County shall acknowledge that the applicant was made aware of the above-described impacts. Such statement shall be recorded in the deed records of the County.

8.9.2. Nothing stated herein is meant to provide pilots, crews, owners of aircraft, or any other persons protection from liability for negligence committed on their part.

8.10. Enforcement. It shall be the duty of the County to administer and enforce the regulations prescribed herein through the office of the County. Applications for permits and variances shall

be made to the County upon a form published for that purpose. The County shall promptly consider applications required by this chapter. Each application shall be either: a. Granted without conditions. b. Granted with added conditions, or c. Denied.

Section 2: That specific terms presented in Chapter 8 of this ordinance be properly defined in Chapter 12 section 8 of the Lemhi County Development Code and adopted.

12.8: Definitions: The following terms shall have the meanings indicated:

AIRPORT: Any runway, any area, or other facility designed or used either publicly or privately for the landing and taking-off of aircraft, including all accessory taxiways, aircraft storage and tie down areas, hangars, and other necessary buildings. For purposes of this Ordinance, the Airport includes the Lemhi County Airport.

AIRPORT ELEVATION: The highest point of an airport's useable landing area measured in feet from sea level. The Lemhi County Airport is four thousand and forty three feet (4,043') above mean sea level.

AIRPORT INFLUENCE AREA: An area that establishes the boundary used to define the airport environs for land use planning purposes. Factors to be considered in defining the boundary of the Airport Influence Area include airport noise contours (when applicable), airport traffic patterns, departure, arrival and instrument approach corridors, safety zones and height restriction areas.

APPROACH SURFACE: 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 zone height limitation slope set forth in 8.3. The outer width of an approach/departure surface will be that width prescribed in this subsection for the most precise approach existing or planned for that runway end as identified on the Airport's approved Airport Layout Plan (ALP).

APPROACH, TRANSITIONAL, HORIZONTAL and CONICAL ZONES: These zones are set forth in 8.2.

AVIATION HAZARD: An obstruction or hazard to air navigation that includes any new or existing structure, object of natural growth, use of land, or modification thereto, which endangers the lives and property of users of an airport, or of occupants of land in its vicinity, and that reduces the size of the area available for landing, taking off and maneuvering of aircraft, or penetrates an imaginary surface, and has an adverse effect on the safe and efficient utilization of the navigable airspace.

AVIGATION EASEMENT: A non-possessing property interest in airspace over a land parcel or portion of land. It is a legally developed document obtained by the owner of an airport to permit activities including the right of flight and the right to remove obstructions, but not necessarily to the extent of prohibiting the use of the land within the limits of the rights obtained.

BUFFER ZONE: An area within the County of Lemhi County, the Area of County Impact and Lemhi County where aircraft are commonly operating for the purposes of landing and take-off. The Buffer Zone(s) establishes an area transitional land use restrictions from more restrictive to less restrictive based on proximity to the airport. The purpose of the Buffer Zones(s) is to enhance the protection of people and property on the ground while considering development in the vicinity of the airport.

COUNTY: Lemhi County, Idaho.

COMPATIBLE LAND USE. Compatibility of land use is attained when the use of property adjacent to an airport neither adversely affects flight operations from the airport nor is itself adversely affected by such flight operations. In most cases, the adverse effect of flight operations on adjacent land results from exposure of noise sensitive development, such as residential areas, to aircraft noise and vibration. Land use that adversely affects flight operations is that which creates or contributes to a flight hazard. For example, any land use that might allow tall structures, block the line of sight from the control tower to all parts of the airfield, inhibit pilot visibility (such as glaring lights, smoke, etc.), produce electronic aberrations in navigational guidance systems, or that would tend to attract birds would be considered an incompatible land use. For instance, under certain circumstances, an exposed landfill may attract birds. If open incineration is regularly permitted, it can also create a smoke hazard. In some cases, concurrent land use can be an appropriate compatible land use. Concurrent land use means that the land can be used for more than one purpose at the same time. For example, portions of land needed for clear zone purposes could also be used for agriculture purposes at the same time.

COMMERCIAL USES: Commercial uses include community retail, wholesale, service, office and limited manufacturing businesses. For purposes of this Ordinance, High Intensity commercial uses such as large retail box stores are not acceptable commercial uses in all airport land use zones. Refer to the Airport Land Use Overlay Zone Map and Appendix L of the Development Code, page 129.

CONICAL SURFACE: A surface extending outward and upward from the periphery of the horizontal surface at a slope of twenty to one (20:1) for a horizontal distance of four thousand feet (4,000').

CRITICAL ZONES: An extended area off the runway end used to enhance the protection of people and property on the ground.

LIGHT INDUSTRIAL USES: Light industrial uses include a wide range of manufacturing and lated establishments, research, supplies and sales businesses. For purposes of this Ordinance, light industrial uses shall be free of hazardous or objectionable elements such as obstructions, dust, smoke or glare that result in an Aviation Hazard.

INCOMPATIBLE LAND USES. Incompatible land use at or near airports may result in the creation of hazards to air navigation and reductions in airport utility resulting from obstructions to flight paths or noise-related incompatible land use resulting from residential construction too close to the airport. Incompatible land uses include obstructions or residential construction built on airport property or in violation of conditions of released land or residential development within grant funded aircraft noise compatibility land. Introducing a wildlife attractant or failure to take adequate steps to mitigate hazardous wildlife at the airport can also result in an incompatible land use. Incompatible land uses can include wastewater ponds, municipal flood control channels and drainage basins, sanitary landfills, solid waste transfer stations, electrical power substations, water storage tanks, golf courses, and other bird attractants. Other incompatible uses would be towers or buildings that penetrate Part 77 surfaces or are located within a runway protection zone (RPZ), runway object free area (ROFA), object free zone (OFZ), clearway or stopway.

INNER CRITICAL ZONE: Rectangular in shape and centered about the extended runway centerline. The width of the Inner Critical Zone is 2000 feet and extends a horizontal distance of 5000 feet from each end of the primary surface.

OUTER CRITICAL ZONE: Rectangular in shape and centered about the extended runway centerline. The width of the Outer Critical Zone is 750 feet and extends a horizontal distance of up to 5000 feet, but no less than 2500 feet, from each end of the Inner Critical Zone.

FAA: The Federal Aviation Administration.

14 CFR PART 77: Development Code of Federal Regulations referred to as Federal Aviation Regulation (FAR) Part 77. 14 CFR Part 77 defines the regulations applicable to objects that may affect navigable airspace.

FAIR DISCLOSURE STATEMENT: A notification to prospective buyers of property near airports that they may be exposed to potentially impactive levels of aircraft overflight. These statements in no way abrogate an individual's right to take later action against the airport, but rather give buyers a fair warning.

HEIGHT: For the purpose of determining the height limits in all zones and as shown on the approach and clear zone map, this datum shall be mean sea level elevation unless otherwise specified.

HORIZONTAL SURFACE: A horizontal plane one hundred fifty feet (150) above the established airport elevation, the perimeter of which plane coincides with the perimeter of the horizontal zone. This is four thousand one hundred and ninety three (4,193') above mean sea level for the Lemhi County Airport.

LARGER THAN UTILITY RUNWAY: A runway that is constructed for and intended to be used by propeller driven aircraft of greater than 12,500 pounds maximum gross weight and jet powered aircraft.

LATERAL SAFETY ZONE: An area extending 1000 feet either side of runway centerline and including the area between the ends of the primary surface(s) used to enhance the protection of people and property on the ground.

NAVD 88: North American Vertical Datum 1988. All elevations in this Ordinance are referenced to the 1988 North American Vertical Datum.

NAVIGABLE AIRSPACE: Any airspace where heaver-than-air craft can operate. Specifically per Federal Aviation Regulations (FAR), navigable airspace includes airspace at and above the minimum safe flight level, including airspace needed for safe takeoff and landing.

NON-CONFORMING USE: A use of premise which does not conform to the regulations of this Ordinance, but which was in existence at the time of the effective date of this Ordinance.

NON-PRECISION INSTRUMENT RUNWAY: A runway having an existing instrument approach procedure utilizing air navigation facilities with only horizontal guidance, or area type navigation equipment, for which a straight-in non-precision instrument approach procedure has been approved or planned. It also means a runway for which a non-precision approach system is planned and is so indicated on an approved ALP.

OBSTRUCTION: Any structure, growth, or other object, including a mobile object, which exceeds a limiting height set forth in 8.3.

PERSON: An individual, firm, partnership, corporation, company, association, joint stock association, or governmental entity; including a trustee, receiver, assignee, or representative.

PRIMARY SURFACE: A surface longitudinally centered on a runway. When the runway has a specially prepared hard surface, the primary surface extends 200 feet beyond each end of the runway; for military runways or when the runway has no specially prepared hard surface or planned hard surface, the primary surface ends at each end of that runway. The elevation of any point on the primary surface is the same as the elevation of the nearest point on the runway centerline. The width of the Lemhi County Airport Primary Surface is 500 feet.

RUNWAY: A defined area on an airport prepared for landing and take-off of aircraft along its length.

RUNWAY PROTECTION ZONE (RPZ). An area off the runway end used to enhance the protection of people and property on the ground. The RPZ is trapezoidal in shape and centered about the extended runway centerline. The inner width of the RPZ is the same as the width of the primary surface. The outer width of the RPZ is a function of the type of aircraft and specified approach visibility minimum associated with the runway end. The applicable RPZ dimensions are depicted on the ALP.

STRUCTURE: Anything constructed or erected and which is attached, directly or indirectly, to a fixed location on the ground. Structures include, but are not limited to, buildings, modular

homes, mobile homes, walls, fences, signs and billboards. For purposes of this Ordinance, the term "structure" shall be expanded to include, in addition to the foregoing, overhead electrical transmission lines or power poles, and their appurtenances, towers, cranes and smokestacks.

TRAFFIC PATTERN AREA: An area comprised of a rectangle or elliptical shape based on a determined distance from the runway centerline and end. The Traffic Pattern Area represents an area where aircraft are commonly operating for the purposes of landing and take-off as depicted in the Airport Land Use Overlay Zone Map. A Traffic Pattern Area is commonly based on the predominant usage of the category of aircraft forecast to use the airport and the specific traffic patterns established at the airport.

TRANSITIONAL SURFACES: These surfaces extend outward at 90-degree angles to the runway centerline and the runway centerline extended at a slope of seven (7) feet horizontally for each foot vertically (7:1) from the sides of the primary and approach surfaces as defined in FAR Part 77 to a point where they intersect the horizontal and conical surfaces.

TREE: A perennial woody plant having at least one main trunk and produces a more or less distinct and less elevated crown with many branches.

UTILITY RUNWAY: A runway that is constructed for use by propeller-driven aircraft of twelve thousand five hundred (12,500) pounds maximum gross weight or less.

VISUAL RUNWAY: A runway intended solely for the operation of aircraft using visual approach procedures.

Section 3: That this ordinance shall be in full force and effect from and after its passage, approval and publication.

PASSED by the Board of County Commissioners of Lemhi County, Idaho, this _____ day of _____, 2010.

Robert Cope, Commissioner District 1

Richard Snyder, Commissioner District 2

Brett S. Barsalou, Commissioner District 3

ATTEST:

Terri Morton, County Clerk

ATTACHMENT A
LAND USE COMPATIBILITY TABLE

Land Use *	1 Runway Protection Zone	2 Lateral Safety Zone	3 Inner Critical Zone	4** Outer Critical Zone	5 Traffic Pattern Area	6 Airport Influence Area	7 Buffer Transition Zone
Residential							
Single-family, nursing homes, multi-family, apartments, condominiums, mobile home parks	X	X	X	C (1,2,6)	C (1,3,6)	C (1,6)	C (1,4)
Transient lodging (i.e. hotels and motels)	X	X	X	C (1,6)	C (1,6)	C (1,6)	C (1)
Services							
Schools, libraries, churches	X	X	X	X	C (1,6)	C (1,6)	C (1,6)
Parking and cemeteries	X	P	P	P	P	P	P
Manufacturing, Transportation, Trade & Extraction							
Offices, retail trades, light industrial, general manufacturing, utilities, extractive industry	X	C (1)	C (1,5)	C (1,6)	C (1)	C (1)	C (1)
Airport revenue-producing enterprises	X	C (1)	C (1,5)	C (1,6)	C (1)	C (1)	C (1)
Agricultural, Cultural, Entertainment and Recreation							
Cropland	P	P	P	P	P	P	P
Livestock breeding, zoos, golf courses, riding stables, water recreation	X	X	C (6,7)	C (6,7)	C (7)	P	C (7)
Outdoor spectator sports, parks, playgrounds	X	X	X	C (1,6)	C (1,6)	C (1,6)	C (1,6)
Amphitheaters	X	X	X	X	C (1,6)	C (1,6)	C (1,6)
Open space	P	P	P	P	P	P	P
Bird and Wildlife Attractants							
Sanitary Landfills	X	X	X	X	X	C (7)	X
Water treatment plants, water impoundments	X	X	X	X	X	C (7)	X
Wetlands Mitigation	X	C (7)	C (7)	C (7)	C (7)	C (7)	C (7)

Land Use Compatibility Criteria

X - Not Allowed, P - Permitted, C – Conditional

*Land use activities represented herein compare with Appendix L of the Lemhi County Development Code, page 129. For further clarification of land use activities, please refer to Appendix L of the Development Code.

**OUTER CRITICAL NOT APPLICABLE TO LEMHI COUNTY AIRPORT

CONDITIONS

All facilities should be configured to comply with FAR Part 77 requirements.

1. If allowed, Fair Disclosure Statement must be required as a condition of development.

2. Limit residential density to 1 unit per 5 acres.

3. Limit residential density to a maximum of 1 unit per 2.5 acres. It is recommended that the County utilize cluster development or other similar land use planning mechanisms where reasonable and necessary in the Traffic Pattern Area to ensure minimum residential density while providing for maximum safety of aircraft operators and surrounding residents as well as reduced impacts on the quality of life of residents. Refer to the County of Lemhi County County Development Code, as amended.

4. Limit residential density to 1 unit per 1 acre.

5. Avoid High Intensity commercial uses such as large retail box stores (i.e. Walmart, Home Depot). Use should be located as far from extended centerline as possible.

6. If no reasonable alternative exists, use should be located as far from extended centerline as possible.

7. Such uses may present a bird and wildlife attractant. If allowed, consideration of the proximity of the airport and potential negative impacts should be considered. Refer to FAA Advisory Circulars (AC) 150/5200-33B and 150/5200-34A, as amended, for guidance.

SAMPLE FAIR DISCLOSURE STATEMENT
DISCLOSURES BY (OWNER) (BUYER)
OF REAL PROPERTY IN LEMHI COUNTY, IDAHO

This is a notification, disclosure, and acknowledgement by (Owner) (Buyer) of real property located in the vicinity of the Lemhi County Airport in Lemhi County, Idaho.

(Owner) (Buyer) hereby acknowledges the following:

AIRPORT

1. Proximity to the Airport

The subject parcel, located in Section ___ Township ___ Range ____, is located within the Lemhi County Airport Airport Influence Area as defined in Chapter 8, of the Lemhi County Development Code. As result, the subject property is located in the airport's Federal Aviation Regulation Part 77 Airspace and one of seven land use compatibility zones. A this location, aircraft may fly at low elevations over the parcel as they operate to, from, or at the airport. The airport is operational 24 hours per day. Flights may occur at all hours of the day or night.

2. Airspace

The subject parcel property lies under the Airport's FAR Part 77 Airspace and is subject to Federal law and Chapter 8 of the County Code of Lemhi County, Idaho. As such, it may be necessary to clear and keep clear the Airspace of any portions of buildings, structures, or improvements of any and all kinds, of trees, vegetation or other objects. This includes reserving the right of the County to; remove or demolish those portions of such buildings, structures, improvements, trees or any other objects which extend into the Airspace; cut to the ground level and remove any trees which extend into the Airspace; the right to mark and light, or cause or require to be marked or lighted, as obstructions to air navigation, any and all buildings, structures, or other improvements, and trees or other objects now upon, or that in the future may be upon, said Parcel, and which extend into the Airspace

3. Future Improvements and Aircraft Operations

The airport may wish to expand its facilities and operations in the future. Expansion plans include, but are not limited to those shown on the approved Airport Layout Plan (ALP). These improvements may result in increased aircraft operations, operations by larger aircraft, and increased nighttime operations, which could increase the noise levels within the vicinity of the airport.

4. Disclosure of Airport Impacts

Due to the proximity of the parcel to the Lemhi County Airport and the airport's area of influence; owner(s) / buyer(s) should expect frequent overflight and varying degrees of noise and other impacts from these overflying aircraft, which some persons may find intrusive. Further, owner(s)/buyer(s) should expect varying degrees of vibration, fumes, dust, fuel, fuel particles, or other effects that may be caused by the operation of aircraft landing at, taking off from, or operating on or at public airport facilities.

CERTIFICATION

This undersigned owner(s) / purchaser(s) of said parcel of land certify(ies) that (he/she/they) (has/have) read the above disclosure statement and acknowledge(s) the preexistence and potential of improvements/expansion of the airport named above and the noise and other exposure due to the operation of said airport.

_____

(SIGNED) Date

PROPOSED REVISION TO LEMHI COUNTY DEVELOPMENT CODE CHAPTER 8, AIRPORT SAFETY OVERLAY ZONING DISTRICT

ORDINANCE NO. _____

AN ORDINANCE OF LEMHI COUNTY, IDAHO, ENACTING A REVISION OF CHAPTER 8 AND CHAPTER 12 OF THE COUNTY DEVELOPMENT CODE OF LEMHI COUNTY, IDAHO, TO BE KNOWN AS THE AIRPORT SAFETY OVERLAY DISTRICT ZONE WITH DEFINITIONS; PROVIDING FOR THE PURPOSE OF THE AIRPORT SAFETY OVERLAY DISTRICT ZONE; RECITING THE AUTHORITY ENABLING THE COUNTY TO ENACT THE AIRPORT SAFETY OVERLAY DISTRICT ZONE; SPECIFYING THE APPLICABILITY OF THE AIRPORT SAFETY OVERLAY DISTRICT ZONE; DEFINING TERMS; ESTABLISHING THE AIRPORT SAFETY OVERLAY DISTRICT ZONE; PROVIDING FOR HEIGHT LIMITATIONS AND LAND USE REGULATIONS WITHIN THE AIRPORT SAFETY OVERLAY DISTRICT ZONE; PROVIDING FOR USE RESTRICTIONS WITHIN THE ZONE; ADDRESSING NONCONFORMING USES; PROVIDING FOR GENERAL PROCEDURES CONCERNING THE AIRPORT SAFETY OVERLAY DISTRICT ZONE: PROVIDING FOR THE GENERAL DEFINITIONS PRESENTED IN THIS UPDATE; AND PROVIDING AN EFFECTIVE DATE.

BE IT ORDAINED BY THE BOARD OF COUNTY COMMISSIONERS, LEMHI COUNTY IDAHO, as follows:

Section 1: That a new Chapter 8 of the County Development Code of Lemhi County, Idaho, establishing an Airport Safety Overlay District zone be and the same is hereby enacted to provide as follows:

CHAPTER 8
AIRPORT SAFETY OVERLAY ZONING DISTRICT

8.1. What This Chapter Does. The purpose of the Airport Safety Overlay Zoning District (ASOD) is to provide for the safety of aircraft pilots and passengers and protect a substantial investment of public funds by assuring that land development and construction activities within the ASOD are compatible with the safe continued use of the Lemhi County Airport. Private aircraft landing fields, as defined under 12.8 (page 62), shall be considered a large scale development which requires a special use permit for approval anywhere within the county. In approving such a permit the county may use the standards set forth within this Airport Safety Overlay Zone as a guide. The purpose of the Airport Safety Overlay District (ASOD) is to protect the viability of the Lemhi County Airport (the Airport) as a significant resource to the community by encouraging compatible land uses, densities and reducing aviation hazards that may endanger the lives and property of the public and aviation users. The ASOD classification creates a series of appropriate zones that have historically been prone to hazards associated with aircraft and airports as well as negatively affecting the quality of life of the surrounding community. The ASOD establishes the boundaries of the zones; provides for changes in the restrictions and boundaries of such zones; defines certain terms used herein; references the Airport's FAR Part 77 Airspace Drawing and Airport Land Use Zone Map, which are incorporated in and made a part of this Ordinance. This chapter is based on aircraft accident

data from the National Transportation Safety Board (NTSB), Federal Aviation Regulations (FAR) Part 77 Imaginary Surfaces, FAA and State airport land use compatibility recommendations and other airport land use planning best practices. The District is established over the existing Lemhi County zoning districts. Densities and land use requirements of the underlying zoning districts are consistent with the FAA and State of Idaho recommendations and provide for maximum protection to the public, health, safety and general welfare of the community and for those citizens working and residing within the Airport Influence Area.

Accordingly, it is declared that:

- The Airport fulfills an essential community purpose; and
- The creation or establishment of an aviation hazard is a public nuisance and will injure the region served by the Airport; and

- The encroachment of noise sensitive or otherwise incompatible land uses within certain areas as set forth herein endangers the health, safety, and welfare of the owners, occupants, or users of the land; and

- It is necessary in the interest of the public health, safety, and general welfare that the creation of aviation hazards be prevented; and

- Joint cooperation between all governing boards having jurisdiction within or adjoining the airport's hazard areas is encouraged as a mechanism to prevent aviation hazards.

8.1.1. Authority. The legislature of the State of Idaho has delegated the responsibility to local governments to adopt regulations within its jurisdiction to promote the public health, safety, and general welfare of its citizenry (Idaho Statute: Title 67, Chapter 65).

8.1.2. Applicability. The provisions of this chapter shall apply to all lands, buildings, structures, natural features or uses located within those areas that are defined by the ASOD Airport Safety Overlay District Zone designated on the Lemhi County Airport Airspace Drawing and Airport Land Use Zone Map that are located within the jurisdiction of Lemhi County, Idaho, at present time or in the future.

8.1.3. Creation, Adoption & Maintenance of Airspace Map. In order to accomplish and illustrate more fully the objectives and purpose of this chapter, the several height zones identified above shall be shown and identified on the Airport's Federal Aviation Regulation (FAR) Part 77 Airspace Drawing.

8.1.3.1. One (1) original, official copy of the FAR Part 77 Airspace Drawing reflecting the boundaries of the Airport Height Zones of Lemhi County, Idaho, is hereby adopted, and the County is hereby authorized to sign and attest the map as the official Lemhi County Airport FAR Part 77 Airspace Drawings of County of Lemhi, Idaho. The most current version of the map as included in approved Airport Layout Plan (ALP) drawing set will be kept on file with the building and planning departments.

8.1.3.1. The current map shall be as much of this ordinance and chapter as if fully described herein.

~~8.2. Height Limitation Zones. This overlay zoning district is composed of several height limitation zones, which include all land lying beneath the approach surfaces, transitional surfaces, horizontal surfaces, and conical surfaces appurtenant to the Lemhi County Airport.~~ SENTENCE MOVED TO 8.2 (Below)

~~8.2.1. Utility Runway Visual Approach Zone. The inner edge of the approach zone coincides with the width of the primary surface and is two hundred fifty (250) feet wide. The approach zone expands outward uniformly to a width of one thousand two hundredfifty (1,250) feet at a horizontal distance of five thousand (5,000) feet from the primary surface. Its centerline is the continuation of the centerline of the runway.~~

~~8.2.2. Transitional Zones. The transitional zones are the areas beneath the transitional surfaces.~~

~~8.2.3. Horizontal Zone. The horizontal zone is established by swinging arcs of five thousand (5,000) feet from the center of each end of the primary surface and connecting the adjacent arcs by drawing lines tangent to those arcs. The horizontal zone does not include the approach and transitional zones.~~

~~8.2.4. Conical Zone. The conical zone is the area that commences at the periphery of the horizontal zone and extends outward there from a horizontal distance of four thousand (4,000) feet.~~

8.2. Airport Height Zones Established. In order to carry out the provisions of this chapter, zones are hereby established which include all of the land lying beneath the approach surfaces, transitional surfaces, horizontal surfaces, and conical surfaces as they apply to the Lemhi County Airport. The imaginary air surfaces are those air spaces above and around airports that require protection from potential obstructions that might interfere with airport traffic. The size of the imaginary surfaces are based upon the category of each runway. Such zones are shown on the Airport's Federal Aviation Regulation (FAR) Part 77 Airspace Drawing. These zones are shown on the Official Zoning Map of Lemhi County established by 4.3 (page 22). An area located in more than one of these zones is considered to be in the zone with the more restrictive height limitation. Each portion of an area located in more than one (1) of the following zones shall be evaluated independently according to the zone in which it is located. The various zones are defined below. Height limitations associated with each of the following zones are presented in Section 8.3 below.

8.2.1. Non-Precision Instrument Runway Approach Zone (Larger Than Utility). The inner edge of this approach zone coincides with the width of the primary surface and is five hundred feet (500) wide for Runway 17/35. The approach zone expands outward uniformly to a width of 3,500 feet at a horizontal distance 10,000 feet from the primary surface. Its centerline is the continuation of the centerline of the runway.

8.2.2. Transitional Zone. Transitional zones are the areas beneath the transitional surfaces.

8.2.3. Horizontal Zone. Horizontal zones are established by swinging arcs of ten thousand feet (10,000) radii from the center of each end of the primary surface of each runway and connecting the adjacent arcs by drawing lines tangent to those arcs. The Horizontal zone does not include approach and transitional zones.

8.2.4. Conical Zone. The Conical zone is established as the area commencing at the periphery of the horizontal zones and extending outward for a horizontal distance of four thousand feet (4,000).

~~8.3. Height Limitations. Except as provided in 8.3.5 (page 45), or by variance (see 8.7 on page 45), no structure or tree shall be allowed to exceed the height limitations established here.~~

~~8.3.1. Utility Runway Visual Approach Zone. Slopes twenty feet outward for each foot upward beginning at the end of and at the same elevation as the primary surface and extending to a horizontal distance of five thousand (5,000) feet along the extended runway centerline.~~

~~8.3.2. Transitional Zones. Slope seven (7) feet outward for each one (1) foot upward beginning at the sides of and at the same elevation as the primary surface and the approach surface, and extending to a height of 150 feet above the airport elevation. In addition, there are transitional sloping seven (7) feet outward for each one (1) foot upward beginning at the sides of and at the same elevation as the approach surface, and extending to where they intersect the conical surface.~~

~~8.3.3. Horizontal Zone. One hundred fifty (150) feet above the airport elevation.~~

~~8.3.4. Conical Zone. Slopes twenty (20) feet outward for each foot upward beginning at the edge of the horizontal zone and at one hundred fifty (150) feet above the airport elevation, and extending to a height of three hundred fifty (350) feet above the airport elevation.~~

~~8.3.5. Exception from Height Limitations. Nothing in this chapter shall prohibit the construction or maintenance of any structure of thirty five (35) feet or less in height, or the growth of any tree to a height up to thirty five (35) feet above the surface of the land, except in the approach zones.~~

8.3. Airport Zone Height Limitations: Except as provided in 8.3.5 (page 45), or by variance (see 8.7 on page 45) no structure shall be erected, altered, or maintained and no tree shall be allowed to grow in any zone, as defined in this chapter, to a height in excess of the applicable height limit established for that zone. The applicable height limitations for each of the zones are established as follows:

8.3.1. Non-Precision Instrument Runway Approach Zone (Larger Than Utility). Slopes thirty-four feet (34') outward for each foot upward (34:1) beginning at the end of and at the same elevation as the primary surface and extending to a horizontal distance of ten thousand feet (10,000') along the extended runway centerline.

8.3.2. Transitional Zones. Slope seven feet (7') outward for each foot upward (7:1) beginning at the sides of and at the same elevation as the primary surface and the

approach surface, and extending to a height of one hundred fifty feet (150') above the airport elevation.

8.3.3. Horizontal Zone. One hundred fifty feet (150') above the airport elevation or at a height of four thousand one hundred and ninety three (4,193') above mean sea level.

8.3.4. Conical Zone. Slopes twenty feet (20') outward for each foot upward (20:1) for four thousand feet (4,000') beginning at the periphery of the horizontal zone and at one hundred fifty feet (150') above the airport elevation and extending to a height of three hundred fifty feet (350') above the airport elevation.

8.3.5. Excepted Height Limitations. In the area lying within the limits of the Horizontal and Conical Zones, nothing in this chapter shall be construed as prohibiting the construction, maintenance, or growth of anything to a height that is less than thirty five (35) feet above the surface of the land, except when, because of terrain, land contour or topographic features, such structure or growth would extend above the height limits prescribed herein.

8.4. Creation, Adoption & Maintenance of Airport Land Use Zone Map. The boundaries of the Airport Land Use Zones set out herein shall be delineated upon the Airport's Airport Land Use Zone Map, with said map being adopted by reference and made a part of this chapter as fully as if the same were set forth herein in detail.

8.4.1. One (1) original, official copy of the Airport Land Use Zone Map that reflects the boundaries of the Airport Land Use Zones of Lemhi County, Idaho, is hereby adopted, and the County is hereby authorized to sign and attest the map as the official Lemhi County Airport Land Use Zone Map of Lemhi County, Idaho. The map will be kept on file with the building and planning department.

8.4.2. The map shall be as much of this ordinance and chapter as if fully described herein.

8.5. Land Use Regulation. The permissible land and building uses for any particular airport zone shall be delineated in the Airport Compatible Land Use Table, found in Attachment "A" hereto. No land shall be used and no structure or other object shall be erected, altered, converted, or modified in any particular airport zone other than for those permitted in the above-referenced table. If said table is silent to a particular land or building use in a particular airport zone, such use shall be allowed if the use is determined compatible per the intent of this chapter by the board and is permitted by the underlying comprehensive zoning districts as specified in County Development Code.

8.5.1. Where the uses identified in the Airport Compatible Land Use Table conflicts with any other provision of County Development Code, the Airport Compatible Land Use Table and this chapter shall apply.

8.6. Airport Compatible Land Use Overlay Zones, Boundaries, Maps & Regulations. Airport Compatible Land Use Overlay Zones (Land Use Zones). The controlled area of the

Airport is divided into Airport Compatible Land Use Overlay Zones (Land Use Zones). The purpose of such zones shall be to regulate the development of noise sensitive land uses; promote compatibility between the Airport and the surrounding land uses; protect the Airport from incompatible development; and promote the health, safety and general welfare of property users. The Airport Land Use Zones established herein shall be known as:

- Runway Protection Zone (RPZ)
- Lateral Safety Zone (LSZ)
- Inner Critical Zone (ICZ)
- Outer Critical Zone (OCZ)
- Traffic Pattern Area (TPA)
- Airport Influence Area (AIA)
- Buffer Zone (BZ)

8.6.1. Airport Compatible Land Use Overlay Boundaries. The Airport Land Use Zone boundary lines shown on the official Airport Land Use Zone Map shall be located and delineated along contour lines established for the Airport. Where uncertainty exists as to the boundaries of the Airport Land Use Zones as shown on the official Map, the following rules shall apply:

- Boundaries shall be scaled from the nearest runway end shown on the map.
- Boundaries shall be scaled from the nearest physical feature shown on the map.
- Distances not specifically indicated on the original Airport Land Use Zone Map shall be determined by a scaled measurement on the map.

8.6.1.1. Where physical features on the ground differ from the information shown on the official Airport Land Use Zone Map or when there arises a question as to how or where a parcel of property is zoned and such questions cannot be resolved by the application of Section 8.6, the property shall be considered to be classified as the most restrictive Airport Land Use Zone.

8.6.1.2. Where a parcel of land lies within more than one (1) Airport Land Use Zone, the zone within which each portion of the property is located shall apply individually to each portion of the development.

8.6.1.3. On property within the Airport Land Use Zone Map jurisdiction, but outside the jurisdictional limits of Lemhi County, Idaho, 8.8.1 shall be used to formulate land use recommendations or responses to land use comment requests from other jurisdictions.

8.6.1.4. In the event of conflict between this section and any aviation hazard restriction, the most restrictive provision shall apply.

8.6.2. General Land Use Provisions. General dangers to the airport and aircraft operations, which may not be specifically defined by this section, are prohibited and can be generally identified by the following:

8.6.2.1. Notwithstanding other provisions of this chapter or sections of County Development Code, no use shall be made of land, water, or structures within any zone established by this chapter in such a manner as to create electrical interference with navigational signals or radio communication between the airport and aircraft, make it difficult for pilots to distinguish between airport lights and other lights, result in glare in the eyes of pilots using the airport, impair visibility in the vicinity of the airport, create bird strike hazards, or in any way endanger or interfere with the operation of aircraft.

8.~~5~~7. Nonconforming Uses. Additional Regulations. Nonconforming uses and buildings are regulated by the provisions of 1.6 (page 2) and, within this overlay zoning district, these additional requirements.

8.~~5~~7.1 Nonconforming uses, may include trees, and shall be required to permit the installation, operation, and maintenance of any markers and/or lights the county deems necessary to indicate their presence to the operators of aircraft. Such markers and lights shall be installed, operated, and maintained at the expense of the county.

8.7.1.1. Affect Not Retroactive. The regulations prescribed by this chapter shall not require the removal or alteration of any structure or tree not conforming to this chapter on its effective date. The repair and, under specified circumstances, replacement of nonconforming uses and buildings is permitted by 1.6 (page 2), but no nonconforming use, building, or tree shall be permitted to become a greater hazard to air navigation than it was on the effective date of this ordinance. The regulations of this chapter shall not interfere with the continuance of such nonconforming use. Nothing contained herein shall require a change in the construction, alteration, or intended use of any structure whose construction or alteration commenced prior to the effective date of this Ordinance and whose construction is being diligently pursued.

8.7.1.2. Marking and Lighting. The owner of any existing nonconforming structure or tree shall permit the installation, operation, and maintenance of markers and lights deemed necessary by the County to indicate to the operators of aircraft the presence of obstructions. The markers and lights shall be installed, operated, and maintained at the expense of the County.

8.~~6~~8 Permits. Additional Requirements. Permit requirements for development activity are established in 3.2 (page 7). Within this overlay zoning district, permit requirements shall be expanded to include the planting of any tree with a growth habit of more than thirty five (35) feet and the construction of any building or structure that is more than thirty five (35) feet in height and is exempted from the requirement for a permit by 3.3 (page 7), (this includes agricultural outbuildings and similar accessory structures).

8.8.1. Future Uses. Except as specifically provided in 8.8.1.1 and 8.8.1.2 hereunder, no material change shall be made in the use of land, no structure shall be erected or established, and no tree shall be planted in any zone hereby created without a properly authorized permit. Each application for a permit shall indicate the action to be permitted and shall provide enough detail shall be provided, including a map or drawing showing

the heights and location of the permitted action in relation to the Height and Land Use Zones, to allow a determination of whether the resulting use, structure, or tree will conform to the regulations prescribed herein. An FAA Form 7460-1, *Notice of Proposed Construction or Alteration*, shall accompany each application. Receipt of an FAA Determination of No Hazard is required before issuing a permit. It should be noted at FAA review time of the Form 7460-1 can take up to 90 days. No permit for a use inconsistent with the provisions of this chapter shall be granted unless a variance has been approved in accordance with Sections 9-24-14(C) and 9-24-14(D).

8.8.1.1. No permit shall be required by this Ordinance for any tree or structure less than 200 feet above ground level that is located in the area lying within the limits of the approach, transitional, horizontal, and conical zones, and which is lower than an imaginary surface extending outward and upward at a slope of 100 feet horizontal for each 1 foot vertical within 20,000 feet (3.8 statute miles) beginning at the closest point of the closest runway.

8.8.1.2. Nothing contained in any of the foregoing exceptions shall be construed as permitting or intending to permit any construction, or alteration of any structure, or growth of any tree which results in a height in excess of any of the height limits established by this Ordinance.

8.8.2. Special Use Permit. With the exception of the Inner Critical Zones, Lateral Safety Zone and Runway Protection Zones as defined in this chapter and identified on the Land Use Zone Map and the Airport Compatible Land Use Table, a person desiring to use property in a manner which is not in accordance with the regulations prescribed in this Ordinance, shall apply to the County for a special use permit from the affecting regulations as outlined in County Development Code. In addition to County Development Code requirements, an application for a special use permit shall also be accompanied by a determination by the Lemhi County Airport Advisory Board, the Federal Aviation Administration and the Idaho Division of Aeronautics concerning the affect of the proposal on the operation of air navigation facilities, the safe, efficient use of the navigable airspace, and the safety of airport users as well as the safety and quality of life of surrounding residents. Such special use shall be permitted if it is determined that: a literal application or enforcement of the regulations would result in unnecessary hardship which could be relieved by the special use, and if it is determined that the special use will not be contrary to the public interest, will not create an aviation hazard, will do no substantial injustice, and will be in accordance with the spirit of this Ordinance. A special use permit requested pursuant to this section shall only be considered by the County after the airport manager, or designated representative, has been given an opportunity to review the application for safety and aeronautical affects and has submitted written comments to the County. If the airport manager's opinion has not been submitted within fifteen (15) days after receipt of the application, the County shall act upon the application without such advice.

8.8.2.1. Variance. The variance procedure is described in 3.13 (page 15). A person desiring to erect or increase the height of any structure, or permit the growth of a tree, or use property in a manner which is not in accordance with the

regulations prescribed in this chapter, shall apply to the County for a variance from the affecting regulations as outlined in County Development Code. In addition to County Development Code requirements, an application for a variance shall also be accompanied by a determination by the County of Lemhi County Airport Advisory Board, the Federal Aviation Administration and the Idaho Division of Aeronautics concerning the effect of the proposal on the operation of air navigation facilities and on the safe, efficient use of the navigable airspace. Such variance shall be viewed favorably if it is determined that: a literal application or enforcement of the regulations would result in unnecessary hardship which could be relieved by the variance, and if it is determined that the variance will not be contrary to the public interest, will not create an aviation hazard, will do no substantial injustice, and will be in accordance with the spirit of this chapter. The County shall only consider a variance, requested pursuant to this section, after the airport manager or designated representative has been given an opportunity to review the application for its aeronautical affects and has submitted written comments to the County. If the airport manager's opinion has not been submitted within fifteen (15) days after receipt of the application, the County shall act upon the application without such advice.

~~8.7 Variances. Any application for a variance of the height limitations established in this chapter shall be accompanied by a determination from the Federal Aviation Administration as to the effect of the proposal on the operation of air navigation facilities and the safe, efficient use of navigable airspace.~~

8.8.2.2. Obstruction Marking and Lighting. In granting a variance permit, the County may, if such action is deemed advisable to fulfill the purpose of this Ordinance, place conditions upon the variance which require the owner of the structure or tree in question to install, operate, and maintain at the owner's expense such markings and lights as are considered to be necessary. If deemed proper by the County, this condition may be modified to require the owner to allow the County, at the County's expense, to install, operate, and maintain the necessary markings and lights.

~~8.8 Obstruction Marking and Lighting. The approval of any application for a permit or variance may be conditioned on the installation, operation, and maintenance, at the owner's expense, of the markings and/or lights necessary to indicate the presence of an obstruction to aircraft operators.~~

8.8.2.3. Existing Uses. A permit shall not be granted if it would allow the establishment or creation of an obstruction or would allow a nonconforming use, structure, or tree to become a greater hazard to air navigation than it was prior to the effective date of this Ordinance, the effective date of any amendment to this Ordinance, or the application date of a permit.

8.8.2.4. Non-conforming Uses Abandoned or Destroyed. If the Planning and Zoning Commission determines that a nonconforming tree or structure has been abandoned or that more than eighty percent (80%) of it has been demolished, deteriorated, or decayed, then a permit that would allow such structure or tree to

exceed the applicable height limit or otherwise deviate from the zoning regulations shall not be granted.

8.9. Disclosure. A Fair Disclosure Statement shall be provided to any applicant for a permit within an airport zone, or any prospective buyers of any structure or property within in such zones. Further, the Fair Disclosure Statement shall serve to notify prospective buyers of property near airports that subject property is subject to the provisions of this Ordinance and lies within the Airport Influence Area and under the Airport's FAR Part 77 Airspace. As such, it may be necessary to clear and keep clear the Airspace of any portions of buildings, structures, or improvements of any and all kinds, and of trees, vegetation, or other objects. This includes reserving the right of the County to: remove or demolish those portions of such buildings, structures, improvements, trees or any other objects which extend into the Airspace; cut to the ground level and remove any trees which extend into the Airspace; the right to mark and light, or cause or require to be marked or lighted, as obstructions to air navigation, any and all buildings, structures, or other improvements, and trees or other objects now upon, or that in the future may be upon, said Parcel, and which extend into the Airspace. The Fair Disclosure Statement shall also notify applicant for permit or prospective buyers that they may be exposed to potentially impactive levels of aircraft overflight, including but not limited to noise, vibration, fumes, dust, fuel or fuel particles, and other effects that may be caused by normal aircraft operations in around an airports.

8.9.1. Before the County issues a permit, the applicant shall sign the Fair Disclosure Statement and the Fair Disclosure Statement will be recorded in the deed records of the County. Upon the applicant's refusal, County shall acknowledge that the applicant was made aware of the above-described impacts. Such statement shall be recorded in the deed records of the County.

8.9.2. Nothing stated herein is meant to provide pilots, crews, owners of aircraft, or any other persons protection from liability for negligence committed on their part.

8.10. Enforcement. It shall be the duty of the County to administer and enforce the regulations prescribed herein through the office of the County. Applications for permits and variances shall be made to the County upon a form published for that purpose. The County shall promptly consider applications required by this chapter. Each application shall be either: a. Granted without conditions. b. Granted with added conditions, or c. Denied.

Section 2: That specific terms presented in Chapter 8 of this ordinance be properly defined in Chapter 12 section 8 of the Lemhi County Development Code and adopted.

12.8: Definitions: The following terms shall have the meanings indicated:

AIRPORT: Any runway, any area, or other facility designed or used either publicly or privately for the landing and taking-off of aircraft, including all accessory taxiways, aircraft storage and tie down areas, hangars, and other necessary buildings. For purposes of this Ordinance, the Airport includes the Lemhi County Airport.

AIRPORT ELEVATION: The highest point of an airport's useable landing area measured in feet from sea level. The Lemhi County Airport is four thousand and forty three feet (4,043') above mean sea level.

AIRPORT INFLUENCE AREA: An area that establishes the boundary used to define the airport environs for land use planning purposes. Factors to be considered in defining the boundary of the Airport Influence Area include airport noise contours (when applicable), airport traffic patterns, departure, arrival and instrument approach corridors, safety zones and height restriction areas.

APPROACH SURFACE: 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 zone height limitation slope set forth in 8.3. The outer width of an approach/departure surface will be that width prescribed in this subsection for the most precise approach existing or planned for that runway end as identified on the Airport's approved Airport Layout Plan (ALP).

APPROACH, TRANSITIONAL, HORIZONTAL and CONICAL ZONES: These zones are set forth in 8.2.

AVIATION HAZARD: An obstruction or hazard to air navigation that includes any new or existing structure, object of natural growth, use of land, or modification thereto, which endangers the lives and property of users of an airport, or of occupants of land in its vicinity, and that reduces the size of the area available for landing, taking off and maneuvering of aircraft, or penetrates an imaginary surface, and has an adverse effect on the safe and efficient utilization of the navigable airspace.

AVIGATION EASEMENT: A non-possessing property interest in airspace over a land parcel or portion of land. It is a legally developed document obtained by the owner of an airport to permit activities including the right of flight and the right to remove obstructions, but not necessarily to the extent of prohibiting the use of the land within the limits of the rights obtained.

BUFFER ZONE: An area within the County of Lemhi County, the Area of County Impact and Lemhi County where aircraft are commonly operating for the purposes of landing and take-off. The Buffer Zone(s) establishes an area transitional land use restrictions from more restrictive to less restrictive based on proximity to the airport. The purpose of the Buffer Zones(s) is to enhance the protection of people and property on the ground while considering development in the vicinity of the airport.

COUNTY: Lemhi County, Idaho.

COMPATIBLE LAND USE. Compatibility of land use is attained when the use of property adjacent to an airport neither adversely affects flight operations from the airport nor is itself adversely affected by such flight operations. In most cases, the adverse effect of flight operations on adjacent land results from exposure of noise sensitive development, such as residential areas, to aircraft noise and vibration. Land use that adversely affects flight operations is that which creates or contributes to a flight hazard. For example, any land use that might

allow tall structures, block the line of sight from the control tower to all parts of the airfield, inhibit pilot visibility (such as glaring lights, smoke, etc.), produce electronic aberrations in navigational guidance systems, or that would tend to attract birds would be considered an incompatible land use. For instance, under certain circumstances, an exposed landfill may attract birds. If open incineration is regularly permitted, it can also create a smoke hazard. In some cases, concurrent land use can be an appropriate compatible land use. Concurrent land use means that the land can be used for more than one purpose at the same time. For example, portions of land needed for clear zone purposes could also be used for agriculture purposes at the same time.

COMMERCIAL USES: Commercial uses include community retail, wholesale, service, office and limited manufacturing businesses. For purposes of this Ordinance, High Intensity commercial uses such as large retail box stores are not acceptable commercial uses in all airport land use zones. Refer to the Airport Land Use Overlay Zone Map and Appendix L of the Development Code, page 129.

CONICAL SURFACE: A surface extending outward and upward from the periphery of the horizontal surface at a slope of twenty to one (20:1) for a horizontal distance of four thousand feet (4,000').

CRITICAL ZONES: An extended area off the runway end used to enhance the protection of people and property on the ground.

LIGHT INDUSTRIAL USES: Light industrial uses include a wide range of manufacturing and lated establishments, research, supplies and sales businesses. For purposes of this Ordinance, light industrial uses shall be free of hazardous or objectionable elements such as obstructions, dust, smoke or glare that result in an Aviation Hazard.

INCOMPATIBLE LAND USES: Incompatible land use at or near airports may result in the creation of hazards to air navigation and reductions in airport utility resulting from obstructions to flight paths or noise-related incompatible land use resulting from residential construction too close to the airport. Incompatible land uses include obstructions or residential construction built on airport property or in violation of conditions of released land or residential development within grant funded aircraft noise compatibility land. Introducing a wildlife attractant or failure to take adequate steps to mitigate hazardous wildlife at the airport can also result in an incompatible land use. Incompatible land uses can include wastewater ponds, municipal flood control channels and drainage basins, sanitary landfills, solid waste transfer stations, electrical power substations, water storage tanks, golf courses, and other bird attractants. Other incompatible uses would be towers or buildings that penetrate Part 77 surfaces or are located within a runway protection zone (RPZ), runway object free area (ROFA), object free zone (OFZ), clearway or stopway.

INNER CRITICAL ZONE: Rectangular in shape and centered about the extended runway centerline. The width of the Inner Critical Zone is 2000 feet and extends a horizontal distance of 5000 feet from each end of the primary surface.

OUTER CRITICAL ZONE: Rectangular in shape and centered about the extended runway centerline. The width of the Outer Critical Zone is 750 feet and extends a horizontal distance of up to 5000 feet, but no less than 2500 feet, from each end of the Inner Critical Zone.

FAA: The Federal Aviation Administration.

14 CFR PART 77: Development Code of Federal Regulations referred to as Federal Aviation Regulation (FAR) Part 77. 14 CFR Part 77 defines the regulations applicable to objects that may affect navigable airspace.

FAIR DISCLOSURE STATEMENT: A notification to prospective buyers of property near airports that they may be exposed to potentially impactive levels of aircraft overflight. These statements in no way abrogate an individual's right to take later action against the airport, but rather give buyers a fair warning.

HEIGHT: For the purpose of determining the height limits in all zones and as shown on the approach and clear zone map, this datum shall be mean sea level elevation unless otherwise specified.

HORIZONTAL SURFACE: A horizontal plane one hundred fifty feet (150) above the established airport elevation, the perimeter of which plane coincides with the perimeter of the horizontal zone. This is four thousand one hundred and ninety three (4,193') above mean sea level for the Lemhi County Airport.

LARGER THAN UTILITY RUNWAY: A runway that is constructed for and intended to be used by propeller driven aircraft of greater than 12,500 pounds maximum gross weight and jet powered aircraft.

LATERAL SAFETY ZONE: An area extending 1000 feet either side of runway centerline and including the area between the ends of the primary surface(s) used to enhance the protection of people and property on the ground.

NAVD 88: North American Vertical Datum 1988. All elevations in this Ordinance are referenced to the 1988 North American Vertical Datum.

NAVIGABLE AIRSPACE: Any airspace where heaver-than-air craft can operate. Specifically per Federal Aviation Regulations (FAR), navigable airspace includes airspace at and above the minimum safe flight level, including airspace needed for safe takeoff and landing.

NON-CONFORMING USE: A use of premise which does not conform to the regulations of this Ordinance, but which was in existence at the time of the effective date of this Ordinance.

NON-PRECISION INSTRUMENT RUNWAY: A runway having an existing instrument approach procedure utilizing air navigation facilities with only horizontal guidance, or area type navigation equipment, for which a straight-in non-precision instrument approach procedure has been approved or planned. It also means a runway for which a non-precision approach system is planned and is so indicated on an approved ALP.

OBSTRUCTION: Any structure, growth, or other object, including a mobile object, which exceeds a limiting height set forth in 8.3.

PERSON: An individual, firm, partnership, corporation, company, association, joint stock association, or governmental entity; including a trustee, receiver, assignee, or representative.

PRIMARY SURFACE: A surface longitudinally centered on a runway. When the runway has a specially prepared hard surface, the primary surface extends 200 feet beyond each end of the runway; for military runways or when the runway has no specially prepared hard surface or planned hard surface, the primary surface ends at each end of that runway. The elevation of any point on the primary surface is the same as the elevation of the nearest point on the runway centerline. The width of the Lemhi County Airport Primary Surface is 500 feet.

RUNWAY: A defined area on an airport prepared for landing and take-off of aircraft along its length.

RUNWAY PROTECTION ZONE (RPZ). An area off the runway end used to enhance the protection of people and property on the ground. The RPZ is trapezoidal in shape and centered about the extended runway centerline. The inner width of the RPZ is the same as the width of the primary surface. The outer width of the RPZ is a function of the type of aircraft and specified approach visibility minimum associated with the runway end. The applicable RPZ dimensions are depicted on the ALP.

STRUCTURE: Anything constructed or erected and which is attached, directly or indirectly, to a fixed location on the ground. Structures include, but are not limited to, buildings, modular homes, mobile homes, walls, fences, signs and billboards. For purposes of this Ordinance, the term “structure” shall be expanded to include, in addition to the foregoing, overhead electrical transmission lines or power poles, and their appurtenances, towers, cranes and smokestacks.

TRAFFIC PATTERN AREA: An area comprised of a rectangle or elliptical shape based on a determined distance from the runway centerline and end. The Traffic Pattern Area represents an area where aircraft are commonly operating for the purposes of landing and take-off as depicted in the Airport Land Use Overlay Zone Map. A Traffic Pattern Area is commonly based on the predominant usage of the category of aircraft forecast to use the airport and the specific traffic patterns established at the airport.

TRANSITIONAL SURFACES: These surfaces extend outward at 90-degree angles to the runway centerline and the runway centerline extended at a slope of seven (7) feet horizontally for each foot vertically (7:1) from the sides of the primary and approach surfaces as defined in FAR Part 77 to a point where they intersect the horizontal and conical surfaces.

TREE: A perennial woody plant having at least one main trunk and produces a more or less distinct and less elevated crown with many branches.

UTILITY RUNWAY: A runway that is constructed for use by propeller-driven aircraft of twelve thousand five hundred (12,500) pounds maximum gross weight or less.

VISUAL RUNWAY: A runway intended solely for the operation of aircraft using visual approach procedures.

Section 3: That this ordinance shall be in full force and effect from and after its passage, approval and publication.

PASSED by the Board of County Commissioners of Lemhi County, Idaho, this _____ day of _____, 2011.

Robert Cope, Commissioner District 1

Richard Snyder, Commissioner District 2

Brett S. Barsalou, Commissioner District 3

ATTEST:

Terri Morton, County Clerk

ATTACHMENT A
LAND USE COMPATIBILITY TABLE

Land Use *	1 Runway Protection Zone	2 Lateral Safety Zone	3 Inner Critical Zone	4** Outer Critical Zone	5 Traffic Pattern Area	6 Airport Influence Area	7 Buffer Transition Zone
Residential							
Single-family, nursing homes, multi-family, apartments, condominiums, mobile home parks	X	X	X	C (1,2,6)	C (1,3,6)	C (1,6)	C (1,4)
Transient lodging (i.e. hotels and motels)	X	X	X	C (1,6)	C (1,6)	C (1,6)	C (1)
Services							
Schools, libraries, churches	X	X	X	X	C (1,6)	C (1,6)	C (1,6)
Parking and cemeteries	X	P	P	P	P	P	P
Manufacturing, Transportation, Trade & Extraction							
Offices, retail trades, light industrial, general manufacturing, utilities, extractive industry	X	C (1)	C (1,5)	C (1,6)	C (1)	C (1)	C (1)
Airport revenue-producing enterprises	X	C (1)	C (1,5)	C (1,6)	C (1)	C (1)	C (1)
Agricultural, Cultural, Entertainment and Recreation							
Cropland	P	P	P	P	P	P	P
Livestock breeding, zoos, golf courses, riding stables, water recreation	X	X	C (6,7)	C (6,7)	C (7)	P	C (7)
Outdoor spectator sports, parks, playgrounds	X	X	X	C (1,6)	C (1,6)	C (1,6)	C (1,6)
Amphitheaters	X	X	X	X	C (1,6)	C (1,6)	C (1,6)
Open space	P	P	P	P	P	P	P
Bird and Wildlife Attractants							
Sanitary Landfills	X	X	X	X	X	C (7)	X
Water treatment plants, water impoundments	X	X	X	X	X	C (7)	X
Wetlands Mitigation	X	C (7)	C (7)	C (7)	C (7)	C (7)	C (7)

Land Use Compatibility Criteria

X - Not Allowed, P - Permitted, C – Conditional

*Land use activities represented herein compare with Appendix L of the Lemhi County Development Code, page 129. For further clarification of land use activities, please refer to Appendix L of the Development Code.

**OUTER CRITICAL NOT APPLICABLE TO LEMHI COUNTY AIRPORT

CONDITIONS

All facilities should be configured to comply with FAR Part 77 requirements.

1. If allowed, Fair Disclosure Statement must be required as a condition of development.

2. Limit residential density to 1 unit per 5 acres.

3. Limit residential density to a maximum of 1 unit per 2.5 acres. It is recommended that the County utilize cluster development or other similar land use planning mechanisms where reasonable and necessary in the Traffic Pattern Area to ensure minimum residential density while providing for maximum safety of aircraft operators and surrounding residents as well as reduced impacts on the quality of life of residents. Refer to the County of Lemhi County County Development Code, as amended.

4. Limit residential density to 1 unit per 1 acre.

5. Avoid High Intensity commercial uses such as large retail box stores (i.e. Walmart, Home Depot). Use should be located as far from extended centerline as possible.

6. If no reasonable alternative exists, use should be located as far from extended centerline as possible.

7. Such uses may present a bird and wildlife attractant. If allowed, consideration of the proximity of the airport and potential negative impacts should be considered. Refer to FAA Advisory Circulars (AC) 150/5200-33B and 150/5200-34A, as amended, for guidance.

APPENDIX G

FAA "Planning for Compliance" Guidance

SAMPLE

DRAFT 3-16-10

NOTE: This is a "model" task description which can be modified as needed for inclusion in the workscope of an airport master planning project. A less-detailed version could also be tailored for a state system planning workscope.

A Model Element to Address Existing and Potential Compliance Issues

Objective

Applying for and receiving Airport Improvement Program (AIP) grant funding contractually obligates an airport sponsor to comply with the Assurances contained in the application package. FAA makes continual efforts to educate sponsors in general about their grant obligations, but much of FAA's compliance efforts with individual sponsors is reactive, in that violations come to FAA's attention and require correction. The objective of this task is to take a proactive—even preemptive—approach to achieving compliance and avoiding noncompliance at a specific airport with its unique circumstances by examining existing and potential compliance issues as part of an airport planning project.

Approach

The airport sponsor (and/or the consultant) will conduct a thorough review of the approved airport layout plan (ALP), Exhibit 'A' Property Map, Airport Ordinance (if any), Zoning Ordinance, Rules and Regulations, Minimum Standards, airport enterprise fund/budget, leases, easements, permits and any other pertinent governing documents to ascertain consistency with the Assurances. A common-sense "look-around" will also take place to identify potential problems, such as:

- incompatible land uses in the airport environs and/or an absence of appropriate airport-compatibility zoning
- existing "through-the-fence" access for aircraft based off airport property and/or possible future requests for same (especially residential airparks)
- revenue diversion (including improper use of airport property)
- on-airport residential use (sometimes called "crew quarters")
- nonaeronautical local events closing the airport or a runway (such as drag racing on runways)
- unabated wildlife attractants
- trees or structures (possibly unstudied/uncharted) obstructing the airport's airspace
- anything else in conflict with the Assurances or sound operation of the airport

Product

- List and describe each existing and potential compliance issue, referenced to the specific Assurance or other obligation involved.
- For existing violations, recommend remedies and time frame for achieving compliance.
- For potential violations, recommend strategies to avoid noncompliance (i.e., new ordinance, etc.).
- Develop and implement a strategy/program to educate the airport sponsor's decision-makers and the general public on the components and importance of compliance. Include educational materials for officials and citizenry on Federal and State requirements, and develop tools for understanding grant Assurances.

For more info, please view our PowerPoint presentation on Planning for Compliance:
http://www.faa.gov/airports/northwest_mountain/airports_news_events/annual_conference/2009/media/planning_for_compliance_rt.pdf

APPENDIX H

Airport Management Best Practices Sample Plans and Worksheets

Security Plan

Airport Self-Inspection Checklist

Emergency Response Contact Sheet

Emergency Response Checklist for Airport Manager

Sample General Aviation Airport Security Plan

The following sample security plan has been drawn largely from the TSA guidelines.

General Aviation Airport Security Procedures

(Airport Name)

(Original Publication Date)

(Date Last Revised)

TABLE OF CONTENTS

Outline all of the sections of the document with corresponding page number for quick reference.

SECTION I: DISCLOSURE STATEMENT / SECURITY RESPONSIBILITIES

Distribution of these Security Procedures should be restricted to individuals with a legitimate need for access to them.

Identify the individual who has the responsibility for the development, upkeep and administration of the Airport Security Procedures

SECTION II: GENERAL INFORMATION

1. **Forward** – Identify the airport owner and the person(s) responsible for airport activities (e.g. State, county, authority, commission).

2. **Introduction and Purpose** – Provide a brief introduction that describes the purpose (what will it be used for) and the need (why was it created) for airport security procedures.

3. **Distribution** – You should list all individuals and agencies that will receive copies of the Airport Security Procedures.

   Example:
   - State / Local Police Department
   - Fixed Base Operator
   - Individual Tenants

4. **Name and Location of Airport**
   - Airport Name
   - Airport Address

- Normal Business / 24-hour Emergency / Fax Phone Number
- Airport Identifier
- Proximity to nearest major city. List the city and provide a state location map as an attachment.
- Airport Geographical Coordinates: latitude, longitude, elevation.

5. **Airport Activities**
    - Types of flight activities (e.g. flight school, State Police, corporate)
    - Hours of operation
    - Number of annual operations
    - Number of based aircraft

6. **Airport Description**
    - Size: List the size of the airport in approximate acres or square miles.
    - Runways, Taxiways, Ramps: Identify runways and their dimensions, taxiways, and ramp areas. Provide an airport layout plan/diagram as an attachment.
    - Buildings:
    - List the number and types of buildings (offices, hangars, maintenance shops).
    - List the primary tenants for each of the buildings.
    - Airport Tenants:
    - List hours of operation
    - List primary and emergency contact information
    - Other Airport Facilities

7. **Emergency Phone Numbers** – List all appropriate emergency contact numbers. Include point of contact names and office hours of operation as appropriate (e.g. FSD, alternate contacts).
    - All Emergencies 911
    - State Police (non-emergency)
    - Local Police (non-emergency)
    - Local Fire Department
    - Airport Director (24 hour contact)
    - Airport Facility Supervisor (pager)
    - State / Local Aviation Official
    - Federal Bureau of Investigation Local Field Office
    - FAA Flight Standards District Office (FSDO)
    - TSA Airport Watch Hot-Line: 866-427-3287
    - Local TSA Federal Security Director

SECTION III: DEFINITIONS AND TERMS

It may be useful to include a list of frequently used terminology to enhance clarity within the document.

SECTION IV: ADMINISTRATION

1 **Airport Operator** – List who operates the airport.

2 **Individual Responsible for Airport Security** – List the responsibilities of this individual. These duties may include:

- Timely provision of evidence of security measure compliance as may be requested.
- Maintaining a complete and current list of all individuals with airport access.
- Maintaining documentation of all training provided in accordance with any current Airport Security Procedures.
- Maintaining and updating the Airport Security Procedures to reflect the current state of conditions at the airport.
- Timely distribution of the Airport Security Procedures or specific parts thereof, to appropriate persons or entities.
- Proper dissemination of all correspondence or other communications with airport tenants and others on security related matters.
- Daily oversight of security provisions at the airport and ensuring compliance with the Security Procedures.

SECTION V: AIRCRAFT MOVEMENT AREA / SECURITY CONTROL

1 **Aircraft Movement Area** – Describe any area that may be used for landing, take-off, and surface maneuvering of aircraft including all intermediate unpaved sections of the airfield encompassed on the airport property. You should also include a map or diagram as an attachment.

2 **Perimeter Controls** – Describe any perimeter barriers or access controls such as:

- Fencing
- Gates
- Access Control System
- Airport Locks
- Key Control System

SECTION VI: AIRPORT SECURITY PROCEDURES

Describe any Airport Security Procedures such as:

- Aircraft security requirements
- Pedestrian/vehicle access
- Challenge procedures
- Reporting of suspicious behavior

SECTION VII: AIRPORT EMERGENCY GRID MAP

Airport operators may also wish to consider creating an emergency locator map. The map should identify all relevant areas of the airport on a grid map such as:

- Runways
- Ramp areas
- Fence line
- Gates
- Automobile parking areas
- Hydrants
- Emergency shelters
- Buildings
- Hazardous materials sites

This map should be provided to emergency response personnel (fire, EMS, etc.) and law enforcement, as well as airport personnel.

SECTION VIII: IDENTIFICATION OF AIRPORT PERSONNEL

Describe any personnel identification methods/systems and the procedures for those that are currently in use. Such as:

- Airport-issued identification badge(s) or card(s)
- Identification Badge / Card application procedures
- Other acceptable forms of identification
- Accountability of lost/stolen identification badges / cards
- Temporary airport identification badges / cards
- Uniforms which display logo or other identifiable markings

SECTION IX: IDENTIFICATION OF VEHICLES

Describe what methods/systems are used to identify authorized vehicles in the air operations area. The following are examples of methods to identify authorized vehicles:

- Special paint schemes or markings
- Decal in a specified location on the vehicle
- Hang tags

SECTION X: LAW ENFORCEMENT

Describe any agreement(s) and responsibilities that the airport owner/operator(s) may have with law enforcement agencies to provide support, traffic control, police patrols and any emergency responses. Include any written agreements as attachments to the Airport Security Procedures. Also include any methods or systems used (e.g. radios, communications channels, etc.) to directly communicate with law enforcement personnel.

SECTION XI: SPECIAL EVENTS

Describe any procedures that exist for special events such as:

- Air shows

- VIP Visits
- Events that result in unusual numbers of people at the airport

SECTION XII: INCREASED SECURITY THREATS

Describe how security measures are implemented in accordance with the raising and lowering of the Homeland Security Advisory System as described in Section 3.5.2 of Security Guidelines for General Aviation Airports, published by the TSA.

SECTION XIII: AVIATION SECURITY CONTINGENCY PLANS

Identify and describe all contingency plans and procedures established for security incidents such as:

- Bomb Threats
- Civil Disturbances & Crowd Control
- Air Piracy (Hijacking) Actual or Attempted
- Suspicious/Unidentified Items

LEMHI COUNTY AIRPORT
AIRPORT SELF INSPECTION CHECKLIST (ADAPTED FROM FAA)

DATE _____

Time Initiated _____

Inspector Name _____ Time Completed _____

Facilities	Conditions	Satis/Unsatis	Remarks
Pavement Areas	Pavement Lip over 3”	☐☐	
	Holes 5” diam/3” deep	☐☐	
	Cracks/Halling/Speaves	☐☐	
	FOD:Gravel/Debris	☐☐	
	Vegetation	☐☐	
	Ponding	☐☐	
	Rubber Deposits	☐☐	
Safety Areas	Ruts/Humps/Erosion	☐☐	
	Equipment/Aircraft	☐☐	
	Drainage	☐☐	
	Objects/Frangible Bases	☐☐	
Markings	Clearly Visible/Standard	☐☐	
	Runway	☐☐	
	Taxiway	☐☐	
	Holding Areas	☐☐	
Obstructions	Obstruction Lights	☐☐	
	Cranes/Trees/Other	☐☐	
Runway/ Taxiway/ Ramp Lighting	Obscured/Dirty	☐☐	
	Damaged/Missing	☐☐	
	Inoperative	☐☐	
Navigational Aids	Guidance Signs	☐☐	
	Wind Indicator	☐☐	
	Rotating Beacon	☐☐	
	FAA Owned	☐☐	
Wildlife Hazards	Birds/Animals	☐☐	
Public Protection	Fencing	☐☐	
	Gate	☐☐	
	Signs	☐☐	
	Unauthorized Access	☐☐	
Fuel Handling/ Storage	Fencing/Gates/Signage	☐☐	
	Marking/Labeling	☐☐	
	Leaks/Spills	☐☐	
	Fire Extinguishers	☐☐	
	Grounding Clips	☐☐	
Snow & Ice	Surface Conditions	☐☐	
	Snowbank Clearance	☐☐	
	Lights/Signs Obscured	☐☐	
	Equipment	☐☐	
Construction	Security	☐☐	
	Barricades	☐☐	
	Marking/Lighting	☐☐	
	Equipment	☐☐	

LEMHI COUNTY AIRPORT
EMERGENCY TELEPHONE NUMBERS

MANAGEMENT	OFFICE	HOME	PAGE/CELLULAR
County Contact:			
_____	_____	_____	_____
Airport Personnel:			
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
Airport Control Tower Manager:			
_____	_____	_____	_____
Public Works Director:			
_____	_____	_____	_____
City Manager:			
_____	_____	_____	_____
Fire Department:			
_____	_____	_____	_____
Assistant Chief:			
_____	_____	_____	_____
Emergency Management Director:			
_____	_____	_____	_____

Local Police: _____
Local Lemhi County Sheriff: _____
Idaho State Police: _____
Idaho State Police Hangar: _____

_____	_____	_____	_____
_____	_____	_____	_____

Southern Idaho Regional Emergency Communication Center (SIRCOMM): 911 or 208-324-1911

Coroner _____
Power Company _____
Telephone Company _____

FEDERAL AVIATION ADMINISTRATION (FAA)
FAA Flight Service Office for issuing NOTAMS: 1-877-487-6867

FAA Northwest Region- Regional Operations Center (ROC) for 24 hour Accident and Incident Response 425-227-1389

FAA Boise FSDO: 1-800-453-0001

FAA weather forecasting and briefs: 1-800-WXBRIEF
FAA Electronic Maintenance Unit _____
FAA Accident Prevention Specialist _____

OTHER
Accident Reporting: National Transportation Safety Board (NTSB): 206-870-2200 (Western Region)

Security Breach: FBI Idaho Falls 208-522-5921

Radioactive Spill: Joint Nuclear Accident Coordinating Center: (JNACC) 703-325-9963 (Collect)
National Weather Service: 208-334-5354

MEDICAL
Steele Memorial Hospital (208) 756-1901

TENANTS

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

LEMHI COUNTY AIRPORT
EMERGENCY PLAN CHECKLIST

___1. Verify that an emergency exists.
___2. Contact the Southern Idaho Regional Emergency Communication Center to ensure that they are aware of the emergency and to ensure that the proper emergency equipment has been dispatched.
___3. If an aircraft crash alert was issued, standby until aircraft lands safely or crashes.
___4. If aircraft lands safely: a. cancel all responding emergency units not needed; b. ensure that the airfield in still in a safe operating condition and continue normal operations.
___5. Take the following action for the type of emergency listed:

AIRCRAFT CRASH

___a. Establish a command post in the Airport Manager's Office and assume command of the overall situation.
___b. Establish communications with responding agencies.
___c. Coordinate operations at the scene with the responding agencies.
___d. Recall all airport personnel to the airport.
___e. Close the airport until it can be determined that the airfield can be safely operated.
___f. Contact the FSS and issuing a NOTAM.
___g. Contact the FSDO and inform them of the crash.
___h. Establish security at the crash site.
___i. Notify City Manager, as necessary.
___j. Notify the owner of the aircraft, as required.
___k. Establish a press center to handle press inquiries.
___l. Establish temporary morgue in an airport hangar, if necessary.
___m. Re-open airfield when possible.
___n. Issue NOTAM on airfield re-opening.
___o. Contact NTSB and FAA (if required).

MISSING/OVERDUE AIRCRAFT

___a. Report Missing Aircraft to Lemhi County Sheriff, Idaho Division of Aeronautics (800-426-4587) or Idaho State Communications (if after normal office hours 800-632-8000), and FAA Flight Service Station (800-WXBRIEF)
___b Check Airport
___c. Route Search (Obtain a radar track and monitor for ELT transponder)
___d Grid Search

BOMB INCIDENTS

___a. Park the aircraft with the suspected bomb onboard at appropriate airfield position.
___b. Keep a minimum 300 foot clear radius around the aircraft.

RADIOLOGICAL INCIDENT

___a. Contact the Joint Nuclear Accident Coordinating Center (JNACC) at 703-325-2102 (collect)

TERRORIST ATTACK

___a. Contact local law enforcement/911 who will in turn contact FBI
___b. Prohibit Access
___c. Administer isolation and evacuation