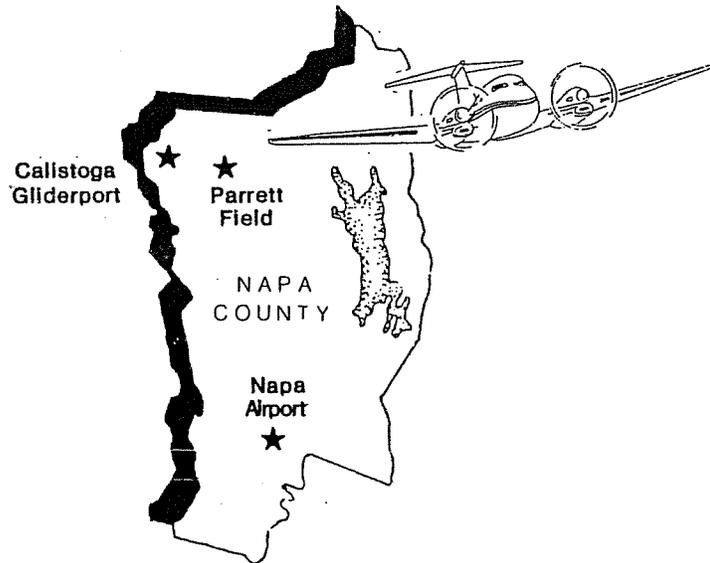


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**Napa County  
Airport Land Use Commission**

**Airport Land Use Compatibility Plan**

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**Napa County Airport Land Use Commission**

**Airport Land Use Compatibility Plan**

**Prepared By  
Shutt Moen Associates**

**Adopted  
April 22, 1991**

**Revised  
December 15, 1999**



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# **PART I**

## **Introduction**

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# 1

## Introduction

### PURPOSE

This document sets forth the policies and criteria which the Napa County Airport Land Use Commission (ALUC) will use in evaluating land use plans and proposed development in the vicinity of the public-use airports located within Napa County. Figure 1A illustrates the location of the three public-use airports covered by this Compatibility Plan. It is the Commission's duty to assist local agencies in the determination of compatible land uses in the vicinity of airports and to coordinate planning at the state, regional, and local levels so as to provide for the orderly development of air transportation while at the same time protecting the public health, safety, and welfare.

The primary function of the Airport Land Use Compatibility Plan is to provide guidance to the Airport Land Use Commission in reviewing the land use plans and zoning regulations of the affected local jurisdictions to ensure that future development in the airports' environs is compatible with airport activities. The Commission has no authority over existing land uses, even if such uses are considered incompatible. Also, the Commission has no authority over the operation of any airport. The following summarizes the Airport Land Use Commission's authority and review procedures as outlined in state law. A complete copy of the enabling legislation is included as Appendix A.

### ROLE

The fundamental relationships between an Airport Land Use Commission and local jurisdictions is set by state law. Although the Commission functions under the general auspices of County government, it is not controlled by the County. In this regard, the Airport Land Use Commission's role is similar to that of the Local Agency Formation Commission (LAFCO). Within the bounds provided by state law, the decisions of the Commission — including the adoption of a comprehensive land use compatibility plan — are final. Other than through its larger representation on the Commission, the County does not have any greater legal authority over the Commission than do the individual cities in the County.

## Napa County Airport Land Use Commission

In accordance with provisions of the State Aeronautics Act, the Napa County Planning Commission has been designated by the Board of Supervisors to assume the responsibilities of the Airport Land Use Commission with two additional members appointed to represent the aviation community. The Airport Land Use Commission meets regularly to review project referrals as required by recent legislation.

### AUTHORITY

The statutory authority for the establishment of airport land use commissions is provided in the California Public Utilities Code, Sections 21670 et seq. (Chapter 4, Article 3.5 of the State Aeronautics Act). Every county in which there is located a public-use airport is required to have an Airport Land Use Commission. The Commission's charge is expressly stated as being:

*. . . to protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses.*

A primary responsibility of the Commission is to formulate a comprehensive land use plan intended to achieve the above purpose. The plan must address each public-use airport within the Commission's jurisdiction and must reflect the anticipated growth of the airport during at least the next 20 years. The State Division of Aeronautics in an interpretation of state law has determined that special-use airports, such as the Calistoga Gliderport, fall under the definition of "public-use" airports for the purpose of land use planning. The plan may include height restrictions, specify land uses, and determine building standards.

### RELATIONSHIP TO LOCAL PLANS

The primary purpose of the Airport Land Use Compatibility Plan is to establish policies and guidelines for land use compatibility to local jurisdictions affected by airport activities. Provisions of state law require that the ALUC review the local general plans and specific plans of each of the affected jurisdictions to determine consistency with the ALUC's policies within 180 days of adoption of the Airport Land Use Compatibility Plan.

If the local plans are determined to be inconsistent with the Airport Land Use Compatibility Plan, each affected local agency must hold a public hearing to consider amending its general plan and any applicable specific plans and zoning ordinances for consistency or otherwise take specific steps to override the Commission.

Until each affected local agency amends its General Plan and any applicable specific plans for consistency with the ALUC policies or otherwise overrides the ALUC determination, all actions, regulations, or permits within the planning areas must be referred for a consistency determination.

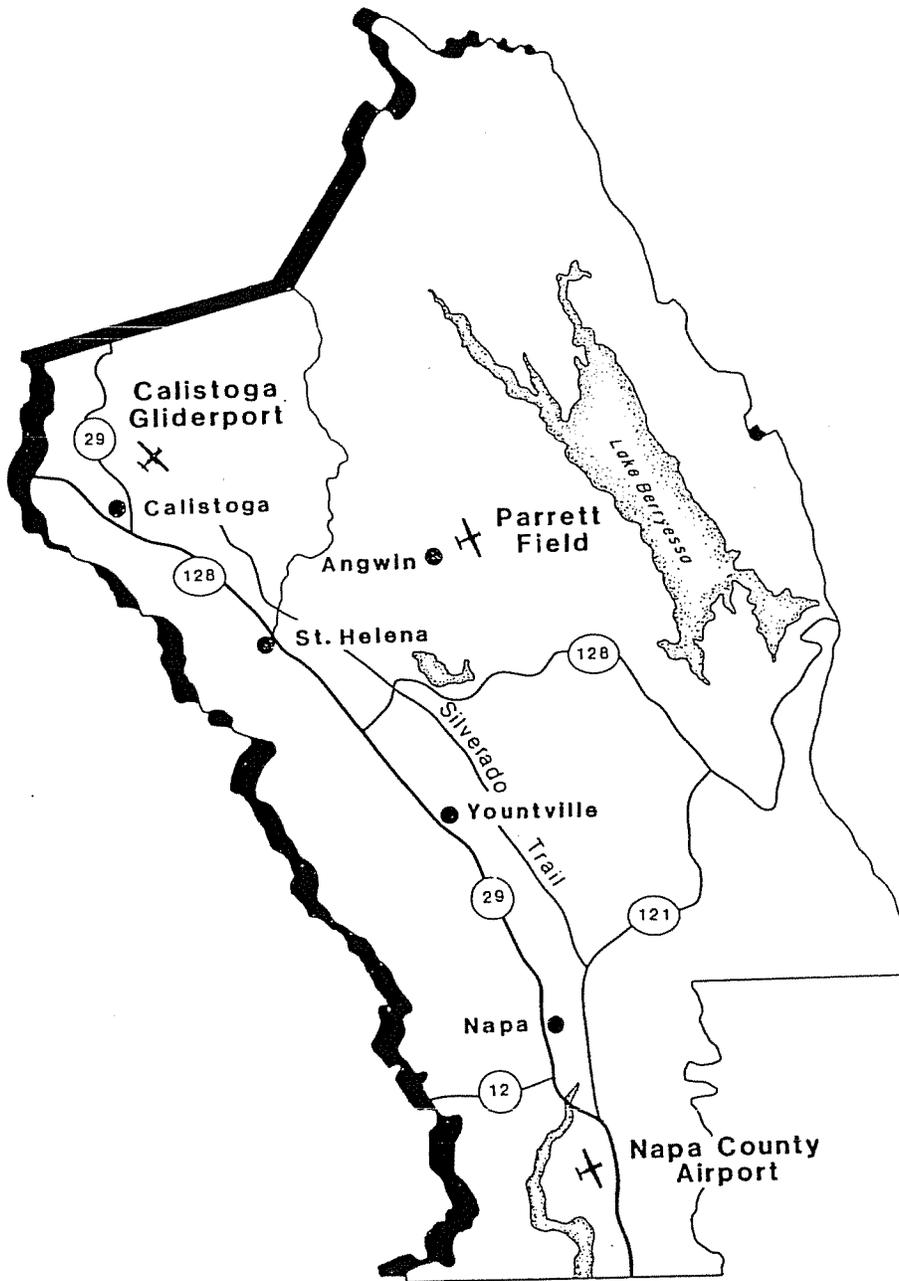


Figure 1A

**Airport Locations**  
Napa County

Once consistency with ALUC policies is achieved, only certain types of actions (i.e., general plan or specific plan amendments) need be referred for a consistency determination, unless the local agency and the Commission agree that other types of actions or individual projects should be reviewed by the ALUC.

## **Overruling**

The governing body of a local jurisdiction may overrule the Airport Land Use Commission's determination by taking the following actions:

- Hold a public hearing to reconsider the proposed action.
- Make a finding that the proposed action is consistent with the intent of the State Aeronautics Act.
- The motion to override must be passed by a two-thirds vote.

## **GENERAL APPROACH**

The structure and design of the Airport Land Use Compatibility Plan is intended to simplify its implementation. A composite set of Compatibility Criteria has been assembled which incorporates three of the four airport/land use compatibility concerns – noise, safety, and overflight. Airspace protection remains as a separate set of criteria using federal aviation regulations to establish maximum height limitations. The intent is to simplify the review process by eliminating the need to consider several different compatibility tables and associated maps. Supporting policies are provided which further define the Compatibility Criteria.

The criteria in this Plan are performance oriented, rather than list oriented. That is, the criteria contain standards which are to be achieved (e.g., occupancy limits), rather than a list of specific uses which are permitted in each zone. This format directly relates the concern (e.g., safety) to the criteria (e.g., occupancy limits). The local governments which have the implementing authority for land use must then interpret these criteria in terms of their land use plans and zoning ordinances.

The policies and criteria presented in this Plan are directly derived from well established sources. Among the specific sources utilized are:

- Federal Aviation Regulations Part 77, "Objects Affecting Navigable Airspace".
- Federal Aviation Administration Advisory Circular 150/5020-1, "Noise Control and Compatibility Planning for Airports".
- California State Aeronautics Law.
- California Division of Aeronautics Noise Regulations.
- California Division of Aeronautics *Airport Land Use Planning Handbook*.

- Oregon Division of Aeronautics *Airport Compatibility Guidelines*.
- Previously adopted local plans and policies.

## ORGANIZATION OF THE PLAN

This Plan is organized in three parts. Part I consists of this introductory chapter and an overview of airport compatibility issues presented in Chapter 2. The primary policies and compatibility plans for each airport are contained in Part II of this document. Review requirements, compatibility policies, plans, and criteria for each airport's planning area are contained in Chapter 3. Chapter 4 includes a discussion of implementation strategies that local agencies may utilize to achieve consistency with the Airport Land Use Compatibility Plan. Specific information relative to each airport's master plan, impact assessment, land use issues, and consistency with local plans is provided in Part III (Chapters 5, 6 and 7). A glossary of terms and reference materials to assist in the review of project referrals are included in the Appendices.

A technical supplement to this Compatibility Plan entitled "ALUC Handbook" contains a detailed description and analysis of noise and safety concerns as they relate to airport compatibility planning. The Handbook is incorporated by reference herein and provides the background and justification for the policies contained in the Airport Land Use Compatibility Plan. A master plan for Napa County Airport, updated in 1989, provides the basis for compatibility planning and establishment of the ALUC planning area. Long-term facility plans for the two privately-owned airfields were developed as part of this plan and reflect coordination with the airport owners, local jurisdictions, and the appropriate state and federal agencies.

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## Compatibility Concerns

The principal land use impacts and compatibility considerations associated with airport activities fall into four categories.

- **Noise** – Usually perceived as the most significant adverse impact of airport activity because of its routine, everyday occurrence. Human sensitivity to noise varies considerably depending upon the circumstances in which the noise occurs.
- **Hazards to Flight** – To protect the navigable airspace by preventing physical obstructions and other land use characteristics that could affect flight safety.
- **Safety on the Ground** – Limiting people's exposure to risks of injury or damage to property in the event of an aircraft accident. These risks are difficult to address because of the low probabilities involved.
- **Overflights** - Annoyance associated with regular aircraft overflight. Commonly thought to result from a combination of single-event noise impacts and individuals' concern that an aircraft accident may occur. Highly variable among individuals due to the subjective nature of the perceived impact.

### NOISE IMPACTS

#### Assessment of Airport Impacts

Airport noise is particularly complex to measure because of the widely varying characteristics of the individual sounds and the intermittent nature of their occurrence. In an attempt to provide an appropriate measure of airport noise impacts, various composite noise level descriptors have been devised. The descriptor used in California to measure cumulative noise impact is the Community Noise Equivalent Level (CNEL). CNEL values are calculated using a complex set of equations based upon several factors:

- The single-event noise exposure levels for each type of aircraft.
- The volume of activity and mode of operation by aircraft type.
- Runway utilization and flight patterns.
- The time of day when the operations occur.

Because noise is considered more intrusive at night, a weighting or penalty is included in the calculation of CNEL values for all evening and nighttime operations. That is, evening operations (7 p.m. to 10 p.m.) are weighted three times normal daytime operations and nighttime operations (10 p.m. to 7 a.m.) are weighted ten times. These adjustments correlate to the drop in background noise levels which studies have found occurs between daytime and nighttime in a typical community. CNEL contours for each airport are illustrated in Chapter 5.

### **Noise Compatibility Concepts**

The basic approach to enhancing noise compatibility is to minimize the extent to which noise impacts disrupt human activities or otherwise create an annoyance. Among the factors in this analysis:

- The absolute loudness of the noises people hear.
- The relative loudness compared to background noise levels.
- The frequency with which the noise events occur.
- The types of activity affected.

Various studies have been done to ascertain the relationships among these factors. Typically, the results are formulated in terms of the composite noise levels acceptable or unacceptable for specific types of land uses. Table 2-1 provides a comparison of the recommended compatibility guidelines for various land uses.

California State Aeronautics law establishes a CNEL of 65 dBA as the maximum acceptable noise exposure for residential land uses near commercial airports in urban areas. Part 150 of the Federal Aviation Regulations has a similar residential limit of 65 Ldn. (Refer to the Glossary of Terms in Appendix F for definition of Ldn and CNEL). This criteria is primarily based upon the "Levels" report prepared by the U.S. Environmental Protection Agency in 1974 (*Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety*).

In the "Levels" report, the EPA recommends adjusting the 65 CNEL standard to account for ambient noise levels and other variables. The use of a normalized standard is also recommended in the California guidelines for preparation of Noise Elements and in the *California Airport Land Use Planning Handbook*. For residential uses in quiet suburban settings, a CNEL standard of 60 dBA is suggested. In more rural areas, a level as low as 55 dBA may be appropriate.

**Table 2-1  
Noise Compatibility Guidelines**

LAND USE CATEGORY	CNEL, dBA				
	50-55	55-60	60-65	65-70	70-75
<b>Residential</b>					
Single family, nursing homes, mobile homes	+	o	-	---	
multi-family, apartments, condominiums	++	+	o	---	
<b>Public</b>					
schools, libraries, hospitals	+	o	-	---	---
churches, auditoriums, concert halls	+	o	o	-	---
transportation, parking, cemeteries	++	++	++	+	o
<b>Commercial and Industrial</b>					
offices, retail trade	++	+	o	o	-
service commercial, wholesale trade, warehousing, light industrial	++	++	+	o	o
general manufacturing, utilities, extractive industry	++	++	++	+	+
<b>Agricultural and Recreational</b>					
cropland	++	++	++	++	+
livestock breeding	++	+	o	o	-
parks, playgrounds, zoos	++	+	+	o	-
golf courses, riding stables, water recreation	++	++	+	o	o
outdoor spectator sports	++	+	+	o	-
amphitheaters	+	o	-	---	---

LAND USE AVAILABILITY	INTERPRETATION/COMMENTS
++ Clearly Acceptable	The activities associated with the specified land use can be carried out with essentially no interference from the noise exposure.
+ Normally Acceptable	Noise is a factor to be considered in that slight interference with outdoor activities may occur. Conventional construction methods will eliminate most noise intrusions upon indoor activities.
o Marginally Acceptable	The indicated noise exposure will cause moderate interference with outdoor activities and with indoor activities when windows are open. The land use is acceptable on the conditions that outdoor activities are minimal and construction features which provide sufficient noise attenuation are used (e.g., installation of air conditioning so that windows can be kept closed). Under other circumstances, the land use should be discouraged.
- Normally Unacceptable	Noise will create substantial interference with both outdoor and indoor activities. Noise intrusion upon indoor activities can be mitigated by requiring special noise insulation construction. Land uses which have conventionally constructed structures and/or involve outdoor activities which would be disrupted by noise should generally be avoided.
--- Clearly Unacceptable	Unacceptable noise intrusion upon land use activities will occur. Adequate structural noise insulation is not practical under most circumstances. The indicated land use should be avoided unless strong overriding factors prevail and it should be prohibited if outdoor activities are involved.

other measures that can be utilized to mitigate potential noise impacts on noise-sensitive uses (such as schools, libraries, and theaters) including requiring additional noise attenuation measures be incorporated into the design of the building. Noise attenuation measures and criteria for their application are provided in Appendix C.

## **FLIGHT HAZARDS**

### **Assessing Hazards to Flight**

The intent of the airport/land use safety compatibility criteria is to minimize the risks associated with the operation of aircraft to and from an airport. Two types of potential hazards to flight are of concern: physical obstructions within navigable airspace and other land use characteristics that can affect flight safety.

#### ***Airspace Obstructions***

Minimum standards for the maximum allowable height of objects around airports are set forth in Federal Aviation Regulations Part 77, "Objecting Affecting Navigable Airspace". The regulations require that the Federal Aviation Administration be notified regarding the proposed establishment of any object that would exceed specified heights. An Airspace Plan which graphically illustrates the areas affected by height limitations in accordance with federal regulations (Part 77) has been prepared for each airport and is included in the impact assessment (Part III).

#### ***Other Flight Hazards***

Other land use characteristics can also affect flight safety. These characteristics can be visual, electronic, or physical in nature. Visual hazards include distracting lights, glare, and sources of smoke. Electronic hazards include any uses which interfere with aircraft instruments or radio communication. The principal physical hazards, other than the height of structures, are bird strikes. Any land use which can attract large flocks of birds should be avoided, but those which are artificial attractors are particularly inappropriate because they generally need not be located near airports. Sanitary landfills are a prime example of such land uses.

#### **Limiting Flight Hazards**

FAA standards for height limitations reflect, with an adequate margin of safety, the lowest altitudes at which an aircraft might reasonably be flown while approaching or departing an airport. A local jurisdiction can adopt more restrictive criteria if it chooses. Adoption of zoning ordinances which specifically limits the height of structures and objects in an airport's vicinity and which prohibits other land use characteristics

which may create flight hazards is a primary means of protecting the safety of the airspace. Additional measures include the required dedication of avigation easements which enable the airport authority to remove, mark, or light an obstruction or hazard with adequate notice to the landowner.

## **SAFETY**

### **Assessing Safety Impacts**

In 1993, the Institute of Transportation Studies, at the University of California at Berkeley, developed a database of general aviation accidents derived from accident reports prepared by the National Transportation Safety Bureau. This accident data was documented in Caltrans' Airport Land Use Planning Handbook. This data indicates that, for arrival accidents, the area of highest risk is along the extended centerline of the runway within one mile of the runway end. By comparison, departure accident risks are concentrated closer to the runway end, but spread farther from the runway centerline.

Low flight altitudes present greater risks because they offer pilots less opportunity to recover from unexpected occurrences or choice of where to make an emergency landing. At altitudes less than 500 feet above the ground, only moderate turns are advisable and the choice of emergency landing area is essentially limited to what lies ahead. Above this altitude, recovery, or at least a fairly wide discretion in choice of emergency landing sites, is possible. An emergency landing on the runway normally can be accomplished when the aircraft is flying in the traffic pattern at the typical traffic pattern altitude (1,000 feet above the airport).

Based upon the accident location data presented in the Airport Land Use Planning Handbook, the issue of safety is most critical within the approach/departure zones. These zones were sized to correspond to the future approach surfaces for each runway end. A visual approach with a much steeper approach angle has a smaller approach zone than instrument approaches where aircraft are approaching at much lower altitudes under conditions of poor visibility. Therefore, runways with only visual approaches have smaller approach/departure zones than those with instrument approaches.

Beyond the approach/departure zones, safety concerns are significantly reduced. Moderate safety concerns exist in the common traffic pattern where aircraft are below traffic pattern altitude. This will commonly occur where aircraft make their turn to the base leg of an approach or when using a circle-to-land instrument approach. Safety concerns are low where aircraft are at a pattern altitude and are further reduced where aircraft are at higher altitudes.

### **Limiting Risks of Injury or Damage**

The objective in providing an acceptable level of safety on the ground is to reduce the risks of damage to property or injury to persons in the event of an aircraft accident. The greater the predicted risk, the more

restrictive land use controls are necessary. Limiting the density of development and providing open areas for emergency landings are two basic approaches to ensuring compatibility.

The concept behind limiting the density of land uses near an airport is to limit the number of people who might be affected by an aircraft accident. The larger the aircraft which use an airport, the greater the potential for a high number of injuries, should an accident occur. Limiting residential densities and maximum occupancy levels is the principal means of providing acceptable levels of safety on the ground.

High concentrations of people, such as occur in theaters and similar uses, should be avoided in areas most susceptible to aircraft accidents. Uses in which the occupants have low effective mobility, such as hospitals, nursing homes, elementary and secondary schools, etc., also pose higher risks. These uses are undesirable within the airport environs and are prohibited within the approach/departure zones.

Clustering of development and providing open land areas that can be utilized as emergency landing sites are other land use control measures that limit the risks of injury. An open area does not have to be very large to enable a successful emergency landing. The objective is for the occupants to survive the accident without serious injury. Damage to the aircraft is irrelevant in these circumstances. An area as small as 75 feet by 300 feet (about one-half acre - the size of a football field) can be adequate for a survivable emergency landing in a small plane. The area should be relatively free of objects such as overhead power lines and large trees and poles that could send a plane out of control at the last moment.

Because the pilot's discretion in selecting an emergency landing site is reduced when the aircraft is at low altitude, open areas preferably should be larger and spaced more closely in those locations overflown at low altitude (inner approach zones). The chance of a pilot seeing and successfully landing in a small open space also would be increased if there are more such spots from which to choose. This is particularly important for airports used by a high percentage of transient pilots who are unfamiliar with the airport vicinity.

The Compatibility Plans for each airport provide criteria which restricts the concentrations of people within the most critical areas and certain types of land uses which are most susceptible to safety risks. Clustering of development is encouraged, while limiting the maximum number of persons concentrated in any given area. Specific policies which identify the critical areas for open land are provided to ensure that community plans maintain open space in an airport's vicinity.

## **OVERFLIGHT IMPACTS**

### **Assessing Overflight Impacts**

Communities have become increasingly sensitive to overflight impacts. Areas underlying common flight tracks that are well outside of typically defined noise contours are increasingly becoming sources of complaints, and political and legal action. As these areas are commonly outside of areas classified as having a "noise problem", the impact is usually referred to as overflight annoyance.

Compared to cumulative noise compatibility considerations, the annoyance factor of overflight activity is more subtle and subjective. The degree of perceived annoyance varies widely from individual to individual, even though the definable impacts may be similar. The level of annoyance appears to be influenced by several factors related to the individuals affected - their attitudes toward aviation and the importance of a particular activity; their understanding of how airplanes fly; their knowledge of the airport's operational characteristics, as well as by the actual noise levels, frequency of overflights, altitude of the aircraft, and terrain conditions.

One explanation for the annoyance of overflights is that they result from a combination of single-event noise impacts, coupled with an individual's concern that an aircraft accident could occur on his/her property. The frequency of aircraft overflights is thus an important measure of the impact. Terrain conditions have also been noted to affect the level of annoyance experienced in certain areas. High terrain, or canyon areas will intensify the noise of aircraft overflights. In determining the sensitivity of an area to aircraft overflights, consideration should be given to the frequency of overflights, the single-event noise levels of the aircraft, as well as the underlying terrain conditions.

Overflight impacts primarily affect residential and noise-sensitive land uses and are generally concentrated along the flight paths. They also occur, to a lesser degree, elsewhere in the airport vicinity where aircraft fly at or below traffic pattern altitude while departing or approaching the runway. Typical flight patterns for each airport are depicted in the assessment of airport impacts contained in Part III of this Plan (Chapters 5, 6, and 7).

### **Overflight Compatibility Concepts**

Preventing overflight impacts is often difficult because the area subject to overflights is large and it is impossible to predict precisely where in the area individuals will be sensitive. However, there is currently very limited residential or other noise-sensitive development in the vicinity of Napa County Airport and Parrett Field. This lack of significant amounts of existing noise-sensitive uses makes it possible for the ALUC's plan to offer significant protection to these airports, since the vicinities of these airports are not already filled with incompatible uses. It is for this reason that new residences and other sensitive uses are excluded from the traffic pattern, approach/departure, and runway protection zones.

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## **PART II**

### **Policies, Plans, and Criteria**



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# 3

## Policies

### 1 SCOPE OF REVIEW

#### 1.1 Geographic Area of Concern

The Airport Land Use Commission's planning area encompasses:

- 1.1.1 All lands on which the uses could be negatively affected by present or future aircraft operations at the following airports in the County. The specific limits of the planning area for each airport are depicted on the respective *Compatibility Map* for that airport as presented in Chapter 3.
  - (a) Napa County Airport
  - (b) Parrett Field
- 1.1.2 Those lands, regardless of their location in the County, on which the uses could adversely affect the safety of flight in the County. The specific uses of concern are identified in paragraph 1.2.
- 1.1.3 The site and environs of any proposed new airport or heliport anywhere in the County.

#### 1.2 Types of Airport Impacts

The Commission is concerned only with the potential impacts related to aircraft noise, land use safety (with respect both to people on the ground and the occupants of aircraft), airspace protection, and aircraft overflights. Other impacts sometimes created by airports (e.g., air pollution, automobile traffic, etc.) are beyond the scope of this plan. They are within the authority of other local, state, and federal agencies and addressed within the environmental review procedures for airport development.

### **1.3 Types of Actions Reviewed**

- 1.3.1 *General Plan Consistency Review* - The Commission shall review the local general plans and specific plans of the affected jurisdictions to determine consistency with the Airport Land Use Commission's policies within 180 days of adoption of the Airport Land Use Compatibility Plan. Until such time as the Commission finds that the local general plan or specific plan is consistent with the Airport Land Use Commission Plan; or the local agency has overruled the Commission's determination, all actions, regulations, and permits shall be referred to the Commission for a consistency determination (Section 21676.5 (a)).
- 1.3.2 *Statutory Requirements* - As required by state law, the following types of actions shall be referred to the Airport Land Use Commission for determination of consistency with the Commission's plan *prior to their approval* by the local jurisdiction:
- (a) The adoption or approval of any amendment to a general or specific plan affecting the Commission's geographic area of concern as indicated in paragraph 1.1 (Section 21676 (b)).
  - (b) The adoption or approval of a zoning ordinance or building regulation which (1) affects the Commission's geographic area of concern as indicated in paragraph 1.1 and (2) involves the types of airport impact concerns listed in paragraph 1.2 (Section 21676 (b)).
  - (c) Adoption or modification of the master plan for an existing public-use airport (Section 21676 (c)).
  - (d) Any proposal for a new airport or heliport whether for public or private use (Section 21661.5).
- 1.3.3 *Other Project Review* - Other types of actions which may involve a question of compatibility with airport activities should also be referred to the Airport Land Use Commission through voluntary agreements with the local government agencies (Section 21676.5 (b)). The Commission shall review the following types of actions:
- (a) Any proposed expansion of a city's or an urban service district's sphere of influence within an airport's planning area.
  - (b) Any proposed residential rezoning or planned unit development consisting of five or more dwelling units within an airport's planning area.
  - (c) Any request for variance from a local agency's height limitation ordinance within an airport's planning area.
  - (d) Any proposal for construction or alteration of a structure (including antennas) taller than 150 feet above the ground anywhere within the County.

- (e) Any major capital improvements (e.g., water, sewer, or roads) that would promote urban development.
- (f) Proposed land acquisition by a government entity (especially, acquisition of a school site).
- (g) Any other proposed land use action, as determined by the local planning agency, involving a question of compatibility with airport activities.
- (h) Any proposal requiring notification to the Federal Aviation Administration under Federal Aviation Regulations Part 77, Subchapter B, regardless of the location in the County.

## 1.4 Review Process

- 1.4.1 Proposed actions listed in paragraph 1.3.1 must be submitted to the Commission for review prior to approval by the local government entity. All projects should be referred to the Commission at the earliest reasonable point in time so that the Commission's review can be duly considered by the local jurisdiction prior to formalizing its actions.
- 1.4.2 When reviewing a land use proposal, the Airport Land Use Commission has a choice of either of two actions: (1) find the project *consistent* with the Airport Land Use Compatibility Plan; or (2) find the project *inconsistent* with the Plan. In making a finding of inconsistency, the Commission may note the conditions under which the project would be consistent with the Plan. The Commission cannot, however, find a project consistent with the Plan subject to the inclusion of certain conditions in the project.
- 1.4.3 Once a project has been found consistent with the Airport Land Use Compatibility Plan, it need not be referred for review at subsequent stages of the planning process (e.g., for a general plan amendment and again for a zoning change) unless: (1) major changes to the project are made during subsequent review and consideration by the local jurisdiction; or (2) the local jurisdiction agrees that further review is warranted.
- 1.4.4 The Airport Land Use Commission must respond to a local agency's request for a consistency determination on a project within 60 days of referral. If the Commission fails to make the determination within that period, the proposed action shall be deemed consistent with the Airport Land Use Compatibility Plan.
- 1.4.5 When reviewing airport master plans for existing airports, the Commission has three action choices:
  - (a) Find the airport master plan consistent with the Airport Land Use Compatibility Plan.
  - (b) Disapprove the airport master plan on the basis that it is inconsistent with the Commission's plan.

- (c) Modify the Airport Land Use Compatibility Plan (after duly noticed public hearing) to reflect the assumptions and proposals in the airport master plan.
- 1.4.6 When reviewing proposals for new airports or heliports, the Commission's choices of action are:
- (a) Approve the proposal as being consistent with the specific review policies listed in Section 2.3 below.
  - (b) Approve the proposal and adopt a Compatibility Plan for that facility. Adoption of such a plan is required if the airport or heliport will be a public-use facility.
  - (c) Disapprove the proposal on the basis that the noise and safety impacts it would have on surrounding land uses are not adequately mitigated.

## **2 PRIMARY REVIEW POLICIES**

### **2.1 Land Use Actions**

- 2.1.1 The compatibility of land uses in the vicinity of the airports covered by this plan shall primarily be evaluated in terms of: (1) the Compatibility Criteria (Table 2) and accompanying notes; (2) the Compatibility Plan for each airport; and (3) specific policies established for individual airports.
- 2.1.2 Additional evaluation criteria are provided in the Supporting Policies which follow (Section 3). The Commission may refer to these additional policies to clarify or supplement its review.
- 2.1.3 Where an *existing* incompatible development has been partially or fully destroyed, it may be rebuilt to a density and intensity not exceeding that of the original construction. This exception does not apply within the inner approach/departure zones (Compatibility Zones A and B).
- 2.1.4 Where substantial incompatible development already exists, additional infill development of similar land uses may be allowed to occur even if such land uses are to be prohibited elsewhere in the zone. This exception does not apply within the approach/departure corridors (Compatibility Zones A and B). Projects can be considered "infill" if they meet *all* of the following criteria:
  - (a) The Airport Land Use Commission has determined that "substantial development" already exists.
  - (b) The project site is surrounded by uses similar to those proposed.

- (c) The proposed project would not extend the perimeter of the area developed with incompatible uses.
  - (d) The proposal does not otherwise increase the intensity and/or incompatibility of use through use permits, density transfers or other strategy.
- 2.1.5 Local jurisdictions should identify infill areas when submitting their general plans and specific plans for a consistency determination by the Airport Land Use Commission.
- 2.1.6 Where a property is affected by more than one compatibility zone, the Commission shall endeavor to ensure that an equivalent degree of compatibility within each zone is maintained through site planning.
- (a) In order to make a consistency determination for areas located within 100 feet of an approach surface, proposed development plans and/or subdivision maps must depict the lot configurations, building envelopes, and approach surfaces. Proposal statements should identify potential uses allowable under the applicable general plan/zoning designations for determination of consistency with the density criteria contained in Table 3-2.
- 2.1.7 Referrals to the ALUC shall be in writing directed to: ALUC Executive Officer, Napa County Airport Land Use Commission, 1195 Third Street, Room 210, Napa, California 94559 and shall be accompanied by each of the following:
- (a) A cover letter describing the name of the local agency making the referral and the name, address, and telephone number of the contact person at the local agency;
  - (b) The specific section of the Public Utilities Code pursuant to which the matter is being referred to the ALUC for review;
  - (c) A statement that the ALUC's failure to act on the referral within 60 days of the date of receipt of the referral shall result in the proposed action being deemed consistent by operation of law;
  - (d) At least ten (10) copies of the plan, ordinance, or regulation being referred;
  - (e) A locally-generated mailing list with labels of the names and addresses of all persons who have participated in hearings held by the local agency on the referred plan, ordinance, or regulation; and
  - (f) An analysis prepared by or on behalf of the local planning agency which demonstrates consistency between the proposed plan, ordinance, or regulation being referred and the policies, standards, and criteria contained in the ALUC's adopted Airport Land Use Plan.
- 2.1.8 The ALUC shall not accept any plan, ordinance, or regulation for review until the referring local agency has held at least one substantive local hearing or other public meeting on the proposed matter. In the case of adoption or amendment of a general or specific plan, the

plan shall not be referred to the ALUC for review until the local planning commission has completed all hearings and rendered its final advisory decision on the plan. If a plan or any amendment thereto is referred to the ALUC prior to conclusion of the planning commission hearings and decision, the ALUC in its discretion may either reject the plan or any amendment thereto as premature or may preliminarily review the plan and issue preliminary comments provided, however, that the ALUC's preliminary review of a premature plan shall not be considered or construed as final action or a formal determination of consistency or inconsistency.

2.1.9 Referral to the ALUC shall occur prior to a local governing body's final action to adopt or intention to adopt the plan, ordinance, or regulation. In the event the local agency formalizes its intention to adopt, or adopts the plan, ordinance, or regulation that is already pending before the ALUC, the 60-day review period shall be deemed to commence as of the last date the local governing body took action on the plan, ordinance, or regulation.

2.1.10 A finding of consistency or inconsistency rendered by the ALUC shall apply only to that particular version of the plan, ordinance, or regulation referred to the ALUC. If the local planning commission or governing body proposes any revision to the plan, ordinance, or regulation, one copy of the revised plan, ordinance, or regulation shall be submitted to the ALUC for a determination as to whether re-referral is necessary. Re-referral pursuant to statute and this plan will be required for any change to the plan, ordinance, or regulation which affects whether the proposed action is consistent with the adopted ALUP.

## 2.2 Review of Airport Plans

2.2.1 When reviewing airport master plans, the Commission shall determine whether the activity forecasts or proposed facility development identified in the proposed master plan differs substantially from the forecasts and development assumed for that airport in the Airport Land Use Compatibility Plan. Attention should specifically focus on:

(a) Activity forecasts that are: (1) significantly higher than those in the Airport Land Use Compatibility Plan; or which (2) include a significantly higher proportion of larger or noisier aircraft.

(b) Proposals to: (1) construct a new runway or helicopter takeoff and landing area; (2) change the length, width, or landing threshold location of an existing runway; or (3) establish an instrument approach procedure.

2.2.2 The Commission shall determine whether the proposed airport master plan is consistent with the Airport Land Use Compatibility Plan. The Commission shall base their determination of consistency on findings that the forecasts and development of the airport would not result in greater noise, overflight, and safety impacts or height restrictions on surrounding land uses than are presently assumed in the Airport Land Use Compatibility Plan.

- (a) The Commission may determine that revision of the Airport Land Use Compatibility Plan is warranted based on their review of a proposed airport master plan. If the Commission finds that such a revision to the Airport Land Use Compatibility Plan should be initiated, then the Commission shall notify the local jurisdiction of this finding.

## **2.3 Plans for New Airports or Heliports**

- 2.3.1 In reviewing proposals for new airports and heliports, the Commission shall focus on the noise, safety, overflight, and height limit impacts upon surrounding land uses.
  - (a) Other types of environmental impacts (e.g., air quality, water quality, natural habitats, vehicle traffic, etc.) are not within the scope of review for the Commission.
  - (b) The Commission shall evaluate the adequacy of the facility design to the extent that it affects surrounding land use.
  - (c) The Commission shall base its review on the proposed airfield design.
- 2.3.2 The review shall examine the relationships between existing and planned land uses in the vicinity of the proposed airport or heliport and the impacts that the proposed facility would have upon these land uses. Questions to be considered should include:
  - (a) Would the existing or planned land uses be considered incompatible with the airport or heliport if the latter were already in existence?
  - (b) What measures are included in the airport or heliport proposal to mitigate the noise, safety, overflight, and height restriction impacts on surrounding land uses? Such measures might include: (1) location of flight tracks so as to minimize the impacts; (2) other operational procedures to minimize impacts; (3) acquisition of property interests (fee title or easements) on the impacted land.
- 2.3.3 When submitted to the Commission, a proposal for a new airport or heliport shall contain sufficient information to enable the Commission to adequately review the noise, safety, overflight, and height restriction impacts upon surrounding land uses. Information to be submitted shall include:
  - (a) A layout plan drawing of the proposed facility showing the location of: (1) property boundaries; (2) runways or helicopter takeoff and landing areas; and (3) runway protection zones or helicopter approach/departure zones.
  - (b) Airspace surfaces in accordance with Federal Aviation Regulations, Part 77.
  - (c) Activity forecasts, including the number of operations by each type of aircraft proposed to use the facility.

- (d) Noise contours or other relevant noise impact data.
- (e) A map showing existing and planned land uses in the vicinity of the proposed airport or heliport.
- (f) Identification and proposed mitigation of impacts on surrounding land uses.

### 3 SUPPORTING COMPATIBILITY POLICIES

#### 3.1 Noise

- 3.1.1 The evaluation of airport/land use noise compatibility shall consider the *future* Community Noise Equivalent Level (CNEL) contours of each airport. These contours are calculated based upon aircraft activity forecasts which are set forth in adopted airport master plans or which are considered by the Commission to be plausible (refer to Part II for noise exposure maps).
- 3.1.2 The locations of CNEL contours are one of the factors used to define compatibility zone boundaries and criteria. Noise compatibility criteria should be applied at the general plan or specific plan level. Because of the inherent variability of flight paths, the depicted contour boundaries are not absolute determinants of the compatibility or incompatibility of a given land use. For this reason, noise contours should **not** be used as site design criteria. Noise contours can only quantify noise impacts in a general manner. Site conditions, terrain, and actual flight patterns and frequency should also be evaluated.
- 3.1.3 The maximum CNEL considered normally acceptable for most residential uses in the vicinity of the airports covered by this plan is 55 dBA. This standard is appropriate for areas with low ambient noise levels. In areas with higher ambient noise levels, the maximum CNEL considered normally acceptable for residential uses shall be 60 dBA. Factors which determine whether to apply the higher standard include the presence of: major highways, large concentration of residences, or large-scale commercial and industrial uses.
- 3.1.4 Noise level standards for compatibility with other types of land uses shall be applied in the same manner as the above residential noise level criteria. Examples of acceptable noise levels for other land uses in an airport's vicinity are presented in Table 2 - 1.
- 3.1.5 The extent of outdoor activity associated with a particular land use is an important factor to be considered in evaluating its compatibility with airport noise. In most locations, noise level reduction measures are only effective in reducing interior noise levels. Also, source reduction measures implemented by airport authorities are not within the scope of this plan.
- 3.1.6 Single-event noise levels should be addressed when evaluating the compatibility of highly noise-sensitive land uses such as schools, libraries, and outdoor theaters. Single-event noise

levels are particularly important in areas which are regularly overflowed by aircraft, but which do not produce significant CNEL contours. Flight patterns for each airport (illustrated in Part II) should be considered in the review process for such uses. Noise attenuation measures may be required based upon the criteria contained in Appendix C.

## 3.2 Safety

- 3.2.1 The intent of land use safety compatibility criteria is to minimize the risks associated with an off-airport aircraft accident or emergency landing.
- (a) Risks both to people and property in the vicinity of an airport and to people on board the aircraft shall be considered.
  - (b) More stringent land use controls shall be applied to the areas with greater potential risk.
- 3.2.2 The principal means of reducing risks to people on the ground is to restrict land uses so as to limit the number of people permitted to occupy a given area. Methods for determining the concentration of people for various land uses is provided in Appendix D.
- (a) Greater restrictions shall be placed upon the number of people permitted in a building than upon the number within an open area because of the greater difficulty of evacuating a building in the event of its involvement in an aircraft accident.
- 3.2.3 Land uses of particular concern are ones in which the occupants have reduced effective mobility or are unable to respond to emergency situations. Schools, hospitals, nursing homes, and other uses in which the majority of occupants are children, the elderly, and the handicapped shall be prohibited within the approaches to an airport (Compatibility Zones A, B, and C). These types of uses should be carefully evaluated in Zone D to determine their proximity to traffic pattern, turning movements, and the frequency of overflights.
- 3.2.4 Any use involving the potential for aboveground explosion or the release of toxic or corrosive materials shall be prohibited in the approaches to an airport (Compatibility Zones A, B, and C).
- 3.2.5 In the event that an aircraft is forced to land away from an airport, the risks to people on board aircraft and damage to property can best be minimized by providing as much open land area as possible within the airport vicinity. This concept is based upon the fact that the large majority of aircraft accidents occurring away from an airport runway are controlled emergency landings in which the pilot has reasonable opportunity to select the landing site.
- (a) For purposes of this Plan, "open land" shall be defined as an area that is typically: (1) free of structures and other major obstacles such as walls, large trees, and overhead wires; and (2) have minimum dimensions of at least 75 feet wide, and at least 300 feet or more in length. Certain roads are acceptable as open land areas if they meet the preceding criteria.

- (b) The most critical areas for preserving open land are within the approach zones and beneath the traffic pattern (Zones A, B, C, and D). Within an airport's traffic areas, lands presently designated for open space uses (i.e., agricultural lands, golf courses, etc.) should be preserved as open land areas to the maximum extent feasible. The following criteria should be used to retain/preserve open land areas within proposed development.
  - (1) Within the approach/departure zones (Zones A, B, C and), buildings should be set back from the extended runway centerline to the maximum extent feasible.
  - (2) Within the traffic pattern areas (Zone D), open land areas at the periphery of the traffic pattern areas should be preserved.
- (c) Clustering of development and providing contiguous landscaped and parking areas is encouraged as a means of maximizing open land and providing continuity of open land areas between developments.
- (d) In order to establish the open land areas available in critical areas and make a consistency determination, building envelopes and the approach zones should be indicated on all development plans and subdivision maps for all proposed development within 100 feet of an approach zone.

### **3.3 Airspace Protection**

- 3.3.1 The criteria for limiting the height of structures, trees, and other objects in the vicinity of an airport shall be set in accordance with Part 77, Subpart C, of the Federal Aviation Regulations and with the United States Standard for Terminal Instrument Procedures (TERPS). Airspace plans for each airport which depict the critical areas for airspace protection are provided in Part III. TERPS height limitations are only applicable at Napa County Airport where an instrument approach has been established. The private airfield has only visual approaches.
- 3.3.2 Within the approaches to a public airport, the owner of any property proposed for development should be required to dedicate an aviation easement to the jurisdiction owning the airport. In the case of a private airport, a height-limit easement should be dedicated to the jurisdiction controlling the land use. Examples of these easements are provided in Appendix E.
  - (a) The aviation easement shall: (1) provide the right of flight in the airspace above the property; (2) allow the generation of noise and other impacts associated with aircraft overflight; (3) restrict the height of structures, trees, and other objects; (4) permit access to the property with proper notice for the removal or aeronautical marking of objects exceeding the established height limit; and (5) prohibit electrical interference, glare, and other potential hazards to flight from being created on the property.

- (b) Within the approach/departure zones, height restrictions of less than 35 feet may be required.
- 3.3.3 Other than within the approach/departure zones, (Compatibility Zones A, B, and C), height restrictions may allow up to 35 feet above the level of the ground on which they are located, or as similarly provided by local ordinance.
  - (a) In locations where the terrain, structure, or any object (including clearances over roads and railroads) penetrates Federal Aviation Regulations Part 77 surfaces, an avigation easement shall be required in accordance with Paragraph 3.3.2 which limits the height to 35 feet above the ground and enables the marking or lighting of any potential hazard to air navigation. Trees and other natural materials may exceed the height limitation provided that the avigation easement allows for removal, marking, or lighting of potential aircraft hazards.
- 3.3.4 Proponents of a project which may exceed a Part 77 surface must notify the Federal Aviation Administration as required by FAR Part 77, Subpart B, and by the California State Public Utilities Code Sections 21658 and 21659. (Notification to the Federal Aviation Administration under FAR Part 77, Subpart B, is required even for certain proposed construction that does not exceed the height limits allowed by Subpart C of the regulations. Refer to Appendix B for the specific Federal Aviation Administration notification requirements.)
  - (a) Local jurisdictions shall inform project proponents of the requirements for notification to the Federal Aviation Administration.
  - (b) The requirement for notification to the Federal Aviation Administration shall not necessarily trigger review of an individual project by the Airport Land Use Commission if the project is otherwise in conformance with the compatibility criteria established in the Airport Land Use Plan.
  - (c) Any project coming before the Airport Land Use Commission for reason of height-limit issues shall include a copy of FAR Part 77 notification to the Federal Aviation Administration.
- 3.3.5 Land uses which may produce hazards to aircraft in flight shall not be permitted within any airport's planning area. Specific characteristics to be avoided include: (1) glare or distracting lights which could be mistaken for airport lights; (2) sources of dust, steam, or smoke which may impair pilot visibility; (3) sources of electrical interference with aircraft communications or navigation; and (4) any use which may attract large flocks of birds, especially landfills and certain agricultural uses.

### **3.4 Overflight**

- 3.4.1 All locations within an airport's planning area are regarded as potentially subject to routine aircraft overflight. Although sensitivity to aircraft overflights varies from individual to individual, overflight sensitivity is particularly important with respect to residential land uses.
- (a) Local jurisdictions shall establish some method of providing notification to prospective buyers of new residential uses within an airport's planning area (all compatibility zones). Appropriate measures may include requiring the dedication of avigation or overflight easements, deed noticing, or real estate disclosure statements. Regardless of the method chosen, the notification shall: (1) note that the property is subject to routine overflight by aircraft at low altitudes; and (2) provide positive assurance that a prospective buyer has received this information. Refer to Appendix E for sample easements and deed notices.
  - (b) Local jurisdictions are encouraged to extend the above or similar buyer awareness program to existing residential uses within the airport planning areas.
- 3.4.2 The compatibility of uses in the airport planning areas shall be preserved to the maximum feasible extent. There is presently a high degree of land use compatibility among the existing and planned land uses in the vicinity of airports within Napa County, primarily because no residential land uses are designated within the traffic areas. The proposed conversion of land to residential use within any airport's traffic area (Compatibility Zones A, B, C, and D) shall be deemed inconsistent with this Airport Land Use Compatibility Plan.
- 3.4.3 The conversion of land **designated** for agricultural use (in respective general plans) to residential use beneath the common flight paths shall be discouraged. Consideration should be given to specific terrain conditions and actual flight patterns in determining the compatibility of proposed uses in these areas. Clustering of development away from common flight paths is encouraged.

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Table 3-1

### Compatibility Zone Definitions

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- ZONE A** Runway Protection Zone: Dimensioned to encompass the future Runway Protection Zones of the respective runways for each airport as presented on the Airport Layout Plans contained in Part III of this document. Also includes areas lateral to the runway. These areas are regularly overflown by aircraft below 50 feet above the ground. For this reason, these areas are considered high risk with regard to accident potential and any structures, buildings, trees or obstacles may create a flight hazard. These areas are also affected by high noise levels.
- ZONE B** Approach/Departure Zone: This zone is defined as the areas where aircraft will be below 100 feet above ground level as determined by the type of approach anticipated for that runway in the future. Future approach slopes are designated on the respective Airport Layout Plans and Airspace Plans for each airport in Part III. These areas are affected by substantial risk of accident potential due to the frequency of overflights at low altitudes. Noise levels are generally high with frequent loud single-events.
- ZONE C** Extended Approach/Departure Zone: This zone is defined as the area where aircraft will be below 300 feet above ground level as determined by the type of approach. The low altitude of aircraft in these areas indicates moderate to high risk of accident potential. Properties in this zone will be affected by substantial noise.
- ZONE D** Common Traffic Pattern: This area is defined by the flight pattern for each airport and illustrated in the respective "Airport Impact Areas" figures contained in Part III. These areas are routinely overflown by aircraft operating to and from the airport with frequent single-event noise intrusion. Overflights in these areas can range from near the traffic pattern altitude (about 1,000 feet above the ground) to as low as 300 feet above the ground. Accident risk varies from low to moderate. Areas where aircraft are near pattern altitude (e.g., downwind leg) have the lowest risk. In areas where aircraft are at lower altitudes (especially on circle-to-land instrument approaches) a moderate level of risk exists.
- ZONE E** Other Airport Environs: An airport's influence area often extends beyond the typically defined compatibility zones during busy traffic hours and when larger aircraft are in the pattern. Aircraft overflights can occur anywhere in these areas when aircraft are departing or approaching an airport. Overflight annoyance is the primary impact element in these areas. The risk of accident is very low.

ZONE	LOCATION	IMPACT ELEMENTS	MAXIMUM DENSITIES <sup>8</sup>		
			Residential <sup>1</sup>	Other Uses (people/ac) <sup>2</sup>	
				In Structures	Total in and out of Structures
A <sup>9</sup>	Runway Protection Zone and Primary Surface	- High risk - High noise levels - Low overflights below 50' AGL	0	0	10
B	Inner Approach/Departure Zone	- Substantial risk - High noise levels - Low overflights below 100' AGL	0	10	25
C	Approach/Departure Zone	- Moderate risk - Substantial noise - Low overflight below 300' AGL	0	50	75
D	Common Traffic Pattern	- Moderate risk - Frequent noise intrusion - Routine overflights below 1,000' AGL	0	100	150
E	Other Airport Environs	- Low risk - Overflight annoyance	See Note 7		

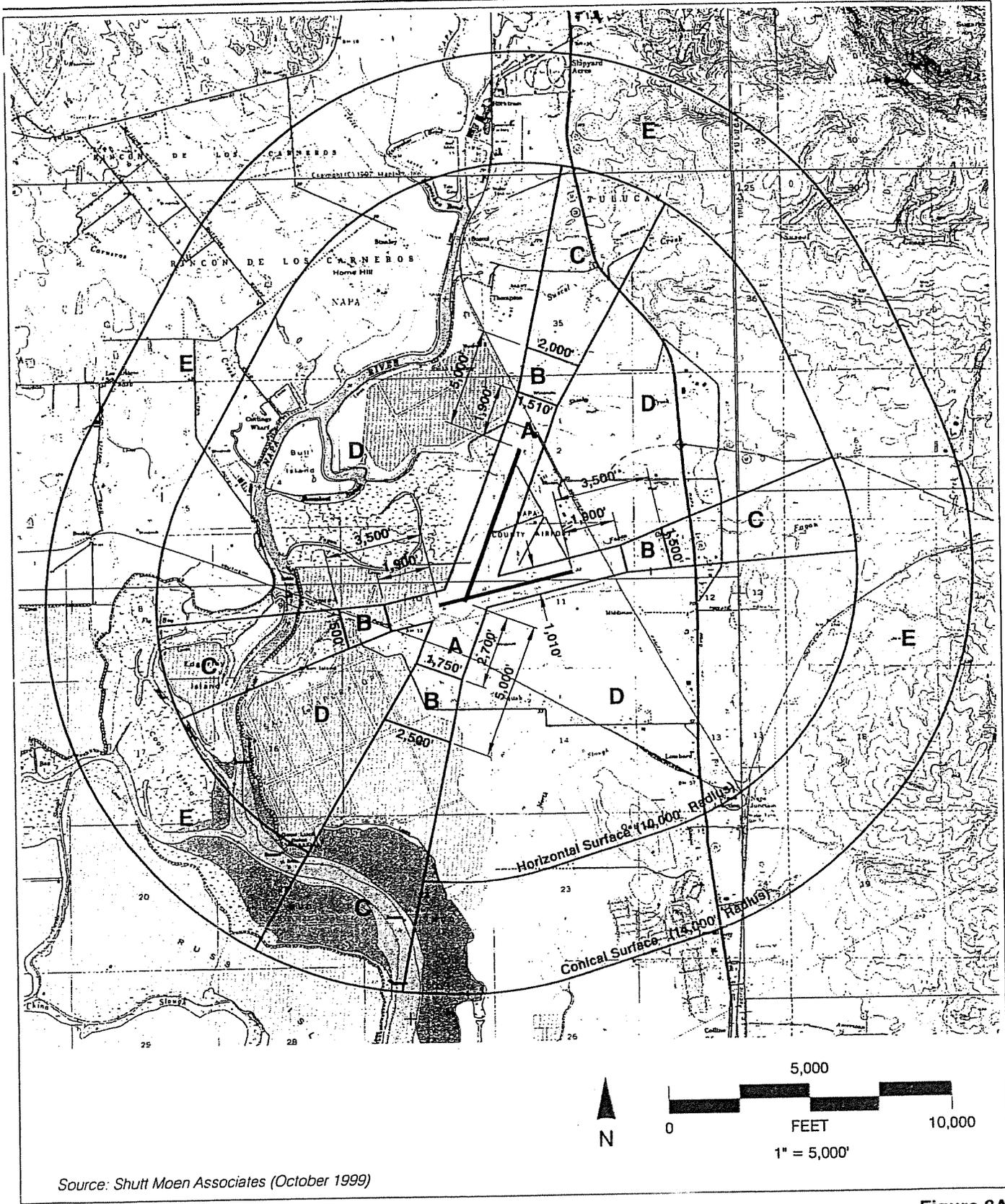
- Residential land use and zoning designations are considered incompatible uses within the traffic pattern area (Zones A, B, C, and D) where aircraft overflights are frequent and at low altitude. The residential restrictions do not apply to residential uses allowable under agricultural land use and zoning designations.
- The use should not attract more than the indicated number of persons per net acre. Net acreage is the total site area inclusive of parking areas and landscaping, less the area dedicated for streets. These densities are intended as general planning guidelines to aid in determining the acceptability of proposed land uses. Clustering of development within the density parameters should be encouraged to protect and provide open land/safety areas. However, in Zones A, B, and C the density on any one acre of a parcel should not exceed twice the indicated number of people per acre.
- Dedication of an avigation or overflight easement or deed notice is required as a condition for new development within all zones. Also, height limit restrictions are applicable to structures and trees in all zones in accordance with Federal Aviation Regulation Part 77 and local ordinances. Uses which may be hazardous to flight are prohibited in all zones.
- These uses typically can be designed to meet the density requirements and other development conditions listed.
- These uses typically do not meet the density requirements and other development conditions listed. They should be allowed only if a major community objective is served by their location in this zone and if mitigation measures (i.e., noise attenuation) are incorporated that will minimize potential conflicts.
- NLR = Noise Level Reduction; i.e., the attenuation of sound level from outside to inside provided by the structure. Noise level reduction measures may be required in areas with high single-event noise levels and where noise-sensitive users (schools, libraries, etc.) are proposed. Refer to Appendix C for criteria and noise attenuation measures.
- Maximum residential densities in accordance with local adopted General Plans and zoning designations. Consideration should be given to the proximity of flight patterns, frequency of overflight, terrain conditions, and type of aircraft in determining acceptable location of residential uses. Referral to the ALUC for review of development plans prior to approval is recommended.
- The purpose of these criteria is to provide a basis for determining those land uses which are compatible with airport activities. Specific land uses will be allowed only if they are also consistent with applicable General Plan policies and zoning ordinances.
- All lands in Zone A are either within the Airport's boundaries or designated for acquisition in the Airport Master Plan.
- Includes objects that penetrate FAR Part 77 surfaces, uses that would attract large numbers of birds (e.g., landfills), and uses that would create smoke, glare, distracting lights, or electronic interference.
- Avigation easements will be required in lieu of overflight easements or deed notices where there is an appropriate public agency to review them.

Table 3-2

## Airport Vicinity Land Use Compatibility Criteria Napa County Airport

ZONE	PROHIBITED USES	OTHER DEVELOPMENT <sup>3</sup> CONDITIONS	EXAMPLES OF NORMALLY ACCEPTABLE USES <sup>4</sup>	EXAMPLES OF USES NOT NORMALLY ACCEPTABLE <sup>5</sup>
A	<ul style="list-style-type: none"> <li>- All residential uses</li> <li>- Any assemblage of people</li> <li>- Any new structure which exceeds height limits</li> <li>- Noise sensitive uses</li> <li>- Uses hazardous to flight<sup>10</sup></li> </ul>	<ul style="list-style-type: none"> <li>- Avigation easement required</li> </ul>	<ul style="list-style-type: none"> <li>- Pasture, open space</li> <li>- Aircraft tiedowns</li> <li>- Auto parking</li> <li>- Most agricultural uses</li> </ul>	<ul style="list-style-type: none"> <li>- Heavy poles, signs, large trees, etc.</li> <li>- Ponds</li> </ul>
B	<ul style="list-style-type: none"> <li>- All residential uses</li> <li>- Any noise-sensitive uses</li> <li>- Schools, libraries, hospitals, nursing homes, daycare centers</li> <li>- Uses hazardous to flight<sup>10</sup></li> </ul>	<ul style="list-style-type: none"> <li>- Avigation easement required</li> <li>- Structures to be as far as possible from extended runway centerline</li> <li>- Clustering is encouraged to maximize open land areas</li> <li>- Minimum NLR of 25 dBA in office buildings<sup>6</sup></li> <li>- Building envelopes and approach surfaces required on all subdivision maps and development plans</li> </ul>	<ul style="list-style-type: none"> <li>- All uses from Zone A</li> <li>- Parks with low-intensity uses, golf courses</li> <li>- Nurseries</li> <li>- Mini-storage</li> </ul>	<ul style="list-style-type: none"> <li>- Retail uses</li> <li>- Office uses (except as accessory uses)</li> <li>- Hotels, motels, resorts</li> <li>- Theaters, assembly halls, and conference centers</li> <li>- Ponds</li> </ul>
C	<ul style="list-style-type: none"> <li>- All residential uses</li> <li>- Schools, libraries, hospitals, nursing homes, daycare centers</li> <li>- Uses hazardous to flight<sup>10</sup></li> </ul>	<ul style="list-style-type: none"> <li>- Avigation easement required</li> <li>- Structures to be set back as far as possible from extended centerline</li> <li>- Clustering is encouraged to maximize open land areas</li> <li>- Building envelopes and approach surfaces required on all subdivision maps</li> <li>- NLR measures may be required for noise-sensitive uses (offices)</li> </ul>	<ul style="list-style-type: none"> <li>- All uses from Zone B</li> <li>- Warehousing and low-intensity light industrial</li> <li>- Small retail uses</li> <li>- Outdoor recreation uses; marina, ball-park</li> <li>- Office uses</li> </ul>	<ul style="list-style-type: none"> <li>- Large retail buildings</li> <li>- Hotels, motels, resorts, health club</li> <li>- Restaurants, bars</li> <li>- Multi-story buildings</li> <li>- Theaters, assembly halls, and conference centers</li> <li>- Ponds</li> </ul>
D	<ul style="list-style-type: none"> <li>- All residential uses</li> <li>- Uses hazardous to flight<sup>10</sup></li> </ul>	<ul style="list-style-type: none"> <li>- Overflight easement or deed notice required<sup>11</sup></li> <li>- Building envelopes and approach surfaces required on all development plans within 100' of approach zones</li> <li>- Clustering is encouraged to maximize open land areas</li> <li>- NLR measures may be required for noise-sensitive uses<sup>6</sup></li> </ul>	<ul style="list-style-type: none"> <li>- All uses from Zone C</li> <li>- Most non-residential uses</li> <li>- Accessory day care centers</li> </ul>	<ul style="list-style-type: none"> <li>- Schools, libraries, hospitals, nursing homes</li> <li>- Large shopping malls</li> <li>- Amphitheaters</li> <li>- Ponds</li> </ul>
E	<ul style="list-style-type: none"> <li>- Noise-sensitive outdoor uses</li> </ul>	<ul style="list-style-type: none"> <li>- Overflight easement or deed notice required<sup>11</sup></li> </ul>	<ul style="list-style-type: none"> <li>- Any permitted use</li> </ul>	<ul style="list-style-type: none"> <li>- Amphitheaters</li> <li>- Landfills</li> <li>- Ponds</li> </ul>

Table 3-2, Continued



Source: Shutt Moen Associates (October 1999)

Figure 3A

### Compatibility Plan Napa County Airport

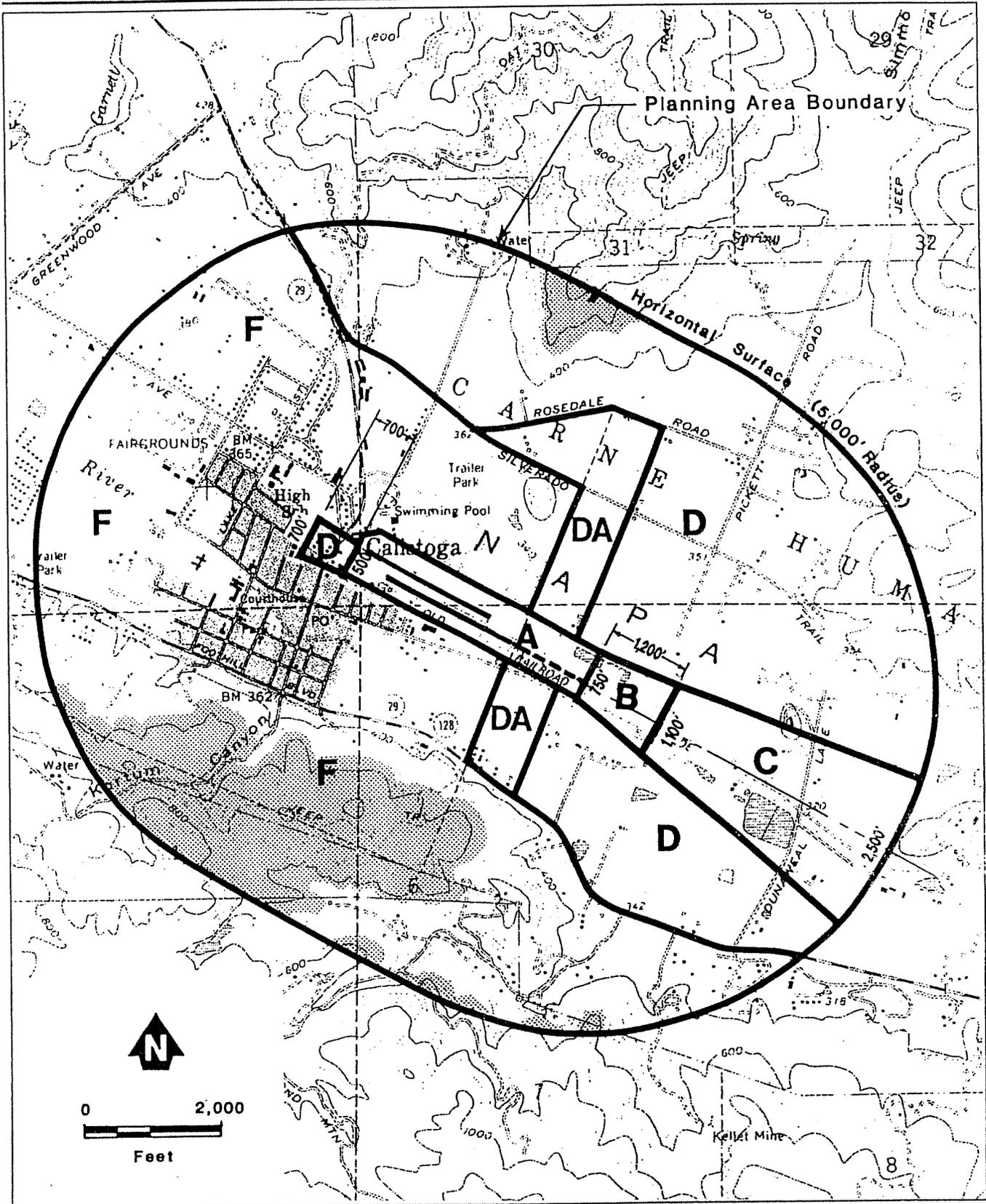


Figure 3B

**Compatibility Plan**  
Calistoga Gilderport

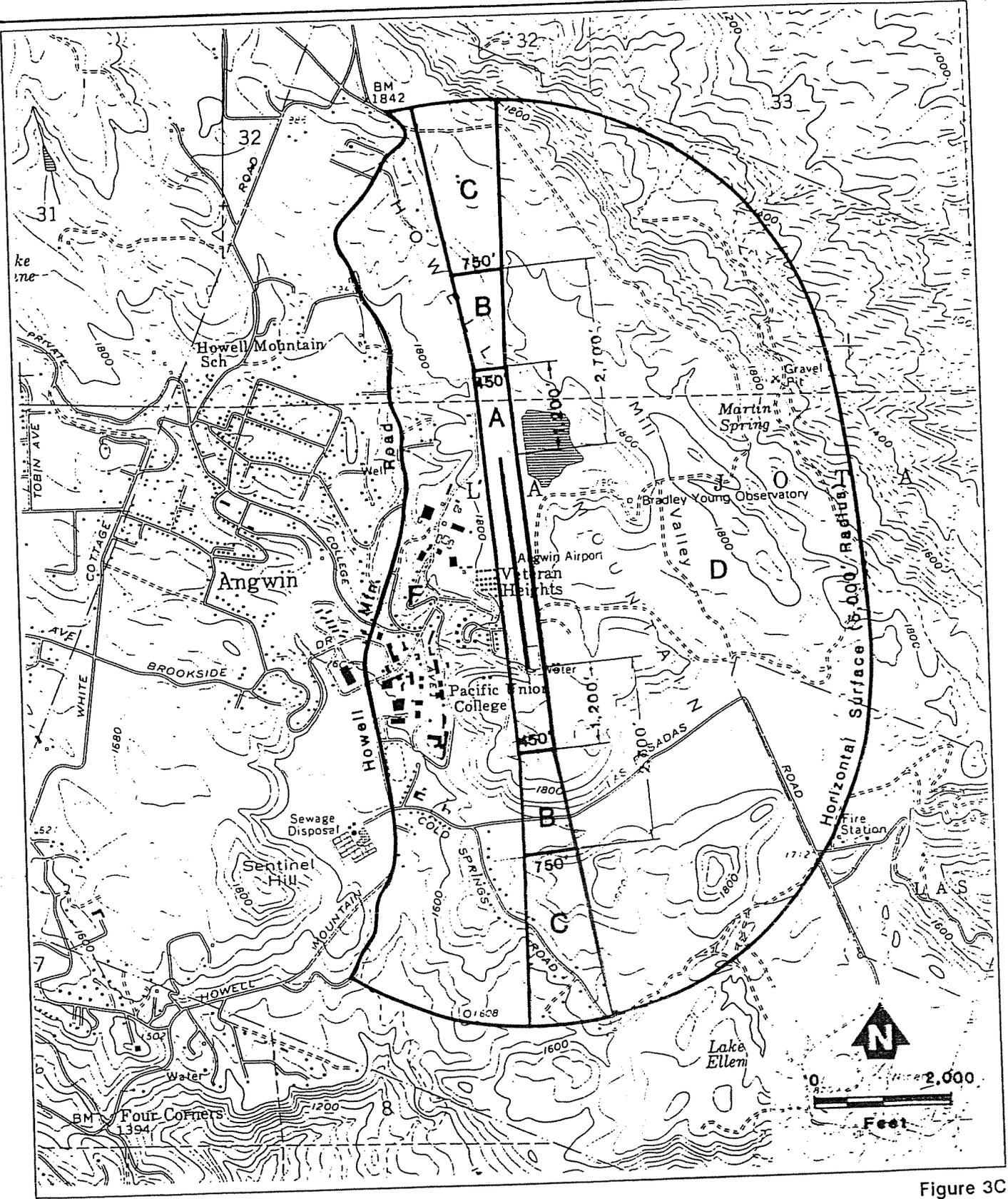
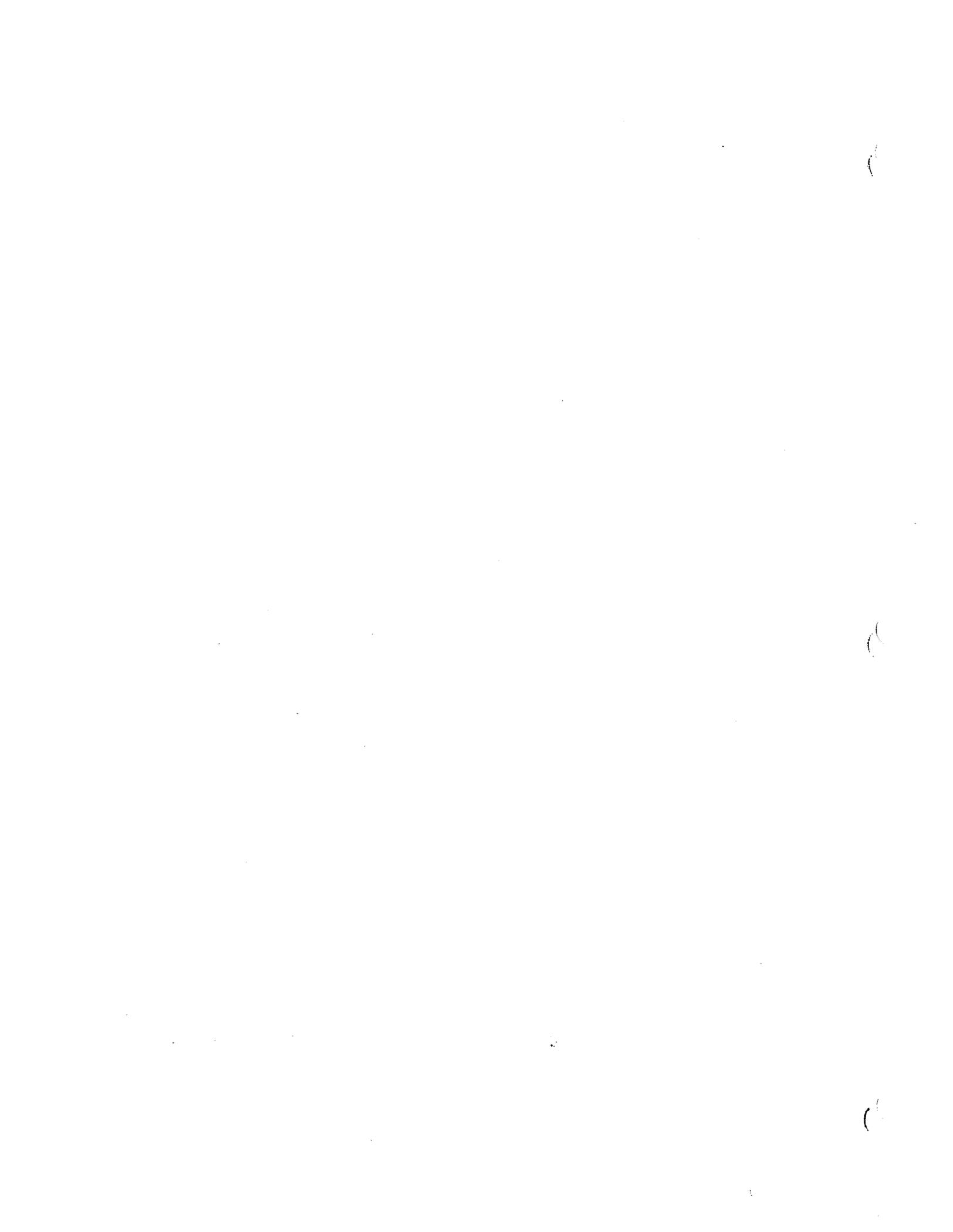


Figure 3C

Compatibility Plan  
Parrett Field



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# 4

## Implementation Strategies

Local land use plans, ordinances, and policies are the principal means used to ensure land use compatibility in the vicinity of an airport. This section discusses the various types of land use control measures available to the local jurisdictions in implementing the policies of the Airport Land Use Compatibility Plan.

### NOISE AND SAFETY

#### Land Use Policies

Local general plans and specific plans should include goals and policies to promote land use compatibility within an airport's vicinity. In addition, an airport combining zone is recommended to implement the policies and further guide the type and intensity of development in an airport's planning area. For a consistency determination, affected jurisdictions should incorporate specific policies addressing compatibility concerns in their respective General Plans which reflect the ALUC's compatibility plans, policies, and criteria. Specific policies addressing the following issues should be clearly referenced in the General Plan:

- Policies which recognize the role of the ALUC, the Airport's Planning/Referral Area and the type of actions to be referred for ALUC review.
- Policies regarding airspace protection which specify the height-limits in accordance with FAR Part 77 and which clarify the use of aviation easements within the approaches and in areas where terrain may penetrate the airspace.
- Policies which prohibit certain land uses which pose greater risks (i.e., low mobility, noise sensitivity) or may produce flight hazards.
- Policies which apply the maximum density criteria to development in the Airport's vicinity. Approach surfaces should be indicated on all development plans.
- Policies which ensure that open land is preserved in critical areas, such as requiring building envelopes, contiguous parking and landscaped areas, and larger setbacks from certain geographic features (i.e., creeks, roads etc).

- Policies with regard to overflight impacts and the need to prevent encroachment of residential uses into the Airport's traffic area.
- Policies requiring the dedication of overflight easements and/or deed notices for all residential uses within an airport's planning referral area.

### **Land Use Designations**

The designation of land uses consistent with the Airport Land Use Commission's policies is the primary means of assuring airport land use compatibility. The adoption of appropriate land use designations within the various impact zones should minimize the public's exposure and risks associated with airport activities (e.g., limiting and/or prohibiting residential uses and other noise-sensitive land uses in an airport's vicinity). However, for airport compatibility planning, land use designations as the only form of land use control has important limitations:

- **Non-aviation Orientation** – The basic land use categories employed throughout the community do not address the specific issues of compatibility with airport activities. Additional conditions need to be established to assure that land uses normally compatible within an airport's vicinity do not include incompatible characteristics.
- **Ease of Change** – Nothing permanently locks in a land use designation. If pressured by landowners to allow less restricted development, future local legislative bodies can change the established designations. Such changes especially occur if the land changes jurisdiction (e.g., as a result of annexation). However, proposed land use changes must be reviewed by the ALUC for consistency and specific findings are required in order for local jurisdictions to override the ALUC determination.
- **Restrictiveness** – Land use designations must not eliminate all reasonable economic use of private property without being considered an unfair taking. Other methods of land use control, such as the acquisition of land, purchase of development rights, or restrictive easements may also be needed to achieve the desired degree of land use control.

### **Noise Compatibility Standards**

In order to limit the public's exposure to excessive noise impacts, each jurisdiction has adopted noise compatibility guidelines for various land uses. These guidelines are contained in the noise element of the general plans for each jurisdiction. The guidelines establish criteria for both exterior noise exposure levels and interior noise levels and must include an evaluation of airport noise. The adopted noise standards should be consistent with ALUC policies but may be more restrictive than those indicated in the Airport Land Use Compatibility Plan.

State law requires each element of the general plan to be consistent. Thus, the land use designations must reflect the adopted noise standards for each jurisdiction. State law requires a finding of consistency with the adopted general plan for project approval. These existing land use control measures have been principally used to ensure land use compatibility throughout the community.

## Development Restrictions

Development restrictions with regard to population density, building coverage, building height, and noise insulation measures are often used by local governments to ensure land use compatibility with airports. These restrictions can be implemented by:

- The adoption of specific policies in the local general plan, specific plan, or area plan.
- The adoption of a local ordinance establishing an airport combining zone for a specific area.
- The establishment of restrictions and/or conditions upon the approval of a specific project.

The land use policies and compatibility criteria contained in the Airport Land Use Compatibility Plan are designed so that local jurisdictions can incorporate appropriate policies and establish reasonable conditions on the approval of developments in an airport's vicinity.

Projects should meet the maximum densities specified in the Compatibility Criteria. Other development conditions which may be appropriate include:

- The establishment of height-limitations through the dedication of aviation easements within the approach/departure zones and where existing terrain may penetrate the airspace defined by federal regulations.
- The dedication of overflight easements and/or deed notices for residential uses within an airport's planning area.
- Prohibit certain uses which may be hazardous to flight or which pose greater risk or sensitivity to airport activities.
- Establishment of maximum lot coverage and appropriate setbacks to insure open land is preserved in critical areas.
- Designation of building envelopes and approach/departure surfaces on proposed development plans within the approaches to determine the amount and configuration of open land in these critical areas.

## Airport Combining Zone

The recommended method for implementation of this Compatibility Plan is the establishment of an airport combining or overlay zone. The basic concept of a combining zone is to establish requirements in addition to those of the underlying land use district. The principal zoning classification continues to define most of the use and site design parameters. The combining zone then serves to modify the primary classification in a few, very specific ways. The specific modifications should include limitations on building height, lot coverage, population density, and flight hazards (smoke, glare, electrical interference, etc.), as well as provisions for site design criteria and buyer notification.

There are several benefits to using an airport combining zone. A combining zone provides a mechanism for implementation of restrictions and conditions that may apply to only a few types of land uses within a given land use category or zoning district. It permits the continued utilization of the majority of the design and use guidelines contained in the existing zoning code. This avoids the need for a large number of discrete new zoning districts in an airport's vicinity. It also enables the local jurisdictions to use the performance standards provided in the Airport Land Use Compatibility Plan directly, rather than redefining the existing zoning code. In addition, zoning is a commonly disclosed source of information for prospective buyers and can be utilized as an element of a comprehensive buyer awareness program.

## **OBSTRUCTIONS AND HAZARDS TO FLIGHT**

### **FAA Notification and Referral**

Project proponents must be informed of the notification and filing requirements of Federal Aviation Regulation Part 77, Subpart B (refer to Appendix B). Notice to the FAA using Form 7460-1, "Notice of Proposed Construction or Alteration" should be filed for any proposed structure which would penetrate imaginary slopes extending from the nearest point of an airport's runway. The slope of the imaginary surface and the radius of the referral area are specified in relation to the length of the runway. This referral requirement differs substantially from the height-limitations also specified under Part 77.

The purpose of the FAA referral would be to determine if the proposed construction would constitute a potential hazard or obstruction to flight. Proposed structures in developed areas that would be shielded by existing structures or by natural terrain of equal or greater height, where it is obvious that the proposal would not adversely affect air safety, do not require FAA referral.

### **Height Limitation and Safety Ordinance**

As a means of implementing the height restrictions of Federal Aviation Regulations Part 77, a height limitation ordinance is appropriate. The purpose of the ordinance would be to prevent the creation of flight hazards and obstructions in order to protect the utility of the airport. The ordinance will generally define the minimum slopes for the approaches to each runway and the various imaginary surfaces which establish the maximum height of objects in the airport's vicinity.

Provisions in the ordinance should also prohibit/limit the creation of other hazards to air navigation, such as the production of excessive smoke, glare, light, and electrical interference and uses which may attract birds, such as landfills.

### **Easements**

The use of easements is another land use control measure available to local jurisdictions. Easements have historically been used to establish height limitations, prevent flight hazards, as well as ensure that prospec-

tive buyers are notified of potential overflights. The dedication of an easement is generally required as a condition of development approval or other land use entitlement. An easement will only apply to the specific property to which it is attached and is binding on all subsequent owners. There are three types of easements generally associated with compatibility planning.

- **Height-limit easements** are often required as a condition of approval for projects that are within an airport's approach/departure zone or other areas where height restrictions are of critical concern (i.e., areas where high terrain is close to or penetrates Part 77 imaginary surfaces). The advantage of an easement is that it generally conveys the right to enter the property and remove, mark, or light any potential obstructions. Height-limit easements also include provisions which prohibit other flight hazards, such as excessive smoke, glare, electrical interference, and uses which may attract birds.
- **Overflight easements** simply establish a right-of-way through the airspace over the property. The right to subject the property to noise, vibration, fumes, dust, and fuel emissions associated with airport activities is generally included. One limitation of overflight easements is that they do not address flight hazards or obstructions. They are generally used in areas that are subject to aircraft overflights where height limitations and safety are not significant concerns.
- **Avigation easements** are generally broader in scope than either height-limits easement or overflight easements in that they include both provisions enabling access to the property to remove, mark, or light potential obstructions or flight hazards and the right of overflight. The dedication of an avigation easement is often required by local jurisdictions as a condition of approval for development of property where noise, safety, or potential flight hazards are significant concerns.

Although the rights associated with most avigation easements may be established in other forms (e.g., Federal Aviation Regulations and height-limit zoning), an avigation easement clearly conveys these rights to the airport owner. It also serves to notify all future owners of affected property of the airport's influence and specific restrictions. An avigation easement normally conveys the following rights and restrictions:

- A right-of-way for free and unobstructed passage of aircraft through the airspace over the property at any altitude above a surface specified in the easement (set in accordance with Federal Aviation Regulations Part 77 and/or criteria for terminal instrument approaches).
- A right to subject the property to noise, vibration, fumes, dust, and fuel particle emissions associated with normal airport activity.
- Prohibits the construction or growth of any structure, tree, or other object that would enter the acquired airspace.
- A right-of-entry onto the property, with appropriate advance notice, for the purpose of removing, marking, or lighting any structure or other object that enters the acquired airspace.
- Prohibit electrical interference, glare, misleading light sources, visual impairments, and other hazards to aircraft from being created on the property.

## **OVERFLIGHTS**

### **Buyer Awareness Programs**

The objective of a buyer awareness program is to ensure that the prospective buyers of property in the vicinity of an airport are informed about the airport's potential overflight impacts. Buyer awareness measures are intended to enable people who are particularly sensitive to aircraft overflights to avoid moving to the principally affected areas. Generally, there are three types of measures that can be utilized to establish a buyer awareness program: overflight easements, deed notices, and real estate disclosure statements.

### **Overflight Easements**

Overflight easements as described above are generally used as a condition of approval for residential land uses in areas subject to aircraft overflights. The primary purpose of an overflight easement is not to protect the airspace, but rather to notify prospective buyers of the overflights.

### **Deed Noticing**

Deed noticing is similar to an overflight easement in that it is attached to the title to a specific property. The distinguishing difference between a deed notice and an overflight easement is that the deed notice only serves as a disclosure of potential overflights, whereas an easement conveys a "right-of-way" to the airspace over a property. The filing of deed notices is recommended as a condition of approval for new residential uses within the planning areas of the privately owned airports in the County. A sample of language for deed noticing is included in Appendix E.

### **Real Estate Disclosure Statements**

A more comprehensive form of buyer awareness program is to require the disclosure of information about an airport's influence area along to prospective buyers of property prior to the transfer of title. The advantage of this type of program is that it applies equally to all properties, including existing land uses.

This type of buyer awareness program could be implemented through the adoption of a local ordinance requiring real estate disclosure upon the transfer of title or established in conjunction with the adoption of an airport combining zone. Notification describing the zone and discussing its significance could be formally sent to all local real estate brokers and title companies. Having received this information, the brokers would be obligated by state law to pass it along to prospective buyers.

**PART III**

**Airport Plans and Impact Assessment**

(1)

(1)

(1)

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# 5

## Napa County Airport Plans and Impact Assessment

### NAPA COUNTY AIRPORT

#### Setting

Napa County Airport is situated at the southern entrance to Napa Valley near the intersection of State Highway 29 and State Highway 12, approximately 2 miles south of the City of Napa and 3 miles north of the City of Vallejo and the Solano County Line.

Most of the land surrounding the Airport is, as yet, undeveloped, providing a high degree of land use compatibility between the Airport and its environs. The Airport is bounded on the west by marshland of the Napa River, and on east by the Southern Pacific Railroad. Other uses adjoining the Airport include the salt evaporation ponds to the south and west, and the Napa Sanitation District's lands used for storage and irrigation of wastewater to the north.

Existing urban development in the area includes scattered industrial and commercial uses located along State Highway 29, Tower Road, and Green Island Road. The nearest residential development includes an estimated 150 homes along the west bank of the Napa River located directly west of the airfield. Other residential land uses are concentrated in the unincorporated American Canyon area located approximately two miles south of the Airport. A description of the he Airport's environs are is summarized in Table 5 - 1.

#### Affected Jurisdictions

Land within the Airport's influence area falls under the jurisdiction of two local agencies: the County of Napa and the City of Napa. Figure 5A illustrates the jurisdictional boundaries and respective land use designations in the Airport's vicinity.

Table 5-1  
**Airport Environs**  
 Napa County Airport

**AIRPORT LOCATION AND ACCESS**

- Located south of the City of Napa approximately 1 mile from the city limits.
- Situated 2 miles north of the unincorporated community of American Canyon.
- Access 1 mile west on Airport Road from the intersection of State Highways 12 and 29.
- Airport property and adjoining lands within the jurisdiction of the County.
- Southern Pacific Railroad adjoins Airport on the east and traverses Airport property to the south.
- Airport property adjoins Green Island Road to the south.

**LOCAL LAND USE PLANS AND ZONING**

- *Napa County General Plan* adopted 1983
- *Napa County Airport Industrial Area Specific Plan* adopted 1986
- *City of Napa General Plan*
- City sphere of influence extends within 1 mile northwest of Airport.
- *Napa Valley Corporate Park Specific Plan* 1983.

**PLANNED LAND USE DEVELOPMENT IN AIRPORT AREA**

- Future industrial business park planned for adjoining areas north, east and south.
- Potential mixed use planned development for area northwest of airport within the City of Napa.
- Agricultural and open space uses designated at periphery of planning area.

**ESTABLISHED APPROACH PROTECTION MEASURES**

- Airport owns fee title or has established easements over the majority land within runway protection zones.
- *Napa County Airport Safety Ordinance* establishes height limitations and prohibits flight hazards in the airport planning area.
- Standard aviation easement is required for development approval on all projects within the airport planning area.
- Airport Master Plan recommends acquisition of additional lands/easements for approach protection.

**EXISTING AIRPORT AREA LAND USES**

**General Character**

- Airport is situated in a developing industrial/business park area
- Surrounded by predominantly agricultural and industrial uses.
- Airport property is bounded on the west by tidal salt evaporation ponds, marsh and the Napa River.
- Napa Sanitation District lands adjoins Airport to the north.
- Scattered industrial uses to the east and south

**Runway Approaches**

- Runway 18R and 18L (north) Approaches – Sewage treatment plant and irrigation lands close-in; industrial uses within two miles.
- Runway 24 (east) Approach – Industrial uses located within one mile of runway end; Chardonnay Golf Course located beneath the outer approach
- Runway 36L and 36 R (south) Approaches – Scattered industrial uses located close-in; salt evaporation ponds, Napa River and baylands beyond.
- Runway 6 (west) Approach – Salt evaporation ponds, Napa River and residential uses along the west bank of the Napa River.

**Traffic Patterns**

- Traffic patterns located on east, west and south sides of the airfield.
- Residential uses along Napa River and undeveloped land within the City of Napa located beneath westside traffic pattern to primary runway 18R-36L.
- Developing business park, industrial uses and sanitation district lands lie beneath the eastside traffic pattern to the general aviation runway.
- Predominantly undeveloped lands and scattered industrial uses to the south along Green Island Road, designated for future industrial park lie beneath the traffic pattern for the crosswind runway 6-24.

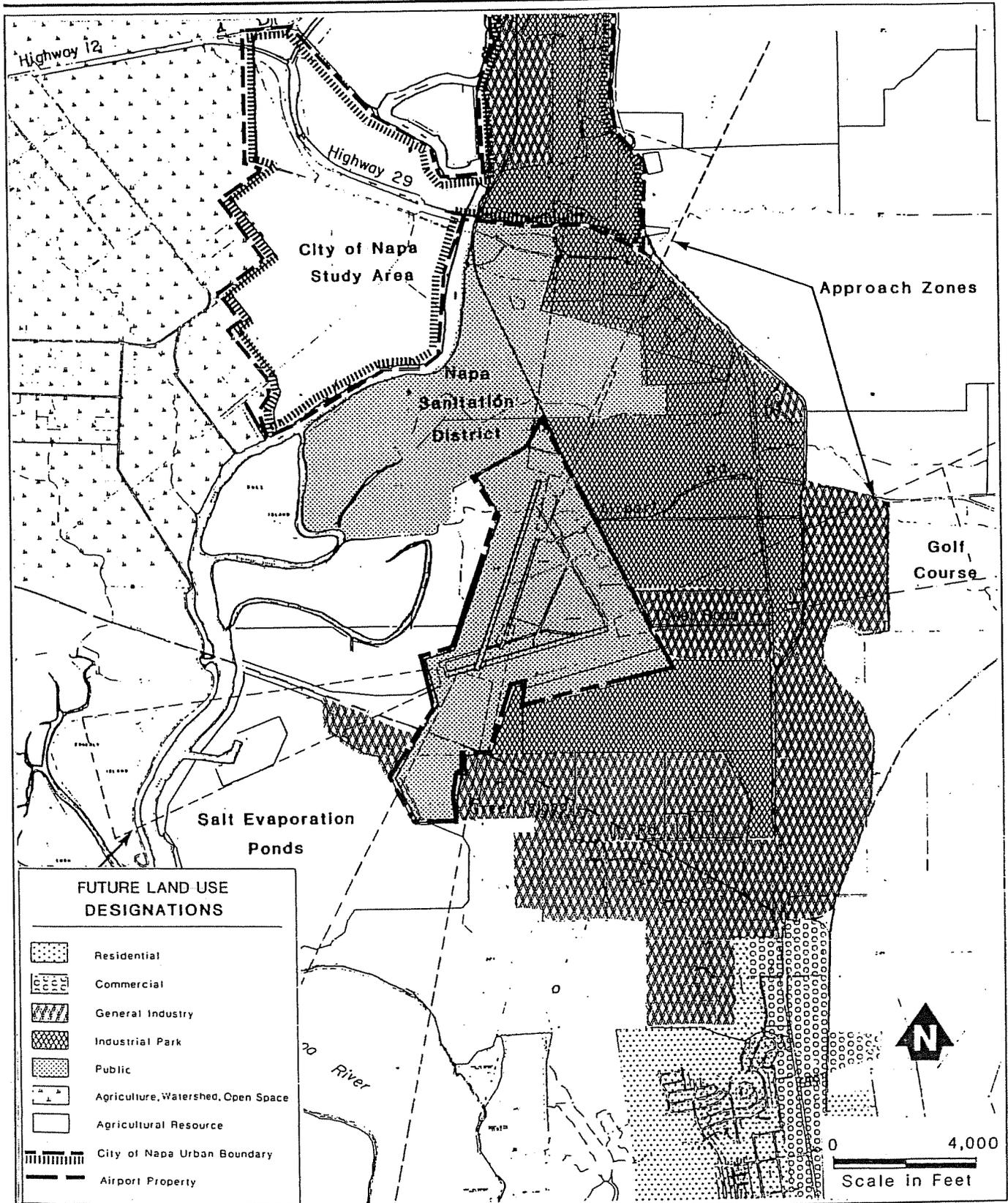


Figure 5A

**Jurisdictional Boundaries and Future Land Use**  
 Napa County Airport

The airport property and most of the land surrounding the Airport is within the jurisdiction of the County of Napa. Lands adjoining the Airport to the east and south are designated for industrial park development. The outlying areas within the Airport's vicinity are designated for agricultural use.

The City of Napa's southernmost boundary extends within two miles north of the Airport, encompassing a partially developed industrial park. Northwest of the airfield is a large undeveloped area within the City Limits with potential for residential development. Both of these areas lie beneath the traffic pattern for the primary runway.

## **Airport Development**

The Napa County Airport was originally constructed in 1942 by the Army Corps of Engineers on land owned by the County. The purpose of the construction, to establish an air base for national defense, was never fulfilled and the airport facilities were conveyed to the County for civilian use in 1945. There have been 25 federally funded development projects to enhance the Airport's safety and capacity. Previous airport improvement projects have included the construction of a parallel general aviation runway, extension of the primary runway, additional taxiways, parking aprons, and the acquisition of land for runway protection zones. A profile of airport features is provided in Table 5 - 2.

## **Airport Role**

Napa County Airport is expected to continue as primarily a general aviation facility with an emphasis in flight training activities. The existing airline pilot training facility located at the Airport is the single largest generator of aircraft activity, comprising an estimated 50% of all operations. The Airport is also designated as a reliever airport in the *National Plan of Integrated Airport Systems* which serves as a site for pilots from more congested areas to train and maintain their flight proficiency. The Airport is considered an important transportation link, supporting the growing business and industrial sectors of the community, as well as a recreational resource for local pilots.

## **Airport Master Plan and Projected Activity**

An update of the Airport's Master Plan was completed in 1989 and forms the basis for the Compatibility Plan. The focus of the Master Plan is on improving the operational safety of the Airport and mitigating potential impacts.

Of particular relevance for land use planning is the proposed extension of the general aviation runway to accommodate training (touch-and-go) flights. This project will enable a significant number of flights to be shifted to the eastside traffic pattern, thus avoiding the residential area located along the west bank of the Napa River. Other major features of the Master Plan are shown on the Airport Layout Plan (Figure 5B).

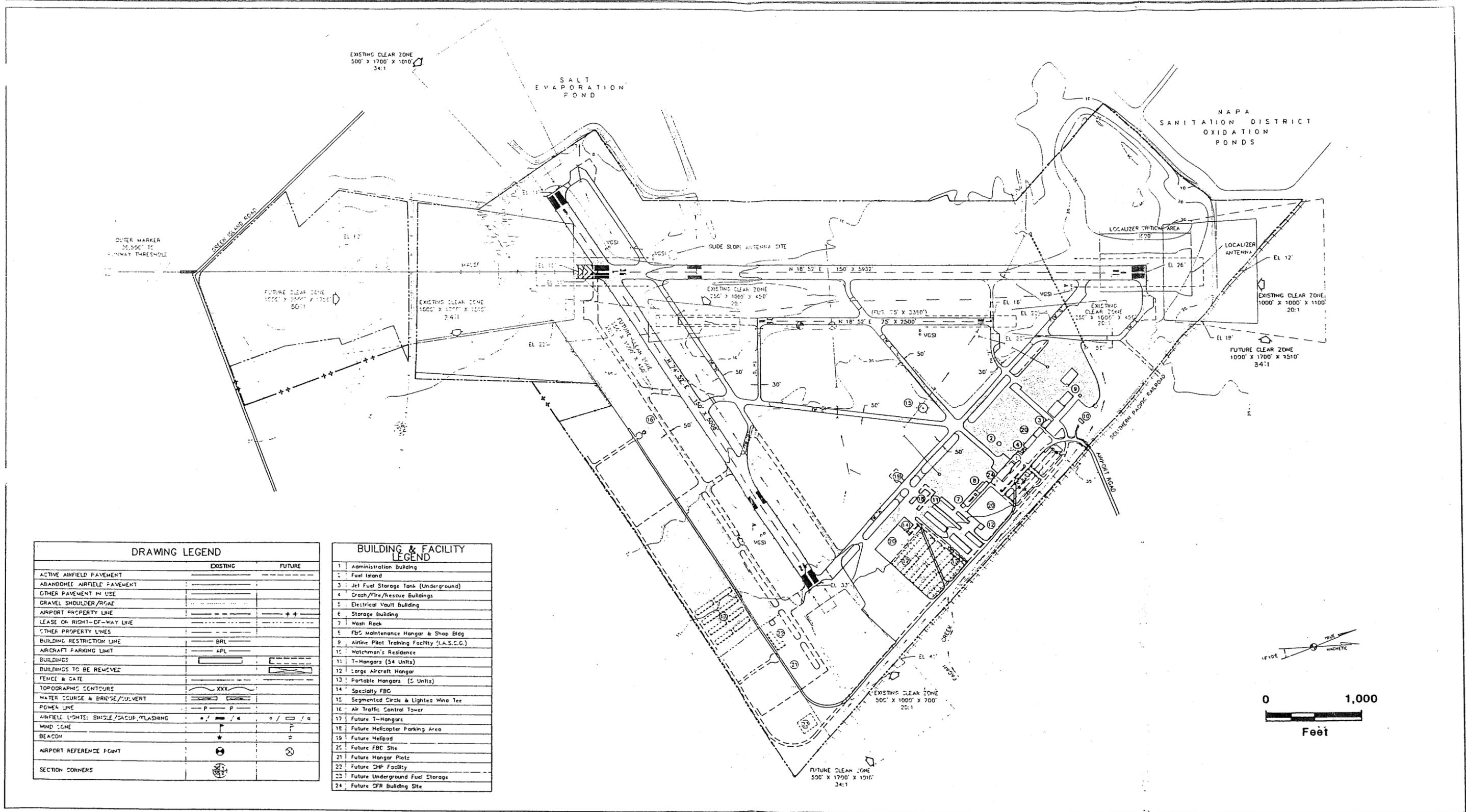


Figure 5B

**Airport Layout Plan**  
Napa County Airport

Table 5-2  
**Airport Features**  
 Napa County Airport

**AIRPORT PROPERTY**

*Ownership* – County of Napa  
*Acreage* – 800 acres  
*Elevation* – 33 feet MSL

**AIRPORT PLANNING**

*Adopted Plans*

- Airport Master Plan updated 1989

*Planned Improvements*

- Extension of general aviation Runway 18L-36R to accommodate training activities
- Additional aircraft storage hangars
- Public helipad and helicopter parking area
- Relocation of Airport Tower Road to southernmost property line.
- New access road from entrance to hangars

*Major Facilities*

- Terminal Building with administrative offices and restaurant
- Fixed base operator hangar/office
- Specialty fixed base operator hangar
- Airline pilot training facility school, offices, and hangar
- California Highway Patrol Air Support Unit
- Air Traffic Control Tower

**RUNWAY SYSTEM**

*Primary Runway 18R-36L*

*Critical Aircraft* – Gulfstream III  
*Classification* – General Utility Stage II.  
*Dimensions* – 5,932 feet long x 150 feet wide.  
*Pavement Strength* - 50,000 lbs. dual wheel  
*Lighting* – Medium intensity edge lights;

*Crosswind Runway 6-24*

*Critical Aircraft* – Gulfstream III  
*Classification* – General Utility Stage II.  
*Dimensions* – 5,008 feet long x 150 feet wide.  
*Pavement Strength* - 70,000 lbs. dual-wheel  
*Lighting* – Medium intensity edge lights.

*General Aviation Runway 18L-36R*

*Critical Aircraft* – Piper Arrow  
*Classification* – Basic Utility (Stage I existing; Stage II proposed)  
*Dimensions* – 2,500' x 75' existing; 3,400' x 75' proposed.  
*Pavement Strength* - 12,500 lbs. single-wheel  
*Lighting* – None existing; medium intensity edge lights proposed

**RUNWAY APPROACHES**

*Primary Runway 18R*

*Approach Type* – Existing visual (also circling VOR instrument approach); Future non-precision instrument  
*Approach Slope Required* - Existing 20:1; Future 34:1  
*Runway Protection Zone* – Majority on airport property; portion under conservation easement.

*Primary Runway 36L*

*Approach Type* – Existing Nonprecision instrument; Future precision instrument  
*Approach Slope Required* - Existing 34:1; Future 50:1  
*Runway Protection Zone* – All on airport property; portion of future runway protection zone recommended for acquisition

*Crosswind Runway 6*

*Approach Type* – Existing non-precision instrument approach;  
*Approach Slope Required* – 34:1  
*Runway Protection Zone* – Under avigation easement.

*Crosswind Runway 24*

*Approach Type* – Existing visual; Future non-precision instrument  
*Approach Slope Required* - Existing 20:1; Future 34:1  
*Runway Protection Zone* – All on airport property; portion of future runway protection zone recommended for acquisition

*General Aviation Runway 18L*

*Approach Type* – Visual  
*Approach Slope Required* - 20:1  
*Runway Protection Zone* – All on airport property

*General Runway 36L*

*Approach Type* – Visual  
*Approach Slope Required* – 20:1  
*Runway Protection Zone* – All on airport property

**Table 5-3  
Airport Activity  
Napa County Airport**

BASED AIRCRAFT		RUNWAY USE DISTRIBUTION	
	Current <sup>a</sup>	Future <sup>b</sup>	Current <sup>a</sup>
Total	215	315	
<b>AIRCRAFT OPERATIONS</b>			
	Current <sup>a</sup>	Future <sup>b</sup>	
Total			All Aircraft All Operations
Annual	163,000	210,000	Primary Runway Runway 18R 60.0% Runway 36L 2.5%
Average Day	446	575	Crosswind Runway Runway 24 15.0% Runway 6 2.0%
Distribution			General Aviation Runway 18L 20.0% Runway 36R .5%
Single-Engine	77.0%	71.0%	
Twin-Engine	6.0%	7.0%	
Turboprop	11.0%	12.0%	
Business Jets	2.0%	3.0%	
Helicopters	6.0%	7.0%	
<b>FLIGHT TRACK DATA</b>			
<ul style="list-style-type: none"> <li>• Pattern Altitude – 1,000 feet AGL</li> <li>• Left traffic standard to Runways 18L, 36L, 06, and 24.</li> <li>• Right traffic Runways 18R and 36R.</li> </ul>			
<b>TIME OF DAY DISTRIBUTION</b>			
	Current <sup>a</sup>		
Single			
Day (0700-1900)	95.0%		
Evening (1900-2200)	4.0%		
Night (2200-0700)	1.0%		
Twins			
Day (0700-1900)	97.0%		
Evening (1900-2200)	2.0%		
Night (2200-0700)	1.0%		
Helicopter			
Day (0700-1900)	75.0%		
Evening (1900-2200)	16.0%		
Night (2200-0700)	9.0%		
Jet			
Day (0700-1900)	99.0%		
Evening (1900-2200)	1.0%		
Night (2200-0700)	-0-		
<b>NOTES</b>			
<sup>a</sup> 1988/89 activity levels as indicated in <i>Airport Master Plan</i> .			
<sup>b</sup> <i>Airport Master Plan</i> projections for 2008.			

Forecasts of activity (summarized in Table 5 - 3) project an increase from the current level of 163,000 annual operations to 210,000 annual operations in 2008. This level of activity remains below the peak levels achieved in the late 1970's.

## **IMPACT ASSESSMENT**

An analysis of the Napa County Airport's potential impact area provides the basis for evaluating future land use compatibility. The following summarizes the impact analysis. Projected noise contours, overflight areas, flight patterns, and approach surfaces are illustrated in Figure 5C.

### **Noise Contours**

An analysis of the underlying land use designations, noise compatibility criteria, and the projected noise contours indicates that noise exposure levels will not present a significant problem with respect to land use compatibility in the Airport's environs. The projected 65 CNEL contour does not extend beyond airport property. The projected 55 CNEL contour extends south over the salt ponds, west over the Napa River, north over the sanitation district's lands, and to the east over the industrial lands on Tower Road. The types of land uses within these areas are consistent with local, state, and federal guidelines for noise compatibility.

### **Overflight**

Overflight impacts are expected to be a more significant concern than composite noise exposure levels around Napa County Airport. The most sensitive areas are those beneath the common traffic pattern. Standard traffic patterns at Napa County Airport tend to be larger than usual for a general aviation facility, primarily because the airline training program requires a larger pattern. The size of the traffic pattern is also dependent upon the number of aircraft in the pattern, the size of the aircraft, and the skill of the pilot in judging distances. Napa County Airport has busy-hour traffic counts of six to seven aircraft in the pattern. Additionally, the Airport serves a wide range of multi-engine and jet aircraft which require a larger pattern.

Of particular concern for land use compatibility planning is the potential conversion of land to residential use within the Airport's traffic areas. Currently, residential uses are limited to a narrow strip of homes along the west bank of the Napa River. The County's General Plan and Airport Area Specific Plan does not provide for any new residential uses within the Airport's traffic area. Northwest of the Napa County Airport is an area designated as a Study Area in the City of Napa General Plan (known as the Stanly Ranch). Development on this site may include some residential uses. The site lies in the D and E zones; the D zone does not permit new residential uses, while the E zone does. As an approved site plan does not yet exist for the property, it is not possible to know how development of the property will affect compatibility in the Napa County Airport's environs.

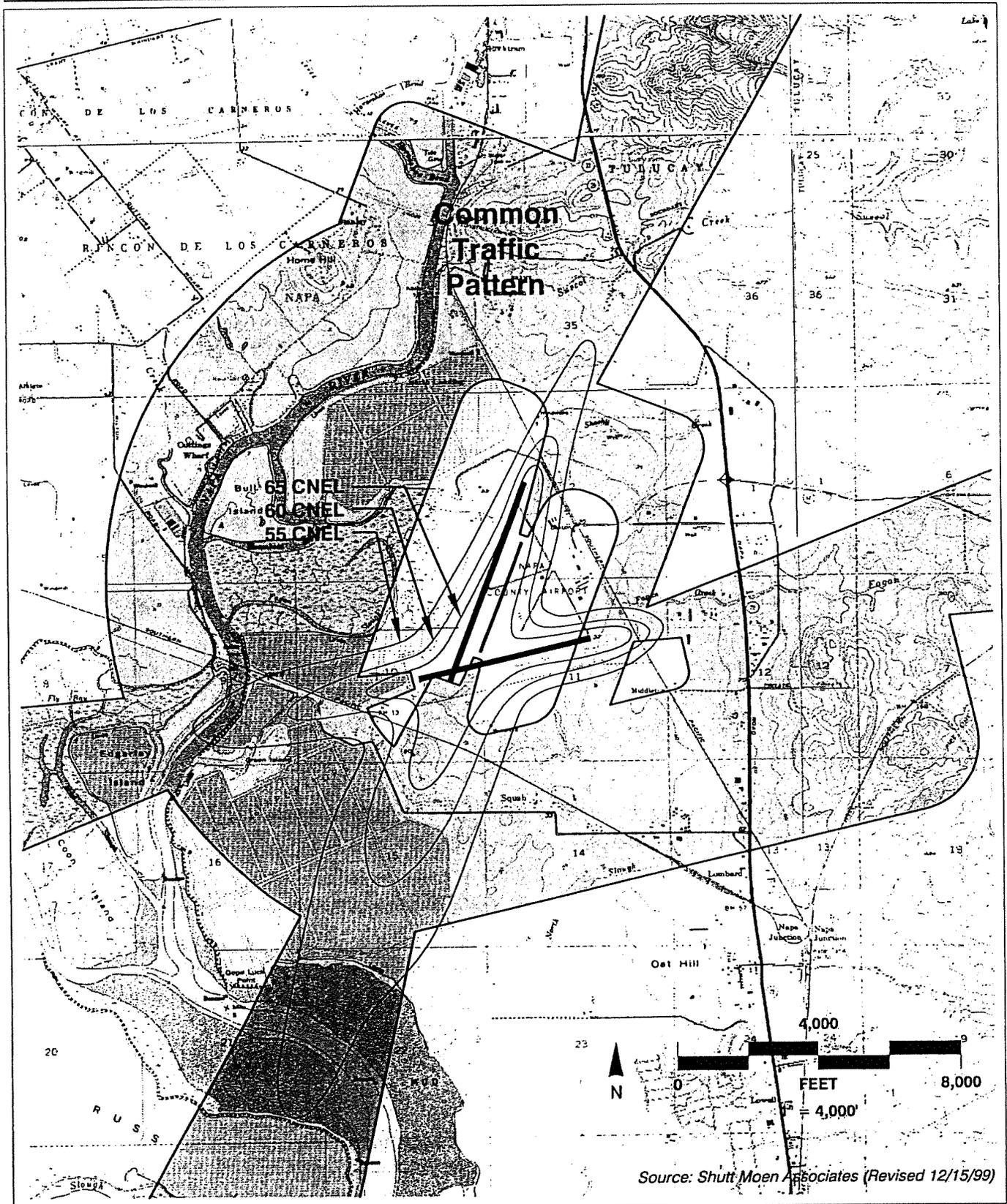


Figure 5C

## Airport Impact Areas Napa County Airport

## **Safety**

Safety is also a significant concern at Napa County Airport because of the emphasis on flight training and the type of aircraft that use the facility. Although most of the aircraft are light single-engine planes, the Airport is also utilized by multi-engine and jet aircraft which are more difficult to control in the event of an emergency. Safety concerns are most significant with respect to the developing industrial area where compatible land use designations alone are not adequate to limit the exposure to risks. The areas of greater potential risk are beneath the approach/departure zones and the traffic pattern. A review of accident histories at the Airport reveals three off-airport accidents over the past 12 years. One accident involving a fatality, occurred in the approach to Runway 24. A summary of the accident history over the past 10 years is provided in the Napa County Airport Master Plan Report.

## **Flight Hazards**

Potential obstructions and hazards to flight are another significant concern at Napa County Airport. An air-space plan depicting the critical areas for height limitations under federal regulations (FAR Part 77) is provided in Figure 5D. The County's existing Airport Safety Ordinance is more restrictive than federal regulations (crosswind runway approach surface is defined as 40:1 under the ordinance compared to 34:1 under FAR Part 77). Although the general aviation runway is not depicted in the ordinance, the approach surfaces for the primary runway encompass those for the parallel runway and are the controlling surfaces. If duly enforced, the ordinance should provide adequate protection from flight hazards.

## **COMPATIBILITY ISSUES**

The primary issue confronting the Napa County Airport is the need to maintain compatibility while allowing for an acceptable degree of development in the Airport's vicinity. The key issues can be defined in terms of:

- Preventing the encroachment of incompatible development.
- Limiting the exposure to risks or flight hazards.

### **Encroachment of Incompatible Development**

#### *City of Napa*

The area within the City of Napa's jurisdiction, located northwest of the Airport (known as the "Stanly Ranch") is an area of concern with respect to future land use compatibility. This area (designated as a Study Area in the City of Napa's General Plan and zoned as Planned Development), is expected to develop with

residential uses. As this area will continue to be affected by aircraft overflights, two specific land use compatibility measures are recommended:

- 1) Residential development is limited to areas outside of the common traffic pattern. That is, residential uses are only permitted in Zone E.

and

- 2) Buyer notification should be required (i.e., dedication of overflight easements).

In accordance with ALUC policies for project referrals, future development proposals and specific plans for this area should be referred to the Airport Land Use Commission for a consistency determination.

### ***County Lands***

The potential conversion of agricultural lands to residential uses in the Airport's planning area is another concern which could undermine the relatively high degree of land use compatibility that now exists. Of particular concern are the areas lying beneath the approaches and common flight paths to Runway 18R and Runway 24. These areas are currently designated as Agricultural, Watershed, and Open Space in the Napa County General Plan. However, the conversion to residential use in these areas may be contemplated in the future.

As these areas are and will continue to be impacted by frequent aircraft overflights, the conversion of lands designated for agricultural use to residential uses within the Airport's planning area should be avoided. Preserving agricultural uses in the Airport's planning area would minimize the potential for future land use conflicts and ensure open land areas are maintained in the Airport's vicinity.

### **Exposure to Risk and Flight Hazards**

There are two primary objectives with regard to safety in the vicinity of Napa County Airport:

- Limiting the exposure to risks by restricting the maximum densities of uses in the Airport's vicinity.
- Maintaining open land areas that can be utilized for emergency landings within the approaches and traffic pattern areas.

### ***Maximum Densities***

Of particular concern is the area within the approach/departure zones for the Primary Runway 18R and the Crosswind Runway 24. Most of the land within these areas is under the jurisdiction of the County of Napa. A portion of the Bedford Industrial Park, located within the Napa City Limits, lies beneath the approach and

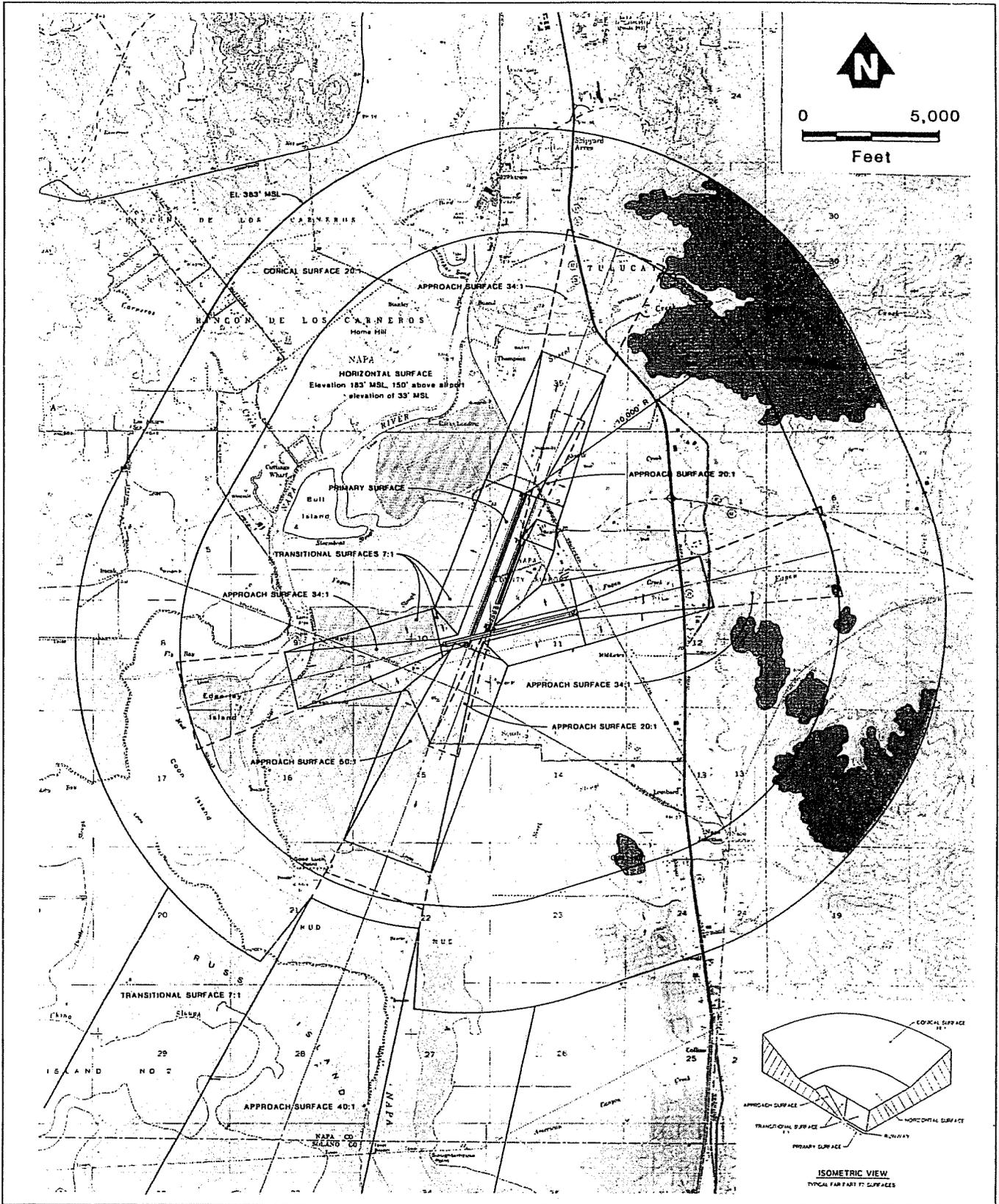


Figure 5D

### Airspace Plan Napa County Airport

traffic area for the primary runway. These areas are partially developed with primarily industrial uses; however, more intensive uses can be anticipated in the future.

Although industrial uses are considered compatible with airport activities, development of uses with high occupancies, limited mobility, or which include potential flight hazards should be avoided. The Compatibility Criteria contained in Table 3 - 2 establishes maximum densities in critical areas and prohibits certain land uses considered clearly incompatible.

### ***Open Land Requirements***

Maintaining open land areas that can be utilized in the event of an emergency landing is another important element of the Compatibility Plan for Napa County Airport. The intent of this Plan is to preserve to the extent feasible the existing open space uses (i.e., agricultural lands or golf course use) in the Airport's vicinity. Some mechanism must be established that ensures open land areas are preserved as the area develops. Of critical concern are those open land areas that lie beneath the approaches (Zones A, B, and C) and at the periphery of the traffic pattern area (Zone D). It is recommended that the local jurisdictions revise their General Plans to identify the critical open land areas that should be preserved for public safety.

Requiring larger setbacks from creeks or roads within the Airport's vicinity is one method of maintaining open land (i.e. requiring a 75' to 100' setback from the bank of Fagan Creek along the approach to Runway 24). Clustering of development and providing contiguous parking and landscaped areas is also encouraged. Building envelopes and approach surfaces should be required on all development plans within or near the approach zones.

### ***City of Napa Plans and Policies***

The City of Napa's General Plan is currently in the process of being updated and prior to adoption, must be sent to the ALUC for a consistency determination. The current General Plan does not include any specific policies relative to airport compatibility. The underlying land use designations within the Airport's vicinity appear consistent with the Compatibility Plan, provided that the City recognizes and incorporates the policy statements as described in Chapter 4.

### ***County of Napa Plans and Policies***

Land use designations in the Napa County General Plan and the Airport Industrial Area Specific Plan are for the most part consistent with the Compatibility Plan. Although the Specific Plan includes policies with regard to airport compatibility, this plan only applies to a portion of the Airport's planning area.

Established County policies (contained in the Airport Industrial Area Specific Plan) limiting employment densities and lot coverage in the Airport's vicinity apply only to the approaches to the primary runway 18R-36L. These policies do not fully address the safety concerns and overflight impacts within the approaches to the

crosswind runway and the broader airport planning area. Also, the local General Plan and Specific Plan do not fully reflect the ALUC requirements for open land and maximum densities.

Of particular concern is the industrial area lying beneath the approach to the crosswind Runway 24. The Specific Plan provides a minimum lot size of 20,000 square feet which would enable more intense development than now exists. In order to meet the compatibility criteria for maximum occupancies and open land requirements, larger minimum lot sizes are recommended (e.g., five-acre minimum lot sizes).

## **OTHER COMPATIBILITY MEASURES**

Other measures used to ensure land use compatibility include operating restrictions and noise abatement procedures implemented by the airport authorities. The airline pilot training facility currently operates under an agreement with the County which limits the nighttime (after 10 p.m.) training operations. In addition, they have agreed to conduct training activities outside Napa Valley and to avoid overflights of the City of Napa.

The size of the aircraft that may use Napa County Airport is currently limited by the strength of the runway pavements to aircraft under 50,000 pounds (dual-wheel). This limitation was emphasized in a voter-approved referendum regarding the extension of the primary runway in 1974. The 50,000-pound limitation effectively limits the types of activities that could potentially locate at the Airport. By limiting the strength and length of the runway system, the County also limits the impact of airport activities on surrounding land uses.

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(Chapter repealed February 16,2000)

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# 7

## Parrett Field Plans and Impact Assessment

### PARRETT FIELD

#### Setting

Parrett Field is part of the campus of Pacific Union College, located within the unincorporated community of Angwin. The airfield is situated on a ridgetop with predominantly undeveloped and heavily wooded land surrounding the airfield to the north, east, and south. The community of Angwin and the college facilities are situated west of the Airport. Table 7 – 1 provides a summary of the planning context.

#### Affected Jurisdictions

Land within the influence area for Parrett Field falls within the jurisdiction of the County of Napa. Figure 7A illustrates the parcelization and respective zoning designations in the vicinity of the Airport.

#### Airport Operation and Development

Parrett Field, developed as a private landing strip, is owned and operated by Pacific Union College. The college is affiliated with the Seventh Day Adventist Church, and as such, commercial business activities are prohibited on Saturdays, the Church's Sabbath.

The Airport is open to the public and has a full-service fixed-base operator which provides fueling, maintenance, flight training, and rentals. The airfield has low intensity lighting, but no beacon that would enable transient pilots to locate the airfield at night. Consequently, the level of evening and night operations is expected to be very limited.

Table 7-1  
**Airport Environs**  
Parrett Field

**AIRPORT LOCATION AND ACCESS**

- Airport situated on a ridgetop within the campus of Pacific Union College
- Lands surrounding the Airport and within the community of Angwin are in the jurisdiction of the County of Napa

**LOCAL LAND USE PLANS**

- *Napa County General Plan*, adopted 1983
- Surrounding lands are within County's jurisdiction

**EXISTING AIRPORT AREA LAND USES**

***General Character***

- Pacific Union College adjoins airport to the west
- Undeveloped, heavily wooded land to the north and east
- Few rural residential uses to the south
- Unincorporated community of Angwin is located west of the airfield

***Runway Approaches***

- Undeveloped lands to the north and south under approach/departure zones

***Traffic Pattern***

- Standard traffic pattern on eastside of the airfield only to avoid overflying Angwin

**PLANNED DEVELOPMENT IN AIRPORT AREA**

- Pacific Union College Land Use Plan includes development of residential and commercial uses

**ESTABLISHED COMPATIBILITY MEASURES**

- Airport traffic pattern avoids overflying Angwin
- Limited night-time operations
- Adjacent lands owned by Airport proprietor

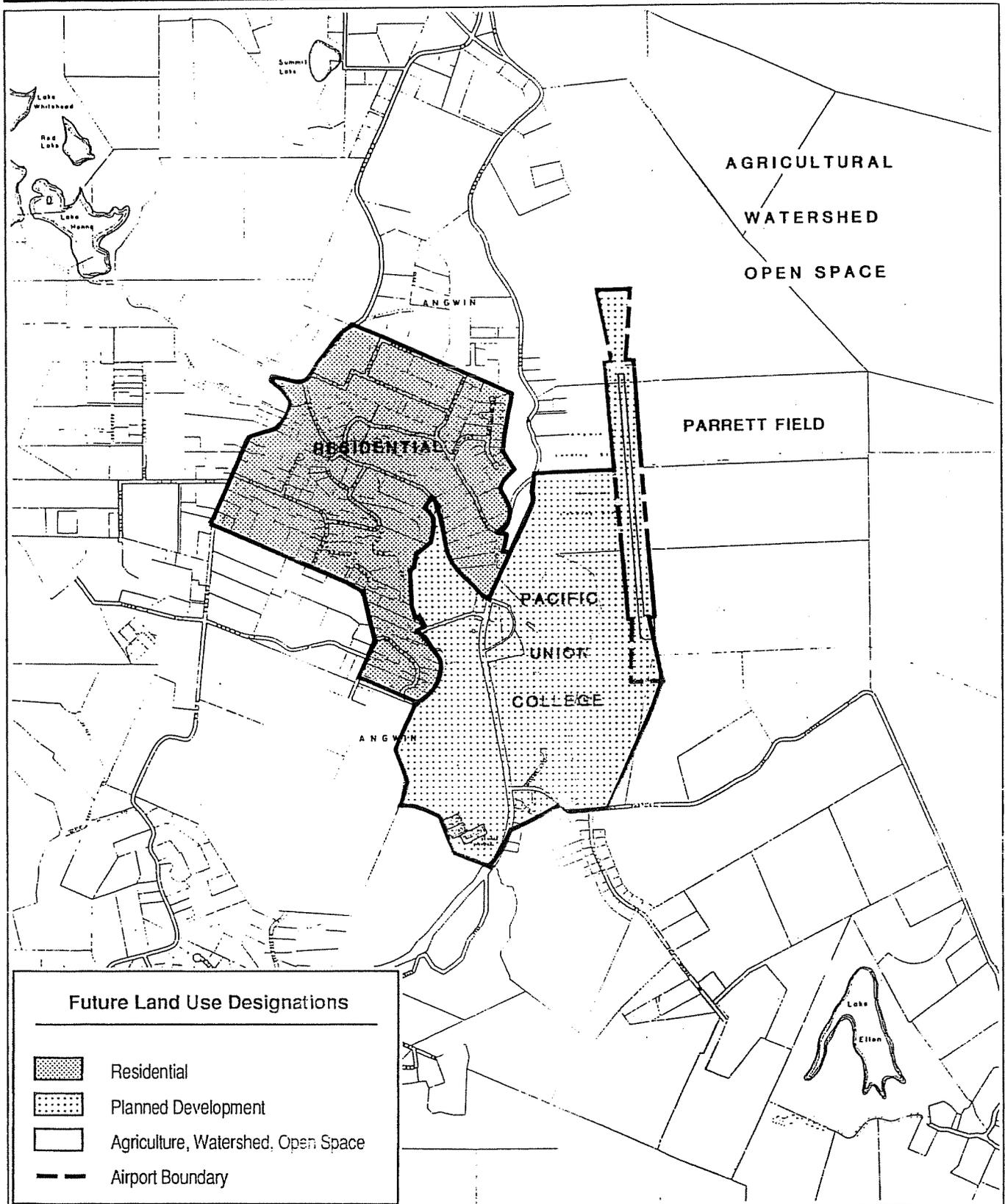


Figure 7A

### Land Use Designations Parrett Field

There are standard traffic patterns to both runway ends (left traffic to Runway 16; right traffic to Runway 34). Traffic is limited to the east side only in order to avoid overflying the community of Angwin. Runway utilization is evenly divided between the north and south.

### **Airport Layout Plan**

Parrett Field does not have a formal master plan. However, the college does have facility plans which reflect the potential build-out of the airfield's building area with the addition of 14 hangars. An analysis of the existing runway length and FAA standards indicate that the existing 3,217-foot runway is sufficient to accommodate the type of aircraft expected to use Parrett Field over the 20-year planning period. The configuration of the airfield and existing topographic features also present a natural constraint to lengthening the runway. This information has been compiled into an Airport Layout Plan for the purpose of this plan as shown in Figure 7B. Major airport features are summarized in Table 7 – 2.

### **Projected Activity**

Forecasts of activity at Parrett Field were developed by the California Department of Transportation for the *California Aviation System Plan (CASP)*. These figures, summarized in Table 7 – 3 reflect a relatively low level of activity over the 20-year planning period. There are currently 40 aircraft based at Parrett Field. An additional 20 aircraft are forecast over the 20-year planning period. Annual aircraft operations are projected to increase from 12,000 in 1990 to 20,000 by 2010.

## **IMPACT ASSESSMENT**

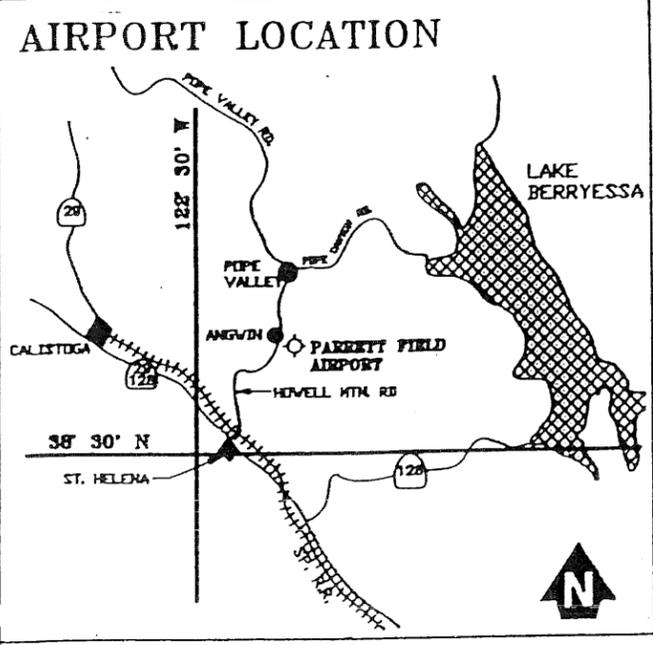
An analysis and summary of the potential impact area for Parrett Field is summarized below. Projected noise contours, overflight areas, flight patterns, and approach surfaces are illustrated in Figure 7C.

### **Noise**

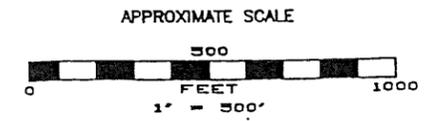
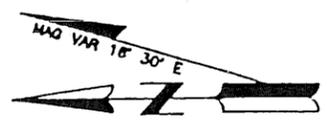
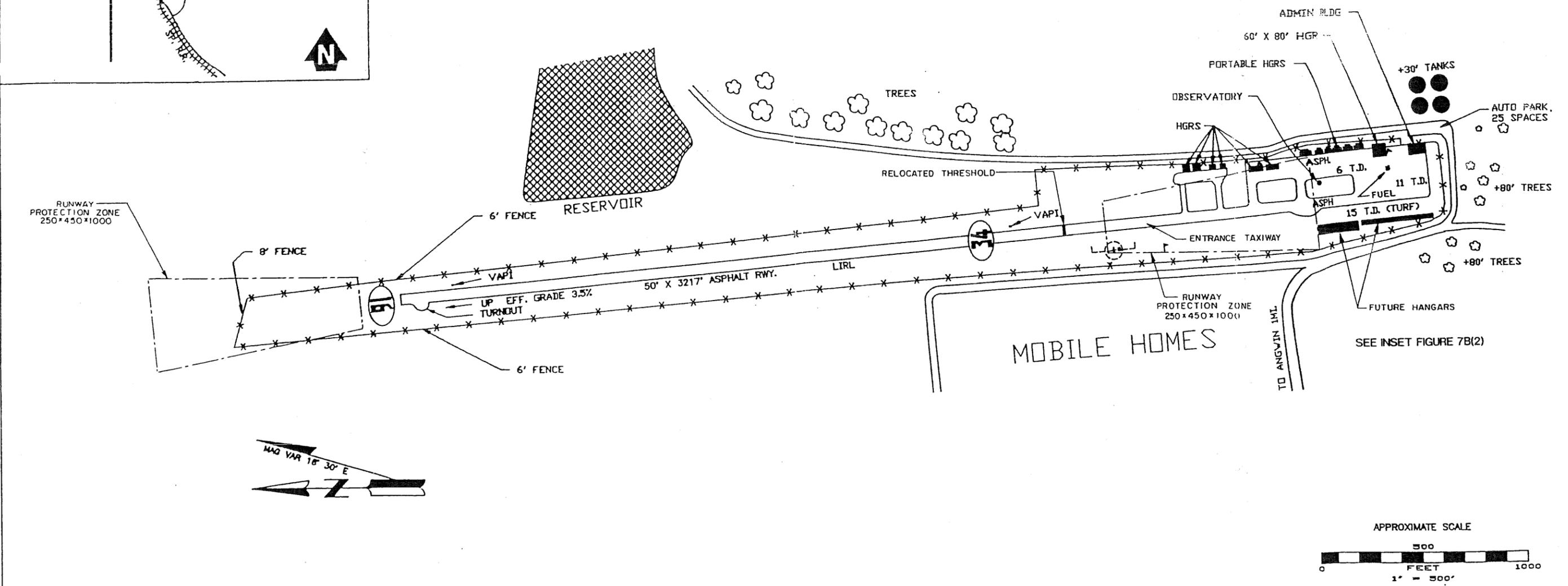
An analysis of the projected noise contours indicates that noise exposure levels will primarily affect the close-in properties adjoining the airfield. Because the airfield is situated above the community and college facilities, noise is not expected to present a significant concern.

### **Overflight**

Because the traffic pattern is limited to the east side of the airfield which is essentially undeveloped, the potential for overflight annoyance is limited. The future potential for development on the east side of the airfield is severely constrained by the heavily wooded and steep terrain. One area where overflights are of particular concern is south of the airfield within the approach to Runway



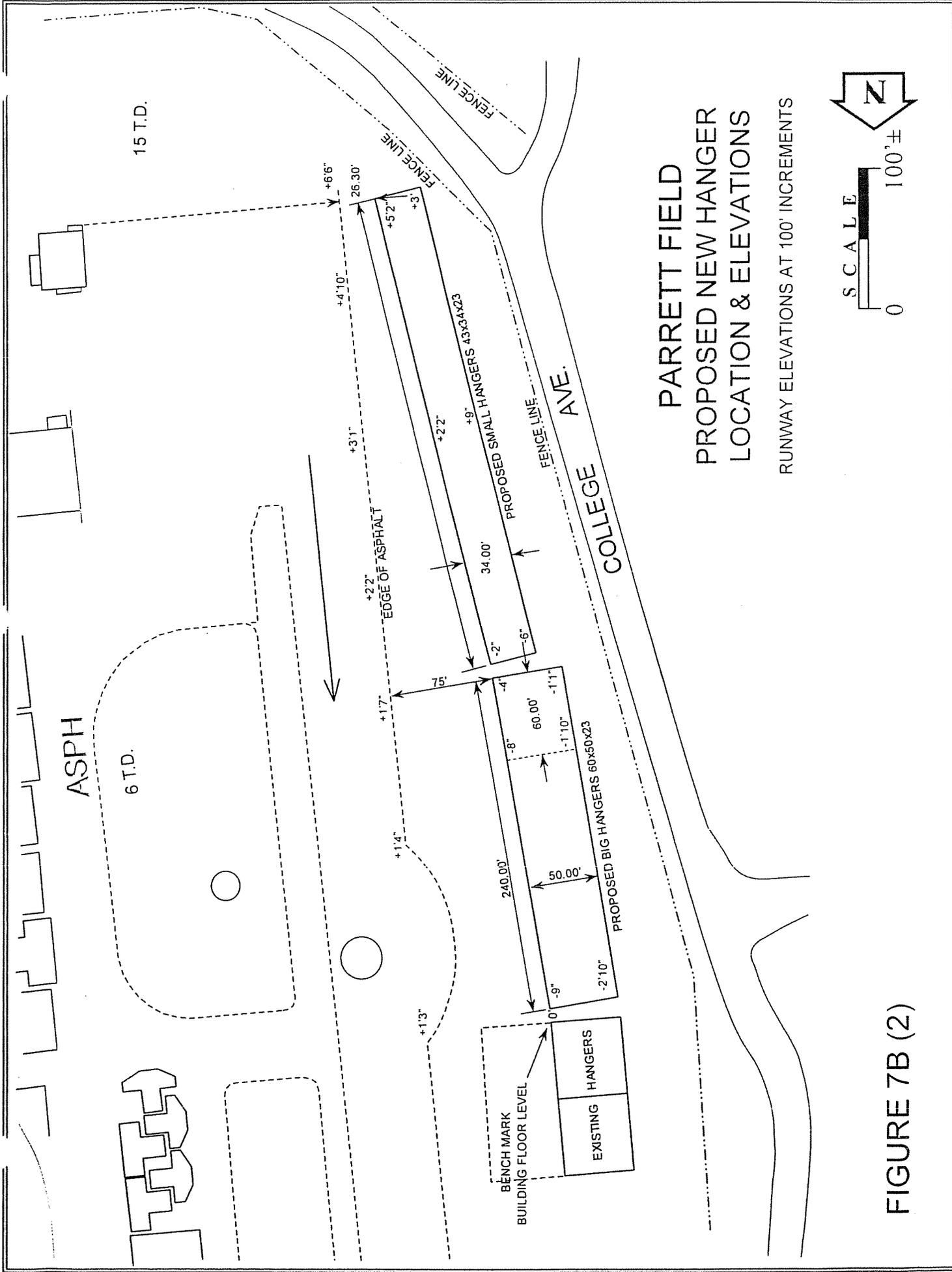
Acres: 60 (Est.)  
Elev.: 1,848'



Revised 9/4/96

Figure 7B(1)

Airport Layout Plan  
Parrett Field Airport



PARRETT FIELD  
 PROPOSED NEW HANGER  
 LOCATION & ELEVATIONS

RUNWAY ELEVATIONS AT 100' INCREMENTS

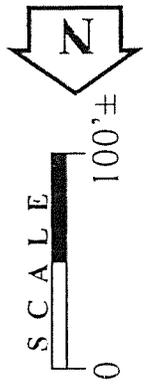


FIGURE 7B (2)

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34. This area (along Cold Springs Road) is situated in a canyon area off the end of the runway which intensifies the noise of aircraft on departures to the south.

### **Safety and Flight Hazards**

Safety is primarily a concern within the approaches to the Airport where densities are already low due to the nature of the terrain. Because the Airport is situated on a ridgetop, the Airport has clear approaches and there are no terrain penetrations of the imaginary surfaces. An airspace plan for Parrett Field is depicted in Figure 7D.

## **COMPATIBILITY ISSUES**

Presently, there exists a relatively high degree of land use compatibility due to the airfield's ridgetop setting; eastside traffic pattern over undeveloped areas; and the low level of activity. Lands primarily affected by activities at Parrett Field are those within the college campus itself, creating a somewhat self-correcting situation, in that if a problem occurs, the college administrator can deal with it directly, rather than looking to local land use controls. Recommended policies with respect to Parrett Field primarily focus on 1) preserving open space/agricultural uses within the approaches; 2) preventing residential development beneath the traffic pattern; and 3) requiring buyer notification for residential uses in the Airport's vicinity. Figure 3C presents the recommended Compatibility Plan for Parrett Field.

## **AIRPORT COMPATIBILITY MEASURES**

Airport-sponsored compatibility measures include:

1. Limited nighttime operations (lack of airfield beacon).
2. Right turns required on departure from Runway 34 to avoid overflying community.

**Table 7-2  
Airport Features  
Parrett Field**

**RUNWAY/TAXIWAY SYSTEM**

***Airport Classification***

Basic Utility Stage II

***Airport Reference Code***

B-I

***Runway 16-34***

Length: 3,217 feet    Width: 50 feet  
 Overruns: 800' dirt overrun Runway 16;  
 1,850' entrance taxiway/overrun to  
 relocated threshold Runway 34.  
 Surface: Asphalt with chip seal;  
 Lighting: Low intensity; no rotating beacon

***Taxiway Access***

No parallel; access at south end only

***Approach and Landing Aids***

Visual approaches only  
 Visual approach path indicators (VAPI) at  
 both ends

**BUILDING AREA**

***Location***

South end of runway, both sides

***Existing Aircraft Parking Capacity***

Tiedowns/uncovered spaces: 32  
 Hangars: 20

***Services***

Attended 8 a.m. to 5 p.m.; closed Saturday  
 Fuel, instruction, rentals, major  
 maintenance

**AIRPORT PROPERTY**

Ownership: Pacific Union College  
 Acreage: 60 (estimated)  
 Elevation: 1,848 MSL

**RUNWAY PROTECTION ZONES AND APPROACHES**

Runway 16

Existing Approach Type: Visual  
 Required Approach Slope: 20:1  
 Obstacles in the Approach: No  
 Runway Protection Zone: 100% on airport  
 property

Runway 34

Existing Approach Type: Visual  
 Required Approach Slope: 20:1  
 Obstacles in the Approach: yes, trees  
 Runway Protection Zone: 99% on airport  
 property

**PLANNED AIRPORT IMPROVEMENTS**

- 12 additional hangars

Table 7-3  
**Airport Activity**  
 Parrett Field

	<u>1990</u>	<u>2010</u>
<b>Based Aircraft</b>		
Total	40	60
<b>Aircraft Operations</b>		
Annual	12,000	20,000
Average Day	33	55
<b>Fleet Activity Mix</b>		
Single-engine, fixed-pitch propeller	80%	No Change
Single-engine, variable-pitch propeller	13%	No Change
Twin-engine propeller	7%	No Change
<b>Time of Day Distribution</b>		
All Aircraft		
Day (0700-1900)	80%	No Change
Evening (1900-2200)	15%	No Change
Night (2200-0700)	5%	No Change
<b>Runway Use Distribution</b>		
All Aircraft		
Takeoff and Landings		
Runway 16	50%	No Change
Runway 34	50%	No Change

**Flight Track Data**

- Traffic pattern on east side only.
- Left traffic to Runway 16; right traffic to Runway 34.
- Standard patterns to both runway ends; no geographic features used as turning points.

**Sources**

- Airport Manager (June 1990)
- Airport Master Record (April 1990)



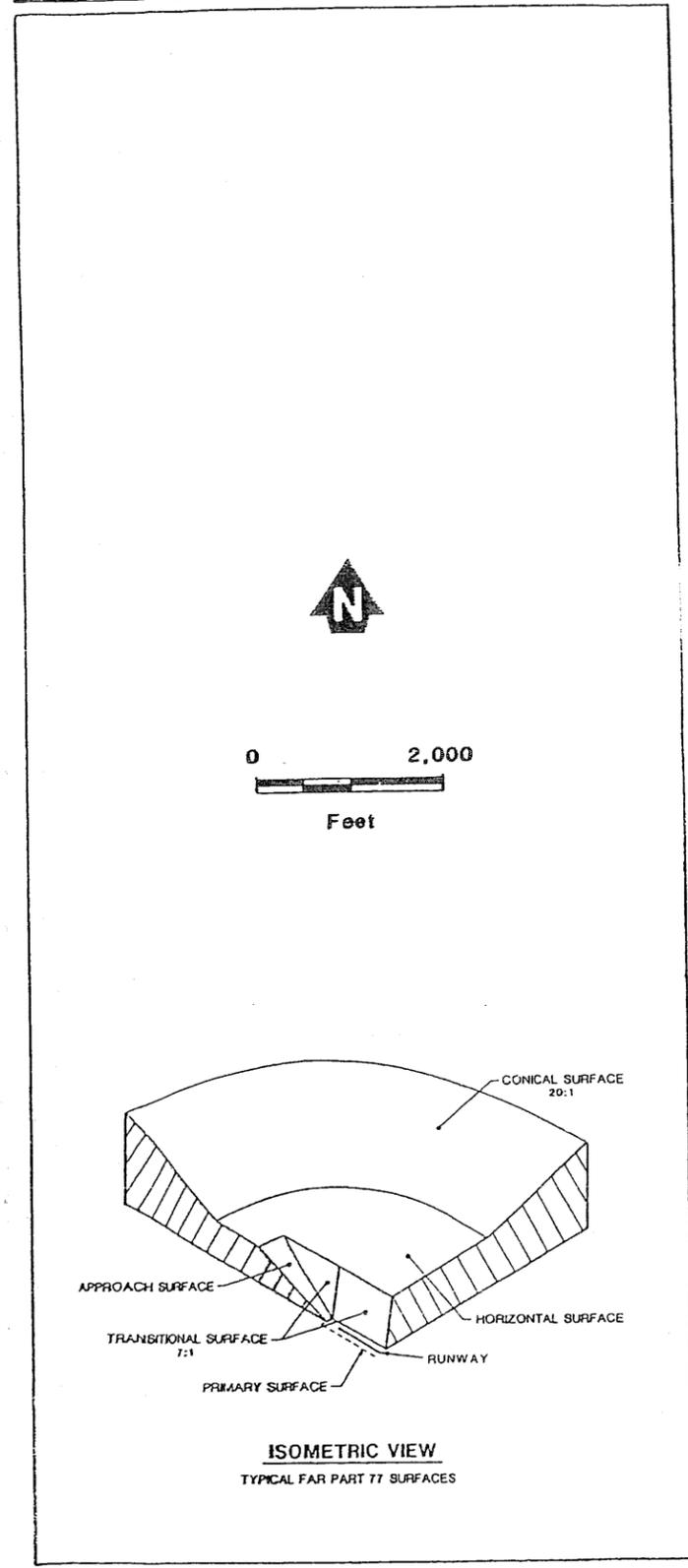
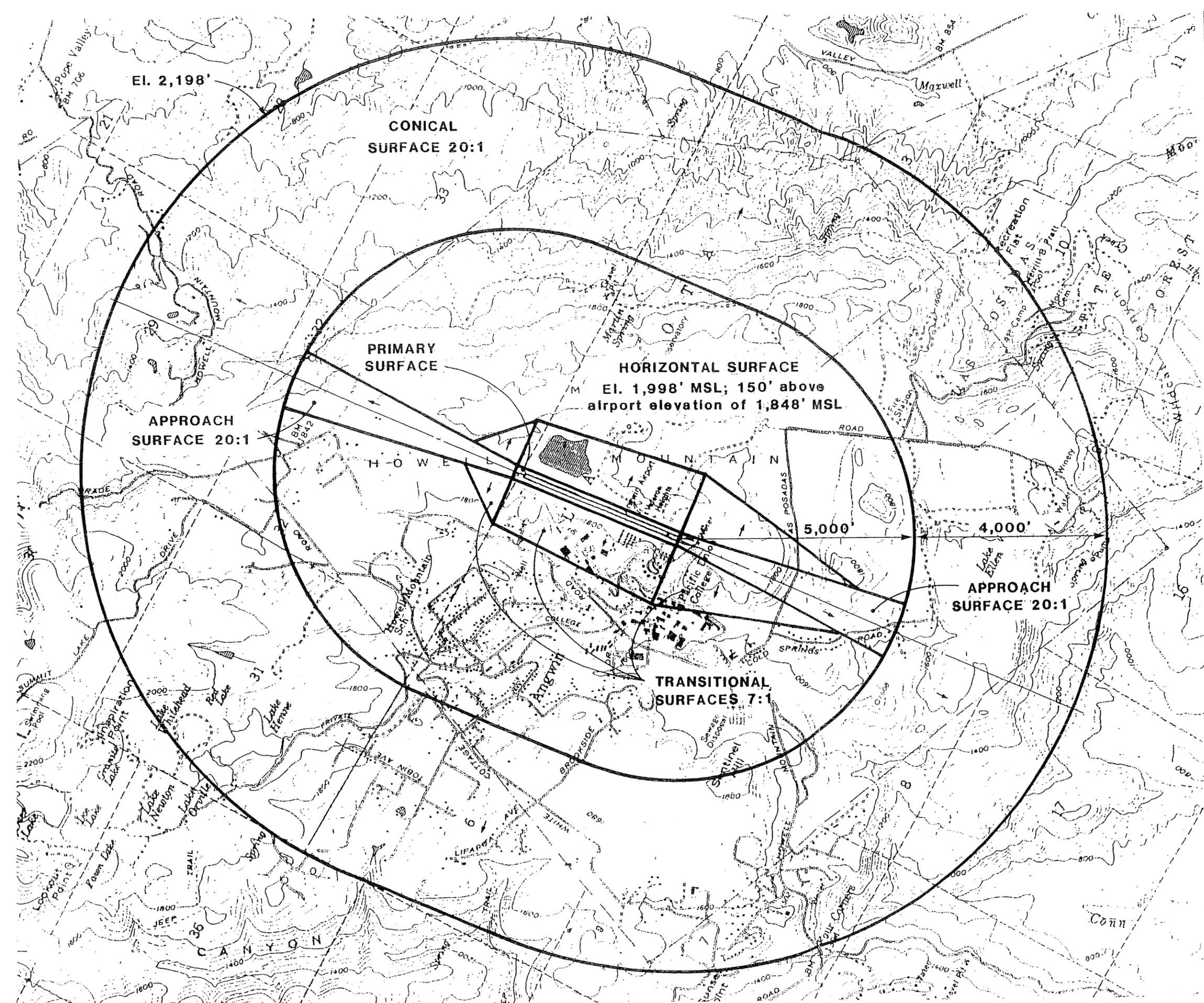
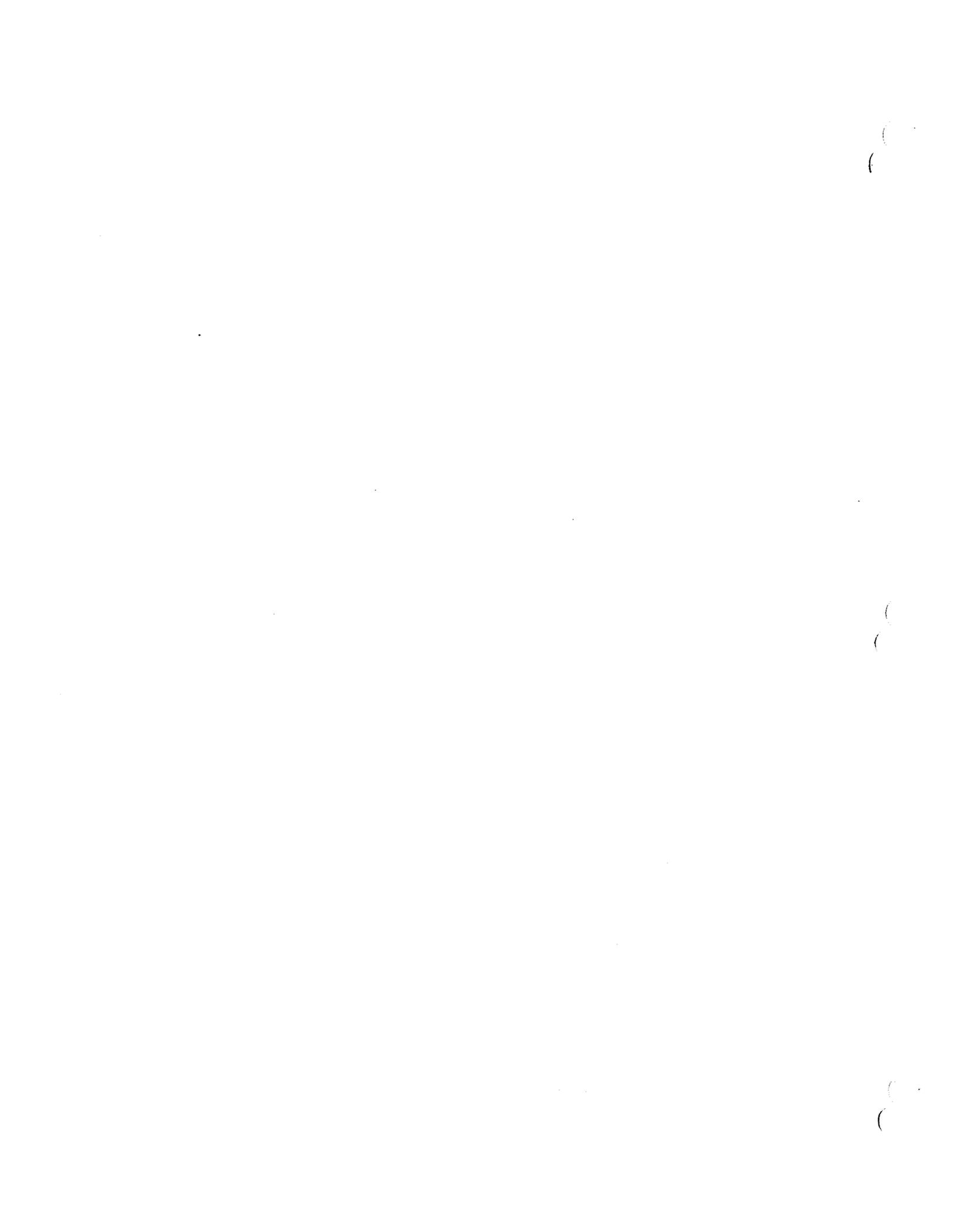


Figure 7D

Airspace Plan  
Parrett Field Airport

**PART IV**  
**Environmental Evaluation**



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**8**

**Napa County Airport Initial Study and  
Negative Declaration (1991)  
and Notice of Exemption (1999)**



**DRAFT**  
**NEGATIVE DECLARATION**

The Executive Director of the Napa County Airport Land Use Commission has tentatively determined that the following project would not have a significant effect on the environment. Documentation supporting this determination is on file for public inspection at the Napa County Airport Land Use Commission Office, 1195 Third St., Room 210, Napa, California 94559. For further information call (707) 253-4416.

**NAPA COUNTY AIRPORT LAND USE COMPATIBILITY PLAN**

**(Project Description)**

The criteria and policies which the Napa County Airport Land Use Commission will use in evaluating the compatibility of land uses around Napa County Airport. (See Project Description contained in the attached Initial Study, incorporated by reference).

**WRITTEN COMMENT PERIOD:**  
**April 1, 1991 to April 21, 1991**

DATE: April 1, 1991

**BY THE ORDER OF**

**JEFFREY REDDING**

Director

Napa County Conservation, Development and Planning Department



COUNTY OF NAPA  
CONSERVATION, DEVELOPMENT AND PLANNING DEPARTMENT  
1195 Third Street, Rm. 210  
Napa, California, 94559  
(707) 253-4416

INITIAL STUDY

**PROJECT NAME:** NAPA COUNTY AIRPORT LAND USE COMPATIBILITY PLAN  
**FILE NO:**

**PROJECT DESCRIPTION:** The Napa County Airport Land Use Compatibility Plan (the Plan) sets forth the criteria and policies which the Napa County Airport Land Use Commission (the Commission) will use in evaluating the compatibility of land uses around Napa County Airport (the Airport). The statutory requirement for the establishment of the Commission and the adoption of the Plan is set forth in the State Aeronautics Act, Article 3.5, Chapter 4, Section 21670 of the Public Utilities Code (the Act).

The recommended Planning Area for Napa County Airport is the area encompassed by the outer conical surface as defined under Part 77 of Federal Aviation Regulations (established by a 14,000-foot radius from each runway's primary surface, refer to Figure 3A). A detailed discussion and assessment of the Airport's impact area is included in Chapter 5 of the Plan. Figure 3A of the Plan and Tables 3-1 and 3-2 summarize the areas of concern and the Commission's criteria and policies for Napa County Airport, which are further defined in Chapter 3 of the Plan. If implemented, the primary policies of the Plan would:

- 1) Prohibit any use that may be hazardous to flight, including uses which produce excessive glare, light, smoke, steam, emissions, electronic interference, or may attract large flocks of birds.
- 2) Establish height limitations in accordance with Part 77 of Federal Aviation Regulations and require the dedication of avigation easements within the approaches and critical areas of high terrain to prevent obstructions to the navigable airspace.
- 3) Require local jurisdictions to identify and preserve open space within the approaches and at the periphery of the traffic pattern area to provide open land areas that can be utilized in an emergency landing.
- 4) Preclude uses in which the occupants have low-mobility (e.g. nursing homes, schools, etc.) from locating in areas with high to moderate accident potential within the approach/departures zones or the traffic pattern areas (Zones A, B, C, DA and D).
- 5) Require noise attenuation measures for noise-sensitive uses in areas that are subject to frequent noise intrusion (including single-event noise) within the approaches and traffic pattern area (Zones A, B, C, DA and D).

- 5) Require the dedication of overflight easements within the Airport's Planning Area to ensure notification to potential buyers of the Airport's influence.
- 6) Establish density limitations (as shown in Table 3-2) that would effectively:
  - a) Preclude the conversion of land to residential use within the areas subject to frequent noise intrusion within the approach/departure zones and traffic pattern areas (Zones A, B, C, DA and D). The Plan maintains residential densities in these areas at 1 unit per 40 acres in accordance with the present land use designations of the underlying general plan.
  - b) Preclude high-occupancy uses from locating in areas with high to moderate accident potential within the approach/departure zones and traffic pattern areas (Zones A, B, C, DA and D).

## ALTERNATIVES TO THE PLAN

During the development of the Plan, various alternative zone configurations and density restrictions were proposed, evaluated, and modified in response to input from staff, the community, and the Commission. As proposed, the Plan identifies residential land use as incompatible within the approach/departure zones and the traffic pattern areas (Zones A, B, C, DA and D). This policy, if implemented, would **avoid** the single-event noise and overflight annoyance impacts associated with residential uses.

Recently, much discussion has centered over the policy that would preclude residential use within the outer approach zone to Runways 18R. An alternative which would **NOT** preclude residential use within the outer approaches to runways 18R and 24 has been developed for consideration by the Commission. The outer approach zones have been designated as "Zone DA" (depicted on Exhibit A) for the purposes of evaluating the distinction between the traffic pattern areas affected by single and twin engine aircraft approaching the airport and the outer approach which is affected by jet aircraft as well.

Specific policies for this zone have been developed for both the Plan as proposed and the residential alternative. These policies are summarized in the attached Exhibits B entitled "Recommended Revisions" and Exhibit C entitled "Residential Alternative" for inclusion/revision to the draft Plan by the Commission. The impact discussion addresses issues relative to both the Recommended Plan and the Residential Alternative where there are no distinguishable differences. The potential differences in relative impacts between the alternatives is discussed separately in the appropriate sections: Noise (Items #17), Public Health impacts (Items #44, 45, 46, & 47); Fiscal (Items #52) and Growth Inducement (Item #53).

**JURISDICTIONAL BACKGROUND**

**Public Plans and Policies**

	YES	NO	N/A
Is the project consistent with:			
a) Regional and Subregional Plans and Policies?	<u>X</u>	—	—
b) LAFCOM Plans and Policies?	—	—	<u>X</u>
c) The County General Plan? (see discussion below)	—	—	<u>X</u>
d) Appropriate City General Plans? (see discussion below)	—	—	<u>X</u>
e) Adopted Environmental Plans and Goals of the Community?	<u>X</u>	—	—
f) Pertinent Zoning? (see discussion below)	—	—	<u>X</u>

Responsible (R) and Trustee (T) Agencies

County of Napa (R)  
City of Napa (R)

Other Agencies Contacted

Federal Aviation Administration  
State Division of Aeronautics

The affected jurisdictions within Napa County Airport’s Planning Area include the County of Napa and the City of Napa. Refer to Figure 5A of the Compatibility Plan for an illustration of the jurisdictional boundaries and the present land use designations in the vicinity of the Airport.

The adoption of the Plan by the Commission will have no **direct** effect on land use because the Commission has no direct authority over land use. The Plan only serves to provide guidance to the local jurisdictions in determining the compatibility of land uses with airport activities. However, due to the conformance provisions contained in the enabling legislation, the Plan will have an indirect effect on land use, in that local jurisdictions must bring their general plans and specific plans into conformance with the Compatibility Plan or otherwise provide findings that meet the intent of the Act to override the Commission’s determination. The Commission must review the local general plans and specific plans for consistency within 180 days of the adoption of the Plan. The statutory authority and role of the Commission and the relationship to local plans is further described in Chapter 1 of the Compatibility Plan.

An initial review of the underlying land use designations contained in the local general plans and specific plans indicates that, presently, the existing **land use designations** within Napa County Airport’s Planning Area are consistent with the Compatibility Plan. However, in order for the Commission to make a determination of consistency with the Compatibility Plan, the affected jurisdictions must revise their plans to incorporate **specific policies** relative to airport compatibility which:

- 1) recognize the Airport’s Planning Area;
- 2) agree to the types of actions to be referred to the Commission; and
- 3) reflect the density criteria, mitigation measures, and other conditions listed (i.e. height limitations, use restrictions, overflight easements, etc).

Implementation strategies are further described in Chapter 4 of the Compatibility Plan.

## Discussion of Effect on Land Use Plans

Because implementation of the Compatibility Plan is essentially a subsequent action to be taken by the affected jurisdictions and because provisions of the Act allow for local jurisdictions to override the Commission's determination, an assessment of the potential effect of this Plan is difficult to predict. Therefore, this Initial Study is based upon the assumption that the criteria, policies, and land use restrictions set forth in this Plan will be adopted by the affected agencies as recommended. Subsequent actions by the local jurisdictions required by the Plan (i.e. general plan revisions) which differ from the recommendations in this Plan may require additional environmental review.

Since the Plan addresses land use compatibility issues related to potential noise and safety impacts resulting from airport activities, the adoption of the Plan itself is a mitigation measure of potential airport impacts. The Plan establishes maximum densities for all land uses and identifies additional mitigation measures addressing noise and safety impacts. A fundamental policy of the plan focuses on preventing the encroachment of incompatible uses (primarily residential uses) into traffic areas.

Even though the Plan is considered to be a mitigation of potential impacts and thus not likely to have any significant adverse environmental effects, the Plan would preclude the conversion of land to residential use within the approach/departures zones and traffic pattern areas (Zones A, B, C, DA and D). Thus, a potential adverse effect of the Plan, would be on the future availability of land for housing in the Airport's Planning Area. However, the effect of the policies precluding residential use on the future availability of housing is considered not significant under the California Environmental Quality Act for two primary reasons:

- 1) Residential land use is not presently designated in the approach zones or the traffic pattern areas (Zones A, B, C, DA and D) in the adopted general plans and specific plans of the affected jurisdictions (with the exception of a narrow strip of land along the west bank of the Napa River, that is already developed with residential use). Since these areas have not been designated by the local jurisdictions for residential use, it can be determined that these areas are not needed nor expected to meet the long-term housing needs of the community over the 20-year timeframe of the Plan.
- 2) The policies precluding residential land use encompass a limited geographic area within the Airport's approach/departure zones and the traffic pattern areas (Zones A, B, C, DA and D). In other areas of the Airport's Planning Area (Zones E and F) residential use is considered compatible with mitigation measures that provide buyer notification of the Airport's influence. There is an extensive area within the Airport's Planning Area (Zones E and F) that remains available for future residential use.

For these reasons, it is determined that no impact on housing availability or affordability (such as the relocation of an unmet housing need or removal of a site designated for future residential use) would result from adoption and implementation of the Compatibility Plan for Napa County Airport.

## ENVIRONMENTAL SETTING

Napa County Airport is located in the southern part of the Napa River flood plain at elevation 33 MSL, within the unincorporated County of Napa. The Planning area is traversed (n-s) by the Napa River and (e-w) by its tributaries Suscol, Sheehy, and Fagan Creeks. The Airport Planning Area lies geographically south of the narrow Napa Valley, and north of the expanse of San Francisco/San Pablo Bay. The Planning Area is traversed from northwest to southeast, and from southwest to southeast by trunk lines of the Southern Pacific Railroad, and from north to south by State Highway 29. State Highway 12 joins Highway 29 from the east near the Airport.

A developing industrial area is located to the north and east of the Airport, undeveloped open land lies to the immediate south, and wetlands associated with the Napa River lie to the west. Within the Planning Area, but more than one mile from the Airport, are located (north) a portion of an industrial park in the City of Napa and the sloping terrain of Suscol Ridge and the "Southern Crossing", a high level bridge and fill across the Napa River about 7,200 feet north of the Airport, (east) vineyards and the east-west trending Jameson Canyon, (south) the topographic protrusion of Oat Hill and the northern fringes of the urbanized but unincorporated community of American Canyon, and (west) a part of the Carneros agricultural district, which also contains marine-oriented residential uses on the Napa River and an undeveloped portion of the City of Napa.

The Airport and most of the adjoining areas on the east, south, and west are composed of quaternary alluvial deposits and bay muds. Suscol Ridge, north of the Airport, is at the southwestern edge of a mountainous area formed of Sonoma volcanics. The southern flank of Jameson Canyon, southeast of the Airport, is geologically in the foothills of Mt. George, and is composed of Briones sandstones. Oat Hill is thought to be a remnant of the Great Valley sequence. The active West Napa Fault has been traced from just north of the Airport, through the Planning Area towards the south-southeast. Soils in the Planning Area consist largely of loams, clay loams, and clays of the Haire, Clear Lake and Reyes series. Most are highly suitable for agricultural use (Class II through IV).

Most of the Planning Area lies within a grassland habitat. A substantial area west of the Airport remains in a natural riparian system of the Napa River, and thus contains riparian habitats and permanently and seasonally flooded wetlands. Many of the grassland areas have been altered by salt ponds, vineyard cultivation, hay production, livestock grazing, and urban development. Tree stands consist primarily of native oaks on the hillsides and eucalyptus windrows.

**ENVIRONMENTAL EFFECTS:**

**Normally Significant Individual Impacts**

YES	NO	
		<b>(Geology)</b>
—	<u>X</u>	1. Exposure of new site users to substantial life and/or property hazards from geologic processes (e.g., severe settlement, sliding, faulting, intense seismically induced ground shaking, seismically-induced ground failures, etc.).
—	<u>X</u>	2. Exposure of existing area occupants to substantially increased life and/or property hazards from geologic processes.
—	<u>X</u>	3. Damage, destruction or burial of any unique or scientifically important geologic or geomorphologic feature.
		<b>(Meteorology)</b>
—	<u>X</u>	4. Substantial modification of climatic or microclimatic conditions (e.g., temperature, rainfall, wind, shadow patterns, etc.).
		<b>(Hydrology)</b>
—	<u>X</u>	5. Exposure of new site users to substantial life and/or property hazards from flooding (e.g., stream flooding, tsunamis, seiches, dam or levee failure, etc.).
—	<u>X</u>	6. Exposure of existing area occupants to substantially increased life and/or property hazards from flooding.
—	<u>X</u>	7. Substantial temporary construction period increase in erosion and/or sedimentation.
—	<u>X</u>	8. Substantial permanent increase in erosion and/or sedimentation.
—	<u>X</u>	9. Substantial depletion of groundwater resources or significant interference with groundwater recharge.
		<b>(Water Quality)</b>
—	<u>X</u>	10. Substantial degradation of the quality of waters present in a stream, lake, or pond.
—	<u>X</u>	11. Substantial degradation of the quality of groundwater supplies.
—	<u>X</u>	12. Substantial contamination of a public or private water supply.
		<b>(Air Quality)</b>
—	<u>X</u>	13. Exposure of new site users to substantial health hazards from breathing polluted air.
—	<u>X</u>	14. Exposure of existing area occupants to substantially increased health hazards from breathing polluted air.
—	<u>X</u>	15. Substantial degradation of local or regional air quality.
—	<u>X</u>	16. Exposure of new site users or existing area occupants to annoyance from dust and/or highly objectionable odors.
		<b>(Noise)</b>
—	<u>X</u>	17. Exposure of new site users to health hazards from noise levels in excess of those recognized as necessary to protect public health and welfare.
—	<u>X</u>	18. Exposure of existing area occupants to health hazards from noise levels in excess of those recognized as necessary to protect public health and welfare.
—	<u>X</u>	19. Exposure of people to high construction noise levels for substantial periods of time.
—	<u>X</u>	20. Exposure of existing area occupants to annoyance from substantially increased ambient noise levels.

\* Mitigable (see Mitigation Measures below)

° Cumulatively Significant Only

YES NO

(Ecosystem)

- 21. Substantial reduction in the number of a rare or endangered species of plant or animal or damage or restriction of the habitat of such a species.
- 22. Destruction of or substantial damage to a unique, scarce, or particularly productive biological area (e.g., marshes, riparian galleries, vernal pools, etc.).
- 23. Substantial reduction in habitat for plants, fish, and/or wildlife.
- 24. Substantial modification in the number or diversity of plant or animal species present.
- 25. Substantial interference with the movement of a resident or migratory fish or wildlife species.

(Social)

- 26. Disruption or division of an established community.
- 27. Displacement of a large number of people.

(Aesthetic)

- 28. Blockage or substantial degradation of important public or private views.
- 29. Exposure of new site users or existing area occupants to annoyance from increased nighttime light levels or glare.
- 30. Creation of a litter problem.

(Cultural)

- 31. Destruction of or substantial damage to a recognized archaeological site.
- 32. Destruction of or substantial damage to the historical character of a recognized historical structure, facility, or feature.
- 33. Elimination of or conflict with the established recreational, educational, religious, or scientific uses of the project site or surrounding properties.

(Traffic)

- 34. Exposure of new site users to substantial life and/or property hazards from traffic accidents.
- 35. Exposure of the existing users of the roads providing access to the project site to substantially increased life and/or property hazards from traffic accidents.
- 36. Exposure of the users of the roadways providing access to the project site to annoyance from noticeably increased traffic congestion.
- 37. Increase in traffic on the roadways providing access to the project site which is substantial in relation to the existing traffic load and capacity of the street system.
- 38. Creation of a substantial local parking problem.

(Energy)

- 39. Increase in the demand for energy which is substantial in relation to the existing energy demands of the area.
- 40. Creation of a facility or development which will use fuel or energy in a wasteful manner.
- 41. Creation of a facility or development which will use substantially higher than average amounts of fuel or energy for transportation purposes.

(Public Health)

- 42. Exposure of new site users to substantial health hazards from contaminated drinking water, inadequately treated sewage and/or insect or rodent pests.
- 43. Exposure of existing area occupants to substantially increased health hazards from contaminated drinking water, inadequately treated sewage and/or insect or rodent pests.
- 44. Exposure of new site users to substantial life and/or property hazards from fire.
- 45. Exposure of existing area occupants to substantially increased life and/or property hazards from fire.

\* Mitigable (see Mitigation Measures below)

° Cumulatively Significant Only

YES NO

(Public Health)

- X 46. Exposure of new site users to substantial life and/or property hazards from air crashes.
- X 47. Exposure of existing area occupants and/or existing air or heliport users to substantially increased life and/or property hazards from air crashes.
- X 48. Exposure of new site users or existing area occupants to substantial annoyance from insect or rodent pests.

(Community Services)

- X 49. Increase in the demand for a community service (e.g., sewer, water, fire protection, schools, etc.) which is substantial in relation to the currently existing uncommitted capacity of the agency involved to provide such a service.

(Commercial Resources)

- X 50. Preclusion of the development of aggregate, rock product, or mineral resources of current or potential importance.
- X 51. Removal of a substantial amount of agricultural or grazing land from current or potential production.

(Fiscal)

- X 52. Creation of a development to which it would cost the community substantially more to provide services than it would return in taxes.

(Growth Inducement)

- X 53. Inducement of substantial residential, commercial, or industrial development.

Mandatory Findings of Significance

YES NO

Does the project:

- a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?  X
- b) Have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?  X
- c) Have possible environmental effects which are individually limited but cumulatively considerable?  X
- d) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?  X

\* Mitigable (see Mitigation Measures below)

° Cumulatively Significant Only

## IMPACT DISCUSSION

Because no physical construction project(s) would result from the adoption of the Compatibility Plan, nor from the subsequent implementation of the land use restrictions and policies by the affected jurisdictions, the following areas of potential effect related to construction/alteration of the natural environment on the Initial Study Checklist have been checked "NO".

Geology	Items #1, 2 and 3
Meteorology	Item #4
Hydrology	Items #5, 6, 7, 8, 9
Water Quality	Items #10, 11, 12
Air Quality	Items #13, 14, 15, 16
Noise	Item #19
Ecosystem	Items #21, 22, 23, 24, 25
Aesthetic Cultural	Items #28, 30 Items #31, 32
Traffic (Auto)	Items #34 and 35
Energy	Items #39, 40, 41
Public Health	Items #42, 43, 44, 48

## IMPACT DISCUSSION (continued)

The following items in the Initial Study Checklist have also been checked "NO" but relate directly to land use that is potentially affected by the Plan and therefore warrants further explanation.

### Noise

#### Item #17:

The adoption and implementation of the Plan would not increase noise levels. The Plan does, however, recognize future noise levels from airport activities projected over a 20-year period. The projected impact elements and specific areas are discussed in Chapter 5 of the Compatibility Plan and depicted in Figure 5C. Projected noise contours as described by the Community Noise Equivalent Level (CNEL) indicate that aircraft noise from Napa County Airport would not present a health hazard. This is primarily because all areas within the 55 CNEL contour are either dedicated

health hazard. This is primarily because all areas within the 55 CNEL contour are either dedicated to open space uses or designated for industrial or agricultural use considered compatible with the anticipated noise levels. A greater concern and impact element surrounding Napa County Airport is related to single-event noise levels from aircraft overflights.

Implementation of the Recommended Plan would preclude residential land uses and require noise attenuation measures for other noise-sensitive land uses within the approach/departure zones and beneath the traffic pattern areas where frequent single-event noise intrusion can be expected. If implemented, the Plan would limit the exposure of future residents to airport noise. The policy that would preclude residential use within the Airport's traffic areas would **avoid** potential noise impacts from present and future airport activities. In avoiding the potential for single-event noise intrusion on residential uses in high traffic areas, the Plan also **avoids** the potential for overflight annoyance. Overflight annoyance has the potential to impact Airport activities by requiring noise monitoring programs, noise abatement procedures and/or operating restrictions.

In other areas within the Airport's Planning Area (Zones E and F) aircraft overflights are expected to occur, but not at such low altitudes or as frequently as expected in the approach and traffic pattern areas. In these outlying areas, the Plan requires overflight easements for all residential uses to provide notification to prospective buyers that the area is subject to overflights from aircraft operating to and from the Airport, thus enabling those who may be sensitive to aircraft noise to avoid moving to the affected areas.

If adopted and implemented, the Compatibility Plan would avoid potential noise impacts in the most affected areas (beneath the approaches and traffic pattern) and would mitigate potential noise impacts to new site users in those outlying areas potentially affected by airport activities. No new noise impacts would be created and no additional mitigation measures are required.

#### **Residential Alternative (within Zones DA)**

Since the outer approaches (Zone DA) are outside of the projected noise contours for Napa County Airport, future residents are not expected to be subject to health hazards related to excessive noise exposures. However, the outer approach zone will be subject to frequent overflights and single-event noise intrusion from aircraft on approach to the primary runway (18R) as well as the crosswind runway (24). In addition to the typical single-engine aircraft, these runways are also utilized by larger aircraft and business jets with single-event noise levels ranging from 70 dBA to 90 dBA on approach in these areas.

Departures, which are generally noisier, would occur relatively infrequently in these areas (approximately 5% of all operations) due to the prevailing wind conditions at Napa County Airport. Approximately 80 percent of all aircraft departures are to the south over baylands another 15 percent depart to the west over salt ponds/marsh and agricultural preserves. Therefore, departure noise levels are not considered a significant effect because of their relatively low frequency over developable areas.

The frequency of overflights on approach are projected to average 230 per day to the primary Runway 18R with an estimated 8 to 9 business jets per day as summarized in Table 1. The number of jets overflying these areas could double if jet training activities were re-instated at Napa County

Airport. It should be noted that jets will approach the airport on a straight-in approach because of their speed, placing all jet overflights within the outer approach zone. Larger aircraft and busy-hour traffic would require a larger and longer pattern that would extend over the outer approaches (Zone DA).

The Airport Master Plan, prepared in 1989 indicated that jet training activities at Napa County Airport had been discontinued. However, recent discussions with the local training instructors indicated that jet training activities may be re-instated at the airline training facility in the future. Currently students are advanced through multi-engine training on King Air turboprop aircraft at Napa County Airport. Upon completion the students are relocated to another facility in Washington to train on 747 aircraft. The transition from a King Air weighing less than 10,000 lbs. to a Boeing 747 which weighs well over 500,000 lbs. is seen as a difficult one by the flight instructors. The type of aircraft that would be used as an "interim jet trainer" would be similar to those business jets which frequent the Airport. A list of typical aircraft at Napa County Airport and their maximum noise levels as measured under FAR Part 36 is included in Table 2.

Table 3 presents typical noise levels relative to the line of sight for three types of representative aircraft that are expected to use Napa County Airport. Figure 1 provides a profile of the altitude of aircraft on approach to Napa County Airport with terrain elevations and both the existing approach and the future approach slopes indicated. As noted in the figures, aircraft will overfly the outer approaches less than 500 feet above the ground. The Airport Master Plan recommends that instrument approaches be established in the future for both Runway 18R and Runway 24. With an instrument approach procedure aircraft can be expected to fly even lower (340' minimums already established for a circle to land approach to runway 18R) in the outer approach.

The type of aircraft (jets with high single-event noise levels) and the low altitude of the aircraft, coupled with the frequency of overflights in the outer approaches present the potential for significant single-event noise impacts on future residents.

#### **Recommended Mitigation Measures:**

The Residential Alternative would not preclude residential use in the outer approaches based upon the following recommended mitigation measures:

1. Overall residential densities should be limited to a low density classification (1 unit per 5 acres is recommended) in order to limit the total number of residences that would be exposed to aircraft noise and overflight annoyance, thus limiting the potential of these neighborhoods to adversely impact airport activities.
2. An open space component should be incorporated into the project design and oriented along the extended runway centerline. Residences should be clustered and setback as far as possible from the extended runway centerline. Although the open space component is intended to address safety issues, it may also serve to increase the sight-distance to aircraft for residences. To the extent that the sight-distance would be increased, single-event noise levels experienced on-site may be reduced.
3. Acoustical studies should be required to identify noise attenuation measures incorporated into the building design that would provide a maximum interior noise level of 45 dBA based upon

the typical single-event noise levels for jet aircraft overflights on approach. This measure would mitigate single-event noise intrusion for **interior** noise levels.

4. However, exterior noise levels cannot be effectively reduced through noise attenuation measures. Given the temperate climate of the area, residents can be expected to enjoy outdoor living spaces and thus would be subject to aircraft noise. The dedication of an overflight easement as required in the Plan, which also specifies the potential for increased jet activities, could potentially mitigate the impact by notifying prospective buyers of the Airport's influence so that those who may be sensitive to jet aircraft noise could avoid moving to these areas.

Even with the mitigations noted above, annoyance associated with jet overflights could occur and may result in a potential impact to Napa County Airport. Operating restrictions, noise monitoring programs, noise abatement procedures, and land acquisitions are potential impacts experienced at other general aviation airports where residential uses have been allowed to encroach into the approach zones or traffic pattern areas. If residential uses were developed within the approaches to Napa County Airport, the subsequent use of the facility for jet training may also require restrictions on the training program to mitigate the potential impact on these areas (i.e. the type of jets allowed, the time of day, runway utilization etc).

**Item #18:**

Pursuant to provisions of the enabling legislation, the Commission's jurisdiction does not extend to existing land uses. Existing noise-sensitive uses in the Airport's Planning Area includes approximately 150 homes along the west bank of the Napa River (within Zone E) and a approximately 15 homes located northeast of the Airport off of Kelly Road (within Zones D and E). These areas are well outside of the projected 55 CNEL noise contour considered acceptable for residential uses and therefore would not create a health hazard for existing residents. Infill development of new residential uses and/or expansion of these existing uses may be allowed to occur in Zone D and residential use is considered compatible in Zone E. The dedication of an overflight easement would be required for new or expanded residential uses (see discussion below).

**Item #20:**

Although the Plan does not apply to existing land uses, it would require the dedication of an overflight easement for the expansion of an existing use to ensure buyer notification of the potential for aircraft overflights, thus enabling those who would be particularly annoyed to avoid moving into the affected areas. This would mitigate the potential for annoyance from aircraft noise in areas beneath the common flight paths and other areas in the Airport's environs (Zones E and F). It should be noted that the frequency of overflights within Zones E and F is much lower than the traffic pattern areas (Zones A through D) and the altitude of the aircraft is expected to remain above 1,000 feet, thus minimizing the single-event noise levels resulting from aircraft overflights. No potential impacts from adoption of the Plan is anticipated and no further mitigation measures are needed.

## **Social**

Items #26 and 27:

Since the Planning Area for Napa County Airport is primarily undeveloped at the time of Plan adoption, the potential to disrupt or divide an established community or displace a large number of people does not exist. The Plan includes density limitations which would preclude the development of high-occupancy uses (large assemblies) within those areas with high to moderate potential for aircraft accidents. This policy avoids any potential to disrupt or displace any use which would involve a large number of people in the event of an aircraft accident.

## **Aesthetic**

Item #29:

The Plan would require the dedication of aviation easements within the approach/departure zones and in areas where high terrain penetrates the airspace. The purpose of the aviation easement would be to prevent obstructions to the navigable airspace through the establishment of height limitations, and to allow for the marking or lighting of aircraft hazards by the airport authorities. The potential lighting of tall objects in the Airport's vicinity is not expected to create excessive glare or light. These effects could be readily mitigated by the property owner(s) in coordination with the airport authorities should they prove to be a problem. The impact is therefore deemed insignificant and no mitigation measures are required.

## **Cultural**

Item #33:

The Plan would not eliminate or conflict with established recreational, educational, religious, or scientific uses since the Plan does not apply to any existing uses in the Airport's Planning Area. A primary objective of the Plan is to preserve the operating environment of the Airport. Since the Airport's emphasis is on training activities and is considered a recreational resource by many local pilots, the Plan is expected to have a beneficial impact on the established recreational and educational use of the Airport. Other established recreational, educational, religious, or scientific uses in the airport's planning area include: the Chardonnay Golf Course located within the approach to Runway 24; Fagan Creek Marsh adjacent to the Airport to the west; and, a church facility located just beyond the approach to Runway 18R. These uses would be considered compatible uses under the Compatibility Plan.

## **Traffic**

Items #36, 37, and 38:

To the extent that the Plan limits the potential for large assemblages of people and other high-occupancy uses from locating in the area, the Plan would reduce the potential for increased traffic

loads and congestion on area roadways. No significant impact is identified and no mitigations are required.

## **Public Health**

Item #44, 45, 46, and 47:

The Compatibility Plan addresses potential hazards to flight, as well as the safety of persons and property on the ground by the following measures:

1. Restricting allowable densities in critical areas to limit the exposure of people and property on the ground to risks associated with potential aircraft accidents (including the potential for fire).
2. Establishing height limitations and requiring aviation easements to prevent obstructions to the navigable airspace, thus limiting the potential for aircraft accidents in the Airport's vicinity.
3. Prohibition of certain uses which have characteristics that may create an aircraft hazard (i.e., smoke, glare, electrical interference or attraction of large flocks of birds.)
4. Requiring that local jurisdictions maintain open space uses in areas with high to moderate accident potential (Zones A, B, C, DA and D). The provision of open space in an Airport's vicinity would provide an opportunity for controlled emergency landings and/or crash sites. This increases the potential survivability of an off-airport accident for the airport users and limits the exposure of persons and property on the ground from potential hazards (including fire) in the event of an aircraft accident.
5. The Plan requires buildings within the approach zones to be setback to the maximum extent feasible from the extended runway centerline. The Plan further encourages clustering of buildings to maximize open land areas. Subdivision maps and development plans within 100 feet of the approach zones are required to indicate building envelopes and approach surfaces in order to determine conformance with the open land requirements.

These measures are expected to minimize the potential exposure of area occupants and airport users to hazards related to potential aircraft accidents. The adoption of the Plan itself is a mitigation of these potential impacts; therefore, no other mitigation measures are necessary.

## **Residential Alternative (Zone DA)**

The alternative which allows residential development in the outer approaches could expose new residents to the potential for an aircraft accident since these areas are frequently overflown at low altitudes (between 400 and 800 feet above ground level). The potential for an uncontrolled stall-spin accident occurs at the turning points in the aircraft approach pattern. The turn "on base to final approach" generally occurs along the extended runway centerline.

### **Recommended Mitigation Measures:**

1. Because residential land use is typically scattered across a broad area, a policy statement which requires clustering of the residential units to provide an open space component oriented along the extended runway centerline is recommended. Since buildings in the approach are required to be setback from the extended runway centerline to the maximum extent feasible, the open space component would provide this setback from the areas with high to moderate accident potential. This would mitigate the safety concerns with respect to the potential for a stall-spin accident in the outer approaches (Zone DA).

### **Community Services**

#### **Item #49:**

The effect of the proposed land use restrictions would be to limit or preclude the establishment of high-occupancy uses that could create a substantial demand on community services. To the extent that the Plan would limit the allowable density of uses within the Airport's Planning Area, the demand for community services would also be limited. The adoption of the Plan reduces the potential to create a substantial increase in demand for community services within the Airport's Planning Area. No impacts are identified and no mitigation measures are needed.

### **Commercial Resources**

#### **Item #50:**

The Plan would not restrict the development of aggregate, rock product, or mineral resources in the Planning Area since these uses generally do not involve characteristics which may create a hazard to flight. An aviation easement which enables marking or lighting of tall objects used for extraction may be required if the use were located within an approach/departure zone.

#### **Item # 51:**

The Plan identifies agricultural or grazing land as a compatible use in all compatibility zones and therefore would not remove any land from current or potential production. The Plan does require the local jurisdictions to maintain open space uses in critical areas and thus is expected to have a beneficial effect on the preservation of agricultural lands in the Airport's Planning Area.

### **Fiscal**

#### **Item # 52:**

The adoption of the Plan would not involve any project development, but rather establishes criteria for evaluating land use compatibility in the Airport's Planning Area. To the extent that the Plan limits the intensity and density of uses, it may have a minor indirect effect on the cost of providing

public services to certain areas. The most restrictive density criteria are applied to a very limited geographic area within the approach/departure zones (Zones A, B and C). Except for Zone A (which is recognized as an airport acquisition area pursuant to the Airport's Master Plan) the density restrictions are not expected to reduce the taxable base to any significant or measurable extent and would therefore have a negligible effect on the cost to the community of providing services.

Since residential land uses generally do not return enough taxes to cover the cost of providing services, the policies which preclude the conversion of land to residential use may reduce the potential to create development which would cost the community more to provide services than it would return in taxes.

### **Residential Alternative (Zone DA)**

Under this alternative, residential use would be considered compatible within the outer approaches to Runways 18R and 24. Since the adoption and implementation of the Plan would not involve development approval or entitlement for use, the potential to create development would not apply. However indirectly, this alternative has the potential to **encourage** residential development proposals which may cost the community more to provide services than it would return.

### **Recommended Mitigation Measures:**

The fiscal impact could be mitigated through Community Development Fees and/or other user and municipal fees which may reduce the cost of services to an appropriate level. This type of mitigation measure is outside of the jurisdiction of the Commission.

### **Growth Inducement**

Item # 53:

The adoption of the Plan would limit growth in the Airport's Planning Area to the extent that it would preclude the conversion of land to residential use and maintain open space within the approaches and traffic pattern areas. Since the primary effect of the Plan is growth-limiting, the adoption of the Plan and its implementation would not be growth-inducing.

### **Residential Alternative Zone DA**

The potential to develop residential use within the outer approaches to Runways 18 and 24 could be viewed as growth-inducing, since it may **encourage** residential development proposals in areas not presently designated for residential use. However, the potential growth-inducing effect is considered not significant for two reasons:

- 1) The adoption of the Plan would not involve any development approval or entitlement for use.
- 2) The conversion of land to residential use is not necessary or anticipated for implementation or conformance by the local jurisdictions.

Thus, the growth-inducing effect of any proposed change in land use would need to be addressed in the context of the environmental review process required for the general plan amendment process. The Compatibility Plan only provides guidance to the Commission and the local jurisdiction's in evaluating the compatibility of such land use changes with airport activities.

**MITIGATION MEASURES:**

- None Required for "Recommended Plan".
- Identified By This Study for "Residential Alternative"
- Included By Applicant As Part of Project
- Recommended For Inclusion As Part of Public Project

**BASIS OF CONCLUSIONS:**

The conclusions and recommendations contained herein are professional opinions derived in accordance with current standards of professional practice. They are based on a review of the Napa County Environmental Sensitivity Maps, the other sources of information listed in the file, and the comments received, conversations with knowledgeable individuals; the preparer's personal knowledge of the area; and, where necessary, a visit to the site. For further information, see the Environmental Background Information form contained in the permanent file on this project.

**PERSONS PARTICIPATING IN THE INITIAL STUDY**

Resource Evaluation:	<u>Mike Miller, Napa County Planning</u>	Date: <u>3-29-91</u>
Site Review:	<u>Jennifer Barrett, Hodges &amp; Shutt</u>	Date: <u>3-30-91</u>
Planning/Zoning Review:	<u>Jennifer Barrett, Hodges &amp; Shutt</u>	Date: <u>3-30-91</u>

**PRELIMINARY DETERMINATION**

No reasonable possibility of environmental effect has been identified, and a Negative Declaration should be prepared.

A Negative Declaration cannot be prepared unless all identifiable impacts are reduced to a level of insignificance or avoided.

DATE: 4-1-91

BY: Michael Miller

DATE: 3-30-91

BY: Jennifer Barrett

**FINAL DETERMINATION**

On the basis of this preliminary evaluation:

- I find that the project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** should be approved.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect on this case because the mitigation measures described on the attached sheet have been added to the project. A **NEGATIVE DECLARATION** should therefore be approved.
- I find the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** would be required.

Mitigation measures to reduce all impacts to levels of insignificance or to avoid such impacts have been identified and may be adopted as part of the project.

A previously-certified Environmental Impact Report will fully address the impacts of the project, supplemented as necessary for public projects by additional mitigation recommended as part of the project.

A new, Subsequent or Supplemental Environmental Impact Report is appropriate for the project.

DATE: 4/1/91

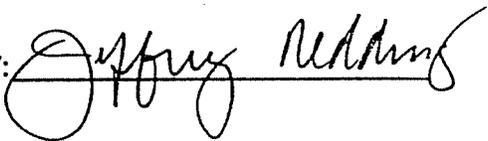
BY: 

Table 1

## Projected 2008 Frequency of Overflights on Approach to Napa County Airport

*210,000 projected annual operations*

*or*

*105,000 annual approaches*

*or*

*288 daily overflights on approach*

	Average Daily Distribution <sup>1</sup>	Average Daily Approaches <sup>2</sup>	Average Daily Business Jets	With Jet Training <sup>3</sup>
Runway 18R	80%	230	9	18
Runway 18L	20%	58	0	0
<b>TOTALS</b>	<b>100%</b>	<b>288</b>	<b>9</b>	<b>18</b>

Notes:

- 1) Average daily distribution is calculated for the typical day when winds are from the south and all approaches are to 18R or 18L. During certain times of the year (summer afternoons), wind conditions will shift out of the west, in which all approaches would be directed to the crosswind Runway 24. Rarely (5% of total annual operations), wind conditions would require approaches from the south to Runway 36L or 36R.
- 2) Daily distribution percentages are different than the annual distribution. Annual distribution figures are used to identify runway utilization patterns pursuant to local weather patterns over the course of the entire year. Average daily distribution reflects the typical day as indicated by interviews with FAA tower personnel.
- 3) If jet training were re-instated at Napa County Airport in the future, the number of jet operations would double. All jets use Runway 18R or 24 and fly "straight-in" approaches.

Table 2

### Estimated Maximum A-Weighted Sound Levels Measured in Accordance with FAA Part 36 Procedures

MANUFACTURER	AIRCRAFT	APPROACH dBA <sup>1</sup>
<b>SINGLE-ENGINE</b>		
Piper	PA-28-200	61.0
Cessna	172 Skyhawk	62.0
Cessna	150	59.0
Beech	Bonanza	64.0
<b>TURBOPROPS</b>		
Beech	C90	75.0
Beech	Super Kingair 200	77.0
Cessna	310	73.7
Shorts	3-60	80.1
Piper	Cheyenne	77.1
<b>JETS</b>		
Gulfstream	Gulfstream III	82.5
IAI	Westwind	84.0
Learjet	Learjet 35	83.1
Canadair	Challenger 600	81.7
Cessna	Citation III	81.4
Sabreliner	Sabre 40A	92.0
Dassault	Falcon 20	93.1

**Notes:**

1. Approach noise levels are measured at a point 6,562 feet (2,000 meters) from the threshold of the extended runway centerline.
2. Departure noise levels are measured at a point 21,325 feet (6,500 meters) from the start of the takeoff roll. (At Napa County Airport, this would be 15,393 feet from the nearest runway end).

Table 3

Typical Single-Event Noise Levels from Aircraft Departures

Aircraft Type	Line of Sight (Distance)	Typical Maximum Noise Level (dBA)
Single-engine propeller	500 ft.	75
	1,200 ft.	65
Twin-engine propeller	800 ft.	75
	1,500 ft.	65
Turbojet (Falcon)	2,000 ft.	76
	4,000 ft.	65

Source: Napa County General Plan  
Sound Solutions

**Recommended Revisions**  
**Exhibit B**  
**Airport Vicinity Land Use Compatibility Criteria**

ZONE	LOCATION	IMPACT ELEMENTS	MAXIMUM DENSITIES		
			Residential <sup>2</sup>	Other Uses (people/ac) <sup>2</sup>	
				In Structures	Total in and out of Structures
A <sup>9</sup>	Runway Protection Zone and Primary Surface	- High risk - High noise levels - Low overflights below 50' AGL	0	0	10
B	Inner Approach/Departure Zone	- Substantial risk - High noise levels - Low overflights below 100' AGL	1 du/40 ac	10	25
C	Approach/Departure Zone	- Moderate risk - Substantial noise - Low overflight below 300' AGL	1 du/40 ac	50	75
DA	Outer Approach	- Moderate risk (turning movements) - Frequent noise intrusion (jets) - Routine overflights below 800' AGL	1 du/40 ac	75	100
D	Traffic Pattern	- Moderate risk - Frequent noise intrusion - Routine overflights below 1,000' AGL	1 du/40 ac	100	150
E	Common Flight Paths	- Limited risk - Frequent noise intrusion - Overflight annoyance	- <sup>7</sup>	150	300
F	Other Airport Environs	- Low risk - Overflight annoyance	See Note 7		

1. Residential land use and zoning designations are considered incompatible uses within the traffic pattern area (Zones A, B, C, and D) where aircraft overflights are frequent and at low altitude. The residential restrictions do not apply to residential uses allowable under agricultural land use and zoning designations.
2. The use should not attract more than the indicated number of persons per net acre. Net acreage is the total site area inclusive of parking areas and landscaping, less the area dedicated for streets. These densities are intended as general planning guidelines to aid in determining the acceptability of proposed land uses. Clustering of development within the density parameters should be encouraged to protect and provide open land/safety areas.
3. Dedication of an aviation or overflight easement or deed notice is required as a condition for new development within all zones. Also, height limit restrictions are applicable to structures and trees in all zones in accordance with Federal Aviation Regulation Part 77 and local ordinances. Uses which may be hazardous to flight are prohibited in all zones.
4. These uses typically can be designed to meet the density requirements and other development conditions listed.
5. These uses typically do not meet the density requirements and other development conditions listed. They

should be allowed only if a major community objective is served by their location in this zone and if mitigation measures (i.e., noise attenuation) are incorporated that will minimize potential conflicts.

6. NLR = Noise Level Reduction; i.e., the attenuation of sound level from outside to inside provided by the structure. Noise level reduction measures may be required in areas with high single-event noise levels and where noise-sensitive users (schools, libraries, etc.) are proposed. Refer to Appendix C for criteria and noise attenuation measures.
7. Maximum residential densities in accordance with local adopted General Plans and zoning designations. Consideration should be given to the proximity of flight patterns, frequency of overflight, terrain conditions, and type of aircraft in determining acceptable location of residential uses. Referral to the ALUC for review of development plans prior to approval is recommended.
8. The purpose of this criteria is to provide a basis for determining those land uses which are compatible with airport activities. Specific land uses will be allowed only if they are also consistent with applicable General Plan policies and zoning ordinances.
9. All lands in Zone A are either within the Airport's boundaries or designated for acquisition in the Airport Master Plan.

**Recommended Revisions  
Exhibit B Continued**

ZONE	PROHIBITED USES	OTHER DEVELOPMENT <sup>3</sup> CONDITIONS	EXAMPLES OF NORMALLY ACCEPTABLE USES <sup>4</sup>	EXAMPLES OF USES NOT NORMALLY ACCEPTABLE <sup>5</sup>
A	<ul style="list-style-type: none"> <li>- All residential uses</li> <li>- Any assemblage of people</li> <li>- Any new structure which exceeds height limits</li> <li>- Noise sensitive uses</li> <li>- Uses hazardous to flight</li> </ul>	<ul style="list-style-type: none"> <li>- Avigation easement required</li> </ul>	<ul style="list-style-type: none"> <li>- Pasture, open space</li> <li>- Aircraft tiedowns</li> <li>- Auto parking</li> <li>- Most agricultural uses</li> </ul>	<ul style="list-style-type: none"> <li>- Heavy poles, signs, large trees, etc.</li> </ul>
B	<ul style="list-style-type: none"> <li>- All residential uses</li> <li>- Any noise-sensitive uses</li> <li>- Schools, libraries, hospitals, nursing homes, daycare centers</li> <li>- Uses hazardous to flight (e.g., landfills)</li> </ul>	<ul style="list-style-type: none"> <li>- Avigation easement required</li> <li>- Structures to be as far as possible from extended runway centerline</li> <li>- Clustering is encouraged to maximize open land areas</li> <li>- Minimum NLR of 25 dBA in office buildings<sup>6</sup></li> <li>- Building envelopes and approach surfaces required on all subdivision maps and development plans</li> </ul>	<ul style="list-style-type: none"> <li>- All uses from Zone A</li> <li>- Parks with low-intensity uses, golf courses</li> <li>- Nurseries</li> <li>- Mini-storage</li> </ul>	<ul style="list-style-type: none"> <li>- Retail uses</li> <li>- Office uses (except as accessory uses)</li> <li>- Hotels, motels, resorts</li> <li>- Theaters, assembly halls, and conference centers</li> </ul>
C	<ul style="list-style-type: none"> <li>- All residential uses</li> <li>- Schools, libraries, hospitals, nursing homes, daycare centers</li> <li>- Uses hazardous to flight (e.g., landfills)</li> <li>- Landfills</li> </ul>	<ul style="list-style-type: none"> <li>- Avigation easement required</li> <li>- Structures to be set back as far as possible from extended centerline</li> <li>- Clustering is encouraged to maximize open land areas</li> <li>- Building envelopes and approach surfaces required on all subdivision maps</li> <li>- NLR measures may be required for noise-sensitive uses (offices)</li> </ul>	<ul style="list-style-type: none"> <li>- All uses from Zone B</li> <li>- Warehousing and low-intensity light industrial</li> <li>- Small retail uses</li> <li>- Outdoor recreation uses; marina, ball-park</li> <li>- Office uses</li> </ul>	<ul style="list-style-type: none"> <li>- Large retail buildings</li> <li>- Hotels, motels, resorts, health club</li> <li>- Restaurants, bars</li> <li>- Multi-story buildings</li> <li>- Theaters, assembly halls, and conference centers</li> </ul>
DA	<ul style="list-style-type: none"> <li>- All residential uses</li> <li>- Uses hazardous to flight</li> </ul>	<ul style="list-style-type: none"> <li>- Avigation easement required</li> <li>- Structures to be set back as far as possible from extended runway centerline</li> <li>- Building envelopes and approach surfaces required on all subdivision maps and development plans</li> <li>- NLR measures/acoustical studies may be required for noise-sensitive uses</li> </ul>	<ul style="list-style-type: none"> <li>- All use from Zone C</li> <li>- Most non-residential uses</li> </ul>	<ul style="list-style-type: none"> <li>- Schools, libraries, hospitals, nursing homes</li> <li>- Large shopping malls</li> <li>- Amphitheaters</li> </ul>
D	<ul style="list-style-type: none"> <li>- All residential uses</li> <li>- Uses hazardous to flight (e.g., landfills)</li> </ul>	<ul style="list-style-type: none"> <li>- Overflight easement or deed notice required</li> <li>- Building envelopes and approach surfaces required on all development plans within 100' of approach zones</li> <li>- Clustering is encouraged to maximize open land areas</li> <li>- NLR measures may be required for noise-sensitive uses<sup>6</sup></li> </ul>	<ul style="list-style-type: none"> <li>- All uses from Zone DA</li> <li>- Most non-residential uses</li> <li>- Accessory day care centers</li> </ul>	<ul style="list-style-type: none"> <li>- Schools, libraries, hospitals, nursing homes</li> <li>- Large shopping malls</li> <li>- Amphitheaters</li> </ul>
E	<ul style="list-style-type: none"> <li>- Large assemblages of people under flight path</li> <li>- Noise-sensitive outdoor uses</li> <li>- Uses hazardous to flight (e.g., landfills)</li> </ul>	<ul style="list-style-type: none"> <li>- Overflight easement or deed notice required</li> <li>- Clustering of development away from flight path is encouraged</li> </ul>	<ul style="list-style-type: none"> <li>- Any permitted use</li> </ul>	<ul style="list-style-type: none"> <li>- Schools, libraries, hospitals, nursing homes</li> <li>- Amphitheaters</li> <li>- Landfills</li> </ul>
F	<ul style="list-style-type: none"> <li>- Noise-sensitive outdoor uses</li> </ul>	<ul style="list-style-type: none"> <li>- Overflight easement or deed notice required</li> </ul>	<ul style="list-style-type: none"> <li>- Any permitted use</li> </ul>	<ul style="list-style-type: none"> <li>- Amphitheaters</li> <li>- Landfills</li> </ul>

## Residential Alternative Exhibit C Compatibility Criteria

ZONE	LOCATION	IMPACT ELEMENTS	MAXIMUM DENSITIES		
			Residential <sup>2</sup>	Other Uses (people/ac) <sup>2</sup>	
				In Structures	Total in and out of Structures
DA <sup>9</sup>	Outer Approach/Extended Traffic Pattern	<ul style="list-style-type: none"> <li>- Moderate risk (turning movements)</li> <li>- Frequent noise intrusion (jets)</li> <li>- Routine overflights below 800' AGL</li> </ul>	Low density (1 unit/5 acres)	75	100

\* Note: Residential land uses with an overall gross density of no more than 1 unit/5 acres MAY be considered compatible within the Approach Pattern area (Zone DA) under certain conditions listed, provided that such use incorporates a substantial open space component and other mitigation measures are included which address the noise, safety, and overflight annoyance impacts.

ZONE	PROHIBITED USES	OTHER DEVELOPMENT <sup>3</sup> CONDITIONS	EXAMPLES OF NORMALLY ACCEPTABLE USES <sup>4</sup>	EXAMPLES OF USES NOT NORMALLY ACCEPTABLE <sup>5</sup>
DA	<ul style="list-style-type: none"> <li>- Highly noise-sensitive uses</li> <li>- Uses hazardous to flight</li> <li>- Landfills</li> </ul>	<ul style="list-style-type: none"> <li>- Open space component is required</li> <li>- To be oriented along extended runway centerline</li> <li>- Buildings should be set back from centerline to the maximum extent feasible</li> <li>- Acoustical studies/NLR that provide maximum interior noise level of 45 dBA based upon single-event jet aircraft overflights on approach.</li> <li>- Avigation easement must also disclose potential for increased jet activities at Napa County Airport</li> </ul>	<ul style="list-style-type: none"> <li>- All uses from Zone C</li> <li>- Most non-residential uses</li> <li>- Apartments, multi-family units clustered to meet density criteria</li> </ul>	<ul style="list-style-type: none"> <li>- Schools, libraries, hospitals, nursing homes</li> <li>- Large shopping malls</li> <li>- Amphitheaters</li> </ul>

1. Residential land use and zoning designations are considered incompatible uses within the traffic pattern area (Zones A, E, C, and D) where aircraft overflights are frequent and at low altitude. The residential restrictions do not apply to residential uses allowable under agricultural land use and zoning designations.
2. The use should not attract more than the indicated number of persons per net acre. Net acreage is the total site area inclusive of parking areas and landscaping, less the area dedicated for streets. These densities are intended as general planning guidelines to aid in determining the acceptability of proposed land uses. Clustering of development within the density parameters should be encouraged to protect and provide open land/safety areas.
3. Dedication of an avigation or overflight easement or deed notice is required as a condition for new development within all zones. Also, height limit restrictions are applicable to structures and trees in all zones in accordance with Federal Aviation Regulation Part 77 and local ordinances. Uses which may be hazardous to flight are prohibited in all zones.
4. These uses typically can be designed to meet the density requirements and other development conditions listed.
5. These uses typically do not meet the density requirements and other development conditions listed. They should be allowed only if a major community objective is served by their location in this zone and if mitigation measures (i.e., noise attenuation) are incorporated that will minimize potential conflicts.
6. NLR = Noise Level Reduction; i.e., the attenuation of sound level from outside to inside provided by the structure. Noise level reduction measures may be required in areas with high single-event noise levels and where noise-sensitive users (schools, libraries, etc.) are proposed. Refer to Appendix C for criteria and noise attenuation measures.
7. Maximum residential densities in accordance with local adopted General Plans and zoning designations. Consideration should be given to the proximity of flight patterns, frequency of overflight, terrain conditions, and type of aircraft in determining acceptable location of residential uses. Referral to the ALUC for review of development plans prior to approval is recommended.
8. The purpose of this criteria is to provide a basis for determining those land uses which are compatible with airport activities. Specific land uses will be allowed only if they are also consistent with applicable General Plan policies and zoning ordinances.
9. All lands in Zone A are either within the Airport's boundaries or designated for acquisition in the Airport Master Plan.

Notice of Exemption

99-0113

ENDORSED

DEC 22 1999

JOHN TUTEUR  
Napa County Recorder - County Clerk

By LEVANS  
DEPUTY RECORDER - CLERK

[PUBLIC PROJECT EXEMPT FROM FILING FEES C.G.C. § 6103]

To:  Office of Planning and Research  
1400 Tenth Street, Room 121  
Sacramento, CA 95814

From: (Public Agency) Napa County Airport Land Use Commission  
1195 Third St, Rm 210  
Napa, CA 94559



County Clerk  
County of Napa

Project Title: 1999 ALUCP Amendment (Napa County Airport)

Project Location - Specific: 14,000 ft. radius Planning Area for the Napa County Airport Land Use Plan, centered on this public airport located on unincorporated lands west of State Highway 29 and east of the Napa River, south of the city of Napa and north of the City of American Canyon.

Project Location - City: Napa, American Canyon, and unincorporated County: Napa

Description of Project: Revisions of Napa County Airport Land Use Plan for the County Airport. The amendment would revise Chapter 2 (Compatibility Concerns) regarding safety and overflights; revise Chapter 3 (Policies) regarding compatibility zone designations and referral procedures including revisions of Table 3-1 (Compatibility Zone Definitions) and Table 3-2 (Compatibility Criteria) and Figure 3A (Compatibility Plan Map); and revise Chapter 5 (Napa County Airport Plans and Impact Assessment) for consistency and designation of Common Traffic Pattern, including revision of Figure 5C (Airport Impact Areas - Napa County Airport).

Name of Public Agency Approving Project: Napa County Airport Land Use Commission

Name of Person or Agency Carrying Out Project: Napa County Airport Land Use Commission

Exempt Status: General Rule Section 15061(b)(3)

Reasons why project is exempt: The General Rule applies "where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment." Pursuant to state law, the ALUCP operates to establish policies, with which either local general plans, zoning and development projects must be made consistent, or on a case-by-case basis overruled by the local governing body with findings. Thus whether a project (plan, zoning or development) actually may have an environmental impact is dependent both on that project itself, and on how the local government chooses to deal with the existence of the ALUCP. Negative Declarations were prepared and adopted in 1991 demonstrating that the ALUCP for each of the airports in Napa County would have no potential environmental impact. Amendments to the ALUCPs have no independent authority, and can therefore be seen with certainty to have no potential environmental effect.

Lead Agency

Contact Person: Michael Miller Area Code/Telephone Extension: 707/253-4417

Signature: Michael Miller Date: 12/22/99 Title: Deputy Planning Director /ALUC Staff  
 Signed by lead agency

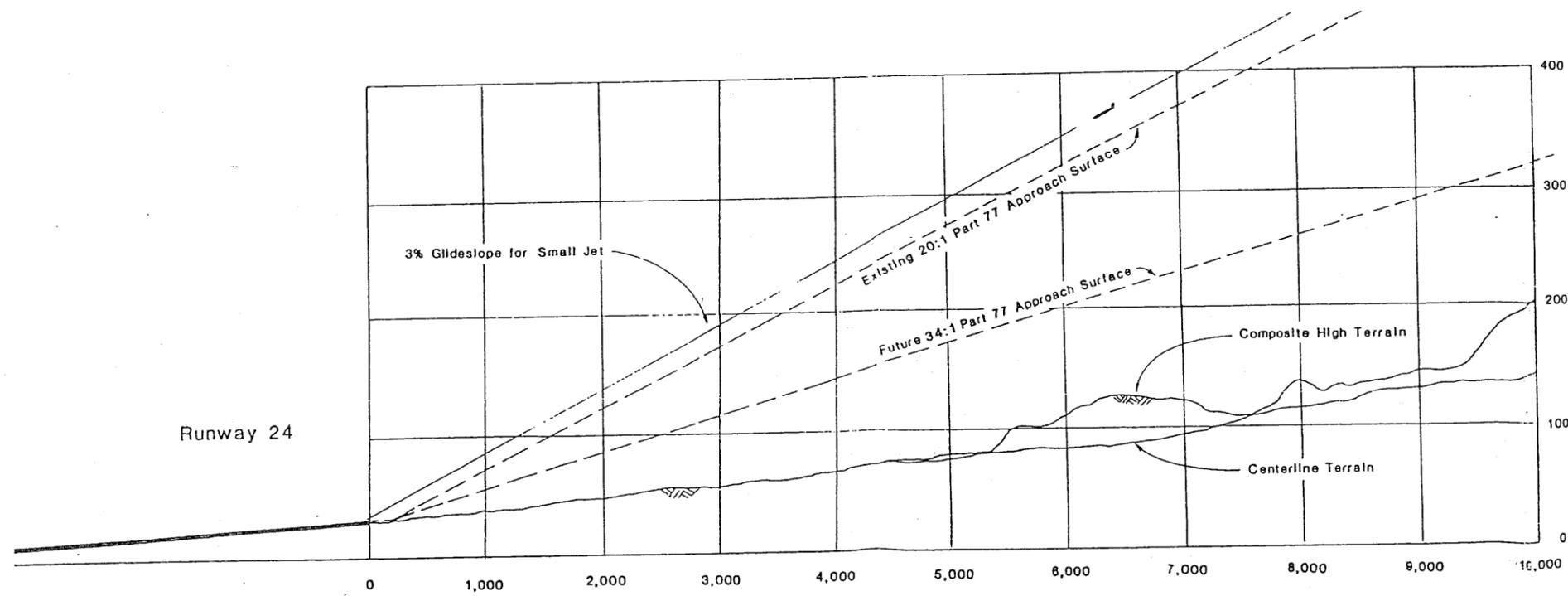
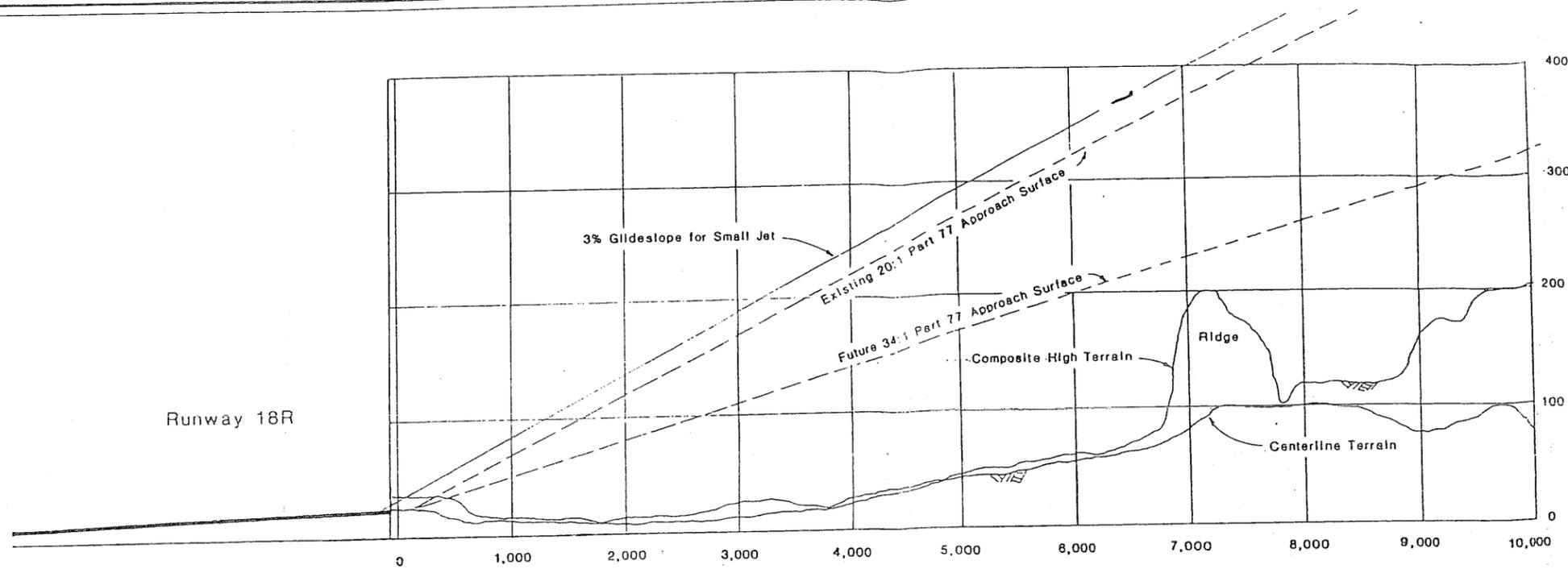


Figure 1

Aircraft Altitude Profiles  
Napa County Airport

( )  
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( )  
( )

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(Chapter repealed February 16,2000)



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**10**

**Virgil O. Parrett Field Initial Study and  
Negative Declaration**

(1)

(1)

(1)

**DRAFT**  
**NEGATIVE DECLARATION**

The Executive Director of the Napa County Airport Land Use Commission has tentatively determined that the following project would not have a significant effect on the environment. Documentation supporting this determination is on file for public inspection at the Napa County Airport Land Use Commission Office, 1195 Third St., Room 210, Napa, California 94559. For further information call (707) 253-4416.

**PARRETT FIELD AIRPORT LAND USE COMPATIBILITY PLAN**

**(Project Description)**

The criteria and policies which the Napa County Airport Land Use Commission will use in evaluating the compatibility of land uses around Virgil O. Parrett Field (Angwin Airport). (See Project Description contained in the attached Initial Study, incorporated by reference).

**WRITTEN COMMENT PERIOD:**  
April 1, 1991 to April 21, 1991

DATE: April 1, 1991

BY THE ORDER OF

JEFFREY REDDING

Director

Napa County Conservation, Development and Planning Department



COUNTY OF NAPA  
CONSERVATION, DEVELOPMENT AND PLANNING DEPARTMENT  
1195 Third Street, Rm. 210  
Napa, California, 94559  
(707) 253-4416

INITIAL STUDY

PROJECT NAME:     **PARRETT FIELD AIRPORT LAND USE COMPATIBILITY PLAN**  
FILE NO:

**PROJECT DESCRIPTION:**     The Parrett Field Airport Land Use Compatibility Plan (the Plan) sets forth the criteria and policies which the Napa County Airport Land Use Commission (the Commission) will use in evaluating the compatibility of land uses around Parrett Field (the Airport). The statutory requirement for the establishment of the Commission and the adoption of the Plan is set forth in the State Aeronautics Act, Article 3.5, Chapter 4, Section 21670 of the Public Utilities Code (the Act).

The recommended planning area for Parrett Field is entirely within the area encompassed by the outer conical surface as defined under Part 77 of Federal Aviation Regulations (established by a 5,000-foot radius from the runway's primary surface); and would be further limited on the west side (outside the airport traffic pattern) by Howell Mountain Drive and Falls Road (refer to Figure 3C of the Plan). A detailed discussion and assessment of the airport's impact area is included in Chapter 7 of the Plan. Figure 3C and Tables 3-1 and 3-2 of the Plan summarize the areas of concern and the Commission's criteria and policies for Parrett Field which are further defined in Chapter 3 of the Plan. The primary policies would:

- 1)     Prohibit any use that may be hazardous to flight, including uses which produce excessive glare, light, smoke, steam, emissions, electronic interference or may attract large flocks of birds.
- 2)     Establish height limitations in accordance with Part 77 of Federal Aviation Regulations and require the dedication of height-limit easements to the County of Napa within the approaches to prevent obstructions to the navigable airspace.
- 3)     Require the local government to identify and preserve open space within the approaches and traffic pattern area to reduce the risks to life and property of aircraft emergencies.
- 4)     Preclude uses in which the occupants have low mobility (e.g. nursing homes, grade schools, etc.) from locating in areas with high to moderate accident potential within the approach/departure zones or the traffic pattern areas (Zones A,B,C, and D).
- 5)     Preclude noise-sensitive uses from locating in the areas that are subject to frequent noise intrusion (including single-event noise) within the approaches and traffic pattern area (Zones A,B,C and D).
- 6)     Require the recordation of airport operational/overflight notices to ensure notification to potential buyers of the airport's influence.
- 7)     Establish density limitations (as shown in Table 3-2) that would effectively:
  - a)     Preclude the conversion of land to residential use within the areas subject to frequent noise intrusion within the approach/departure zones and traffic pattern areas (Zones A,B,C and D). The Plan maintains residential densities in these areas at 1 unit per 40 acres in accordance with the present land use designations of the underlying general plan.
  - b)     Preclude high-occupancy uses from locating in areas with high to moderate accident potential within the approach/departure zones and traffic pattern areas (Zones A,B,C and D).

**JURISDICTIONAL BACKGROUND:**

**Public Plans and Policies**

Based on an initial review, the following findings have been made for the purpose of the Initial Study and do not constitute a final finding by the County in regard to the question of consistency.

	YES	NO	N/A
Is the project consistent with:			
a) Regional and Subregional Plans and Policies?	<u>X</u>	—	—
b) LAFCOM Plans and Policies?	—	—	<u>X</u>
c) The County General Plan? (see discussion below)	—	—	<u>X</u>
d) Appropriate City General Plans?	—	—	<u>X</u>
e) Adopted Environmental Plans and Goals of the Community?	—	—	<u>X</u>
f) Pertinent Zoning? (see discussion below)	—	—	<u>X</u>

\* Mitigable (see Mitigation Measures below)

o Cumulatively Significant Only

Responsible (R) and Trustee (T) Agencies

County of Napa (R)

Other Agencies Contacted

Federal Aviation Administration  
State Division of Aeronautics

The adoption of the Plan by the Commission will have no direct effect on land use because the Commission has no direct authority over land use. The Plan only serves to provide guidance to the local jurisdictions in determining the compatibility of land uses with airport activities. However, due to conformance provisions contained in the enabling legislation, the Plan will have an indirect effect on land use, in that local jurisdictions must bring their general plans and specific plans into conformance with the Plan or otherwise provide findings that meet the intent of the Act to override the Commission's determination. The Commission must review the local general plan within 180 days of the adoption of the Plan. The statutory authority and role of the Commission and the relationship to local plans is further described in Chapter 1 of the Plan.

An initial review of the underlying local general plan indicates that the existing land use designations within the Parrett Field Planning Area are presently consistent with the Plan. However, in order for the Commission to make a determination of consistency with the Plan, the County must revise its plan to incorporate specific policies relative to airport compatibility which:

- 1) Recognize the airport's planning area;
- 2) Agree to the types of actions to be referred to the Commission; and
- 3) Reflect the density criteria, mitigation measures and other conditions listed (*i.e.* height limitations, use restrictions, notification requirements, etc.)

### Discussion of Effect on Local Land Use Plan

Because implementation of the Plan is essentially a subsequent action to be taken by the County, and because provisions of the Act allow for local jurisdictions to override the Commission's determinations, an assessment of the potential effect of the Plan is difficult to predict. Therefore, this Initial Study is based on the assumption that the criteria, policies, and land use restrictions set forth in this Plan will be adopted by the local agency as recommended. Subsequent actions by the local jurisdiction required by the Plan (general plan revision) which differ from the recommendations in this Plan may require additional environmental review. Since the Plan addresses land use compatibility issues related to potential noise and safety impacts resulting from airport activities, the adoption of the Plan itself is a mitigation measure for potential airport impacts. The Plan establishes performance criteria for land use densities, identifies specific mitigation measures, and seeks to prevent the encroachment of incompatible uses (principally noise-sensitive uses such as residential) into aircraft traffic areas.

Even though the Plan is a mitigation of potential impacts and consequently not likely to have any significant adverse environmental effects of its own, the Plan precludes the conversion of land to higher densities of residential use than 1 unit/40 acres within the approach/departure zones and traffic pattern areas (Zones A,B,C and D). Thus, a potential adverse effect of the Plan would be to restrict the future availability of land for housing within the Airport's Planning Area. However, this impact is insignificant because no residential density higher than 1 unit/40 acres is presently designated in these areas in the local general plan, and is thus not regarded as necessary to meet the housing needs of the community over the 20-year time frame of the Plan.

**ENVIRONMENTAL SETTING:** Parrett Field is located on top of Howell Mountain at elevation  $\pm$  1850 feet immediately east of the  $\pm$  1½ square mile unincorporated community of Angwin, and is an integral part of Pacific Union College. The College forms the eastern side of the urbanized area begun in the 1860's as a resort. The airfield occupies a ridgetop formed of Sonoma volcanics; Howell Mountain forms a divide between the Conn Creek/Napa River watershed and the Maxwell Creek/Lake Berryessa watershed. Surrounding terrain drops away from the airfield almost immediately to the north, south, and east, and after a somewhat gently-sloping (2-15%) tableland to the west. The hilly environment consists of climax and successional Douglas fir woodland, but the ridgetop, including the airport, is clear of vegetation, and the urbanized community to the west has also significantly altered the vegetation. The Howell Mountain ridge has no mapped landslides, but an area of faulting is located southeast of the ridge at the head of Chiles Valley. Winds are generally light, except in September when high winds from the northeast occur. Air quality is excellent year-round, with the airport lying above the average inversion layer elevation. Soils throughout the airport planning area are composed of stony loams of the Aiken, Butte, and Konocti series.

**ENVIRONMENTAL EFFECTS:****Normally Significant Individual Impacts**

YES NO

**(Geology)**

- 1. Exposure of new site users to substantial life and/or property hazards from geologic processes (e.g., severe settlement, sliding, faulting, intense seismically induced ground shaking, seismically-induced ground failures, etc.).
- 2. Exposure of existing area occupants to substantially increased life and/or property hazards from geologic processes.
- 3. Damage, destruction or burial of any unique or scientifically important geologic or geomorphologic feature.

**(Meteorology)**

- 4. Substantial modification of climatic or microclimatic conditions (e.g., temperature, rainfall, wind, shadow patterns, etc.).

**(Hydrology)**

- 5. Exposure of new site users to substantial life and/or property hazards from flooding (e.g., stream flooding, tsunamis, seiches, dam or levee failure, etc.).
- 6. Exposure of existing area occupants to substantially increased life and/or property hazards from flooding.
- 7. Substantial temporary construction period increase in erosion and/or sedimentation.
- 8. Substantial permanent increase in erosion and/or sedimentation.
- 9. Substantial depletion of groundwater resources or significant interference with groundwater recharge.

**(Water Quality)**

- 10. Substantial degradation of the quality of waters present in a stream, lake, or pond.
- 11. Substantial degradation of the quality of groundwater supplies.
- 12. Substantial contamination of a public or private water supply.

**(Air Quality)**

- 13. Exposure of new site users to substantial health hazards from breathing polluted air.
- 14. Exposure of existing area occupants to substantially increased health hazards from breathing polluted air.
- 15. Substantial degradation of local or regional air quality.
- 16. Exposure of new site users or existing area occupants to annoyance from dust and/or highly objectionable odors.

**(Noise)**

- 17. Exposure of new site users to health hazards from noise levels in excess of those recognized as necessary to protect public health and welfare. (See Discussion)
- 18. Exposure of existing area occupants to health hazards from noise levels in excess of those recognized as necessary to protect public health and welfare.
- 19. Exposure of people to high construction noise levels for substantial periods of time.
- 20. Exposure of existing area occupants to annoyance from substantially increased ambient noise levels.

\* Mitigable (see Mitigation Measures below)

° Cumulatively Significant Only

- NO.
- (Ecosystem)
- 21. Substantial reduction in the number of a rare or endangered species of plant or animal or damage or restriction of the habitat of such a species.
  - 22. Destruction of or substantial damage to a unique, scarce, or particularly productive biological area (e.g., marshes, riparian galleries, vernal pools, etc.).
  - 23. Substantial reduction in habitat for plants, fish, and/or wildlife.
  - 24. Substantial modification in the number or diversity of plant or animal species present.
  - 25. Substantial interference with the movement of a resident or migratory fish or wildlife species.
- (Social)
- 26. Disruption or division of an established community.
  - 27. Displacement of a large number of people.
- (Aesthetic)
- 28. Blockage or substantial degradation of important public or private views.
  - 29. Exposure of new site users or existing area occupants to annoyance from increased nighttime light levels or glare. (See Discussion)
  - 30. Creation of a litter problem.
- (Cultural)
- 31. Destruction of or substantial damage to a recognized archaeological site.
  - 32. Destruction of or substantial damage to the historical character of a recognized historical structure, facility, or feature.
  - 33. Elimination of or conflict with the established recreational, educational, religious, or scientific uses of the project site or surrounding properties.
- (Traffic)
- 34. Exposure of new site users to substantial life and/or property hazards from traffic accidents.
  - 35. Exposure of the existing users of the roads providing access to the project site to substantially increased life and/or property hazards from traffic accidents.
  - 36. Exposure of the users of the roadways providing access to the project site to annoyance from noticeably increased traffic congestion.
  - 37. Increase in traffic on the roadways providing access to the project site which is substantial in relation to the existing traffic load and capacity of the street system.
  - 38. Creation of a substantial local parking problem.
- (Energy)
- 39. Increase in the demand for energy which is substantial in relation to the existing energy demands of the area.
  - 40. Creation of a facility or development which will use fuel or energy in a wasteful manner.
  - 41. Creation of a facility or development which will use substantially higher than average amounts of fuel or energy for transportation purposes.
- (Public Health)
- 42. Exposure of new site users to substantial health hazards from contaminated drinking water, inadequately treated sewage and/or insect or rodent pests.
  - 43. Exposure of existing area occupants to substantially increased health hazards from contaminated drinking water, inadequately treated sewage and/or insect or rodent pests.
  - 44. Exposure of new site users to substantial life and/or property hazards from fire.
  - 45. Exposure of existing area occupants to substantially increased life and/or property hazards from fire.

\* Mitigable (see Mitigation Measures below)

° Cumulatively Significant Only

YES NO

(Public Health)

- X 46. Exposure of new site users to substantial life and/or property hazards from air crashes.
- X 47. Exposure of existing area occupants and/or existing air or heliport users to substantially increased life and/or property hazards from air crashes. (See Discussion)
- X 48. Exposure of new site users or existing area occupants to substantial annoyance from insect or rodent pests.

(Community Services)

- X 49. Increase in the demand for a community service (e.g., sewer, water, fire protection, schools, etc.) which is substantial in relation to the currently existing uncommitted capacity of the agency involved to provide such a service.

(Commercial Resources)

- X 50. Preclusion of the development of aggregate, rock product, or mineral resources of current or potential importance.
- X 51. Removal of a substantial amount of agricultural or grazing land from current or potential production.

(Fiscal)

- X 52. Creation of a development to which it would cost the community substantially more to provide services than it would return in taxes.

(Growth Inducement)

- X 53. Inducement of substantial residential, commercial, or industrial development.

Mandatory Findings of Significance

YES NO

Does the project:

- a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?  X
- b) Have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?  X
- c) Have possible environmental effects which are individually limited but cumulatively considerable?  X
- d) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?  X

\* Mitigable (see Mitigation Measures below)

o Cumulatively Significant Only

Impact Discussion

[All items checked above "YES", "YES, mitigable", or "YES, cumulatively significant" must be discussed below.]

The following items were checked above "NO," but require additional explanation:

- Item #17: The Plan will not increase noise levels. By requiring that the new owners and residents of the area subject to generally higher noise levels of normal aircraft operations be notified of the source of such noise, the Plan is expected to have a beneficial effect on the number of noise-exposure incidents and complaints.
- Item #29: The Plan will not increase the sources of light or glare. The potential effect from the Plan to encourage additional lighting of aircraft hazards not presently marked is not a significant effect.
- Item #47: The Plan would have a beneficial effect in potentially reducing the number of people subject to air crash hazards.

MITIGATION MEASURES:

- None Required
- Identified By This Study - Unadopted (see attached Draft Project Revision Statement)
- Included By Applicant As Part of Project (see attached Project Revision Statement)
- Recommended For Inclusion As Part of Public Project (see attached Recommended Mitigation Measure List)

BASIS OF CONCLUSIONS:

The conclusions and recommendations contained herein are professional opinions derived in accordance with current standards of professional practice. They are based on a review of the Napa County Environmental Sensitivity Maps, the other sources of information listed in the file, and the comments received, conversations with knowledgeable individuals; the preparer's personal knowledge of the area; and, where necessary, a visit to the site. For further information, see the Environmental Background Information Form contained in the permanent file on this project.

AGENCY STAFF PARTICIPATING IN THE INITIAL STUDY:

Resource Evaluation: Michael Miller & Jennifer Barrett (consultant) Date: March 15, 1991  
Site Review: Jennifer Barrett Date: March 26, 1991  
Planning/Zoning Review: Michael Miller & Jennifer Barrett Date: March 26, 1991

PRELIMINARY DETERMINATION:

- No reasonable possibility of environmental effect has been identified, and a Negative Declaration should be prepared.  
 A Negative Declaration cannot be prepared unless all identified impacts are reduced to a level of insignificance or avoided.

DATE: March 26, 1991

BY: Michael Miller

FINAL DETERMINATION:

On the basis of this preliminary evaluation:

- I find that the project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION should be approved.  
 I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A NEGATIVE DECLARATION should therefore be approved.  
 I find the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT would be required:  
 Mitigation measures to reduce all impacts to levels of insignificance or to avoid such impacts have been identified and may be adopted as part of the project.  
 A previously-certified Environmental Impact Report will fully address the impacts of the project, supplemented as necessary for public projects by additional mitigation recommended as part of the project.  
 A new, Subsequent or Supplemental Environmental Impact Report is appropriate for the project.

DATE: 3-27-91

BY: Jeffrey Redding

# APPENDICES



AERONAUTICS LAW  
STATE AERONAUTICS ACT

Public Utilities Code  
Chapter 4, Article 3.5

*AIRPORT LAND USE COMMISSION*

**Creation; Membership; Selection**

21670. (a) The Legislature hereby finds and declares that:

(1) It is in the public interest to provide for the orderly development of each public use airport in this state and the area surrounding these airports so as to promote the overall goals and objectives of the California airport noise standards adopted pursuant to Section 21669 and to prevent the creation of new noise and safety problems.

(2) It is the purpose of this article to protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses.

(b) In order to achieve the purposes of this article, every county in which there is located an airport which is served by a scheduled airline shall establish an airport land use commission. Every county, in which there is located an airport which is not served by a scheduled airline, but is operated for the benefit of the general public, shall establish an airport land use commission, except that the board of supervisors for the county may, after consultation with the appropriate airport operators and affected local entities and after a public hearing, adopt a resolution finding that there are no noise, public safety, or land use issues affecting any airport in the county which require the creation of a commission and declaring the county exempt from that requirement. The board shall, in this event, transmit a copy of the resolution to the Director of Transportation. For purposes of this section, "commission" means an airport land use commission. Each commission shall consist of seven members to be selected as follows:

(1) Two representing the cities in the county, appointed by a city selection committee comprised of the mayors of all the cities within that county, except that if there are any cities contiguous or adjacent to the qualifying airport, at least one representative shall be appointed therefrom. If there are no cities within a county, the number of representatives provided for by subdivisions (b) and (c) shall each be increased by one.

(2) Two representing the county, appointed by the board of supervisors.

(3) Two having expertise in aviation, appointed by a selection committee comprised of the managers of all the public airports within that county.

(4) One representing the general public, appointed by the other six members of the commission.

(c) Public officers, whether elected or appointed, may be appointed and serve as members of the commission during their terms of public office.

(d) Each member shall promptly appoint a single proxy to represent the member in commission affairs and to vote on all matters when the member is not in attendance. The proxy shall be designated in a signed written instrument which shall be kept on file at the commission offices, and the proxy shall serve at the pleasure of the appointing member. A vacancy in the office of proxy shall be filled promptly by appointment of a new proxy.

(e) A person having an "expertise in aviation": means a person who, by way of education, training, business, experience, vocation, or avocation has acquired and possesses particular knowledge of, and familiarity with, the function, operation, and role of airports, or is an elected official of a local agency which owns or operates an airport. The commission shall be constituted pursuant to this section on and after March 1, 1988.

### **Action by Designated Body Instead of Commission**

21670.1 (a) Notwithstanding any provisions of this article, if the board of supervisors and the city selection committee of mayors in any county each makes a determination by a majority vote that proper land use planning can be accomplished through the actions of an appropriate designated body, then such body shall assume the planning responsibilities of an airport land use commission as provided for in this article, and a commission need not be formed in that county.

(b) A body designated pursuant to subdivision (a) which does not include among its membership at least two members having an expertise in aviation, as defined in subdivision (e) of Section 21670, shall, when acting in the capacity of an airport land use commission, be augmented so that the body, as augmented, will have at least two members having that expertise. The commission shall be constituted pursuant to this section on and after March 1, 1988.

### **Applicability to Counties Having Over 4 Million Population**

21670.2. (a) Sections 21670 and 21670.1 do not apply to counties of more than 4 million population. In such counties, the county regional planning commission has the responsibility of coordinating the airport planning of public agencies within the county. In instances where impasses result relative to this planning, an appeal may be made to the county regional planning commission by any public agency involved. The action taken by the county regional planning commission on such an appeal may be overruled by a four-fifths vote of the governing body of a public agency whose planning led to the appeal.

(b) By January 1, 1992, the county regional planning commission shall adopt the comprehensive land use plans required pursuant to Section 21675.

### **Airports Owned by a City, District, or County; Appointment of Certain Members by Cities and Counties**

21671. In any county where there is an airport operated for the general public which is owned by a city or district in another county or by another county, one of the representatives provided by paragraph (1) of subdivision (a) of Section 21670 shall be appointed by the city selection committee of mayors of the cities of the county in which the owner of that airport is located, and one of the representatives provided by paragraph (2) subdivision (a) of Section 21670 shall be appointed by the board of supervisors of the county in which the owner of that airport is located.

## **Term of Office; Removal of Members; Vacancies; Compensation; Staff Assistance; Meetings**

21671.5 (a) Except for the terms of office of the members of the first commission, the term of office for each member shall be four years and until the appointment and qualification of his or her successor. The members of the first commission shall classify themselves by lot so that the term of office of one member is one year, of two members is two years, of two members is three years, and of two members if four years. The body which originally appointed a member whose term has expired shall appoint his or her successor for a full term of four years. Any member may be removed at any time and without cause by the body appointing him or her. The expiration date of the term of office of each member shall be the first Monday in May in the year in which his or her term is to expire. Any vacancy in the membership of the commission shall be filled for the unexpired term by appointment by the body which originally appointed the member whose office has become vacant. The chairperson of the commission shall be selected by the members thereof.

(b) Compensation, if any, shall be determined by the board of supervisors.

(c) Staff assistance, including the mailing of notices and the keeping of minutes, and necessary quarters, equipment, and supplies shall be provided by the county. The usual and necessary expenses of the commission shall be a county charge.

(d) Notwithstanding any other provisions of this article, the commission shall not employ any personnel either as employees or independent contractors without the prior approval of the board of supervisors.

(e) The commission shall meet at the call of the commission chairperson or at the request of the majority of the commission members. A majority of the commission members shall constitute a quorum for the transaction of business. No action shall be taken by the commission except by the recorded vote of a majority of the full membership.

(f) The commission may establish a schedule of fees for reviewing and processing proposals and for providing copies of land use plans, as required by subdivision (d) of Section 21675. Those fees shall be charged to the proponents of actions, regulations, or permits, shall not exceed the estimated reasonable cost of providing the service, and shall be imposed pursuant to Chapter 13 (commencing with Section 54990) of Part 1 of Division 2 of Title 5 of the Government Code. After June 30, 1991, a commission which has not adopted the comprehensive land use plan required by Section 21675 shall not charge fees pursuant to this subdivision until the commission adopts the plan.

## **Rules and Regulations**

21672. Each commission shall adopt rules and regulations with respect to the temporary disqualification of its members from participating in the review or adoption of a proposal because of conflict of interest and with respect to appointment of substitute members in such cases.

## **Initiation of Proceedings for Creation by Owner of Airport**

21673. In any county not having a commission or a body designated to carry out the responsibilities of a commission, any owner of a public airport may initiate proceedings for the creation of a commission by presenting a request to the board of supervisors that a commission be created and showing the need therefor to the satisfaction of the board of supervisors.

## **Powers and Duties**

21674. The commission has the following powers and duties, subject to the limitations upon its jurisdiction set forth in Section 21676:

(a) To assist local agencies in ensuring compatible land uses in the vicinity of all new airports and in the vicinity of existing airports to the extent that the land in the vicinity of those airports is not already devoted to incompatible uses.

(b) To coordinate planning at the state, regional, and local levels so as to provide for the orderly development of air transportation, while at the same time protecting the public health, safety, and welfare.

(c) To prepare and adopt an airport land use plan pursuant to Section 21675.

(d) To review the plans, regulations, and other actions of local agencies and airport operators pursuant to Section 21676.

(e) The powers of the commission shall in no way be construed to give the commission jurisdiction over the operation of any airport.

(f) In order to carry out its responsibilities, the commission may adopt rules and regulations consistent with this article.

## **Staff Training and Development**

21674.5 (a) The Department of Transportation shall develop and implement a program or programs to assist in the training and development of the staff or airport land use commissions, after consulting with airport land use commissions, cities, counties, and other appropriate public entities.

(b) The training and development program or programs are intended to assist the staff of airport land use commissions in addressing high priority needs, and may include, but need not be limited to, the following:

(1) The establishment of a process for the development and adoption of comprehensive land use plans.

(2) The development of criteria for determining airport land use planning boundaries.

(3) The identification of essential elements which should be included in the comprehensive plans.

(4) Appropriate criteria and procedures for reviewing proposed developments and determining whether proposed developments are compatible with the airport use.

(5) Any other organizational, operational, procedural, or technical responsibilities and functions which the department determines to be appropriate to provide the commission staff and for which it determines there is a need for staff training and development.

(c) The department may provide training and development programs for airport land commission staff pursuant to this section by any means it deems appropriate. Those programs may be presented in any of the following ways:

(1) By offering formal courses or training programs.

(2) By sponsoring or assisting in the organization and sponsorship of conferences, seminars, or other similar events.

(3) By producing and making available written information.

(4) Any other feasible method of providing information and assisting in the training and development of airport land use commission staff.

SEC 2. The sum of one hundred thousand dollars (\$100,000) is hereby appropriated from the Aeronautics Account in the State Transportation Fund to the Department of Transportation for the purposes of this act.

SEC 3. This act is an urgency statute necessary for the immediate preservation of the public peace, health, or safety within the meaning of Article IV of the Constitution and shall go into immediate effect. The facts constituting the necessity are:

In order to assist airport land use commissions to comply with state law requiring the development and adoption of comprehensive land use plans for each public airport in California, and in order to provide for the orderly development of public airports and to provide adequate protection from incompatible land uses in the vicinity of public use airports at the earliest possible time, it is necessary that this act take effect immediately.

### Land Use Plan

21675. (a) Each commission shall formulate a comprehensive land use plan that will provide for the orderly growth of each public airport and the area surrounding the airport within the jurisdiction of the commission, and will safeguard the general welfare of the inhabitants within the vicinity of the airport and the public in general. The commission plan shall include and shall be based on a long-range master plan or an airport layout plan, as determined by the Division of Aeronautics of the Department of Transportation, that reflects the anticipated growth of the airport during at least the next 20 years. In formulating a land use plan, the commission may develop height restrictions on buildings, specify use of land, and determine building standards, including soundproofing adjacent to airports, within the planning area. The comprehensive land use plan shall be reviewed as often as necessary in order to accomplish its purposes, but shall not be amended more than once in any calendar year.

(b) The commission may include, within its plan formulated pursuant to subdivision (a), the area within the jurisdiction of the commission surrounding any federal military airport for all the purpose specified in subdivision (a). This subdivision does not give the commission any jurisdiction or authority over the territory or operations of any military airport.

(c) The planning boundaries shall be established by the commission after hearing and consultation with the involved agencies.

(d) The commission shall submit to the Division of Aeronautics of the department one copy of the plan and each amendment to the plan.

(e) If a comprehensive land use plan does not include the matters required to be included pursuant to this article, the Division of Aeronautics of the department shall notify the commission responsible for the plan.

### Date of Adoption; Review of Actions; Approval or Disapproval

21675.1 (a) By June 30, 1991, each commission shall adopt the comprehensive land use plan required pursuant to Section 21675.

(b) Until a commission adopts a comprehensive land use plan, a city or county shall first submit all actions, regulations, and permits within the vicinity of a public airport to the commission for review and approval. Before the commission approves or disapproves any actions, regulations, or permits, the commission shall give the public notice in the same manner as the city or county is required to give for those actions, regulations, or permits. As used in this section, "vicinity" means land which will be included or reasonably could be included within the plan. If the

commission has not designated a study area for the plan, then "vicinity" means land within two miles of the boundary of a public airport.

(c) The commission may approve an action, regulation, or permit if it finds, based on substantial evidence in the record, all of the following:

(1) The commission is making substantial progress toward the completion of the plan.

(2) There is a reasonable probability that the action, regulation, or permit will be consistent with the plan being prepared by the commission.

(3) There is little or no probability of substantial detriment to or interference with the future adopted plan if the action, regulation, or permit is ultimately inconsistent with the plan.

(d) If the commission disapproves an action, regulation, or permit, the commission shall notify the city or county. The city or county may overrule the commission, by a two-thirds vote of its governing body, if it makes specific findings that the proposed action, regulation, or permit is consistent with the purposes of this article, as stated in Section 21670.

(e) If a city or county overrules the commission pursuant to subdivision (d), that action shall not relieve the city or county from further compliance with this article after the commission adopts the plan.

(f) If a city or county overrules the commission pursuant to subdivision (d) with respect to a publicly owned airport that the city or county does not operate, the operator of the airport shall be immune from liability for damages to property or personal injury from the city's or county's decision to proceed with the action, regulation, or permit.

(g) A commission may adopt rules and regulations which exempt any ministerial permit for single-family dwellings from the requirements of subdivision (b) if it makes the findings required pursuant to subdivision (c) for the proposed rules and regulations, except that the rules and regulations may not exempt either of the following:

(1) More than two single-family dwellings by the same applicant within a subdivision prior to June 30, 1991.

(2) Single-family dwellings in a subdivision where 25 percent or more of the parcels are undeveloped.

### **Failure to Approve or Disapprove**

21675.2 (a) If a commission fails to act to approve or disapprove any actions, regulations, or permits within 60 days of receiving the request pursuant to Section 21675.1, the applicant or his or her representative may file an action pursuant to Section 1094.5 of the Code of Civil Procedure to compel the commission to act, and the court shall give the proceedings preference over all other actions or proceedings, except previously filed pending matters of the same character.

(b) The action, regulation, or permit shall be deemed approved only if the public notice required by this subdivision has occurred. If the applicant has provided seven days advance notice to the commission of the intent to provide public notice pursuant to this subdivision, then, not earlier than the date of the expiration the time limit established by Section 21675.1, an applicant may provide the required public notice. If the applicant chooses to provide public notice, that notice shall include a description of the proposed action, regulation, or permit substantially similar to the descriptions which are commonly used in public notices by the commission, the name and address of the commission, and a statement that the action, regulation, or permit shall be deemed approved if the commission has not acted within 60 days. If the applicant has provided the public notice specified in this subdivision, the time limit for action by the commission shall be extended to 60 days after the public notice is provided. If the applicant provides notice pursuant to

this section, the commission shall refund to the applicant any fees which were collected for providing notice and which were not used for that purpose.

(c) Failure of an applicant to submit complete or adequate information pursuant to Sections 65943 to 65946, inclusive, of the Government Code, may constitute grounds for disapproval of actions, regulations, or permits.

(d) Nothing in this section diminishes the commission's legal responsibility to provide, where applicable, public notice and hearing before acting on an action, regulation, or permit.

### **Review of Local General Plans**

21676. (a) Each local agency whose general plan includes areas covered by an airport land use commission plan shall, by July 1, 1983, submit a copy of its plan or specific plans to the airport land use commission. The commission shall determine by August 31, 1983, whether the plan or plans are consistent or inconsistent with the commission's plan. If the plan or plans are inconsistent with the commission's plan, the local agency shall be notified and that local agency shall have another hearing to reconsider its plans. The local agency may overrule the commission after such a hearing by a two-thirds vote of its governing body if it makes specific findings that the proposed action is consistent with the purposes of this article stated in Section 21670.

(b) Prior to the amendment of a general plan or specific plan, or the addition or approval of a zoning ordinance or building regulation within the planning boundary established by the airport land use commission pursuant to Section 21675, the local agency shall first refer the proposed action to the commission. If the commission determines that the proposed action is inconsistent with the commission's plan, the referring agency shall be notified. The local agency may, after a public hearing, overrule the commission by a two-thirds vote of its governing body if it makes specific findings that the proposed action is consistent with the purposes of this article stated in Section 21670.

(c) Each public agency owning any airport within the boundaries of an airport land use commission plan shall, prior to modification of its airport master plan, refer such proposed change to the airport land use commission. If the commission determines that the proposed action is inconsistent with the commission's plan, the referring agency shall be notified. The public agency may, after a public hearing, overrule the commission by a two-thirds vote of its governing body if it makes specific findings that the proposed action is consistent with the purposes of this article stated in Section 21670.

(d) Each commission determination pursuant to subdivision (b) or (c) shall be made within 60 days from the date of referral of the proposed action. If a commission fails to make the determination within that period, the proposed action shall be deemed consistent with the commission's plan.

### **Review of Local Plans**

21676.5. (a) If the commission finds that a local agency has not revised its general plan or specific plan or overruled the commission by a two-thirds vote of its governing body after making specific findings that the proposed action is consistent with the purposes of this article as stated in Section 21670, the commission may require the local agency submit all subsequent actions, regulations, and permits to the commission for review until its general plan or specific plan is revised or the specific findings are made. If, in the determination of the commission, an action,

regulation, or permit of the local agency is inconsistent with the commission plan, the local agency shall be notified and that local agency shall hold a hearing to reconsider its plan. The local agency may overrule the commission after hearing by a two-thirds vote of its governing body if it makes specific findings that the proposed action is consistent with the purposes of this article as stated in Section 21670.

(b) Whenever the local agency has revised its general plan or specific plan or has overruled the commission pursuant to subdivision (a), the proposed action of the local agency shall not be subject to further commission review, unless the commission and the local agency agree that the individual projects shall be reviewed by the commission.

### **Marin County Override Provisions**

21677. Notwithstanding Section 21676, any public agency in the County of Marin may overrule the Marin County Airport Land Use Commission by a majority vote of its governing body.

### **Airport Owner's Immunity**

21678. With respect to a publicly owned airport that a public agency does not operate, if the public agency pursuant to Section 21676 or 21676.5 overrides a commission's action or recommendation, the operator of the airport shall be immune from liability for damages to property or personal injury caused by or resulting directly or indirectly from the public agency's decision to override the commission's action or recommendation.

### **Court Review**

21679. (a) In any county in which there is no airport land use commission or other body designated to assume the responsibilities of an airport land use commission, or in which the commission or other designated body has not adopted an airport land use plan, an interested party may initiate proceedings in a court of competent jurisdiction to postpone the effective date of a zoning change, a zoning variance, the issuance of a permit, or the adoption of a regulation by a local agency, which directly affects the use of land one mile of the boundary of a public airport within the county.

(b) The court may issue an injunction which postpones the effective date of the zoning change, zoning variance, permit, or regulation until the governing body of the local agency which took the action does one of the following:

(1) In the case of an action which is a legislative act, adopts a resolution declaring that the proposed action is consistent with the purposes of this article stated in Section 21670.

(2) In the case of an action which is not a legislative act, adopts a resolution declaring that the proposed action is consistent with the purposes of this article stated in Section 21670.

(3) Rescinds the action.

(4) Amends its action to make it consistent with the purposes of this article stated in Section 21670, and complies with either paragraph (1) or (2) of this subdivision, whichever is applicable.

(c) The court shall not issue an injunction pursuant to subdivision (b) if the local agency which took the action demonstrates that the general plan and any applicable specific plan of the agency accomplishes the purposes of an airport land use plan as provided in Section 21675.

(d) An action brought pursuant to subdivision (a) shall be commenced within 30 days of the decision or within the appropriate time periods set by Section 21167 of the Public

Resources Code, whichever is longer.

(e) If the governing body of the local agency adopts a resolution pursuant to subdivision (b) with respect to a publicly owned airport that the local agency does not operate, the operator of the airport shall be immune from liability for damages to property or personal injury from the local agency's decision to proceed with the zoning change, zoning variance, permit, or regulation.

(f) As used in this section, "interested party" means any owner of land within two miles of the boundary of the airport or any organization with a demonstrated interest in airport safety and efficiency.

#### **Action to Postpone Effective Date of Zoning Change, Etc.**

21679.5 (a) Until June 30, 1991, no action pursuant to Section 21679 to postpone the effective date of a zoning change, a zoning variance, the issuance of a permit, or the adoption of a regulation by a local agency, directly affecting the use of land within one mile of the boundary of a public airport, shall be commenced in any county in which the commission or other designated body has not adopted an airport land use plan, but is making substantial progress toward the completion of the plan.

(b) If a commission has been prevented from adopting the comprehensive land use plan by June 30, 1991, or if the adopted plan could not become effective, because of a lawsuit involving the adoption of the plan, the June 30, 1991 date in subdivision (a) shall be extended by the period of time during which the lawsuit was pending in a court of competent jurisdiction.

(c) Any action pursuant to Section 21679 commenced prior to January 1, 1990, in a county in which the commission or other designated body has not adopted an airport land use plan, but is making substantial progress toward the completion of the plan, which has not proceeded to final judgment, shall be held in abeyance until June 30, 1991. If the commission or other designated body does not adopt an airport land use plan on or before June 30, 1991, the plaintiff or plaintiffs may proceed with the action.

(d) An action to postpone the effective date of a zoning change, a zoning variance, the issuance of a permit, or the adoption of a regulation by a local agency, directly affecting the use of land within one mile of the boundary of a public airport for which an airport land use plan has not been adopted by June 30, 1991, shall be commenced within 30 days of June 30, 1991, or within 30 days of the decision by the local agency, or within the appropriate time periods set by Section 21167 of the Public Resources Code, whichever date is later.

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## Excerpts from Federal Aviation Regulations

### Part 77—Objects Affecting Navigable Airspace

#### Subpart A—General

##### § 77.1 Scope.

This Part—

- (a) Establishes standards for determining obstructions in navigable airspace;
- (b) Sets forth the requirements for notice to the Administrator of certain proposed construction or alteration;
- (c) Provides for aeronautical studies of obstructions to air navigation, to determine their effect on the safe and efficient use of airspace;
- (d) Provides for public hearings on the hazardous effect of proposed construction or alteration on air navigation; and
- (e) Provides for establishing antenna farm areas.

##### § 77.2 Definition of terms.

For the purpose of this Part:

“Airport available for public use” means an airport that is open to the general public with or without a prior request to use the airport.

“A seaplane base” is considered to be an airport only if its sea lanes are outlined by visual markers.

“Nonprecision instrument runway” means 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 nonprecision instrument approach procedure has been approved, or planned, and for which no precision approach facilities are planned, or indicated on an FAA planning document or military service military airport planning document.

“Precision instrument runway” means a runway having an existing instrument approach procedure utilizing an Instrument Landing System (ILS), or a Precision Approach Radar (PAR). It also means a runway for which a precision approach system

is planned and is so indicated by an FAA approved airport layout plan; a military service approved military airport layout plan; any other FAA planning document, or military service military airport planning document.

“Utility runway” means a runway that is constructed for and intended to be used by propeller driven aircraft of 12,500 pounds maximum gross weight and less.

“Visual runway” means 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 any planning document submitted to the FAA by competent authority.

##### § 77.3 Standards.

(a) The standards established in this Part for determining obstructions to air navigation are used by the Administrator in—

(1) Administering the Federal-aid Airport Program and the Surplus Airport Program;

(2) Transferring property of the United States under Section 16 of the Federal Airport Act;

(3) Developing technical standards and guidance in the design and construction of airports; and

(4) Imposing requirements for public notice of the construction or alteration of any structure where notice will promote air safety.

(b) The standards used by the Administrator in the establishment of flight procedures and aircraft operational limitations are not set forth in this Part but are contained in other publications of the Administrator.

**§ 77.5 Kinds of objects affected.**

This Part applies to—

(a) Any object of natural growth, terrain, or permanent or temporary construction or alteration, including equipment or materials used therein, and apparatus of a permanent or temporary character; and

(b) Alteration of any permanent or temporary existing structure by a change in its height (including appurtenances), or lateral dimensions, including equipment or materials used therein.

**Subpart B—Notice of Construction  
or Alteration**

**§ 77.11 Scope.**

(a) This subpart requires each person proposing any kind of construction or alteration described in § 77.13(a) of this chapter to give adequate notice to the Administrator. It specifies the locations and dimensions of the construction or alteration for which notice is required and prescribes the form and manner of the notice. It also requires supplemental notices 48 hours before the start and upon the completion of certain construction or alteration that was the subject of a notice under § 77.13(a).

(b) Notices received under this subpart provide a basis for—

(1) Evaluating the effect of the construction or alteration on operational procedures and proposed operational procedures;

(2) Determinations of the possible hazardous effect of the proposed construction or alteration on air navigation;

(3) Recommendations for identifying the construction or alteration in accordance with the current Federal Aviation Administration Advisory Circular AC 70/7460-1 entitled "Obstruction Marking and Lighting," which is available without charge from the Department of Transportation, Distribution Unit, TAD 484.3, Washington, D.C. 20590;

(4) Determining other appropriate measures to be applied for continued safety of air navigation; and

(5) Charting and other notification to airmen of the construction or alteration.

**§ 77.13 Construction or alteration requiring notice.**

(a) Except as provided in § 77.15, each sponsor who proposes any of the following construction or alteration shall notify the Administrator in the form and manner prescribed in § 77.17:

(1) Any construction or alteration of more than 200 feet in height above the ground level at its site.

(2) Any construction or alteration of greater height than an imaginary surface extending outward and upward at one of the following slopes:

(i) 100 to 1 for a horizontal distance of 20,000 feet from the nearest point of the nearest runway of each airport specified in subparagraph (5) of this paragraph with at least one runway more than 3,200 feet in actual length, excluding heliports.

(ii) 50 to 1 for a horizontal distance of 10,000 feet from the nearest point of the nearest runway of each airport specified in subparagraph (5) of this paragraph with its longest runway no more than 3,200 feet in actual length, excluding heliports.

(iii) 25 to 1 for a horizontal distance of 5,000 feet from the nearest point of the nearest landing and takeoff area of each heliport specified in subparagraph (5) of this paragraph.

(3) Any highway, railroad, or other traverse way for mobile objects, of a height which, if adjusted upward 17 feet for an Interstate Highway that is part of the National System of Military and Interstate Highways where overcrossings are designed for a minimum of 17 feet vertical distance, 15 feet for any other public roadway, 10 feet or the height of the highest mobile object that would normally traverse the road, whichever is greater, for a private road, 23 feet for a railroad, and for a waterway or any other traverse way not previously mentioned, an amount equal to the height of the highest mobile object that would normally

traverse it, would exceed a standard of subparagraph (1) or (2) of this paragraph.

(4) When requested by the FAA, any construction or alteration that would be in an instrument approach area (defined in the FAA standards governing instrument approach procedures) and available information indicates it might exceed a standard of Subpart C of this part.

(5) Any construction or alteration on any of the following airports (including heliports):

(i) An airport that is available for public use and is listed in the Airport Directory of the current Airman's Information Manual or in either the Alaska or Pacific Airman's Guide and Chart Supplement.

(ii) An airport under construction, that is the subject of a notice or proposal on file with the Federal Aviation Administration, and except for military airports, it is clearly indicated that that airport will be available for public use.

(iii) An airport that is operated by an armed force of the United States.

(b) Each sponsor who proposes construction or alteration that is the subject of a notice under paragraph (a) of this section and is advised by an FAA regional office that a supplemental notice is required shall submit that notice on a prescribed form to be received by the FAA regional office at least 48 hours before the start of the construction or alteration.

(c) Each sponsor who undertakes construction or alteration that is the subject of a notice under paragraph (a) of this section shall, within 5 days after that construction or alteration reaches its greatest height, submit a supplemental notice on a prescribed form to the FAA regional office having jurisdiction over the area involved, if—

(1) The construction or alteration is more than 200 feet above the surface level of its site; or

(2) An FAA regional office advises him that submission of the form is required.

#### § 77.15 Construction or alteration not requiring notice.

No person is required to notify the Administrator for any of the following construction or alteration:

(a) Any object that would be shielded by existing structures of a permanent and substantial character or by natural terrain or topographic features of equal or greater height, and would be located in the congested area of a city, town, or settlement where it is evident beyond all reasonable doubt that the structure so shielded will not adversely affect safety in air navigation.

(b) Any antenna structure of 20 feet or less in height except one that would increase the height of another antenna structure.

(c) Any air navigation facility, airport visual approach or landing aid, aircraft arresting device, or meteorological device, of a type approved by the Administrator, or an appropriate military service on military airports, the location and height of which is fixed by its functional purpose.

(d) Any construction or alteration for which notice is required by any other FAA regulation.

#### § 77.17 Form and time of notice.

(a) Each person who is required to notify the Administrator under § 77.13(a) shall send one executed form set (four copies) of FAA Form 7460-1, Notice of Proposed Construction or Alteration, to the Chief, Air Traffic Division, FAA Regional Office having jurisdiction over the area within which the construction or alteration will be located. Copies of FAA Form 7460-1 may be obtained from the headquarters of the Federal Aviation Administration and the regional offices.

(b) The notice required under § 77.13(a)(1) through (4) must be submitted at least 30 days before the earlier of the following dates—

(1) The date the proposed construction or alteration is to begin.

(2) The date an application for a construction permit is to be filed.

However, a notice relating to proposed construction or alteration that is subject to the licensing requirements of the Federal Communications Act may be sent to the FAA at the same time the application for construction is filed with the Federal Communications Commission, or at any time before that filing.

(c) A proposed structure or an alteration to an existing structure that exceeds 2,000 feet in height above the ground will be presumed to be a hazard to air navigation and to result in an inefficient utilization of airspace and the applicant has the burden of overcoming that presumption. Each notice submitted under the pertinent provisions of Part 77 proposing a structure in excess of 2,000 feet aboveground, or an alteration that will make an existing structure exceed that height, must contain a detailed showing, directed to meeting this burden. Only in exceptional cases, where the FAA concludes that a clear and compelling showing has been made that it would not result in an inefficient utilization of the airspace and would not result in a hazard to air navigation, will a determination of no hazard be issued.

(d) In the case of an emergency involving essential public services, public health, or public safety, that requires immediate construction or alteration, the 30-day requirement in paragraph (b) of this section does not apply and the notice may be sent by telephone, telegraph, or other expeditious means, with an executed FAA Form 7460-1 submitted within five days thereafter. Outside normal business hours, emergency notices by telephone or telegraph may be submitted to the nearest FAA Flight Service Station.

(e) Each person who is required to notify the Administrator by paragraph (b) or (c) of § 77.15, or both, shall send an executed copy of FAA Form 117-1, Notice of Progress of Construction or Alteration, to the Chief, Air Traffic Division, FAA Regional Office having jurisdiction over the area involved.

#### § 77.19 Acknowledgment of notice.

(a) The FAA acknowledges in writing the receipt of each notice submitted under § 77.13 (a).

(b) If the construction or alteration proposed in a notice is one for which lighting or marking standards are prescribed in the FAA Advisory Circular AC 70/7460-1 entitled "Obstruction Marking and Lighting," the acknowledgment contains a statement to that effect and information on how the structure should be marked and lighted in accordance with the Advisory Circular.

(c) The acknowledgment states that an aeronautical study of the proposed construction or alteration has resulted in a determination that the construction or alteration—

(1) Would not exceed any standard of Subpart C and would not be a hazard to air navigation;

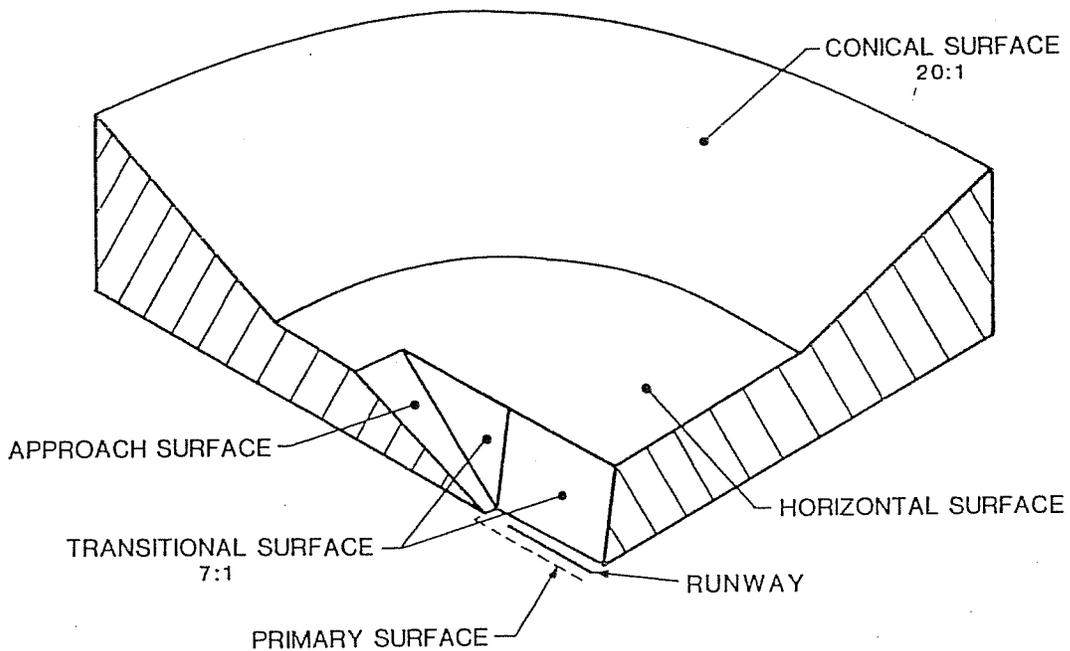
(2) Would exceed a standard of Subpart C but would not be a hazard to air navigation; or

(3) Would exceed a standard of Subpart C and further aeronautical study is necessary to determine whether it would be a hazard to air navigation, that the sponsor may request within 30 days that further study, and that, pending completion of any further study, it is presumed the construction or alteration would be a hazard to air navigation.

#### Subpart C—Obstruction Standards

##### § 77.21 Scope.

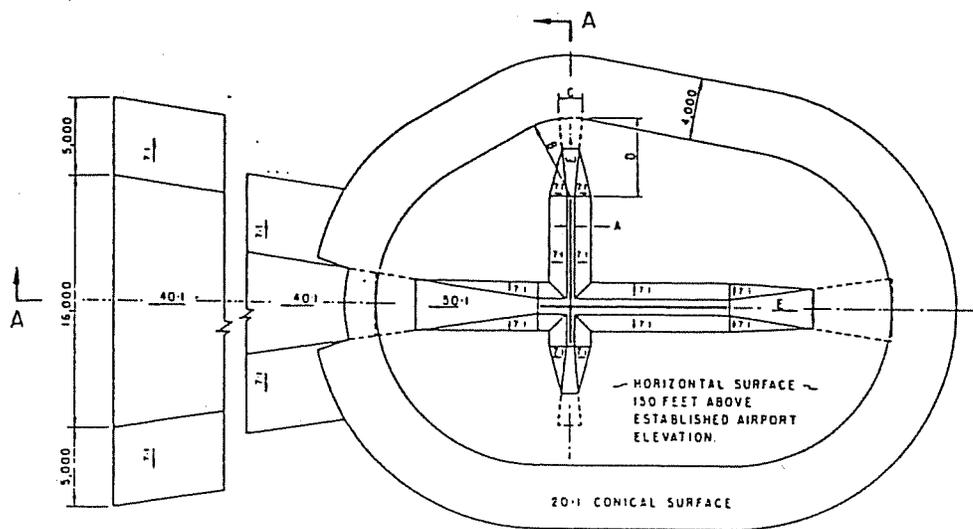
(a) This subpart establishes standards for determining obstructions to air navigation. It applies to existing and proposed manmade objects, objects of natural growth, and terrain. The standards apply to the use of navigable airspace by aircraft and to existing air navigation facilities, such as an air navigation aid, airport, Federal airway, instrument approach or departure procedure, or approved off-airway route. Additionally, they apply to a planned facility or use, or a change in an existing facility or use, if a proposal therefor is on file with the Federal Aviation Administration or an appropriate military service on the date the notice required by § 77.13(a) is filed.



ISOMETRIC VIEW

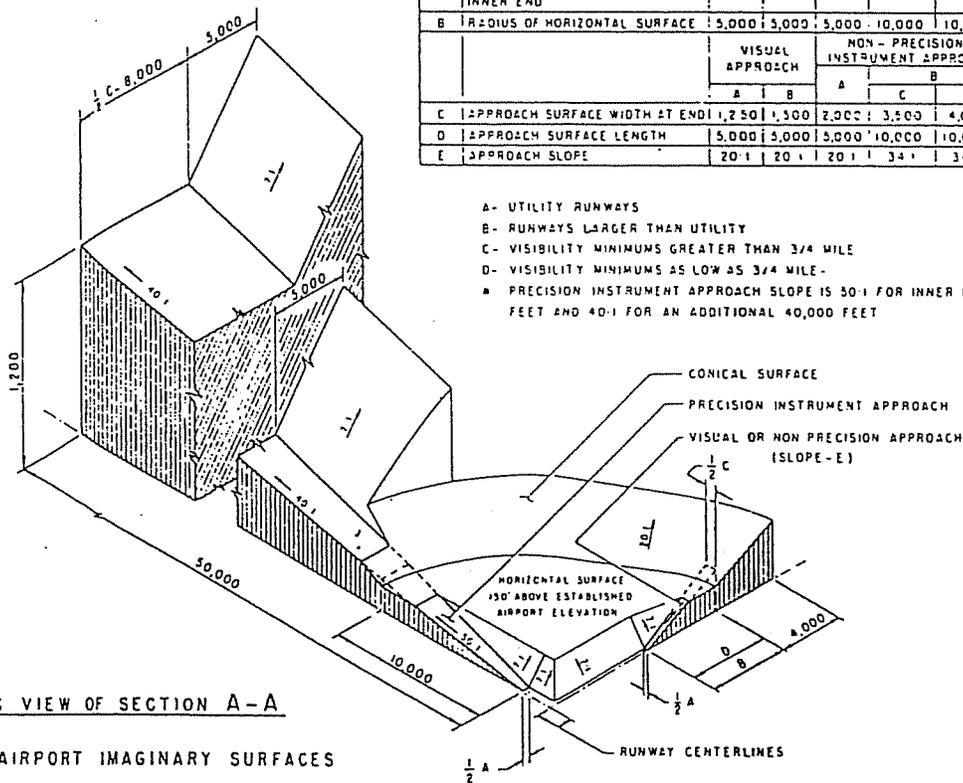
Figure B - 1

Typical FAR Part 77 Surfaces



DIM	ITEM	DIMENSIONAL STANDARDS (FEET)					
		VISUAL RUNWAY		NON-PRECISION INSTRUMENT RUNWAY			PRECISION INSTRUMENT RUNWAY
		A	B	A	B		
A	WIDTH OF PRIMARY SURFACE AND APPROACH SURFACE WIDTH AT INNER END	250	500	500	500	1,000	1,000
B	RADIUS OF HORIZONTAL SURFACE	5,000	5,000	5,000	10,000	10,000	10,000
		VISUAL APPROACH		NON-PRECISION INSTRUMENT APPROACH			PRECISION INSTRUMENT APPROACH
		A	B	A	B		
C	APPROACH SURFACE WIDTH AT END	1,250	1,500	2,000	3,500	4,000	16,000
D	APPROACH SURFACE LENGTH	5,000	5,000	5,000	10,000	10,000	*
E	APPROACH SLOPE	20:1	20:1	20:1	34:1	34:1	*

- A- UTILITY RUNWAYS
- B- RUNWAYS LARGER THAN UTILITY
- C- VISIBILITY MINIMUMS GREATER THAN 3/4 MILE
- D- VISIBILITY MINIMUMS AS LOW AS 3/4 MILE
- \* PRECISION INSTRUMENT APPROACH SLOPE IS 50:1 FOR INNER 10,000 FEET AND 40:1 FOR AN ADDITIONAL 40,000 FEET



ISOMETRIC VIEW OF SECTION A-A

§ 77.25 CIVIL AIRPORT IMAGINARY SURFACES

Source: FAR Part 77

Figure B - 2

## Objects Affecting Navigable Airspace

# NOTICE OF PROPOSED CONSTRUCTION OR ALTERATION

Aeronautical Study Number \_\_\_\_\_

U.S. Department of Transportation  
Federal Aviation Administration

**1. Nature of Proposal**

**A. Type**  
 New Construction  
 Alteration

**B. Class**  
 Permanent  
 Temporary (Duration \_\_\_\_\_ months)

**C. Work Schedule Dates**  
 Beginning \_\_\_\_\_  
 End \_\_\_\_\_

**A. Name and address of individual, company, corporation, etc. proposing the construction or alteration.** (Number, Street, City, State and Zip Code)

(\_\_\_\_\_) \_\_\_\_\_  
 area code Telephone Number

**2. Complete Description of Structure**

A. Include effective radiated power and assigned frequency of all existing, proposed or modified AM, FM, or TV broadcast stations utilizing this structure

B. Include size and configuration of power transmission lines and their supporting towers in the vicinity of FAA facilities and public airports.

C. Include information showing site orientation, dimensions, and construction materials of the proposed structure.

*(if more space is required, continue on a separate sheet.)*

**3. Name, address and telephone number of proponent's representative if different than 3 above.**

**4. Location of Structure**

<b>A. Coordinates</b> (To nearest second)	<b>B. Nearest City or Town, and State</b>	<b>C. Name of nearest airport, heliport, flightpark, or seaplane base</b>
Latitude _____	(1) Distance to 4B _____ Miles	(1) Distance from structure to nearest point of nearest runway _____
Longitude _____	(2) Direction to 4B _____	(2) Direction from structure to airport _____

Description of location of site with respect to highways, streets, airports, prominent terrain features, existing structures, etc. Attach a U.S. Geological Survey quadrangle map or equivalent showing the relationship of construction site to nearest airport(s). *(if more space is required, continue on a separate sheet of paper and attach to this notice.)*

**5. Height and Elevation** (Complete to the nearest foot)

A. Elevation of site above mean sea level _____	
B. Height of Structure including all appurtenances and lighting (if any) above ground, or water if so situated _____	
C. Overall height above mean sea level (A + B) _____	

*Notice is required by Part 77 of the Federal Aviation Regulations (14 C.F.R. Part 77) pursuant to Section 1101 of the Federal Aviation Act of 1958, as amended (49 U.S.C. 1101). Persons who knowingly and willingly violate the Notice requirements of Part 77 are subject to a fine (criminal penalty) of not more than \$500 for the first offense and not more than \$2,000 for subsequent offenses, pursuant to Section 902(a) of the Federal Aviation Act of 1958, as amended (49 U.S.C. 1472(a)).*

**I HEREBY CERTIFY** that all of the above statements made by me are true, complete, and correct to the best of my knowledge. In addition, I agree to obstruction mark and/or light the structure in accordance with established marking & lighting standards if necessary.

Date _____	Typed Name/Title of Person Filing Notice _____	Signature _____
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**FOR FAA USE ONLY** *FAA will either return this form or issue a separate acknowledgement.*

**The Proposal:**

Does not require a notice to FAA.

Is not identified as an obstruction under any standard of FAR, Part 77, Subpart C, and would not be a hazard to air navigation.

Is identified as an obstruction under the standards of FAR, Part 77, Subpart C, but would not be a hazard to air navigation.

Should be obstruction  marked,  lighted per FAA Advisory Circular 70/7460-1, Chapter(s) \_\_\_\_\_

Obstruction marking and lighting are not necessary.

**Supplemental Notice of Construction** FAA Form 7460-2 is required any time the project is abandoned, or

At least 48 hours before the start of construction.

Within five days after the construction reaches its greatest height.

This determination expires on \_\_\_\_\_ unless:

(a) extended, revised or terminated by the issuing office;

(b) the construction is subject to the licensing authority of the Federal Communications Commission and an application for a construction permit is made to the FCC on or before the above expiration date. In such case the determination expires on the date prescribed by the FCC for completion of construction, or on the date the FCC denies the application.

**NOTE:** Request for extension of the effective period of this determination must be postmarked or delivered to the issuing office at least 15 days prior to the expiration date.

If the structure is subject to the licensing authority of the FCC, a copy of this determination will be sent to that Agency.

Issued In _____	Signature _____	Date _____
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## NOISE ATTENUATION CRITERIA AND MEASURES

TABLE 1  
RECOMMENDED MAXIMUM INTERIOR LEVEL  
CRITERIA FOR INTERMITTENT NOISE

Generalized Land Use (Occupancy)	Maximum Intermittant Noise - dBA	Basis for Criteria
<b>RESIDENTIAL SINGLE AND MULTIPLE FAMILY DWELLINGS</b>		
1. Living Areas	55	Conversation - 5 ft. - normal voice
2. Sleeping Areas	50	Sleeping
<b>EDUCATIONAL FACILITIES</b>		
1. Concert Hall	25	Intrusion of noise may spoil artistic effect
2. Legitimate Theater	30	Intrusion of noise may spoil artistic effect
3. School Auditorium	35	Minimize intrusion into artistic performance
4. School Classroom	55	Speech communication - 20 ft. - raised voice
5. School Laboratory	60	Speech communication - 6 ft. - normal voice
6. Church Sanctuary	45	Speech communication - 50 ft. - raised voice
7. Library	65	Speech communication - 3 ft. - normal voice
<b>RECREATIONAL FACILITIES</b>		
1. Motion Picture Theater	45	Minimize intrusion into artistic performance
2. Sports Arena	75	Conversation - 2 ft. - raised voice
3. Bowling Alley	75	Conversation - 2 ft. - raised voice
<b>COMMERCIAL, MISC.</b>		
1. Hotel, Motel Sleeping	50	Sleeping
2. Hospital Sleeping	50	Sleeping
3. Exec. Office, Conference	55	Speech communication - 12 ft. - normal voice
4. Staff Offices	60	Speech communication - 6 ft. - normal voice
5. Sales, Secretarial	65	Satisfactory telephone use
6. Restaurants, Retail	65	Conversation - 4 ft. - normal voice
<b>INDUSTRIAL</b>		
1. Laboratories	75	Speech communication - 3 ft. - raised voice
2. Machine Shops	75	Speech communication - 2 ft. - raised voice
3. Assembly, Const.		

TABLE 2  
 REQUIRED BUILDING EXTERIOR NOISE REDUCTION FOR VARIOUS  
 LAND USES (OCCUPANCIES) AT VARIOUS NOMINAL DISTANCES  
 FROM AIRCRAFT TAKE-OFF OPERATIONS \*

Land Use Occupancy	Nominal Distance	500	700	350	REQUIRED NOISE REDUCTION - dBA						
					1000	2000	3000	4000	6000	8000	10,000
Zone		175	350	700	1400	2800	3500	5000	7000	9000	14,000
Boundary		350	700	1400	2800	3500	5000	7000	9000	14,000	
		250	500	1000	2000	3000	4000	6000	8000	10,000	
RESIDENTIAL SINGLE AND MULTIPLE FAMILY DWELLINGS											
1. Living Areas		34	29	--	--	--	--	--	--	--	--
2. Sleeping Areas		39	34	29	--	--	--	--	--	--	--
EDUCATIONAL FACILITIES											
1. Concert Hall		64	59	54	48	46	44	41	39	35	
2. Legitimate Theater		59	54	49	43	41	39	36	34	30	
3. School Auditorium		54	49	44	38	36	34	31	29	25	
4. School Classroom		34	29	--	--	--	--	--	--	--	
5. School Laboratory		29	--	--	--	--	--	--	--	--	
6. Church Sanctuary		44	39	34	28	26	--	--	--	--	
7. Library		--	--	--	--	--	--	--	--	--	
RECREATIONAL FACILITIES											
1. Motion Picture Theater		44	39	34	28	26	--	--	--	--	
2. Sports Arena		--	--	--	--	--	--	--	--	--	
3. Bowling Alley		--	--	--	--	--	--	--	--	--	
COMMERCIAL, MISC.											
1. Hotel, Motel Sleeping		39	34	29	--	--	--	--	--	--	
2. Hospital Sleeping		39	34	29	--	--	--	--	--	--	
3. Exec. Office, Conf.		34	29	--	--	--	--	--	--	--	
4. Staff Offices		29	--	--	--	--	--	--	--	--	
5. Sales, Secretarial		--	--	--	--	--	--	--	--	--	
6. Restaurants, Retail		--	--	--	--	--	--	--	--	--	

TABLE (CONT.)

Land Use	Occupancy	Nominal Distance	175	350	700	1400	REQUIRED NOISE REDUCTION - dBA					
							Slant distance from Aircraft in feet*	2800	3500	5000	7000	9000
Zone Boundary			175	350	700	1400	2800	3500	5000	7000	9000	14,000
Nominal Distance		250		500		1000	2000	3000	4000	6000	8000	10,000
INDUSTRIAL												
1. Laboratories			29	--	--	--	--	--	--	--	--	--
2. Machine Shops			--	--	--	--	--	--	--	--	--	--
3. Assembly, Const.			--	--	--	--	--	--	--	--	--	--

-- Indicates required building noise reduction is 25 dBA or less. Therefore, typical construction will suffice. With windows closed, forced ventilation or air conditioning may be required.

\* For purposes of this table, the noise produced by a Cessna 310 two engine piston aircraft has been used. If other types of aircraft are used, then the change in required noise reduction is equal to the change in noise exposure for the new type of aircraft.

TABLE 3  
 REQUIRED BUILDING EXTERIOR NOISE REDUCTION FOR VARIOUS  
 LAND USES (OCCUPANCIES) AT VARIOUS NOMINAL DISTANCES  
 FROM AIRCRAFT LANDING OPERATIONS \*

Land Use	Occupancy	Nominal Distance	REQUIRED NOISE REDUCTION - dBA			
			Slant distance 700	1400	2800	5000
Zone	175	350	700	1400	2800	5000
Boundary	350	700	1400	2800	3500	7000
Nominal Distance	250	500	1000	2000	3000	4000
6000						
RESIDENTIAL SINGLE AND MULTIPLE						
FAMILY DWELLINGS						
1. Living Areas	29	--	--	--	--	--
2. Sleeping Areas	34	28	--	--	--	--
EDUCATIONAL FACILITIES						
1. Concert Hall	59	53	46	35	32	30
2. Legitimate Theater	54	48	41	30	27	25
3. School Auditorium	49	43	36	25	--	--
4. School Classroom	29	--	--	--	--	--
5. School Laboratory	--	--	--	--	--	--
6. Church Sanctuary	39	33	26	--	--	--
7. Library	--	--	--	--	--	--
RECREATIONAL FACILITIES						
1. Motion Picture Theater	39	33	26	--	--	--
2. Sports Arena	--	--	--	--	--	--
3. Bowling Alley	--	--	--	--	--	--
COMMERCIAL, MISC.						
1. Hotel, Motel Sleeping	34	28	--	--	--	--
2. Hospital Sleeping	34	28	--	--	--	--
3. Exec. Office, Conf.	29	--	--	--	--	--
4. Staff Offices	29	--	--	--	--	--
5. Sales, Secretarial	--	--	--	--	--	--
6. Restaurants, Retail	--	--	--	--	--	--

TABLE - (CONT.)

Zone	REQUIRED NOISE REDUCTION - dBA					
	Slant distance from Aircraft in feet					
Boundary	175	350	700	1400	2800	5000
	350	700	1400	2800	3500	7000
Land Use	250	500	1000	2000	3000	4000
Occupancy	250	500	1000	2000	3000	6000
<b>INDUSTRIAL</b>						
1. Laboratories	--	--	--	--	--	--
2. Machine Shops	--	--	--	--	--	--
3. Assembly, Const.	--	--	--	--	--	--

-- Indicates required building noise reduction is 25 dBA or less. Therefore, typical construction will suffice. With windows closed, forced ventilation or air conditioning may be required.

\* For purposes of this table, the noise produced by a Cessna 310 two engine piston aircraft has been used. If other types of aircraft are used, then the change in required noise reduction is equal to the change in noise exposure for the new type of aircraft.

TABLE 4

GENERAL CONSTRUCTION METHODS TO ACHIEVE  
THE INDICATED EXTERIOR NOISE REDUCTION

Required Overall Bldg. Noise Reduction (dBA)	FLOOR	EXTERIOR WALLS	EXTERIOR DOORS	WINDOWS	CEILING, ROOF
30	No special provisions	No special provisions, except eliminate penetrations of wall air conditioning units, mail boxes, etc. Fireplaces should have glass type closable screen & well fitted damper	STC 33** . Solid core, weatherstripping, combined door and window area less than 20% of floor area.	STC 31. Seal	Generally, no special provisions.
40	<ul style="list-style-type: none"> <li>a. Slab on grade - no special provisions</li> <li>b. If raised floor, one or more of the following:                             <ul style="list-style-type: none"> <li>1. baffle air vent</li> <li>2. attach gypboard to underside of floor joists</li> </ul> </li> </ul>	Eliminate penetrations of wall air conditioning units, mail boxes, etc. Operational vented fire places should be avoided.	STC 43. Sound doors, sound seals, combined door and window area less than 20% of floor area.	<ul style="list-style-type: none"> <li>STC 43. Double glazing, sealed windows.</li> </ul>	<ul style="list-style-type: none"> <li>a. Attic System                             <ul style="list-style-type: none"> <li>1. vent baffling</li> <li>2. sound absorption between joists.</li> </ul> </li> <li>b. If beam ceiling:                             <ul style="list-style-type: none"> <li>1. provide sound absorption between beams</li> <li>2. provide gypboard on resilient clips to underside of beams.</li> </ul> </li> </ul>

TABLE 4 (CONT.)

Required Overall Noise Reduction (dBA)	FLOOR	EXTERIOR WALLS	EXTERIOR DOORS	WINDOWS	CEILING, ROOF
50	<p>a. Slab on grade - no special provisions</p> <p>b. If raised floor:</p> <p>1. baffle air vent</p> <p>2. provide sound absorption between floor joists</p> <p>3. add gypboard to underside of floor joists</p>	<p>a. Wood framing staggered studs with sound absorption in cavity. Stucco on outside, 2 layers gypboard on inside.</p> <p>b. 8 in. concrete block with sealed exterior and interior surfaces.</p> <p>c. 4 in. dense concrete</p>	<p>STC 50. Special sound doors with acoustical seals.</p>	<p>STC 49. Double glazing, sealed windows, minimum 4 in. airspace.</p>	<p>a. Attic System</p> <p>1. vent sound traps independently</p> <p>2. framed ceiling and roof system.</p> <p>3. sound absorption in attic space.</p> <p>b. Built-up roof over 4 in. concrete slab with suspended ceiling.</p>
60	<p>a. Slab on grade - no special provisions</p> <p>b. If raised floor: similar to NR-50 requirement except more effective vent baffling and attach gypboard to floor joists by resilient clips.</p>	<p>a. Wood or steel stud framing-double studs with multi-layer gypboard on both sides, exterior stucco or sheathing. Sound absorption in air cavity.</p> <p>b. 12 in. dense concrete</p> <p>c. 4 in. concrete with separate furred multi-layer gypboard wall. Sound absorption in air cavity.</p>	<p>Two solid core weatherstripped doors with sound lock.</p>	<p>Barely practical. Minimize window area. Double glazing with acoustical glass and 8 in. airspace. Avoid windows on noise exposure side. Arrange windows on interior enclosed court., etc.</p>	<p>a. Attic System, similar to NR-50 requirement but more mass.</p> <p>b. 4 in. concrete slab with vibration isolated ceiling</p>

Table 4 (CONT.)

\* All noise reductions are for buildings with windows closed. Mechanical ventilation may be required. All ventilation ducts to the outside should consist of 10' of lined duct (except for kitchen exhaust) with at least one 90° bend. Kitchen exhaust ducts should have baffle plate at the duct discharge. The table assumes that construction is generally airtight. All joints and penetrations need to be sealed.

\*\* Sound Transmission Class (STC)--A single-figure rating designed to give an estimate of the sound insulation properties of a partition. Numerically, STC represents the number of decibels of speech sound reduction from one side of the partition to the other.

## METHODS FOR DETERMINING CONCENTRATIONS OF PEOPLE

One criteria used in the Airport Land Use Compatibility Plan is the maximum number of persons per acre that can be present in a given area at any one time. If a proposed use exceeds the maximum density, it will be considered inconsistent with ALUC policies. This appendix provides some guidance on how to make the persons-per-acre determination.

The most difficult part of making a persons-per-acre determination is estimating the number of people likely to use a particular facility. There are several methods that can be utilized, depending upon the nature of the proposed use:

- **Parking Ordinance** – The number of persons present in a given area can be calculated based upon the number of parking spaces provided. Some assumption regarding the number of persons per vehicle needs to be developed to calculate the number of persons on-site. The number of persons per acre can then be calculated by dividing the number of persons on-site by the size of the parcel in acres. This approach is appropriate where the use is expected to be dependent upon access by vehicles.
- **Maximum Occupancy** – The Uniform Building Code can be used as a standard for determining the maximum occupancy of certain uses. The chart provided as Exhibit A is taken from the 1976 edition of the UBC (Table 33-A) and indicates the required number of square feet per occupant. The number of persons on the site can be calculated by dividing the total floor area of a proposed use by the minimum square foot per occupant requirement listed in the table. The maximum occupancy can then be divided by the size of the parcel in acres to determine the persons per acre.

Surveys of actual occupancy levels conducted by the City of Sacramento have indicated that many retail and office uses are generally occupied at 50% of their maximum occupancy levels, even at the busiest times of day. Therefore, the number of persons calculated for office and retail uses should be adjusted (50%) to reflect the actual occupancy levels before making the final persons-per-acre determination.

Some uses will have short peaks in occupancy levels, but otherwise remain relatively low during the majority of the time. In these cases, it is appropriate to use an average occupancy level over an 8-hour period for making the determination. The reasoning behind this approach is to allow for short peaks in occupancy that may exceed the limit, but overall occupancy levels are below the maximum indicated by the Compatibility Plan.

- **Survey of Similar Uses** – Certain uses may require an estimate based upon a survey of similar uses. This approach is more difficult, but is appropriate for uses which, because of the nature of the use, cannot be reasonably estimated based upon parking or square footage.

**Exhibit A**

<b><u>Use</u></b>	<b><u>Minimum Square Feet per Occupant</u></b>
1. Aircraft Hangars (No Repair)	500
2. Auction Room	7
3. Assembly Areas, Concentrated Use (without fixed seats) Auditoriums Bowling Alleys (assembly areas) Churches and Chapels Dance Floors Lodge Rooms Reviewing Stands Stadiums	7
4. Assembly Areas, Less Concentrated Use Conference Rooms Dining Rooms Drinking Establishments Exhibit Rooms Gymnasiums Lounges Skating Rinks Stages	15
5. Children's Homes and Homes for the Aged	80
6. Classrooms	20
7. Dormitories	50
8. Dwellings	300
9. Garage, Parking	200
10. Hospitals and Sanitariums – Nursing Homes	80
11. Hotels and Apartments	200
12. Kitchen – Commercial	200
13. Library Reading Room	50
14. Locker Rooms	50
15. Mechanical Equipment Room	300
16. Nurseries for Children (Day-care)	50
17. Offices	100
18. School Shops and Vocational Rooms	50
19. Stores – Retail Sales Rooms Basement Ground Floor Upper Floors	20 30 50
20. Warehouses	300
21. All Others	100

Examples:

- A. The proposal is for a 60,000-square-foot two-story office building on 4 net acres (exclusive of roads). The local parking ordinance requires one parking space for every 250 square feet of commercial space. Assuming that the use would generate one person per vehicle, the following calculations would derive the number of persons per acre.

Steps:

- 1)  $60,000 \text{ sq. ft.} + 250 \text{ persons per vehicle/sq. ft.} = 240$  (persons expected at any one time).
- 2)  $240 \text{ persons} + 4 \text{ acres} = 60 \text{ persons per acre.}$

Under this example, the use would be estimated to generate 60 persons per acre. In zones with limits of 100 persons-per-acre, the use would be considered compatible assuming all other conditions were met.

- B. The proposal is for a 12,000-square-foot store on a 63,000-square-foot parcel. Using the maximum occupancy table from the Uniform Building Code (Exhibit A) and applying the assumption that the building is occupied at 50 percent of maximum nets results in the following calculations:

Steps:

- 1)  $63,000 \text{ sq. ft.} + 43,560 \text{ sq. ft. (in an acre)} = 1.45 \text{ acre.}$
- 2)  $12,000 \text{ sq. ft.} + 30 \text{ sq. ft./occupant} = 400$  (max. building occupancy).
- 3)  $400 \text{ max. bldg. occup.} \times 50\% = 200$  (persons expected at any one time).
- 4)  $200 \text{ persons} + 1.45 \text{ acre} = 138 \text{ persons per acre.}$

Under this example, 138 persons per acre would represent a reasonable estimate. In zones with limitations of 100 persons-per-acre or less, the use would be considered incompatible.

- C. The proposal is for a 3,000-square-foot office on a 16,500-square-foot parcel. Again using the table in Exhibit A but assuming the actual occupancy level is 50% of the maximum indicated by the UBC code provides the following result:

Steps:

- 1)  $16,500 \text{ sq. ft.} + 43,560 \text{ sq. ft. (acre)} = .38 \text{ acre.}$
- 2)  $3,000 \text{ sq. ft.} + 100 \text{ sq. ft./occupant} = 30$  (max. building occupancy).
- 3)  $30 \text{ persons maximum building occupancy} \times 50\% \text{ (actual occupancy)} = 15 \text{ persons}$  in the building at any one time
- 3)  $15 \text{ persons} + .38 \text{ acres} = 39 \text{ persons per acre.}$

Under this example, the use would be estimated to generate 39 persons per acre. In zones with occupancy limits of 100, the use would be considered compatible assuming all other conditions were met.



Exhibit B

TYPICAL AVIGATION EASEMENT

This indenture made this \_\_\_\_\_ day of \_\_\_\_\_, 19 \_\_, between

hereinafter referred to as Grantor, and the [Insert County or City name], a political subdivision in the State of California, hereinafter referred to as Grantee.

The Grantor, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, does hereby grant tot he Grantee, its successors and assigns, a perpetual and assignable easement over the following described parcel of land in which the Grantor holds a fee simple estate. The property which is subject to this easement is depicted as \_\_\_\_\_ on "Exhibit A" attached and is more particularly described as follows:

[Insert legal description of real property]

The easement applies to the Airspace above an imaginary plane over the real property. The plane is described as follows:

The imaginary plane above the hereinbefore described real property, as such plane is defined by Part 77 of the Federal Aviation Regulations, and consists of a plane [describe approach, transition, or horizontal surface]; the elevation of said plane being based upon the \_\_\_\_\_ Airport official runway end elevation of \_\_\_\_\_ feet Above Mean Sea Level (AMSL), as determined by [Insert name and Date of Survey or Airport Layout Plan that determines the elevation] the approximate dimensions of which said plane are described and shown on Exhibit A attached hereto and incorporated herein by reference.

The aforesaid easement and right-of-way includes, but is not limited to:

- (1) For the use and benefit of the public, the easement and continuing right to fly, or cause or permit the flight by any and all persons, or any aircraft, of any and all kinds now or hereafter known, in, through, across, or about any portion of the Airspace hereinabove described; and
(2) The easement and right to cause or create, or permit or allow to be caused or created within all space above the existing surface of the hereinabove described real property and any and all Airspace laterally adjacent to said real property, such noise, vibration, currents and other effects of air, illumination and fuel consumption as may be inherent in, or may arise or occur from or during the operation of aircraft of any and all kinds, now or hereafter known or used, for navigation of or flight in air; and
(3) A continuing right to clear and keep clear from the Airspace any portions of buildings, structures, or improvements of any kinds, and of trees or other objects, including the right to remove or demolish those portions of such buildings, structures, improvements, trees, or other things which extend into or above said Airspace, and the right to cut to the ground level and remove, any trees which extend into or above the Airspace; and
(4) 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, which extend into or above the Airspace; and

(5) The right of ingress to, passage within, and egress from the hereinabove described real property, for the purposes described in subparagraphs (3) and (4) above at reasonable times and after reasonable notice.

For and behalf of itself, its successors and assigns, the Grantor hereby covenants with the [Insert County or City name], for the direct benefit of the real property constituting the \_\_\_\_\_ Airport hereinafter described, that neither the Grantor, nor its successors in interest or assigns will construct, install, erect, place or grow in or upon the hereinabove described real property, nor will they permit to allow, any building structure, improvement, tree or other object which extends into or above the Airspace, or which constitutes an obstruction to air navigation, or which obstructs or interferes with the use of the easement and rights-of-way herein granted.

The easements and rights-of-way herein granted shall be deemed both appurtenant to and for the direct benefit of that real property which constitutes the \_\_\_\_\_ Airport, in the [Insert County or City name], State of California; and shall further be deemed in gross, being conveyed to the Grantee for the benefit of the Grantee and any and all members of the general public who may use said easement or right-of-way, in landing at, taking off from or operating such aircraft in or about the \_\_\_\_\_ Airport, or in otherwise flying through said Airspace.

This grant of easement shall not operate to deprive the Grantor, its successors or assigns, of any rights which may from time to time have against any air carrier or private operator for negligent or unlawful operation of aircraft.

These covenants and agreements run with the land and are binding upon the heirs, administrators, executors, successors and assigns of the Grantor, and, for the purpose of this instrument, the real property firstly hereinabove described is the servient tenement and said \_\_\_\_\_ Airport is the dominant tenement.

DATED: \_\_\_\_\_  
\_\_\_\_\_

STATE OF            } ss

COUNTY OF         }

On \_\_\_\_\_, before me, the undersigned, a Notary Public in and for said County and State, personally appeared \_\_\_\_\_, and \_\_\_\_\_ known to me to be the persons whose names are subscribed to the within instrument and acknowledged that they executed the same.

WITNESS my hand and official seal.

\_\_\_\_\_  
Notary Public

## SAMPLE DEED NOTICE, OVERFLIGHT AND AVIGATION EASEMENTS

The Napa County Airport Land Use Compatibility Plan requires the dedication of avigation easements in certain areas and requires some form of buyer notification for all projects within the planning areas of the public-use airports in the County. There are three measures which have different applications under various circumstances. Examples of these are included in the attached exhibits and their application is briefly described below.

- Exhibit A**      **Avigation Easement** - Within the approach/departure zones to an airport and in areas where terrain penetrates the specified imaginary surfaces of the airspace plans for each airport, an avigation easement is required. The avigation easement provides the right of overflight, prohibits certain flight hazards, specifies height limitations and also includes provisions which enables the airport authorities to remove, mark or light any objects which create an obstruction to flight.
- Exhibit B**      **Overflight Easement** - In areas where height limitations are not a significant concern, an overflight easement is an appropriate means of providing notification to prospective buyers of the airports influence. Overflight easements provide the right of overflight and include limitations on certain land use characteristics which may constitute a hazard to flight.
- Exhibit C**      **Deed Notice** - In areas subject to overflights from privately-owned or operated airports, a deed notice is an appropriate means of providing buyer notification. The deed notice should be recorded on the deed to the subject property and on any subdivision map.

Exhibit C

**SAMPLE DEED NOTICE**

The following statement should be included on the deed for the subject property and recorded in by the County. This statement should also be included on any parcel map, tentative map or final map for subdivision approval.

THIS PROPERTY IS IN THE AREA SUBJECT TO OVERFLIGHTS BY AIRCRAFT USING ( AIRPORT), AND AS A RESULT, RESIDENTS MAY EXPERIENCE INCONVENIENCE, ANNOYANCE OR DISCOMFORT ARISING FROM THE NOISE OF SUCH OPERATIONS. STATE LAW (PUBLIC UTILITIES CODE SECTION 21670 ET. SEQ.) ESTABLISHES THE IMPORTANCE OF PUBLIC USE AIRPORTS TO PROTECTION OF THE PUBLIC INTEREST OF THE PEOPLE OF THE STATE OF CALIFORNIA. RESIDENTS OF PROPERTY NEAR A PUBLIC USE AIRPORT SHOULD THEREFORE BE PREPARED TO ACCEPT SUCH INCONVENIENCE, ANNOYANCE OR DISCOMFORT FROM NORMAL AIRCRAFT OPERATIONS. ANY SUBSEQUENT DEED CONVEYING PARCELS OR LOTS SHALL CONTAIN A STATEMENT IN SUBSTANTIALLY THE FORM STATED ABOVE.

Exhibit B

RECORDING REQUESTED BY:

APN # \_\_\_\_\_

WHEN RECORDED MAIL TO:

\_\_\_\_\_  
SPACE ABOVE THIS LINE FOR  
RECORDER'S USE

**TYPICAL OVERFLIGHT EASEMENT**

GRANTOR hereby grants to the \_\_\_\_\_ located in \_\_\_\_\_, its successors or assigns, as owners of the [Name of Airport] \_\_\_\_\_, California, an overflight easement for the following purposes and granting the following rights:

1. For the use and benefit of the public, and to the extent and in the manner consistent with safe operating procedures as provided under applicable governmental regulations, the right to make flights, and the noise inherent thereto, in airspace over the property described in Exhibit A (attached) in connection with landings, takeoffs, and general operation of the [Name of Airport] \_\_\_\_\_.
2. The right to regulate or prohibit the release into the air of any substance which would impair the visibility or otherwise interfere with the operations of aircraft such as, but not limited to, steam, dust, and smoke.
3. The right to regulate or prohibit light emissions, either direct or indirect (reflective), which might interfere with pilot vision.
4. The right to prohibit electrical emissions which would interfere with aircraft communication systems or aircraft navigational equipment.

This easement shall be effective from this date and run with the land until such time as the [Name of Airport] \_\_\_\_\_ is no longer used as an airport.

The real property subject to this overflight easement is described as follows:

See Attachment "A"

DATED: \_\_\_\_\_

GRANTOR: \_\_\_\_\_

By: \_\_\_\_\_



## GLOSSARY

**ABOVE GROUND LEVEL (AGL):** An elevation datum given in feet above ground level.

**AIRPORT TRAFFIC CONTROL TOWER (ATCT):** A terminal facility that uses air/ground communications, visual signaling, and other devices to provide ATC services to aircraft operating in the vicinity of an airport or on the movement area. (AIM)

**AIRCRAFT ACCIDENT:** An occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, and in which any person suffers death or serious injury as a result of being in or upon the aircraft or by direct contact with the aircraft or anything attached thereto, or in which the aircraft receives substantial damage. (NTSB)

**AIRCRAFT OPERATION:** The airborne movement of aircraft in controlled or noncontrolled 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. An operation is counted for each landing and each departure, such that a touch-and-go flight is counted as two operations. (FAA Stats)

**AIRCRAFT PARKING LINE LIMIT (APL):** A line established by the airport authorities beyond which no part of a parked aircraft should protrude. (Airport Design AC)

**AIRPORT:** An area of land or water that is used or intended to be used for the landing and taking off of aircraft, and includes its buildings and facilities, if any. (FAR 1)

**AIRPORT ELEVATION:** The highest point of an airport's usable runways, measured in feet above mean sea level. (AIM)

**AIRPORT LAYOUT PLAN (ALP):** A scale drawing of existing and proposed airport facilities, their location on the airport, and the pertinent clearance and dimensional information required to demonstrate conformance with applicable standards.

**AIRPORT REFERENCE CODE (ARC):** A coding system used to relate airport design criteria to the operational and physical characteristics of the airplanes intended to operate at the airport. (Airport Design AC)

**ALUC:** Airport Land Use Commission established under provisions of California Public Utilities Code, Sections 12670 et seq. (Chapter 4, Article 3.5 of State Aeronautics Act)

**AMBIENT NOISE LEVEL:** Background noise level, the normal or existing level of environmental noise at a given location.

**APPROACH LIGHT SYSTEM (ALS):** An airport lighting system which provides visual guidance enabling a pilot to align the aircraft with the extended runway centerline during a final approach to landing. Among the specific types of systems are:

- LDIN – Sequenced Flashing Lead-in Lights.
- ODALS – Omnidirectional Approach Light System, a combination of LDIN and REILS.
- SSALR – Simplified Short Approach Light System with Sequenced Flashing Lights. (AIM)

**APPROACH SPEED:** The recommended speed contained in aircraft manuals used by pilots when making an approach to landing. This speed will vary for different segments of an approach as well as for aircraft weight and configuration. (AIM)

**AVIGATION EASEMENT:** A type of easement that includes the following rights or restrictions: (1) the right of overflight above the property at any altitude above a surface specified in the easement. (2) A right to subject the property to noise, vibrations, fumes, dust, emissions associated with airport activities. (3) Prohibits the erection or growth of any object, tree or structure that would penetrate the defined airspace. (4) A right of entry to the property, with proper notice to the owner for the purpose of removing, marking, or lighting any structure or other object that may constitute a hazard or obstruction. (5) Prohibits certain land use characteristics that may create flight hazards, including electrical interference, glare, misleading light sources, smoke, steam, dust or other visual impairments and uses which may attract large flocks of birds.

**BASED AIRCRAFT:** Aircraft stationed at an airport on a long-term basis.

**CEILING:** Height above the earth's surface to the lowest layer of clouds or obscuring phenomena. (AIM)

**CIRCLING APPROACH/CIRCLE-TO-LAND MANEUVER:** A maneuver initiated by the pilot to align the aircraft with a runway for landing when a straight-in landing from an instrument approach is not possible or not desirable. (AIM)

**COMMERCIAL OPERATOR:** A person who, for compensation or hire, engages in the carriage by aircraft in air commerce of persons or property, other than as an air carrier. (FAR 1)

**COMMUNITY NOISE EQUIVALENT LEVEL (CNEL):** The noise measure adopted by the State of California for evaluating airport noise. It represents the composite noise levels of aircraft operations during an average annual 24-hour day. CNEL is measured in dBA and evening and nighttime operations are weighted to reflect a community's greater sensitivity to noise during these hours and to account for quieter ambient levels.

**COMMUTER AIR CARRIER:** An air taxi operator which performs at least five round trips per week between two or more points and publishes flight schedules which specify the times, days of the week and places between which such flights are performed. (FAA Census)

**CONTROL ZONE:** Controlled airspace surrounding one or more airports, normally a circular area. Having a radius of five statute miles plus extensions to include instrument arrival and departure paths. Most control zones surround airports with air traffic control towers and are in effect only for the hours the tower is operational.

**CONTROLLED AIRSPACE:** Any of several types of airspace within which some or all aircraft may be subject to air traffic control. (FAR 1)

**dBA:** Noise level adjusted to account for the perception range of the human ear.

**DAY-NIGHT AVERAGE SOUND LEVEL (Ldn):** The noise descriptor adopted by the U.S. Environmental Protection Agency for measurement of environmental noise. It represents the average daytime noise level during a 24-hour day, measured in decibels and adjusted to account for the lower tolerance of people to noise during nighttime periods.

**DEED NOTICE:** A deed notice is a formal statement which is added to the legal description of the deed for a property and on any subdivision map which states that the property is subject to aircraft overflights. Deed notices are used as a form of buyer notification as a means of ensuring that those who are particularly sensitive to aircraft overflights can avoid moving to the affected areas. (Refer to overflight easement.)

**DISPLACED THRESHOLD:** A landing threshold that is located at a point on the runway other than the designated beginning of the runway. (See Threshold) (AIM)

**FEDERAL AVIATION REGULATIONS (FAR):** Regulations issued by the FAA to regulate air commerce; issued as separate "Parts", e.g., Part 77.

**FAR PART 77:** The part of the Federal Aviation Regulations which deals with objects affecting navigable airspace.

**FAR PART 77 SURFACES:** Imaginary surfaces established with relation to each runway of an airport. There are five types of surfaces: (1) primary; (2) approach; (3) transitional; (4) horizontal; and (5) conical.

**FEDERAL AVIATION ADMINISTRATION (FAA):** The United States government agency which is responsible for insuring the safe and efficient use of the nation's airspace.

**FIXED BASE OPERATOR (FBO):** A business operating at an airport that provides aircraft services to the general public, including but not limited to sale of fuel and oil; aircraft sales, rental, maintenance, and repair; parking and tiedown or storage of aircraft; flight training; air taxi/charter operations; and specialty services, such as instrument and avionics maintenance, painting, overhaul, aerial application, aerial photography, aerial hoists, or pipeline patrol.

**GENERAL AVIATION:** That portion of civil aviation which encompasses all facets of aviation except air carriers. (FAA Stats)

**GLIDE SLOPE:** An electronic signal radiated by a component of an ILS to provide descent path guidance to approaching aircraft.

**HELIPAD:** A small, designated area, usually with a prepared surface, on a heliport, airport, landing/takeoff area, apron/ramp, or movement area used for takeoff, landing, or parking of helicopters. (AIM)

**INSTRUMENT APPROACH PROCEDURE:** A series of predetermined maneuvers for the orderly transfer of an aircraft under instrument flight conditions from the beginning of the initial approach to a landing or to a point from which a landing may be made visually. It is prescribed and approved for a specific airport by competent authority. Refer to nonprecision and precision approach procedures. (AIM)

**INSTRUMENT FLIGHT RULES (IFR):** Rules governing the procedures for conducting instrument flight. Generally, IFR applies when meteorological conditions with a ceiling below 1,000 feet and visibility less than 3 miles prevail. (AIM)

**INSTRUMENT LANDING SYSTEM (ILS):** A precision instrument approach system which normally consists of the following electronic components and visual aids: (1) Localizer; (2) Glide Slope; (3) Outer Marker; (4) Middle Marker; (5) Approach Lights. (AIM)

**INSTRUMENT OPERATION:** An aircraft operation in accordance with an IFR flight plan or an operation where IFR separation between aircraft is provided by a terminal control facility. (FAA ATA)

**INSTRUMENT RUNWAY:** A runway equipped with electronic and visual navigation aids for which a precision or nonprecision approach procedure having straight-in landing minimums has been approved. (AIM)

**ITINERANT OPERATION:** An arrival or departure performed by an aircraft from or to a point beyond the local airport area.

**LARGE AIRCRAFT:** An aircraft of more than 12,500 pounds maximum certificated takeoff weight. (FAR 1)

**LOCALIZER (LOC):** The component of an ILS which provides course guidance to the runway. (AIM)

**LOCALIZER TYPE DIRECTIONAL AID (LDA):** A NAVAID used for nonprecision instrument approaches with utility and accuracy comparable to a localizer but which is no a part of a complete ILS and is not aligned with the runway. (AIM)

**LOCAL OPERATION:** An arrival or departure performed by an aircraft: (1) operating in the traffic pattern, (2) known to be departing or arriving from flight in local practice areas, or (3) executing practice instrument approaches at the airport. (FAA ATA)

**MEAN SEA LEVEL (MSL):** An elevation datum given in feet above mean sea level.

**MICROWAVE LANDING SYSTEM (MLS):** A precision instrument approach system providing a function similar to an ILS, but operating in the microwave spectrum. It normally consists of three components: azimuth station, elevation station, and precision distance measuring equipment.

**MINIMUM DESCENT ALTITUDE (MDA):** The lowest altitude, expressed in feet above mean sea level, to which descent is authorized on final approach or during circle-to-land maneuvering in execution of a standard instrument approach procedure where no electronic glide slope is provided. (FAR 1)

**MISSED APPROACH:** A maneuver conducted by a pilot when an instrument approach cannot be completed to a landing. (AIM)

**NAVIGATIONAL AID/NAVAID:** Any visual or electronic device airborne or on the surface which provides point-to-point guidance information or position data to aircraft in flight. (AIM)

**NOISE CONTOURS:** Lines drawn about a noise source indicating constant energy levels of noise exposure. CNEL and Ldn are the measures used to describe community exposure to noise.

**NONPRECISION APPROACH PROCEDURE:** A standard instrument approach procedure in which no electronic glide slope is provided. (FAR 1)

**NONPRECISION INSTRUMENT RUNWAY:** A runway with an instrument approach procedure utilizing air navigation facilities, with only horizontal guidance, or area-type navigation equipment for which a straight-in nonprecision instrument approach procedure has been approved or planned, and no precision approach facility or procedure is planned. (Airport Design AC)

**OBJECT FREE AREA (OFA):** A two-dimensional ground area surrounding runways, taxiways, and taxilanes which is clear of objects except for objects whose location is fixed by function. (Airport Design AC)

**OBSTRUCTION:** Any object of natural growth, terrain, or permanent or temporary construction or alteration, including equipment or materials used therein the height of which exceeds the obstruction standards of subpart C of FAR Part 77 "Objects Affecting Navigable Airspace".

**OBSTACLE FREE ZONE (OFZ):** The airspace defined by the runway OFZ and, as appropriate, the inner-approach OFZ and the inner-transitional OFZ, which is clear of object penetrations other than frangible NAVAIDs.

**OBSTRUCTION:** An object, including a mobile object, which penetrates an imaginary surface described in FAR Part 77.

**OUTER MARKER:** A marker beacon at or near the glide slope intercept position of an ILS approach. (AIM)

**OVERFLIGHT EASEMENT:** An easement which describes the right to overfly the property above a specified surface and includes the right to subject the property to noise, vibrations, fumes and emissions. An overflight easement is used primarily as a form of buyer notification.

**OVERFLIGHT ZONE:** The area(s) where aircraft are maneuvering to enter or leave the traffic pattern, typically defined by the FAR Part 77 horizontal surface.

**OVERLAY ZONING:** Establishes development standards in areas of special concern over an above the standards applicable to basic underlying zoning districts.

**PLANNING BOUNDARY:** The area designated by the ALUC surrounding each airport pursuant to Section 21675 (c) of the Public Utilities Code in which the ALUC plan applies.

**PRECISION APPROACH PATH INDICATOR (PAPI):** An airport landing aid similar to a VASI, but which has light units installed in a single row rather than two rows.

**PRECISION APPROACH PROCEDURE:** A standard instrument approach procedure in which an electronic glide slope is provided. (FAR 1)

**PRECISION INSTRUMENT RUNWAY:** A runway with an instrument approach procedure utilizing an instrument landing system (ILS), microwave landing system (MLS), or precision approach radar (PAR). (Airport Design AC)

**PUBLIC USE AIRPORT:** Publicly or privately owned airport that offers the use of its facilities to the public without prior notice or special invitation or clearance, and that has been issued a California Airport Permit by the Division of Aeronautics of the California Department of Transportation. For purposes of the ALUC plan, the State Division of Aeronautics has interpreted "public use" to include special-use airports in which commercial operators offer service to the public.

**REFERRAL AREA:** The area around an airport defined by the planning boundary adopted by the ALUC within which certain land use proposals are to be referred to the ALUC for review.

**RUNWAY EDGE LIGHTS:** Lights used to define the lateral limits of a runway. Specific types include:

- HIRL – High-Intensity Runway Lights.
- MIRL – Medium-Intensity Runway Lights.

**RUNWAY END IDENTIFIER LIGHTS (REIL):** Two synchronized flashing lights, one on each side of the runway threshold, which provide a pilot with a rapid and positive visual identification of the approach end of a particular runway. (AIM)

**RUNWAY PROTECTION ZONE (RPZ):** An area (formerly the clear zone) used to enhance the safety of aircraft operations. It is at ground level beyond the runway end. (Airport Design AC)

**RUNWAY SAFETY AREA (RSA):** 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. (Airport Design AC)

**SAFETY ZONE(S):** For the purposes of this Plan, a safety zone is an area near an airport in which land use restrictions are established to protect the safety of the public from potential aircraft accidents.

**SINGLE-EVENT NOISE:** As used in this report, it refers to the noise from an individual aircraft operation or overflight.

**SINGLE EVENT NOISE EXPOSURE LEVEL (SENEL) OR (SEL):** The A-weighted sound level of a single noise event, such as an aircraft overflight, measured over the time interval for which the sound exceeds a threshold level and normalized to a reference duration of one second. SENEL and SEL values are identical: SENEL is used in California, SEL is adopted by the EPA and FAA.

The SENEL or SEL expresses the level of a continuous one-second signal that contains the same amount of energy as the entire noise event. This value is not equal to the maximum A-level occurring during the noise event. Aircraft noise events last more than one second. SENEL/SEL values will be higher than the maximum A-level for the same events.

**SMALL AIRCRAFT:** An aircraft of 12,500 pounds or less maximum certificated takeoff weight. (FAR 1)

**STANDARD INSTRUMENT DEPARTURE (SID):** A preplanned instrument flight rules (IFR) air traffic control departure procedure printed for pilot use in graphic and/or textual form. SID's provide transition from the terminal to the appropriate en route structure. (AIM)

**STANDARD TERMINAL ARRIVAL ROUTE (STAR):** A preplanned instrument flight rule (IFR) air traffic control arrival route published for pilot use in graphic and/or textual form. STARS provide transition from the en route structure to an outer fix or an instrument approach fix/arrival waypoint in the terminal area. (AIM)

**STOPWAY:** An area beyond the takeoff runway, no less wide than the runway and centered upon the extended centerline of the runway, able to support the airplane during an aborted takeoff, without causing structural damage to the airplane, and designated by the airport authorities for use in decelerating the airplane during an aborted takeoff. (FAR 1)

**STRAIGHT-IN INSTRUMENT APPROACH:** An instrument approach wherein final approach is begun without first having executed a procedure turn; it is not necessarily completed with a straight-in landing or made to straight-in landing weather minimums. (AIM)

**TAXILANE:** The portion of the aircraft parking area used for access between taxiways, aircraft parking positions, hangars, storage facilities, etc. (Airport Design AC)

**TAXIWAY:** A defined path, from one part of an airport to another, selected or prepared for the taxiing of aircraft. (Airport Design AC)

**TERMINAL INSTRUMENT PROCEDURES (TERPS):** Procedures for instrument approach and departure of aircraft to and from civil and military airports. There are four types of terminal instrument procedures: precision approach, nonprecision approach, circling, and departure.

**TERMINAL RADAR SERVICE AREA (TRSA):** Airspace surrounding designated airports wherein ATC provides radar vectoring, sequencing, and separation on a full-time basis for all IFR and participating VFR aircraft. (AIM)

**THRESHOLD:** The beginning of that portion of the runway usable for landing. (AIM) (Also see Displaced Threshold)

**TOUCH-AND-GO:** A practice maneuver consisting of a landing and a takeoff performed in one continuous movement. A touch-and-go is defined as two operations.

**TRAFFIC PATTERN:** The traffic flow that is prescribed for aircraft landing at, taxiing on, or taking off from an airport. The components of a typical traffic pattern are upwind leg, crosswind leg, downwind leg, base leg, and final approach. (AIM)

**TRANSIENT AIRCRAFT:** Aircraft not based at the airport.

**UNICOM (Aeronautical Advisory Station):** A nongovernment air/ground radio communication facility which may provide airport information at certain airports. (AIM)

**UTILITY AIRPORT:** An airport designed, constructed, and maintained to serve airplanes having approach speeds less than 121 knots. (Airport Design AC)

**VISUAL APPROACH:** An approach where the pilot must use visual reference to the runway for landing under VFR conditions.

**VISUAL APPROACH SLOPE INDICATOR (VASI):** An airport landing aid which provides a pilot with visual descent (approach slope) guidance while on approach to landing. Also see PAPI.

**VISUAL FLIGHT RULES (VFR):** Rules that govern the procedures for conducting flight under visual conditions. VFR applies when meteorological conditions are equal to or greater than the specified minimum – generally, a 1,000-foot ceiling and 3-mile visibility.

**VISUAL GLIDE SLOPE INDICATOR (VGSI):** A generic term for the group of airport visual landing aids which includes Visual Approach Slope Indicators (VASI), Precision Approach Path Indicators (PAPI), and Pulsed Light Approach Slope Indicators (PLASI). When FAA funding pays for this equipment, whichever type received the lowest bid price will be installed unless the airport owner wishes to pay the difference for a more expensive unit.

**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. (Airport Design AC)

**WIND SHEER:** A condition typified by rapid changes in wind velocity and duration with altitude.

## REFERENCES

**FAR 1:** Federal Aviation Regulations Part 1, Definitions and Abbreviations. (1974)

**AIM:** Airman's Information Manual, Pilot/Controller Glossary. (1988)

**Airport Design AC:** Federal Aviation Administration. Airport Design. Advisory Circular 150/5300-13. (1989)

**FAA ATA:** Federal Aviation Administration. Air Traffic Activity. (1986)

**FAA Census:** Federal Aviation Administration. Census of U.S. Civil Aircraft. (1986)

**FAA Stats:** Federal Aviation Administration. Statistical Handbook of Aviation. (1984)

**Handbook:** California Department of Transportation, Division of Aeronautics, Airport Land Use Planning Handbook. (1985)

**NTSB:** National Transportation Safety Board.

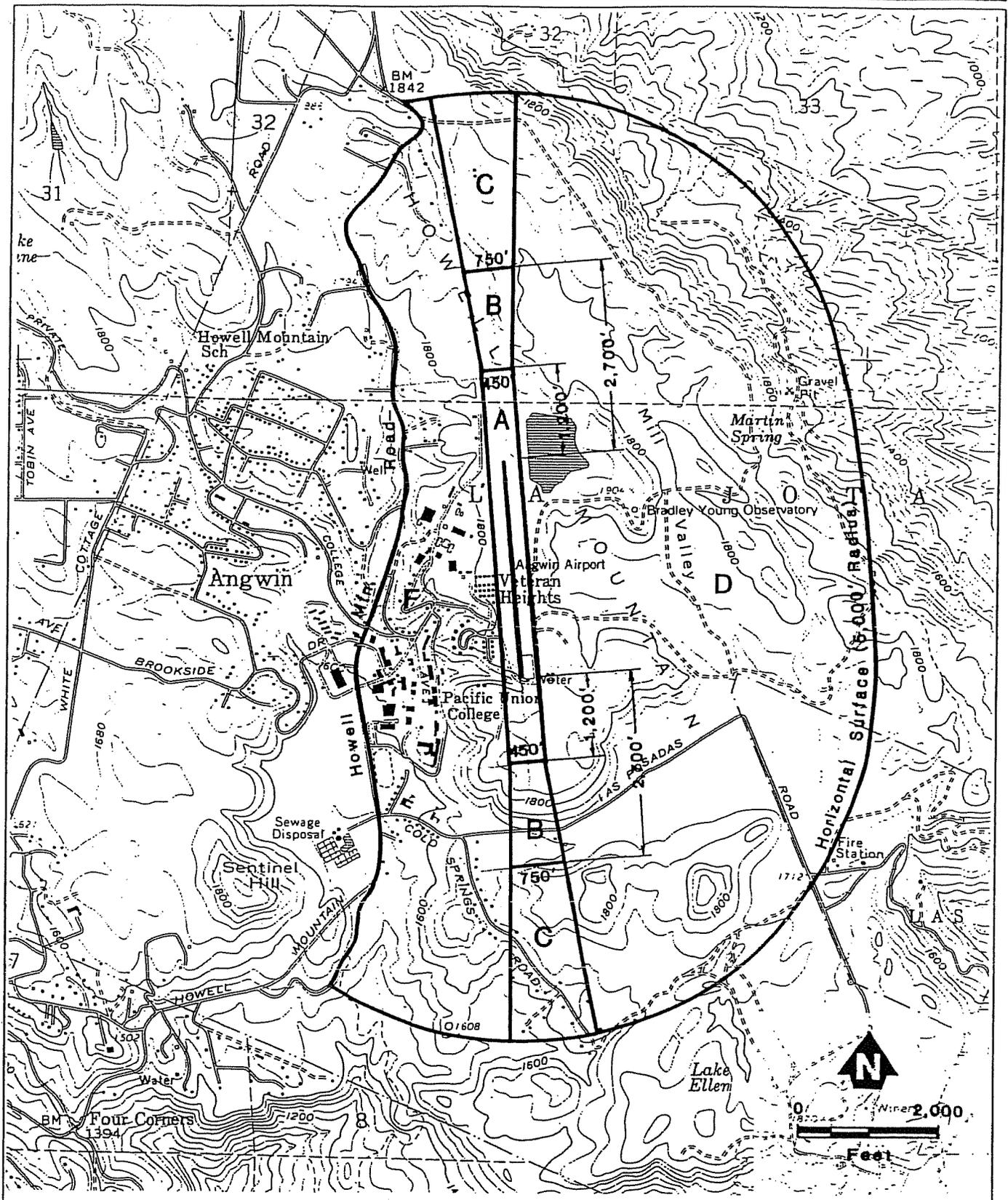


Figure 3C

### Compatibility Plan Parrett Field



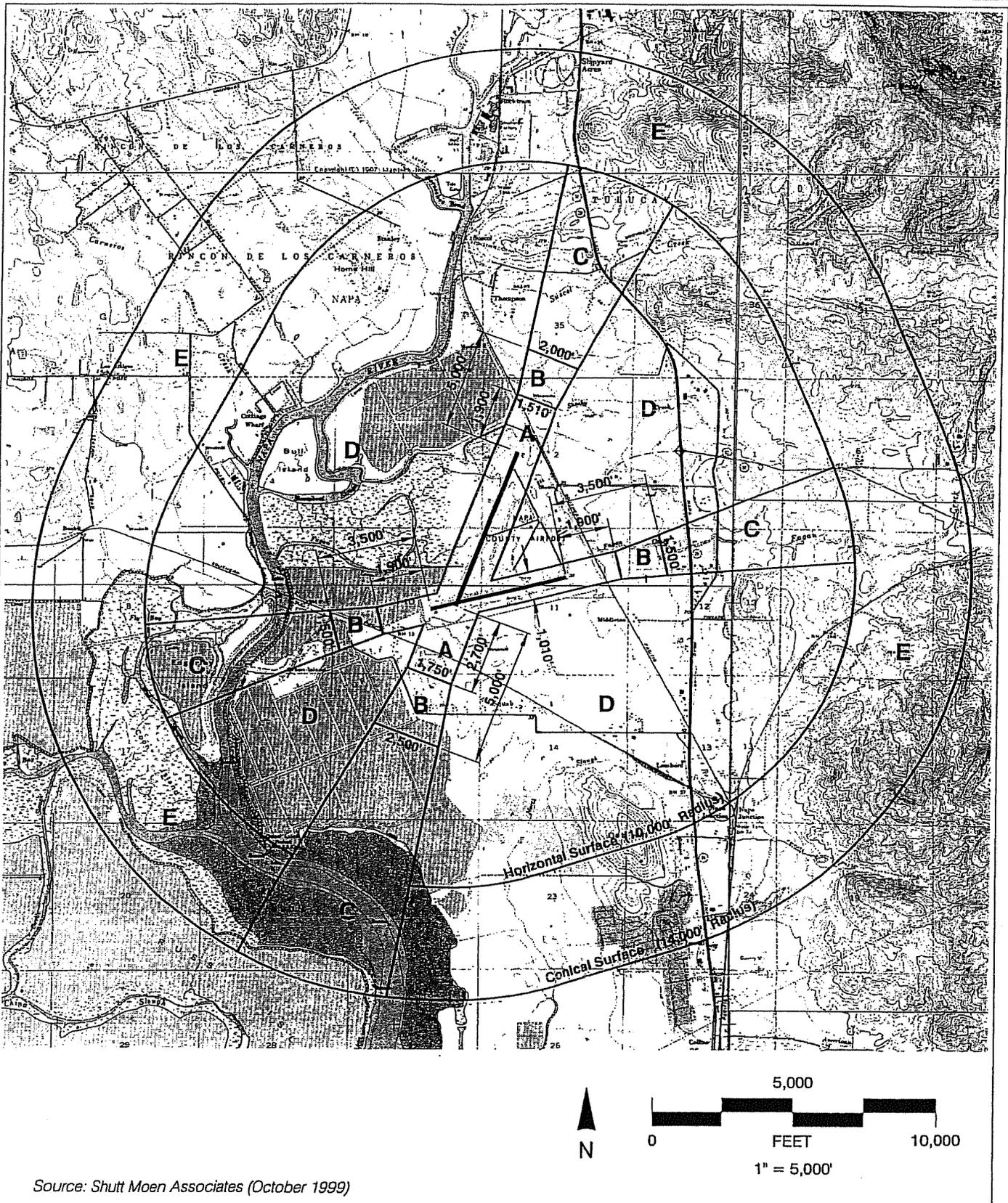


Figure 3A

### Compatibility Plan Napa County Airport



ZONE	LOCATION	IMPACT/ELEMENTS	MAXIMUM DENSITIES <sup>a</sup>		
			Residential <sup>b</sup>	Other Uses (people/ac)	
				In Structures	Total in and out of Structures
A	Runway Protection Zone and Primary Surface	- High risk - High noise levels - Low overflights below 50' AGL	0	0	10
B	Inner Approach/Departure Zone	- Substantial risk - High noise levels - Low overflights below 100' AGL	0	10	25
C	Approach/Departure Zone	- Moderate risk - Substantial noise - Low overflight below 300' AGL	0	50	75
D	Common Traffic Pattern	- Moderate risk - Frequent noise intrusion - Routine overflights below 1,000' AGL	0	100	150
E	Other Airport Environs	- Low risk - Overflight annoyance	See Note 7		

1. Residential land use and zoning designations are considered incompatible uses within the traffic pattern area (Zones A, B, C, and D) where aircraft overflights are frequent and at low altitude. The residential restrictions do not apply to residential uses allowable under agricultural land use and zoning designations.
2. The use should not attract more than the indicated number of persons per net acre. Net acreage is the total site area inclusive of parking areas and landscaping, less the area dedicated for streets. These densities are intended as general planning guidelines to aid in determining the acceptability of proposed land uses. Clustering of development within the density parameters should be encouraged to protect and provide open land/safety areas. However, in Zones A, B, and C the density on any one acre of a parcel should not exceed twice the indicated number of people per acre.
3. Dedication of an avigation or overflight easement or deed notice is required as a condition for new development within all zones. Also, height limit restrictions are applicable to structures and trees in all zones in accordance with Federal Aviation Regulation Part 77 and local ordinances. Uses which may be hazardous to flight are prohibited in all zones.
4. These uses typically can be designed to meet the density requirements and other development conditions listed.
5. These uses typically do not meet the density requirements and other development conditions listed. They should be allowed only if a major community objective is served by their location in this zone and if mitigation measures (i.e., noise attenuation) are incorporated that will minimize potential conflicts.
6. NLR = Noise Level Reduction; i.e., the attenuation of sound level from outside to inside provided by the structure. Noise level reduction measures may be required in areas with high single-event noise levels and where noise-sensitive users (schools, libraries, etc.) are proposed. Refer to Appendix C for criteria and noise attenuation measures.
7. Maximum residential densities in accordance with local adopted General Plans and zoning designations. Consideration should be given to the proximity of flight patterns, frequency of overflight, terrain conditions, and type of aircraft in determining acceptable location of residential uses. Referral to the ALUC for review of development plans prior to approval is recommended.
8. The purpose of these criteria is to provide a basis for determining those land uses which are compatible with airport activities. Specific land uses will be allowed only if they are also consistent with applicable General Plan policies and zoning ordinances.
9. All lands in Zone A are either within the Airport's boundaries or designated for acquisition in the Airport Master Plan.
10. Includes objects that penetrate FAR Part 77 surfaces, uses that would attract large numbers of birds (e.g., landfills), and uses that would create smoke, glare, distracting lights, or electronic interference.
11. Avigation easements will be required in lieu of overflight easements or deed notices where there is an appropriate public agency to review them.

Table 3-2

## Airport Vicinity Land Use Compatibility Criteria Napa County Airport



ZONE	PROHIBITED USES	OTHER DEVELOPMENT CONDITIONS	EXAMPLES OF NORMALLY ACCEPTABLE USES <sup>8</sup>	EXAMPLES OF USES NOT NORMALLY ACCEPTABLE <sup>9</sup>
A	<ul style="list-style-type: none"> <li>- All residential uses</li> <li>- Any assemblage of people</li> <li>- Any new structure which exceeds height limits</li> <li>- Noise sensitive uses</li> <li>- Uses hazardous to flight<sup>10</sup></li> </ul>	<ul style="list-style-type: none"> <li>- Avigation easement required</li> </ul>	<ul style="list-style-type: none"> <li>- Pasture, open space</li> <li>- Aircraft tiedowns</li> <li>- Auto parking</li> <li>- Most agricultural uses</li> </ul>	<ul style="list-style-type: none"> <li>- Heavy poles, signs, large trees, etc.</li> <li>- Ponds</li> </ul>
B	<ul style="list-style-type: none"> <li>- All residential uses</li> <li>- Any noise-sensitive uses</li> <li>- Schools, libraries, hospitals, nursing homes, daycare centers</li> <li>- Uses hazardous to flight<sup>10</sup></li> </ul>	<ul style="list-style-type: none"> <li>- Avigation easement required</li> <li>- Structures to be as far as possible from extended runway centerline</li> <li>- Clustering is encouraged to maximize open land areas</li> <li>- Minimum NLR of 25 dBA in office buildings<sup>5</sup></li> <li>- Building envelopes and approach surfaces required on all subdivision maps and development plans</li> </ul>	<ul style="list-style-type: none"> <li>- All uses from Zone A</li> <li>- Parks with low-intensity uses, golf courses</li> <li>- Nurseries</li> <li>- Mini-storage</li> </ul>	<ul style="list-style-type: none"> <li>- Retail uses</li> <li>- Office uses (except as accessory uses)</li> <li>- Hotels, motels, resorts</li> <li>- Theaters, assembly halls, and conference centers</li> <li>- Ponds</li> </ul>
C	<ul style="list-style-type: none"> <li>- All residential uses</li> <li>- Schools, libraries, hospitals, nursing homes, daycare centers</li> <li>- Uses hazardous to flight<sup>10</sup></li> </ul>	<ul style="list-style-type: none"> <li>- Avigation easement required</li> <li>- Structures to be set back as far as possible from extended centerline</li> <li>- Clustering is encouraged to maximize open land areas</li> <li>- Building envelopes and approach surfaces required on all subdivision maps</li> <li>- NLR measures may be required for noise-sensitive uses (offices)</li> </ul>	<ul style="list-style-type: none"> <li>- All uses from Zone B</li> <li>- Warehousing and low-intensity light industrial</li> <li>- Small retail uses</li> <li>- Outdoor recreation uses; marina, ball-park</li> <li>- Office uses</li> </ul>	<ul style="list-style-type: none"> <li>- Large retail buildings</li> <li>- Hotels, motels, resorts, health club</li> <li>- Restaurants, bars</li> <li>- Multi-story buildings</li> <li>- Theaters, assembly halls, and conference centers</li> <li>- Ponds</li> </ul>
D	<ul style="list-style-type: none"> <li>- All residential uses</li> <li>- Uses hazardous to flight<sup>10</sup></li> </ul>	<ul style="list-style-type: none"> <li>- Overflight easement or deed notice required<sup>11</sup></li> <li>- Building envelopes and approach surfaces required on all development plans within 100' of approach zones</li> <li>- Clustering is encouraged to maximize open land areas</li> <li>- NLR measures may be required for noise-sensitive uses<sup>5</sup></li> </ul>	<ul style="list-style-type: none"> <li>- All uses from Zone C</li> <li>- Most non-residential uses</li> <li>- Accessory day care centers</li> </ul>	<ul style="list-style-type: none"> <li>- Schools, libraries, hospitals, nursing homes</li> <li>- Large shopping malls</li> <li>- Amphitheaters</li> <li>- Ponds</li> </ul>
E	<ul style="list-style-type: none"> <li>- Noise-sensitive outdoor uses</li> </ul>	<ul style="list-style-type: none"> <li>- Overflight easement or deed notice required<sup>11</sup></li> </ul>	<ul style="list-style-type: none"> <li>- Any permitted use</li> </ul>	<ul style="list-style-type: none"> <li>- Amphitheaters</li> <li>- Landfills</li> <li>- Ponds</li> </ul>

Table 3-2, Continued



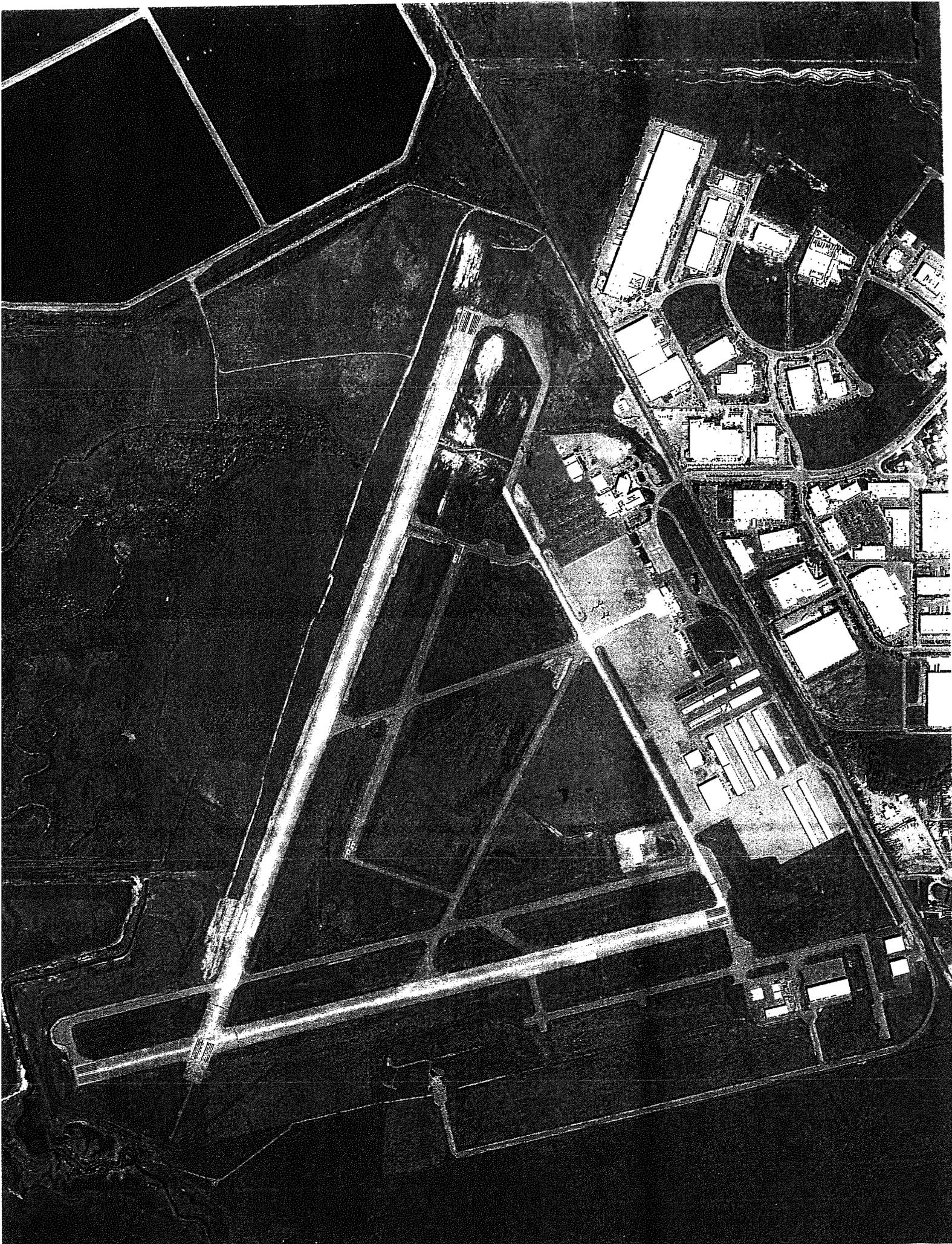
Table 3-1

## Compatibility Zone Definitions

- ZONE A** Runway Protection Zone: Dimensioned to encompass the future Runway Protection Zones of the respective runways for each airport as presented on the Airport Layout Plans contained in Part III of this document. Also includes areas lateral to the runway. These areas are regularly overflown by aircraft below 50 feet above the ground. For this reason, these areas are considered high risk with regard to accident potential and any structures, buildings, trees or obstacles may create a flight hazard. These areas are also affected by high noise levels.
- ZONE B** Approach/Departure Zone: This zone is defined as the areas where aircraft will be below 100 feet above ground level as determined by the type of approach anticipated for that runway in the future. Future approach slopes are designated on the respective Airport Layout Plans and Airspace Plans for each airport in Part III. These areas are affected by substantial risk of accident potential due to the frequency of overflights at low altitudes. Noise levels are generally high with frequent loud single-events.
- ZONE C** Extended Approach/Departure Zone: This zone is defined as the area where aircraft will be below 300 feet above ground level as determined by the type of approach. The low altitude of aircraft in these areas indicates moderate to high risk of accident potential. Properties in this zone will be affected by substantial noise.
- ZONE D** Common Traffic Pattern: This area is defined by the flight pattern for each airport and illustrated in the respective "Airport Impact Areas" figures contained in Part III. These areas are routinely overflown by aircraft operating to and from the airport with frequent single-event noise intrusion. Overflights in these areas can range from near the traffic pattern altitude (about 1,000 feet above the ground) to as low as 300 feet above the ground. Accident risk varies from low to moderate. Areas where aircraft are near pattern altitude (e.g., downwind leg) have the lowest risk. In areas where aircraft are at lower altitudes (especially on circle-to-land instrument approaches) a moderate level of risk exists.
- ZONE E** Other Airport Environs: An airport's influence area often extends beyond the typically defined compatibility zones during busy traffic hours and when larger aircraft are in the pattern. Aircraft overflights can occur anywhere in these areas when aircraft are departing or approaching an airport. Overflight annoyance is the primary impact element in these areas. The risk of accident is very low.

Revised 12/15/99







ORDINANCE NO. 1242

AN ORDINANCE OF THE BOARD OF SUPERVISORS OF THE  
COUNTY OF NAPA, STATE OF CALIFORNIA, AMENDING SECTIONS  
18.08.460, 18.120.010(A) AND 18.120.010(B) OF THE NAPA COUNTY  
CODE REGARDING PERSONAL USE AIRPORTS AND HELIPORTS,  
AND HELICOPTER LANDING SITES IN SUPPORT OF  
AGRICULTURAL PRODUCTION IN THE UNINCORPORATED  
PORTIONS OF NAPA COUNTY

The Board of Supervisors of the County of Napa, State of California, ordains as follows:

**SECTION 1.** Section 18.08.460 (Private airport) of Chapter 18.08 (Definitions)

of the Napa County Code is amended to read in full as follows:

**18.08.460 Personal use airport and heliport.**

“Personal use airport and heliport” means an airport or heliport limited to the noncommercial activities of an individual owner or family and occasional invited guests.

**SECTION 2.** Section 18.120.010 (Exceptions to use limitations) of Chapter

18.120 (Exceptions) of the Napa County Code is amended to read in full as follows:

**18.120.010 Exceptions to use limitations.**

A. The following uses, in addition to those hereinbefore set forth, shall be allowed without a use permit in any zoning district:

1. Category 1 and 1A temporary events, as defined in Section 5.36.010;
2. Category 2A, 2B, 3 and 4 temporary events as defined in Section 5.36.010 and conducted in accordance with a temporary event license obtained in accordance with Chapter 5.36; and special events as defined in Section 10.24.010 and conducted in accordance with a special events permit obtained in accordance with Chapter 10.24;
3. Commercial excavation or extraction of natural materials including, without limitation, geothermal, oil and gas resources so long as a surface mining permit has been issued pursuant to the provisions of Chapter 16.12 for those operations involving surface mining;
4. Distribution lines installed to convey gas and/or electricity locally to individual services or to another such line;

5. Cable television lines, and telephone lines other than long distance cables;
6. Cultivation of gardens;
7. Temporary sheds for the retail sale of agricultural products lawfully produced on the premises;
8. Hand-held, vehicular, or other portable transmitters or transceivers, including, but not limited to, cellular phones, CB radios, emergency services radio, and other similar devices;
9. Helicopter emergency use facility landing sites; and
10. Helicopter landings solely in support of direct agricultural production activities such as aerial spraying and frost protection.

B. The following uses may be permitted in any zoning district (or where restricted to certain zoning districts, in accordance with such restrictions) upon the grant of a use permit in each case:

1. (Reserved);
2. Personal use airports and heliports, and emergency medical services landing sites, provided, that such use permit is not effective unless and until any required permits, licenses, or other approvals from other federal, state, and local agencies (including the airport land use commission) have been obtained;
3. Commercial excavation or extraction of natural materials including, without limitation, geothermal, oil and gas resources;
4. Timber harvesting;
5. Sanitation treatment plants and oxidation ponds;
6. Electric transmission lines designed to carry large blocks of electric energy at a voltage of thirty-three kv or above from generating stations, between points of interchange, between transmission substations, to distribution stations or to large individual customers;
7. Gas transmission lines installed for the purpose of transmitting gas from a source or sources of supply to one or more distribution centers or to one or more large volume customers or to interconnect sources of supply;
8. Other public utility uses including, without limitation, warehouses, storage yards, gas holders, substations, electric generating plants, reservoirs, storage tanks, pumping stations and communication equipment buildings;
9. Other public and quasi-public uses not included elsewhere in this section other than telecommunication facilities;
10. Other provisions of this section to the contrary notwithstanding, the undergrounding of any electric, gas or telephone line shall require a use permit except:
  - a. Where the entire length of the line to be underground is covered by an encroachment permit, or
  - b. The entire length of the line to be undergrounded lies between a distribution line on a street and an individual service connection;
11. Churches;
12. Cemeteries;
13. Child day care center in existing structures developed for public assembly (i.e., churches, meeting halls, public and private schools) and in existing nonconforming commercial buildings;
14. Temporary real estate offices for the sale of properties developed pursuant to a development plan for the site;

15. Provided that the property to be developed is located within a railroad right-of-way in existence as of January 1, 1988, and notwithstanding any other provision of this code, tourist and excursion transportation facilities may be permitted, subject to the issuance of a conditional use permit pursuant to Sections 18.124.010 18.124.080.

C. Minimum lot area regulations applicable to any zoning district may be waived by the commission in connection with issuance by it of a use permit for any use set forth in subsections (B)(7) and (8) of this section.

D. The following uses shall be allowed in any zoning district upon issuance of an administrative permit in accordance with Chapter 18.126:

1. A home occupation; provided however, that notwithstanding Section 18.08.310, a bed and breakfast shall not be considered a home occupation;
2. Directional, identification, temporary off-site and agricultural signs;
3. A temporary trailer; and
4. An application for an extension of time for a previously issued administrative permit for a temporary trailer.

**SECTION 3.** If any section, subsection, sentence, clause, phrase or word of this chapter is for any reason held to be invalid by a court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this ordinance. The Board of Supervisors of the County of Napa hereby declares it would have passed and adopted this ordinance and each and all provisions hereof irrespective of the fact that any one or more of said provisions be declared invalid.

**SECTION 4.** This ordinance shall be effective thirty (30) days from and after the date of its passage.

**SECTION 5.** A summary of this ordinance shall be published at least once 5 days before adoption and at least once before the expiration of 15 days after its passage in the Napa Valley Register, a newspaper of general circulation published in the County of Napa, together with the names of members voting for and against the same.

The foregoing ordinance was first introduced and read at a regular meeting of the Conservation Development and Planning Commission, held on the 5th day of May, 2004, and passed at a regular meeting of the Board of Supervisors of the County of Napa, State of

California, held on the 20th day of July, 2004, by the following vote:

AYES:	SUPERVISORS	<u>WAGENKNECHT, DILLON, DODD, RIPPEY</u> <u>and LUCE</u>
NOES:	SUPERVISORS	<u>NONE</u>
ABSTAIN:	SUPERVISORS	<u>NONE</u>
ABSENT:	SUPERVISORS	<u>NONE</u>

Mark Luce  
**MARK LUCE, CHAIR**  
Napa County Board of Supervisors

**ATTEST:**  
Clerk of the Board

By: Camela Miller  
Deputy

Approved by the Napa County  
Board of Supervisors  
Date: July 20, 2004  
Processed by:  
Henry Valles  
Deputy Clerk of the Board

APPROVED AS TO FORM  
Office of County Counsel  
By: [Signature]  
Deputy County Counsel  
By: [Signature]  
County Code Services  
Date: 7-12-04