

**COMPREHENSIVE AIRPORT
LAND USE PLAN
WILLOWS GLENN COUNTY AIRPORT**



**Glenn County Airport Land Use Commission
Glenn County
Planning & Planning Works Agency
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Adopted June 30, 1990

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WILLOWS GLENN COUNTY AIRPORT
COMPREHENSIVE AIRPORT LAND USE PLAN

I. Introduction

A. COMMISSION

The Glenn County Board of Supervisors as required by Article 3.5 of California Public Utilities Code established the seven member Glenn County Airport Land Use Commission. Section 21670 (a) (2) of this code states the following:

- (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.

Section 21670 (b) of the Public Utilities Code states that

...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 public, shall establish an airport land use commission... Each commission shall consist of seven members to be selected as follows:

- (1) Two representing the cities...
- (2) Two representing the county..
- (3) Two having expertise in aviation...
- (4) One representing the public...

The Glenn County Airport Land Use Commission is established according to Chapter 22.10 of the Glenn County Code which was adopted by the Glenn County Board of Supervisors in 1985 (Ordinance N. 830).

B. PLAN

The Glenn County Airport Land Use Commission (ALUC) is responsible for preparing a comprehensive airport land use plan for the area around the Willows Glenn County Airport according to Public Utilities Code Section 21675. As part of the Plan, the Commission may develop building height restrictions, specify land uses, and determine building standards within the airport planning area.

This Plan will determine the criteria, which the Glenn County Airport land Use Commission will use in evaluating general and specific plans, zoning ordinances, building regulations or amendments to this Airport Land Use Plan. In addition, this Plan is intended to give public agencies and the public an explanation of the nature and extent of the Commission's involvement in airport land use planning.

The Commission functions primarily in a review capacity. Proposals for the adoption or amendment of general and specific plans, zoning ordinances, building regulations, and airport master plans are to be referred to the Commission prior to final action being taken by the appropriate governing body (City Council or Board of Supervisors). Section 21676 b of the California Public Utilities Code requires this.

This Plan will present policies addressing land use compatibility with the airports' noise, airspace protection, safety and general nuisance impacts. Standards and criteria are necessary to insure that no new land use or expansion of an existing land use is permitted within any part of an airports area of permitted within any part of an airports' area of influence which may result in hazard to aircrafts using the airport or result in any aircraft-related hazard to the health or safety of persons on the ground. Standards should also address lands needed for airport facilities and airport-related land uses. The Airport Land Use Commission has no authority to enforce removal of pre-existing land uses, which do not conform to the criteria and standards, outlined in this document.

C. GOAL AND OBJECTIVES

The overall goal for preparation of the Willows Airport Comprehensive Land Use Plan is as follows:

Goal:

To provide for the orderly growth of the Willows Glenn County Airport and the area surrounding the airport within the identified planning boundary, and to safeguard to the general welfare of the inhabitants within the vicinity of the airport and the public in general. The principal objectives of the Land Use Plan are as follows:

Objectives:

1. To provide the County of Glenn and the City of Willows with comprehensive land use policies designed to protect the viability and growth-potential of the airport, and to contribute to the safe and efficient use of the airport by ensuring compatible land uses near the airport.
2. To include a long-range master plan for the airport that reflects the anticipated growth of the airport during the next twenty (20) years.

II. WILLOWS GLENN COUNTY AIRPORT

A. LOCATION

The Willows Glenn County Airport has 254 Acres of land and an intersecting V-type runway system located adjacent to Interstate 5 west of Willows. The Airport Master plan was prepared in 1979 by Wadell Engineering Corporation.

B. FACILITIES

The Primary runway, # 16-34, is 150 feet wide, 150 feet wide, and 4500 feet long with pavement strength of 38,000 pounds single gear configuration loading. Runway #13-31 is 100 feet wide and 4500 feet long.

C. AIRCRAFT

Currently (1989) there are 49 airplanes and 2 helicopters based at the Willows Glenn County Airport according to the Glenn County Public Works Department. Coincidentally, there were 49 airplanes and 2 helicopters at the Willows Glenn County Airport in 1978. There has been no growth in terms pf the number of aircraft at the Willows Airport. However, as the Willows area grows it is anticipated that the number of aircraft will increase at this facility.

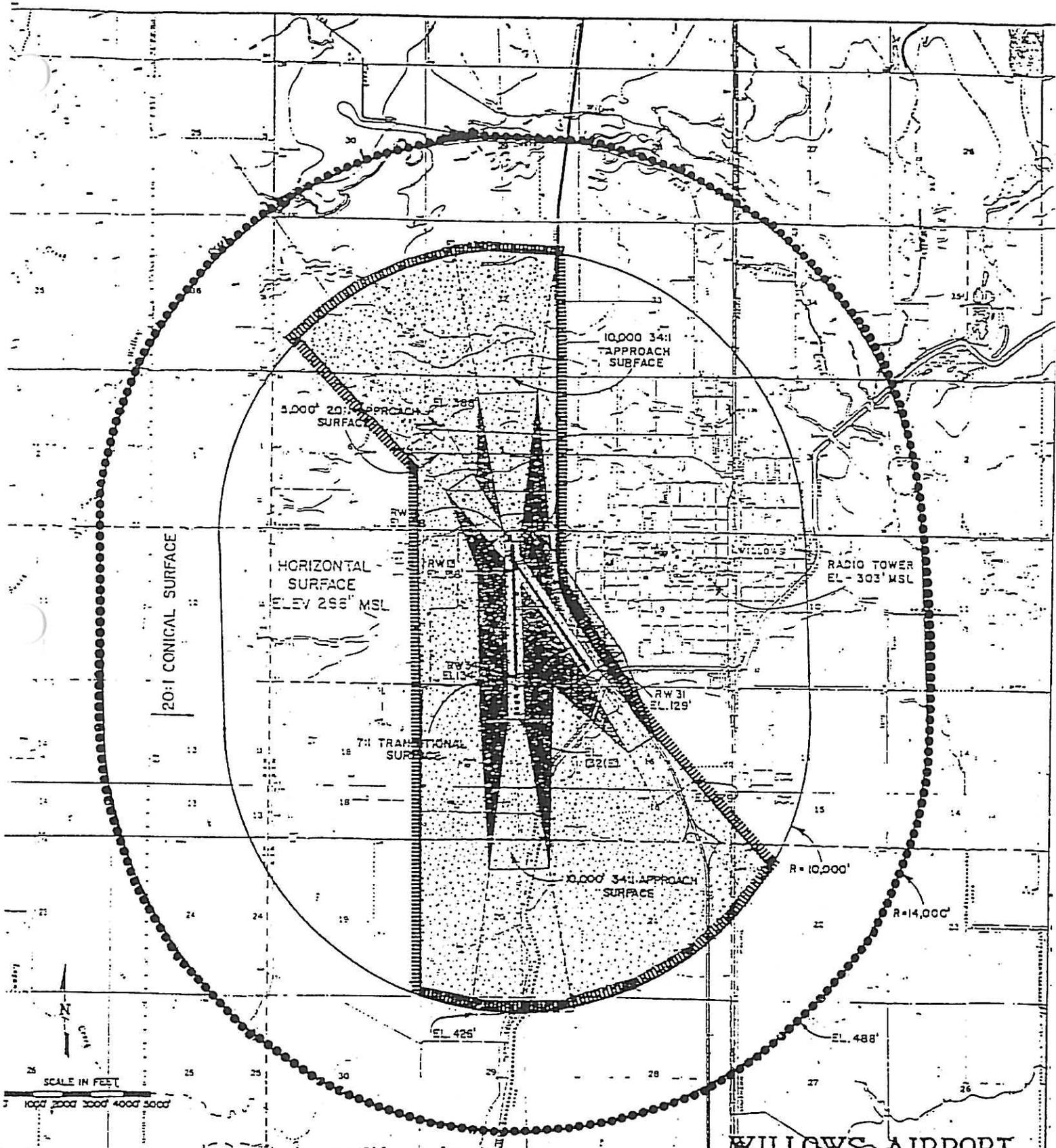
III. PLANNING AREA BOUNDARIES

Public Utilities Code Section 21675 © states the following:

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

On November 29, 1989, the Glenn County Airport Land Use Commission adopted the Willows Airport Land Use Planning Area Boundaries shown on Map 1.

MAP #1
 WILLOWS AIRPORT LAND USE PLANNING BOUNDARY



APPROVED BY AIRPORT LAND USE
 COMMISSION - NOVEMBER 29, 1989

WADDELL ENGINEERING CORPORATION

-  AIRPORT LAND USE COMMISSION PLANNING BOUNDARY
-  REFERRAL BOUNDARY AREA

IV. GENERAL POLICIES

Within the boundaries of the airport planning area the Airport Land Use Commission recognizes that its authority and jurisdiction is limited by the California Public Utilities Code. General policies regarding the scope of the Commission shall be as follows:

1. For the purposes of referral to the Glenn County Airport Land use Commission, a "proposed project" shall include the following:
 - a) adoption of general and specific plans
 - b) amendment of general and specific plans
 - c) adoption and/or amendment of zoning ordinances
 - d) adoption of building regulations
 - e) adoption of airport layout and master plans
 - f) Conditional Use permits and Tentative Parcel or Subdivision Map approvals—Airport Land Use Commission review of these actions will not be required if the jurisdiction has amended its general plan to be consistent with the Airport Land Use Plan.
 - g) Projects which conflict with any policies contained in this plan shall be referred to the Commission prior to an action taken by local advisory and advisory and governing bodies.
2. Evaluation of projects shall primarily be based on the land use compatibility policies set forth in the Plan. Where an overlap occurs among noise, airspace protection, safety, and general nuisance zones, all policies applicable to the particular location shall be considered.
3. All proposed projects within the Planning Area Boundary listed in Item # 1 above shall be referred to the Airport Land Use Commission.
4. The Commission may, at its own discretion request information and review any project occurring within the airport's referral area. Such projects, however, need not be routinely submitted to the Commission for review.
5. The Airport Land Use Commission has no jurisdiction over airport operations which include the number and type of aircraft taking off and landing, time of aircraft activity and airport traffic pattern used.
6. A copy of any Notice of Construction or Alteration submitted to the Federal Aviation Administration in accordance with FAR (Federal Aviation Regulations) Part 77, Subpart B, shall concurrently be submitted to the Airport Land Use Commission for review regardless of where in the County the object involved is proposed to be located.

V. LAND USE SAFETY COMPATIBILITY

A. GENERAL DISCUSSION

Areas near airports are exposed to various levels of accident potential depending on the type of aircraft using the airport, the frequency of aircraft over-flights, and local weather conditions. Historically, the risk of being killed or injured on the ground near an airport is quite small.

While many airports in the state have not experienced a serious aircraft accident resulting in major property damage or loss of life, this fortunate situation does not alter the basic accident probabilities. Perhaps the most difficult ALUC planning responsibility is the determination of land use measures around airports that are appropriate to the level of risk involved and the potential for injury or property damage should an accident occur. ALUCs have established a variety of safety zones around airports and land use controls within these safety zones to minimize the impact of a crash.

The purpose for establishing land use restrictions in safety zones is to minimize the number of people exposed to aircraft crash hazards. The two principal methods for reducing the risk of injury and property damage on the ground are: (1) limit the number of persons in an area, and (2) limit the area covered by structures occupied by people so that there is a higher chance of aircraft landing (in a controlled situation) on vacant or crashing (in an uncontrolled situation) on vacant land. There are few practical methods available for permitting increased population in safety zones without increasing safety risks. Each additional person in a safety zone becomes subject to a certain crash hazard risk by virtue of being located in the safety zone.

It must be remembered that an aircraft crash is a high consequence event. This is why a number of safety studies do not attempt to estimate accident probabilities in specific areas, but rather address the acceptability of different land use, densities and lot coverage restrictions assuming a crash did occur.

The primary method of addressing land use compatibility in the vicinity of the Willows Glenn County Airport shall be through the delineation of safety zones and the establishment of land use criteria within those zones. The safety zones identified in this Plan are formulated primarily through use of the Master Plan's depiction of FAA clear zone and "imaginary" approach surfaces that extend outward from the airport's existing and proposed runways.

The three primary airport safety areas are:

1. Clear Zone Safety Areas
2. Approach Zone Safety Areas
3. Over-flight Safety Area

The safety areas designated in this airport land use plan are indicated on Map 2 and are addressed in detail below.

B. CLEAR ZONE SAFETY AREAS

Clear Zones are the trapezoidal (fan-shaped) areas which lie on the ground underneath the imaginary runway approach surfaces and include all of the area out to a point where the approach surface reaches 50 feet above ground level. The Clear Zones indicated in this airport land use plan are consistent

with the Master Plan. Clear Zones for the Willows Glenn County Airport for Runway 13-31 have an inner width of 500 feet, and outer width of 700 feet and a length of 1000 feet. Runway 16-34 has a clearance length of 1000 feet with an inner width of 500 feet and an outer width of 1010 feet.

Clear zones are the most restrictive areas near an airport since they are subject to the greatest danger. Clear Zones should be kept essentially clear. Undeveloped land is the best use. No residential use can be allowed. Agriculture, which does not attract birds, is compatible unless it includes structures. Park and recreational uses are satisfactory if they do not attract large groups of people. Transportation facilities are not a serious problem as long as height restrictions are heeded. Power lines are a serious danger. Wherever possible, the clear zone should be free of any construction or obstacle and should be minimally used by people.

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The federal government requires that airport owners have an "adequate property interest" in the clear zone area in order that the requirements of FAR Part 77 can be met and the area protected from future encroachments. Adequate property interest may be in the form of ownership in fee simple (the most preferred) or lease (provided it is long term) or any other demonstration of legal ability to prevent future obstructions in the runway clear zone.

Policies:

The Clear Zone Safety Areas for the Willows Glenn County Airport Land Use Plan are indicated on Map 2 as Safety Area 1. Land Use Guidelines are set forth in Table 1.

C. APPROACH ZONE SAFETY AREAS

The approach zone safety areas in this airport land use plan are consistent with the FAR Part 77 approach surfaces indicated in the Master Plan. Approach Zone Safety Areas extend from the outer limit of the Clear Zone Safety Area to a point 5000 feet from the end of Runway 13-31 with a 20:1 approach surface and for Runway 16-34 to a point 10,000 feet out within a 34:1 approach surface.

To assure public safety, uses in the approach safety zone should not attract large groups of people. Residential uses should be prohibited or strictly limited if possible. Where residential development is inevitable or already in place, low density is preferred with multi-family development, retirement homes or other residential institutions being excluded. Commercial uses are generally compatible except that retail establishments such as restaurants or concentrated retail areas which attract people should be avoided. Hotels or motels should not be allowed. Offices and services are generally compatible except hospitals and convalescent homes.

Industrial uses can be compatible, although they must be "carefully" reviewed for potential operation hazards, electrical interference, high intensity lighting, bird attractions, smoke, glare, or other interferences. Recreational uses can be acceptable on a conditional basis, excepting public assembly and other high intensity uses. Resource production, including agriculture, is generally compatible. In the case of recreational development and aggregate extraction; ponds may attract birds, which could pose a safety hazard.

POLICIES

The Approach Zone Safety Areas for the Willows Glenn County Airport Land Use Plan are indicated on Map 2 as Safety Area 2. Land Use Guidelines are set forth in Table 1.

D. OVERFLIGHT SAFETY AREAS

The Over-flight Zone is the relatively large area where aircraft maneuver to enter or leave the traffic pattern and is usually defined by the FAR Part 77 horizontal surface. The Glenn County ALUC, however, has adopted an Over-flight Zone that takes in land beneath the horizontal and conical surfaces as defined by FAR Part 77. This over-flight zone is depicted on Map 2.

Land use compatibility within the over-flight zone for general aviation airports is more difficult to define than clear zones and approach zones. Hazards are low compared to areas closer to runways. However, there is a measurable accident potential in airport traffic pattern areas. Mid-air collisions are more prevalent in this area. Large assemblages of people should not be located beneath the airport

traffic pattern because of the potential for injury if there were a crash. Specific types of land uses that are discouraged or that been suggested for relocation outside airport traffic patterns are: schools and hospitals; spectator sports areas; auditoriums; amphitheaters.

Table 1 sets forth the land use guidelines of this Plan for the Over-flight Safety Areas. The principal concept is that most normal uses can be allowed, but high density residential, retail commercial uses that would attract large groups of people should be considered on an individual basis to ensure compatibility with airport flight patterns. For example, a high density residential subdivision directly under the extended center line of the approach zone would be unacceptable, but such a use in another location within the Over-flight Zone could, as far as airport issues are concerned, be determined to be acceptable.

Policies:

1. The Over-flight Safety Area for the Willows Glenn County Airport Land Use Plan indicated on Map 2 as Safety Area 3. Land Use Guidelines are set forth in Table 1.

E. GENERAL POLICY:

It is a policy of the Airport Land Use for the Willows Glenn County Airport that the following guidelines be applied in the planning, zoning and project review of land use within airport safety areas. The functions of the guidelines are to identify uses, which are acceptable or unacceptable, and to describe certain criteria under which certain uses might be acceptable.

It should be noted that consideration of the land uses addressed herein, as well as similar land use that have not been specifically addressed, should be guided by a commitment to the overall purpose of airport land use policies:

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.

Land use or land use characteristics which may affect safe air navigation or which, because of their nature and proximity to an airport, may pose high risks to the land users shall be avoided near an airport.

Land uses, which attract a concentration of birds, are a concern because of the agricultural uses near the Willows Glenn County Airport. In applying the Safety Compatibility Criteria to agricultural areas, attention should be given to whether a particular type of agricultural use commonly attracts birds.

Land Use Compatibility Guidelines

TABLE ONE, PART ONE
CLEAR ZONE SAFETY AREAS

The following land use guidelines shall be applied to the Clear Zone Safety Areas depicted on Map 2 as Safety Area 1.

GENERAL GUIDELINES

Clear zones should be kept essentially clear. Development must be carefully restricted. No structures are allowed. ALUC recommends that airport owners obtain property and/or development rights for clear zone areas.

LAND USE GUIDELINES

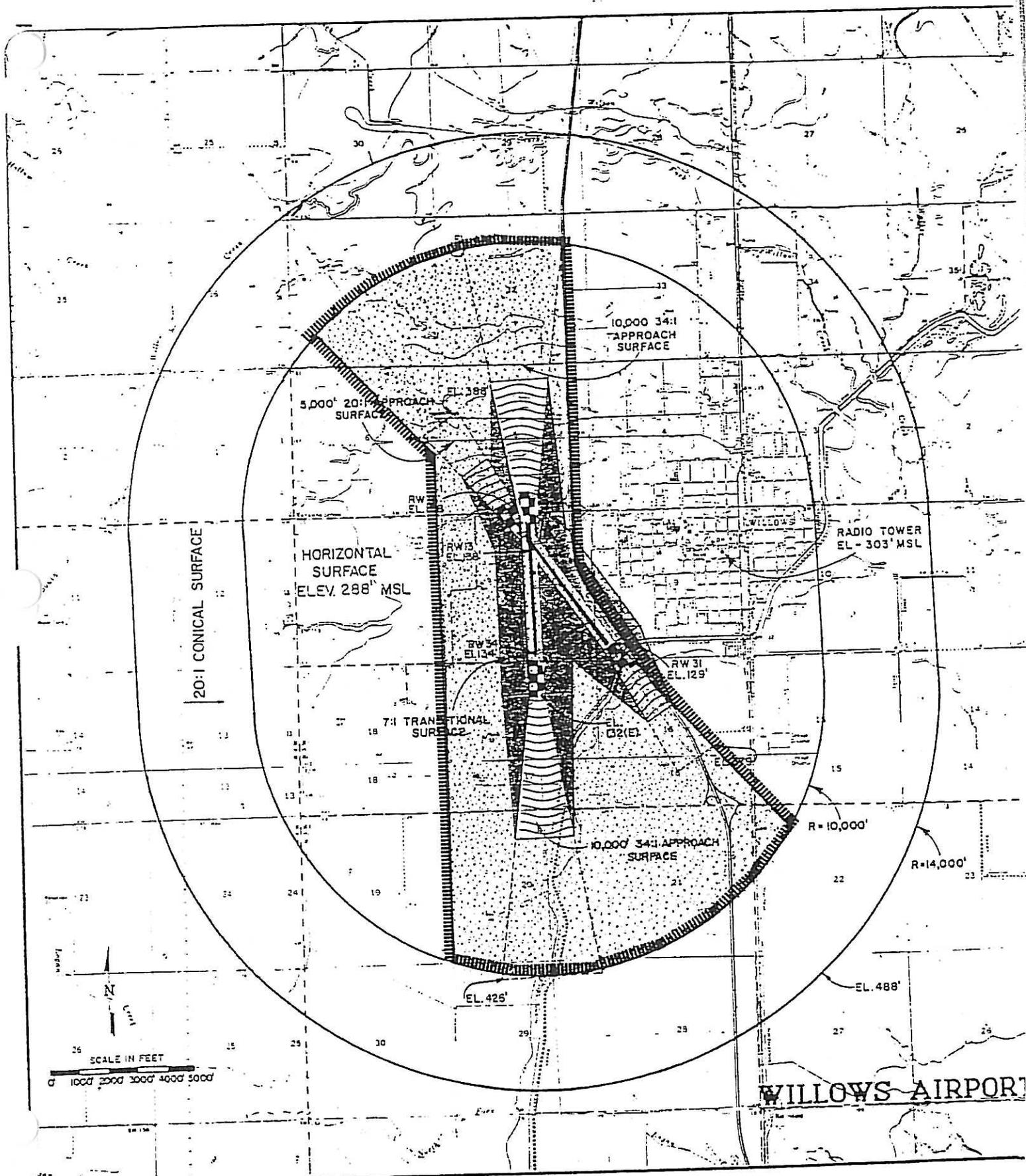
<u>Residential</u>	No
<u>Commercial/Retail</u>	No
<u>Industrial/Manufacturing</u>	No
<u>Transportation</u>	
Highways, streets	Yes (1)
Auto Parking Lots	No
<u>Communications, Utilities</u>	Yes (2) (3)
<u>Public and Quasi-Public Services</u>	No
<u>Outdoor Recreation</u>	No
<u>Resource Production, Extraction, And Open Space</u>	
Agriculture	Yes (3)
Forestry Activities and Related Services	No
Mining Activities	No
Open Space Uses (e.g. grazing)	Yes

(1) Highways and streets with moving traffic are considered compatible. Intersections, which would result in a relatively high density of standing traffic in clear zones, are discouraged.

(2) No above-grade transmission lines.

(3) No structures permitted.

MAP #2 SAFETY AREAS



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1.  CLEAR ZONE SAFETY AREAS
 2.  APPROACH ZONE SAFETY AREAS
 3.  TRANSITION SAFETY AREA

TABLE ONE, PART TWO
APPROACH ZONE SAFETY AREAS

The following land use guidelines shall be applied to the Approach zone safety areas depicted on Map 2 as safety Area 2.

LAND USE GUIDELINES

<u>Subdivisions</u>	Yes (1) (3)
<u>Residential</u>	
Single Family	Yes (1) (2) (3)
Multiple Family	No
Mobile Home Parks	No
Hotels, Motels	No
<u>Commercial/Retail</u>	
General Retail, Merchandise	Yes (2) (3)
Wholesale Trade	Yes (3)
Building materials, Retail	Yes (3)
Restaurants, Bars	No
Small-scale repair	Yes (3)
Professional Offices	Yes (2) (3)
<u>Industrial/Manufacturing</u>	
Chemical, Petroleum, Rubber and Plastics	No
Miscellaneous Manufacturing	Yes (3)
Warehousing, Storage of non-flammables	Yes (3)
<u>Transportation</u>	Yes
<u>Communications, Utilities</u>	Yes (3)
<u>Public and Quasi-Public Services</u>	
Cemeteries	Yes (3)
Other Public and Quasi-Public Services and Facilities (e.g. Schools, hospitals)	No
<u>Outdoor Recreation Facilities</u>	
Playgrounds, Neighborhood Parks	No
Spectator Sports, arenas	No
Auditoriums, Amphitheaters	No
Motocross	Yes (3)
Riding Stables	No
Resource Production, Extraction and Open Space	Yes (3)

TABLE ONE, PART TWO
NOTES

- (1) Density of residential use shall not exceed one dwelling unit per 2.5 acres.
- (2) Not within 2000 feet from the Clear Zone
- (3) Projects must be reviewed on individual basis. Threshold for review of "large concentrations" is on the order of 10 people per acre for non-residential uses. Industrial projects must be reviewed to preclude smoke, electronic interference, lights and/or glare, which may constitute operation hazards to aircraft. A finding, supported by facts in the record, must be made for any project approval stating: Approval of the project is consistent with the need to protect public health, safety and welfare by ensuring the orderly expansion of the airport and the adoption of land use measures that minimize the public's exposure to substantial noise and safety hazards within areas around public airports.

TABLE ONE, PART THREE
OVERFLIGHT ZONE SAFETY AREAS

The following land use guidelines shall be applied to the Over flight Safety Area depicted on May 2 as Safety Area 3.

LAND USE GUIDELINES

Residential

Single Family	Yes
Multiple Family	Yes (1)
Mobile Home Parks	Yes (1)
Hotels, Motels	Yes (1)

<u>Commercial /Retail</u>	Yes (1)
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Industrial/Manufacturing

Warehousing, Storage of Non-flammables	Yes
All others	Yes (1)

<u>Transportation</u>	Yes
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<u>Communications, Utilities</u>	Yes
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Public and Quasi-Public Services

Cemeteries	Yes
Schools, Hospitals	Yes (1)
Other Public and Quasi-Public Services and Facilities	Yes (1)

<u>Outdoor Recreation Facilities</u>	Yes (1)
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<u>Resource Production, Extraction And Open Space</u>	Yes
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<u>Subdivisions</u>	Yes (1)
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- (1) Projects must be reviewed on individual basis. A finding, supported by facts in the record, must be made for any project approval stating: Approval of the project is consistent with the need to protect public health, safety and welfare by ensuring the orderly expansion of the airport and the adoption of land use measures that minimize the public's exposure to substantial noise and safety hazards within areas around public airports.

VI. NOISE COMPATIBILITY

Noise contours are based on the Community Noise Equivalent Level (CNEL) as defined in Title 21 of the California Code of Regulations. The noise contours for the Willows Glenn County Airport are shown in Map 3. These noise contours were developed as part of the Willows Glenn County Airport Master Plan.

The history of noise complaints around general aviation airports suggests that some land use regulation measures are required under the traffic pattern and within the 55 CNEL

contour. Preferred measures are those that restrict residential land use within the traffic pattern. Land use restrictions may include prohibiting residential development underneath the traffic pattern or limiting development to low density uses.

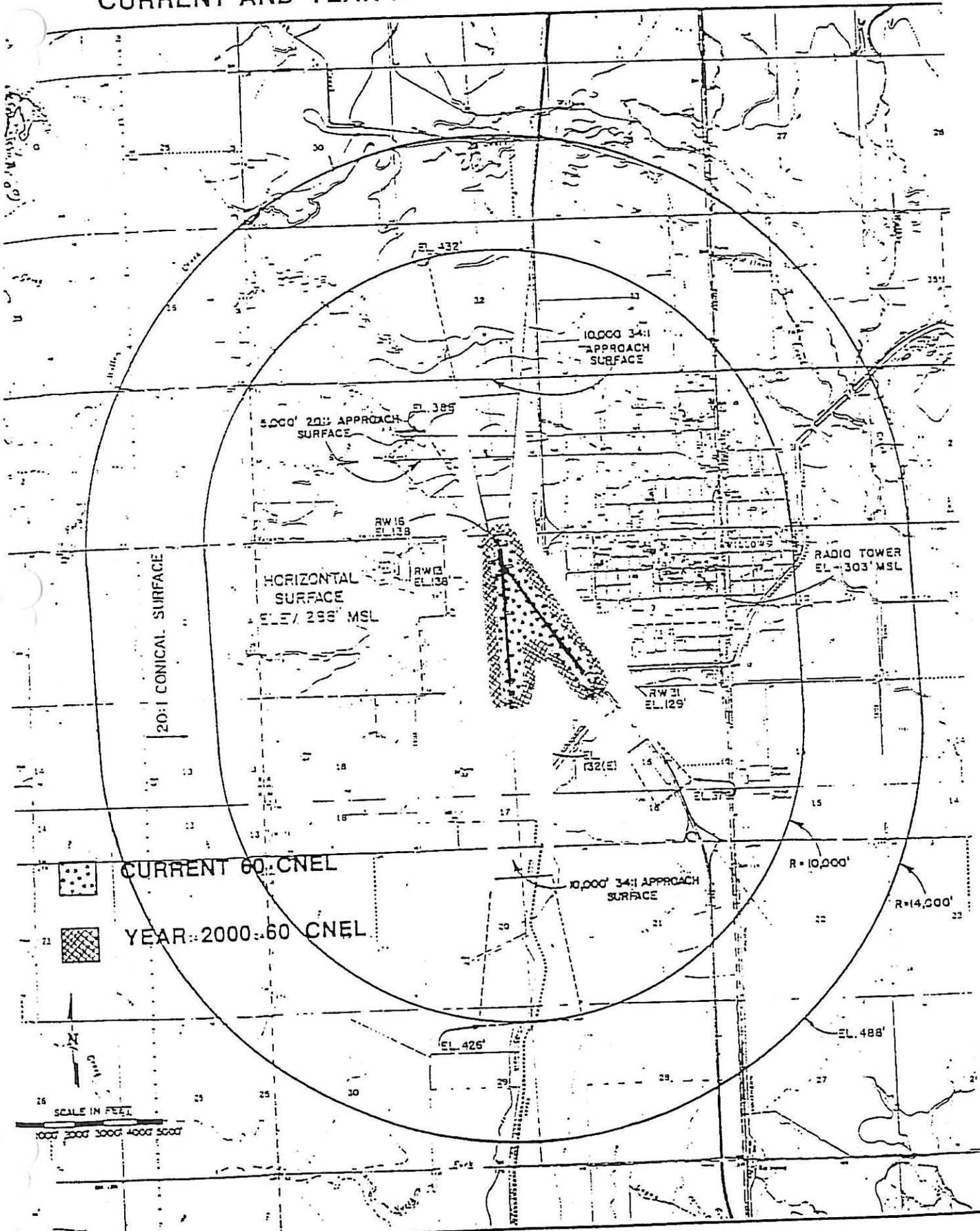
The maximum noise exposure which shall be considered normally acceptable for residential areas is 60 dBA CNEL. According to the Willows Glenn County Airport Master Plan “The (year) 2000 60 CNEL contour is entirely contained within the current airport property”.

As development is proposed in the area between 60 and 65 dBA (CNEL) noise contours, Glenn County should evaluate the impact of aircraft noise on proposed development and consider noise reduction measures, aviation noise easements and buyer-renter notification.

The relative acceptability or unacceptability of particular land uses with respect to the noise levels to which they would be exposed is indicated in the Table 2 “Airport/Land Use Noise Compatibility Criteria”. Of course, proposed land uses shall also be compatible with height and safety criteria.

One of the conditions for approval of a land use which is “marginally acceptable” or “normally unacceptable” for the given noise environment is that the proposed building must provide a satisfactory degree of noise attenuation. Table 3 shows the maximum acceptable interior noise levels for commonly occurring noises from exterior sources. If the proposed structure can reduce the noise exposure to the indicated level, the proposed use may be acceptable.

MAP #3 CURRENT AND YEAR 2000 60dBA CNEL NOISE CONTOURS



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TABLE 2
 AIRPORT/LAND USE NOISE COMPATIBILITY CRITERIA

LAND USE CATEGORY	50-55	55-60	CNEL or LDN, DBA $\frac{1}{2}$		70-75
			60-65	65-70	
<u>Residential</u>					
single-family detached and duplexes	+	0	-	--	--
multi-family and transient lodging	++	+	0	-	--
mobile homes	+	-	-	--	--
<u>Public</u>					
schools, libraries, hospitals, nursing homes	+	0	-	-	--
churches, auditoriums, concert halls	+	0	0	-	--
transportation, parking, cemeteries	++	++	++	+	0
<u>Commercial and Industrial</u>					
offices, retail trade	++	+	0	0	-
service commercial	++	++	+	0	0
wholesale trade, warehousing, light industrial					
general manufacturing, utilities, extractive industry	++	++	++	+	+
<u>Agricultural and Recreational</u>					
cropland	++	++	++	++	+
livestock breeding	++	+	0	0	-
parks, playgrounds, zoos	++	+	+	0	-
golf courses, riding stables, water recreation	++	++	+	0	0
outdoor spectator sports	++	+	+	0	-
amphitheaters	+	0	-	--	--

1/ See map 2 for location of contours.
Table 2 continued—

LAND USE ACCEPTABLE	INTERPRETATION/CONDITIONS
++ 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.

TABLE 3

INTERIOR NOISE LEVEL CRITERIA

Maximum Acceptable Interior Noise Levels for Commonly Occurring
 Individual Noise Events from Exterior Sources

Generalized Land Use (Occupancy)	Acceptable Noise Level (DBA)	Based for Criterion
A. RESIDENTIAL-SINGLE- AND MULTI-FAMILY DWELLINGS		
1. Living Areas		
a. Daytime	60	Conversation- 5 ft. - normal voice
b. Nighttime	55	Conversation - 10 ft. - normal voice
2. Sleeping Areas	50	Sleeping
B. EDUCATIONAL FACILITIES, ETC.		
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- 50 ft.-normal voice
6. Church Sanctuaries	45	Speech communication- 50 ft. -raised voice
7. Library	55	Speech communication- 3 ft.-normal voice
C. RECREATIONAL FACILITIES		
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

Table 3 continued—

D. COMMERCIAL, MISCELLANEOUS			
1.	Hotel, Motel Sleeping	50	Sleeping
2.	Hospital Sleeping	50	Sleeping
3.	Executive Offices, Conf. Rooms	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	65	Conversation-4 ft.- Normal voice
7.	Markets, Retail Stores	65	Conversation-4 ft.- normal voice
E. LIGHT INDUSTRY			
1.	Office Areas	See D-3, 4, 5	See D—3, 4, 5
2.	Laboratory	60	Speech communication- 6 ft.-normal voice
3.	Machine Shop	75	Speech communication- 3 ft.-raised voice
4.	Assembly, Construction	75	Speech Communication- 2 ft.-raised voice
F. HEAVY INDUSTRIAL			
1.	Office Areas	See D-3, 4, 5	See D-3, 4, 5
2.	Machine Shop	75	Speech communication- 3 ft. —raised voice
3.	Assembly, Construction	75	Speech communication- 2 ft. —raised voice

Source: Adapted from Table 2 in "Noise Insulation Problems in Building"
 Paul S. Veneklasen & Associated, January, 1973

Note: These are maximum levels for individual events and are measured in CNEL values.

NOISE POLICIES

1. Airport/land use noise compatibility shall be evaluated in terms of the Community Noise Equivalent Level (CNEL), as defined in Title 21 of the California Administration Code.
2. The maximum noise exposure, which shall be considered normally acceptable for residential areas, is 60 dBA CNEL.
3. The relative acceptability or unacceptability of particular land uses with respect to the noise levels to which they would be exposed is indicated in the "Airport/Land Use Noise Compatibility Criteria" matrix, Table 2. These criteria shall be the principal determinants of whether a proposed land use is compatible with the noise impact from a nearby airport, but special circumstances, which would affect the specific proposal's noise sensitivity (e.g., the extent or lack of outdoor activity), also shall be taken into account.

Caution: Land use compatibility is determined by comparing proposed land use against height, noise, and safety guidelines. Proposed land uses must be compatible with each.

4. One of the conditions for approval of a land use which is "marginally acceptable" or "normally unacceptable" for the given noise environment is that the building must provide a satisfactory degree of noise attenuation. Table 3, sets forth the maximum acceptable interior noise levels for commonly occurring noises from exterior noise levels for commonly occurring noises from exterior sources. If the structure can reduce the noise exposure to the indicated level, the use may be acceptable. (Note that the interior noise criteria are measured in terms of maximum noise levels of individual events noise levels are greater than the CNEL value at a given location, the required noise reduction of the structure thus will be greater than the difference between the interior noise level criterion and the CNEL value.)
5. In applying the interior noise level criteria listed in Table 3, engine run-up noise shall be considered as a source of commonly occurring exterior noise.
6. When applying the noise compatibility criteria to a given location, the basis for evaluation shall be the maximum Community Noise Equivalent Level to which the location is or is forecast to be exposed. For the Willows Glenn County Airport covered by this Policy Plan, the year 2000 CNEL Year-2000 contours shall be used. Year-2000 CNEL contours of 60 dBA are depicted in Map 3.
7. If a noise analysis, including noise monitoring, is conducted for a particular location and the results indicate that the maximum CNEL will be less than shown herein, the lower exposure level may be used for the land use evaluation at the discretion of the Airport Land Use Commission.

VII. HEIGHT RESTRICTIONS

A. INTRODUCTION

All Airport Land Use Commission plans contain recommendations for limiting the height of structures near airports. These recommendations have several purposes as follows:

1. To ensure that pilots operating aircraft near airports have a safe environment in which to fly.
2. To protect the safety of persons occupying these structures on the ground.
3. To ensure that neither the operating capability of the airport nor the usable runway length is adversely affected by obstructions in the surrounding airspace.

4. To protect the public's investment in airport facilities by controlling the height of buildings near the airport.

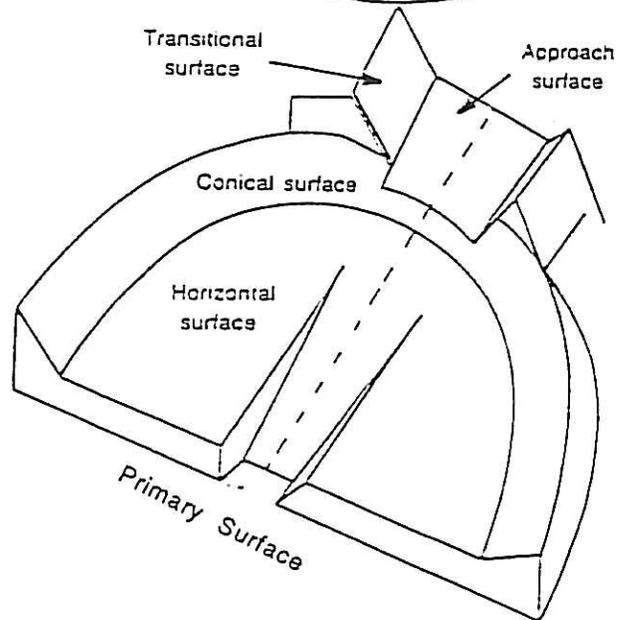
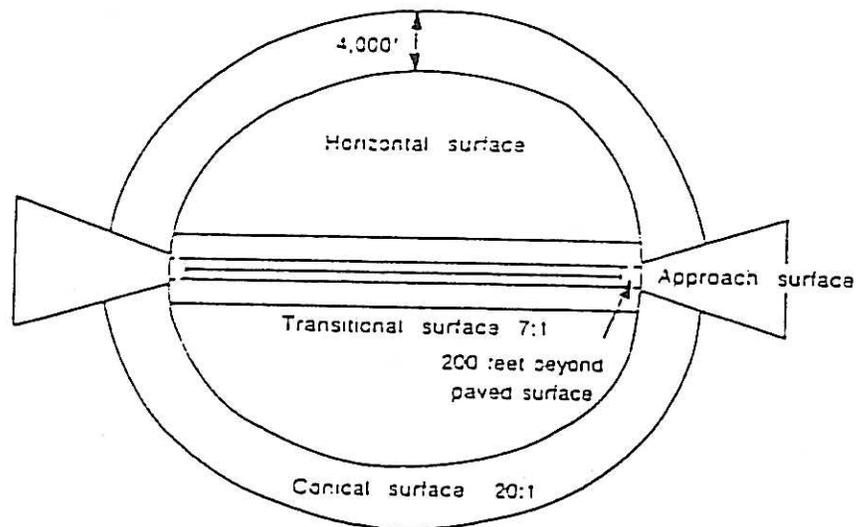
Federal Aviation Regulations Part 77 have been adopted by all ALUC's to define height limits around airports. The principal purpose of Part 77 is to provide standards for determining "obstructions" in the navigable airspace. These standards provide a reasonable and defensible balance between the needs of the airspace users and the rights of property owners beneath the flight patterns.

Height of new structures, trees and artificial embankments in the vicinity of the Willows Glenn County Airport are limited by three-dimensional boundaries known as "imaginary surfaces", shown in Map 4 and defined in Part 77 of the Federal Aviation Regulations as follows:

1. Primary surface: A surface longitudinally centered on a runway is called a primary surface. When the runway has a specially prepared hard surface, the primary surface extends 200 feet beyond each end of that runway, but when the runway has no specially prepared hard surface, or planned hard surface, the primary surface ends at each end of that runway.

MAP #4

IMAGINARY SURFACE BOUNDARIES



2. Horizontal surface: A horizontal surface is a horizontal plane 150 feet above the established airport elevation, the perimeter of which is constructed by swinging arcs of specified radii from the center of each and of the primary surface of each runway of each airport and connecting the adjacent arcs by lines tangent to those arcs.
3. Conical surface: The conical surface extends outward and upward from the periphery of the horizontal surface at a slope of 20 to 1 for a horizontal distance of 40,000 feet.
4. Approach surface: A surface longitudinally centered on the extended runway centerline and extending outward and upward from each end of the primary surface is called the approach surface.
5. Transitional surfaces: The transitional surfaces extend outward and upward at right angles to the runway centerline and the runway centerline extended at a slope of 7 to 1 from the sides of the primary surface and from the sides of the approach surfaces.

B. SPECIFIC HEIGHT RESTRICTIONS

The specific height restrictions for the Willows Glenn County Airport have been adopted by the Glenn County Board of Supervisors as Chapter 22.04 of the Glenn County Code (Ordinance No. 717, 1979).

C. POLICIES

1. The Glenn County Airport Land Use Commission shall restrict the development of new incompatible land uses within the airport height restriction areas as defined by Federal Aviation Regulations, Part 77 as shown in the Willows Glenn County Airport Master Plan.
2. Any structure within or outside of the airport planning boundary, which is determined to be a "hazard" by the FAA shall be recognized as not in conformance with this Airport Land Use Commission Plan.
3. The Glenn County Airport Land Use Commission shall review specific projects within the airport planning area which may pose an intrusion into navigable air space by exceeding recommended height limits.
4. The Airport Land Use Commission shall request that the FAA notify Glenn County of proposed projects that exceed obstructions in FAR, Part 77, and that will require an Aeronautical Study.

VIII. GENERAL NUISANCE

POLICIES

1. Except when overriding circumstances exist, a condition for approval of any residential subdivision or zoning change within the airport's planning area, as defined herein, shall be dedication of any aviation easement to the airport owner. The aviation easement shall contain the following property rights:
 - 1) Right-of-flight at any altitude above acquired easement surfaces.
 - 2) Right to cause noise, vibrations, fume, dust, and fuel particle emissions.
 - 3) Right-of-entry to remove, mark, or light any structures or growths above easement surfaces.
 - 4) Right to prohibit creation of electrical interference, unusual light sources, and other hazards to aircraft flight.

2. The easement surfaces acquired shall be based on Part 77 of the Federal Aviation Regulations except that no easement surface less than 35 feet above ground shall be acquired.

3. As a further condition for approval of a new residential subdivision or zoning change within the airport's planning areas, the local jurisdiction shall, except where overriding circumstances exist, require the property owners to agree to the following:
 - 1) That it is understood by the owners and owners' successors in the interest that the real property in question lies close to an operating airport and that the operation of the airport and that the operation of the airport and the landing and take-off of aircraft may generate high noise levels.
 - 2) That the owners shall not initiate or support any action in any court on or before any governmental agency if the purpose of the action is to interfere with, restrict, or reduce the operation of the airport or the use of an airport or the use of an airport by any aircraft.
 - 3) That the owners shall not protect or object to the operation of the airport or the landing or take-off of aircraft before any court or agency of government.
 - 4) The above easement and agreement shall run with the land and shall be binding upon the owners and subsequent owners of the property.
 - 5) The Commission encourages local governments to establish a "buyer notification statement" as a requirement for the transfer of title of any property located within the airport's planning area. This statement should indicate that the buyer is aware of the proximity of an airport, the characteristics of the airport's current and projected activity, and the likelihood of aircraft over-flights of the affected property.

IX. FUTURE FACILITY DEVELOPMENT

POLICIES

1. Future facility development at Willows Glenn County Airport shall conform to the Willows Glenn County Airport Layout Plan as approved by the ALUC.

X. AIRPORT RELATED LAND USES

POLICIES

1. Airport related land uses located at Willows Glenn County Airport shall be restricted to industrial commercial and public facility uses contiguous to the airfield or immediately adjacent as long as county dedicated access to public roads and the runway is provided.
2. An airport related use is a use who by virtue of their specific type of aviation activity require the occupancy of a site at the airport with contiguous aircraft apron and direct access to the aircraft operating area. These uses shall be allowed at the airport.
3. A non-airport related use is a use by virtue of their general type of activity do not specifically require the occupancy of a site at the airport, and could function without being directly situated at the airport operating area. These uses shall not be permitted in any commercial or industrial area located at Willows Glenn County Airport except through the conditional use permit process in areas specified in the Airport Master Plan. Generally, non-airport related uses should not be contiguous to the runways.
4. Auto and boat repair shall not be permitted on the Willows Glenn County Airport.