SAN MATEO COUNTY
COMPREHENSIVE AIRPORT LAND USE PLAN

December 1996

HALF MOON BAY AIRPORT LAND USE PLAN

SAN CARLOS AIRPORT LAND USE PLAN

SAN FRANCISCO INTERNATIONAL AIRPORT LAND USE PLAN

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Prepared and adopted by the
City/County Association of Governments
of San Mateo County (C/CAG) in its designated role as the
Airport Land Use Commission for San Mateo County, California

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This Plan, as amended, was adopted on November 14, 1996, by the City/County Association of Governments of San Mateo County (C/CAG), in its designated role as the Airport Land Use Commission for San Mateo County, California

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City/County Association of Governments of
San Mateo County (C/CAG)/Airport Land Use Commission
Chairperson: Patrick Kelly, Council Member, Town of Hillsborough
Vice-Chairperson: Rosalie O'Mahony, Council Member, City of Burlingame

* * * * * * * * * * * * *

C/CAG Executive Director: Richard Napier

Airport Land Use Commission Staff and
C/CAG Airport Land Use Committee (ALUC) Staff:
David F. Carbone, Senior Planner/Airport Planning,
County of San Mateo Planning and Building Division,
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Maps and graphics prepared by:

* **Ray Mogel, Drafting Services, San Mateo County Department of Public Works**

* **San Mateo County Planning and Building Division Graphics Staff**

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Half Moon Bay Airport Land Use Plan
San Carlos Airport Land Use Plan
San Francisco International Airport Land Use Plan

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SAN MATEO COUNTY
COMPREHENSIVE AIRPORT LAND USE PLAN

CHAPTER I. INTRODUCTION

CHAPTER I. INTRODUCTION

A. WHAT IS THE ORIGIN AND COMPOSITION OF THE SAN MATEO COUNTY AIRPORT LAND USE COMMISSION?

1. **State Mandate (1970).** In recognition of certain airport/aircraft impacts on real properties near airports, the State legislature, in 1970, under the State Aeronautics Act, added Article 3.5, Section 21670 et seq. to the Public Utilities Code (see Appendix A). This legislation required: (1) the establishment of airport land use commissions in counties with one or more airports served by a scheduled airline or with one or more airports used by the general public, and (2) each commission to develop comprehensive airport land use plans (CLUPs) for areas surrounding those airports. The purpose of such planning is to provide for the orderly growth of airports and their surrounding areas.

   The airport land use commissions were given authority to: (1) specify how land near airports is to be used, based on safety and aircraft noise considerations; (2) develop height restrictions and airspace protection for proposed land development; and (3) set construction standards for buildings near airports, including soundproofing requirements for proposed buildings. The commissions, however, were not given authority over airport operations.

   Section 21670.1 (a) of the Public Utilities Code states that airport planning can be accomplished through the actions of an appropriately designated existing body, if a body is so designated by a majority vote of the county board of supervisors and the city selection committee of mayors. If this approach is chosen, a separate commission is not required. This approach is used in San Mateo County, as explained below.

2. **History of the Airport Land Use Commission in San Mateo County.** The Regional Planning Committee (RPC) was created in 1964 by the County Board of Supervisors to advise the Board on multi-jurisdictional and sub-regional issues. In November and December 1970, the San Mateo County Council of Mayors, acting as the City Selection Committee of Mayors, and the County Board of Supervisors, both by a majority vote, designated the Regional Planning Committee (RPC) to function as the San Mateo County Airport Land Use Commission.

   At the direction of the Board of Supervisors and the City Selection Committee, the RPC established a subcommittee, known as the Airport Land Use Committee (ALUC) to make recommendations to the RPC, regarding airport/ land use planning issues. The Airport Land Use Committee (ALUC) served as an advisory body to the RPC.

In November 1990, the City/County Association of Governments of San Mateo County (C/CAG) was formed, through a Joint Powers Agreement (JPA), to prepare, adopt, and enforce state-mandated countywide plans. One of those plans is the San Mateo County Comprehensive Airport Land Use Plan (CLUP). In February 1991, the County of San Mateo Board of Supervisors abolished the Regional Planning Committee (RPC), due to the creation of C/CAG.

In February 1991, the Board of Supervisors and the City Selection Committee of Mayors designated C/CAG to serve as the Airport Land Use Commission for San Mateo County. C/CAG established an Airport Land Use Committee (ALUC) (the same committee under the RPC structure) to advise C/CAG, regarding airport/land use planning issues.

The responsibilities of the C/CAG Airport Land Use Committee (ALUC) include: (1) reviewing proposed local agency land use policy actions for a determination of consistency with the applicable provisions contained in the Comprehensive Airport Land Use Plan (CLUP) and making recommendations to C/CAG, as the Airport Land Use Commission, regarding such actions and (2) preparing periodic draft amendments to the Comprehensive Airport Land Use Plan (CLUP) for adoption by the Commission. C/CAG, acting as the Airport Land Use Commission for San Mateo County, makes all final decisions regarding airport/land use planning issues in San Mateo County, per the provisions in PUC Section 21670 et seq.

3. **C/CAG Structure, Membership, and Staff Assistance.** The membership of the City/County Association of Governments of San Mateo County (C/CAG), as of December 1996, is shown in Table I.-I. on page I.-3. The geographic location of C/CAG member jurisdictions is shown on Figure I.-1 on page I.-4.

The C/CAG Board has established several advisory committees to provide the Board with technical assistance, regarding the preparation and implementation of C/CAG plans and programs. The C/CAG Airport Land Use Committee (ALUC) is one of several C/CAG advisory committees. The C/CAG advisory committee structure is shown in Figure I.-2 on page I.-5.

C/CAG has several designated roles and implements several plans and programs. As explained above, C/CAG is the designated Airport Land Use Commission for San Mateo County. In that role, it is responsible for preparing, adopting, and implementing the San Mateo County Comprehensive Airport Land Use Plan (CLUP). C/CAG's designated roles and plans and programs are shown in Figure I.-3 on page I.-6.

TABLE I.-I.

CITY/COUNTY ASSOCIATION OF GOVERNMENTS
OF SAN MATEO COUNTY (C/CAG)
Membership December 1995
Voting Members

Town of Atherton	City of Menlo Park
City of Belmont	City of Millbrae
City of Brisbane	City of Pacifica
City of Burlingame	Town of Portola Valley
Town of Colma	City of Redwood City
City of Daly City	City of San Bruno
City of East Palo Alto	City of San Carlos
City of Foster City	City of San Mateo
City of Half Moon Bay	City of South San Francisco
Town of Hillsborough	Town of Woodside

County of San Mateo

* * * * * * * * * * * * * * * * *

Ex-Officio (Non-Voting) Members

San Mateo County Office of Education	San Mateo County Transit District
San Mateo County Transportation Authority	San Francisco Airports Commission

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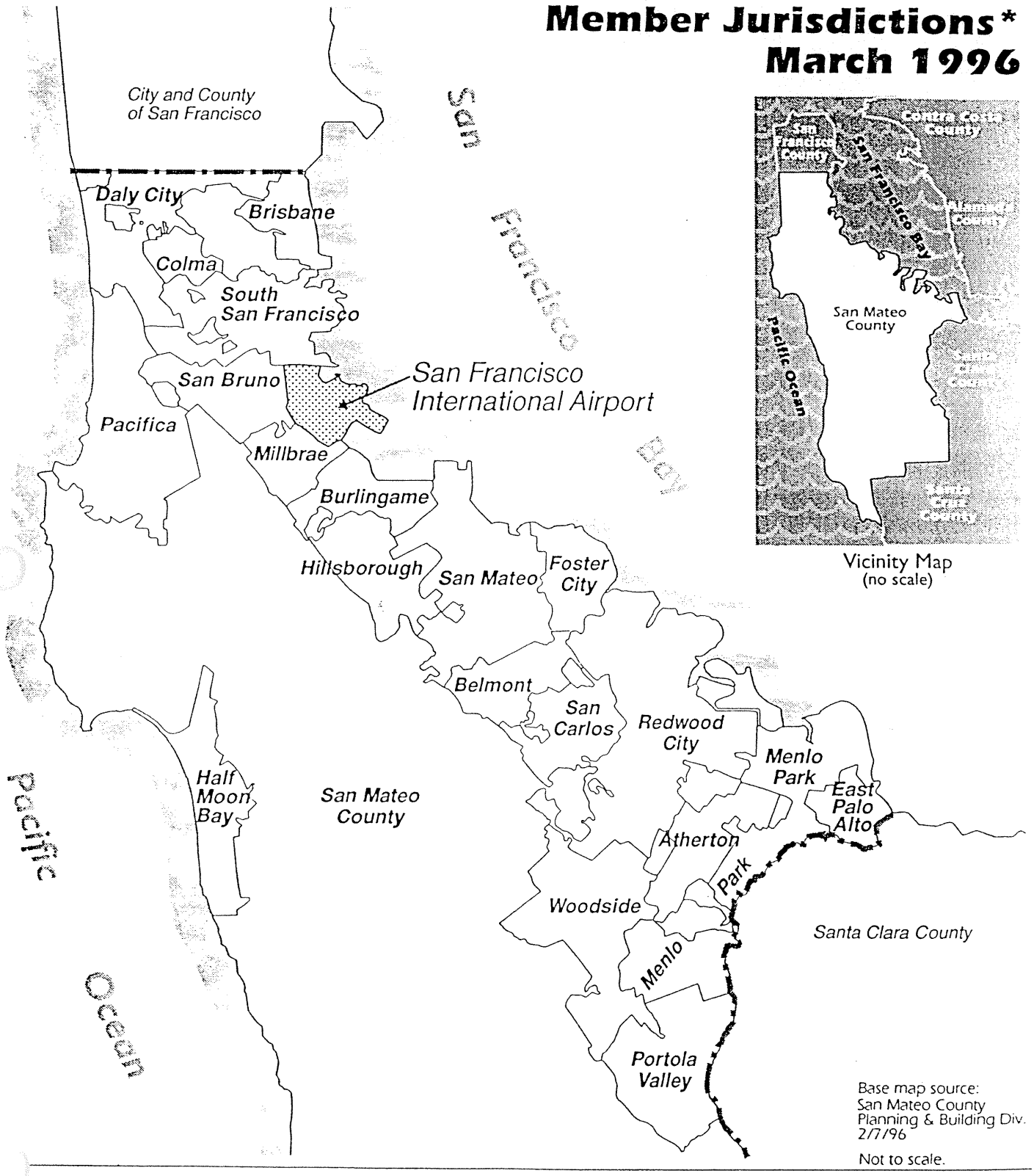
Staff Assistance:

- Richard Napier, C/CAG Executive Director; local agency staff for various activities
- David F. Carbone, Senior Planner/Airport Planning, San Mateo County Planning and Building Division, for Airport Land Use Commission activities

Figure I. - 1

City/County Association of Governments of San Mateo County (C/CAG)



Note:
C/CAG also functions as the San Mateo County Congestion Management Agency (CMA) and the San Mateo County Airport Land Use Commission

***C/CAG Ex-officio (non-voting) Members:**
- San Francisco Airports Commission
- San Mateo County Transit District
- San Mateo County Transportation Authority

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Figure I. - 2

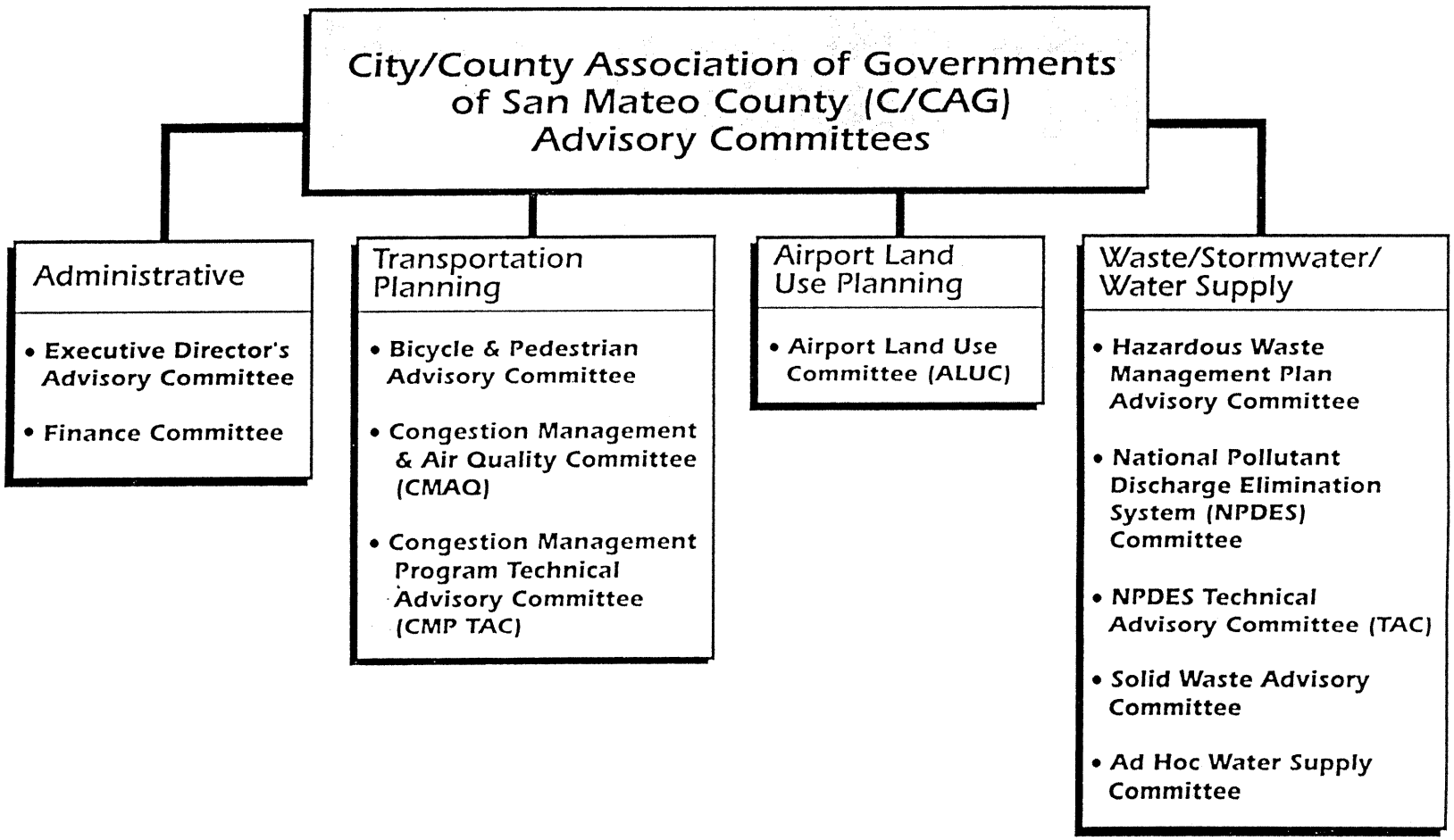
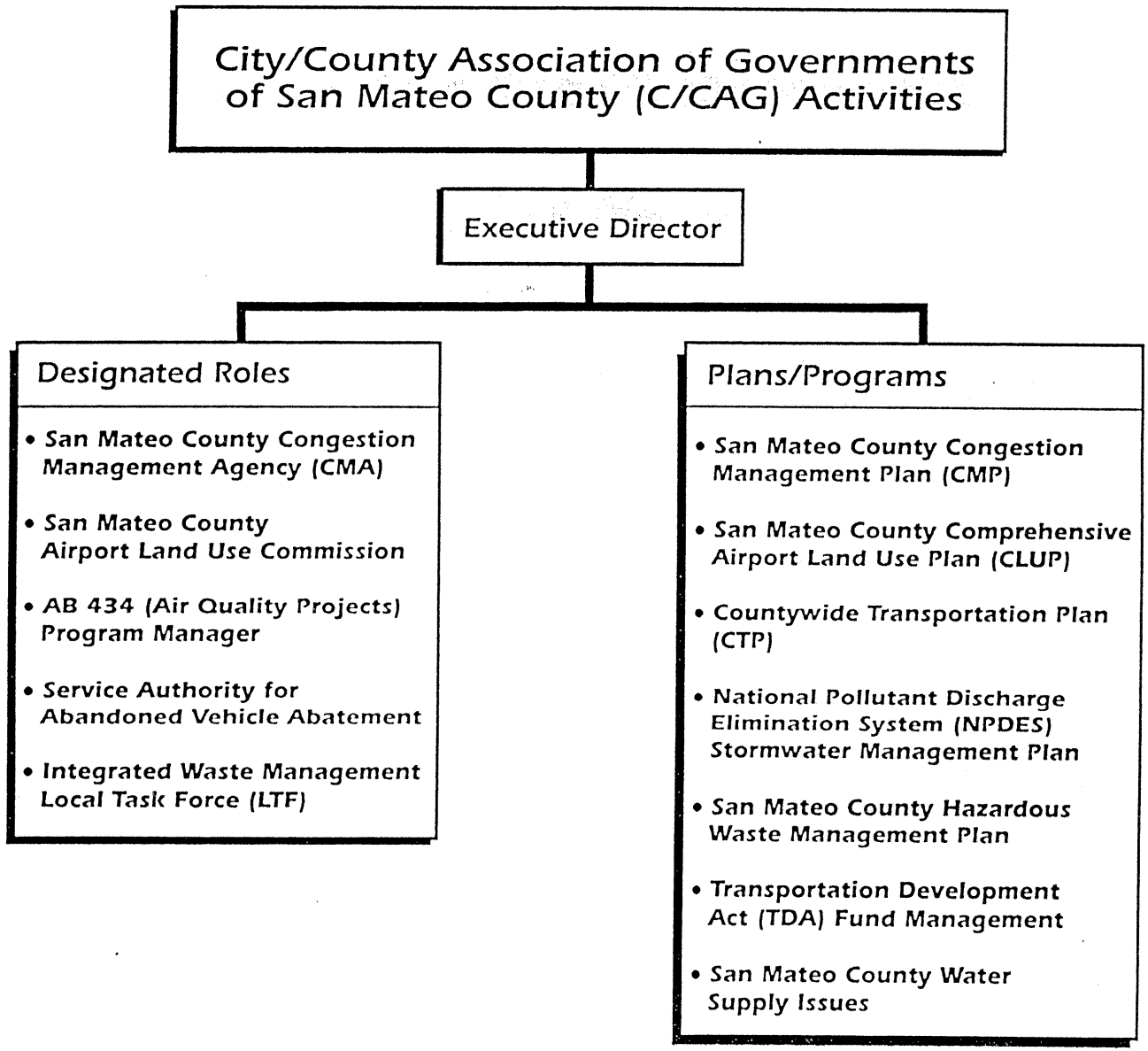

City/County Association of Governments of San Mateo County (C/CAG) Advisory Committees
Administrative
• Executive Director's Advisory Committee
• Finance Committee
Transportation Planning
• Bicycle & Pedestrian Advisory Committee
• Congestion Management & Air Quality Committee (CMAQ)
• Congestion Management Program Technical Advisory Committee (CMP TAC)
Airport Land Use Planning
• Airport Land Use Committee (ALUC)
Waste/Stormwater/ Water Supply
• Hazardous Waste Management Plan Advisory Committee
• National Pollutant Discharge Elimination System (NPDES) Committee
• NPDES Technical Advisory Committee (TAC)
• Solid Waste Advisory Committee
• Ad Hoc Water Supply Committee

Figure I. - 3


City/County Association of Governments of San Mateo County (C/CAG) Activities
Executive Director
Designated Roles
• San Mateo County Congestion Management Agency (CMA)
• San Mateo County Airport Land Use Commission
• AB 434 (Air Quality Projects) Program Manager
• Service Authority for Abandoned Vehicle Abatement
• Integrated Waste Management Local Task Force (LTF)
Plans/Programs
• San Mateo County Congestion Management Plan (CMP)
• San Mateo County Comprehensive Airport Land Use Plan (CLUP)
• Countywide Transportation Plan (CTP)
• National Pollutant Discharge Elimination System (NPDES) Stormwater Management Plan
• San Mateo County Hazardous Waste Management Plan
• Transportation Development Act (TDA) Fund Management
• San Mateo County Water Supply Issues

C/CAG activities are guided by a C/CAG Executive Director, as directed by the C/CAG Chairperson and the C/CAG Board of Directors. The Executive Director is retained via a contract with the C/CAG Board of Directors. The administration of C/CAG also includes assistance from the Executive Director's Advisory Committee, the C/CAG Finance Committee, and an administrative assistant to the Executive Director. Local agency staff provide staff support for various C/CAG programs and activities. San Mateo County Planning staff provide staff support for the airport land use commission function of C/CAG, as required by state law.

4. **C/CAG Airport Land Use Committee (ALUC) Membership, Activities, and Staff Assistance.** The membership of the C/CAG Airport Land Use Committee (ALUC), as of December 1996, is shown in Table I.-II. on page I.-8. The membership includes C/CAG member jurisdictions that are affected by one or more of the airports located in San Mateo County. An overview of ALUC activities is shown in Figure I.-4 on page I.-9. Staff support for the ALUC is provided by the San Mateo County planning staff.

B. WHAT ARE THE RESPONSIBILITIES OF THE SAN MATEO COUNTY AIRPORT LAND USE COMMISSION?

1. **State of California Aeronautics Act**. As indicated above, state law requires an airport land use commission to prepare and adopt a comprehensive airport land use plan (CLUP) for each public use airport in the county. This Plan includes a comprehensive airport land use plan (CLUP) for each of the three public use airports located in San Mateo County (see Chapter II .pp. II.-3 and II.-4). This Plan was prepared by the City/County Association of Governments of San Mateo County (C/CAG), in its designated role as the Airport Land Use Commission for San Mateo County, under the authority of the State of California Aeronautics Law, State Aeronautics Act, Chapter 4, Article 3.5, California Public Utilities Code (see Appendix A).

The purpose of the airport land use commission statute is to:

* Protect public health, safety, and welfare through the adoption of land use standards that minimize the public's exposure to safety hazards and excessive levels of aircraft noise.

* Prevent the encroachment of incompatible land uses around public-use airports, thereby preserving the utility of those airports into the future.

TABLE I.-II.

C/CAG AIRPORT LAND USE COMMITTEE (ALUC)
Membership* December 1996

City of Brisbane	City of San Bruno
City of Burlingame	City of San Carlos
City of Daly City	City of South San Francisco
City of Foster City	County of San Mateo/Aviation Representative
City of Half Moon Bay	Aviation Representative (Appointed)
City of Millbrae	Half Moon Bay Airport Pilots Association (Appointed)

City of Redwood City

* * * * * * * * * * * * * * * * * *

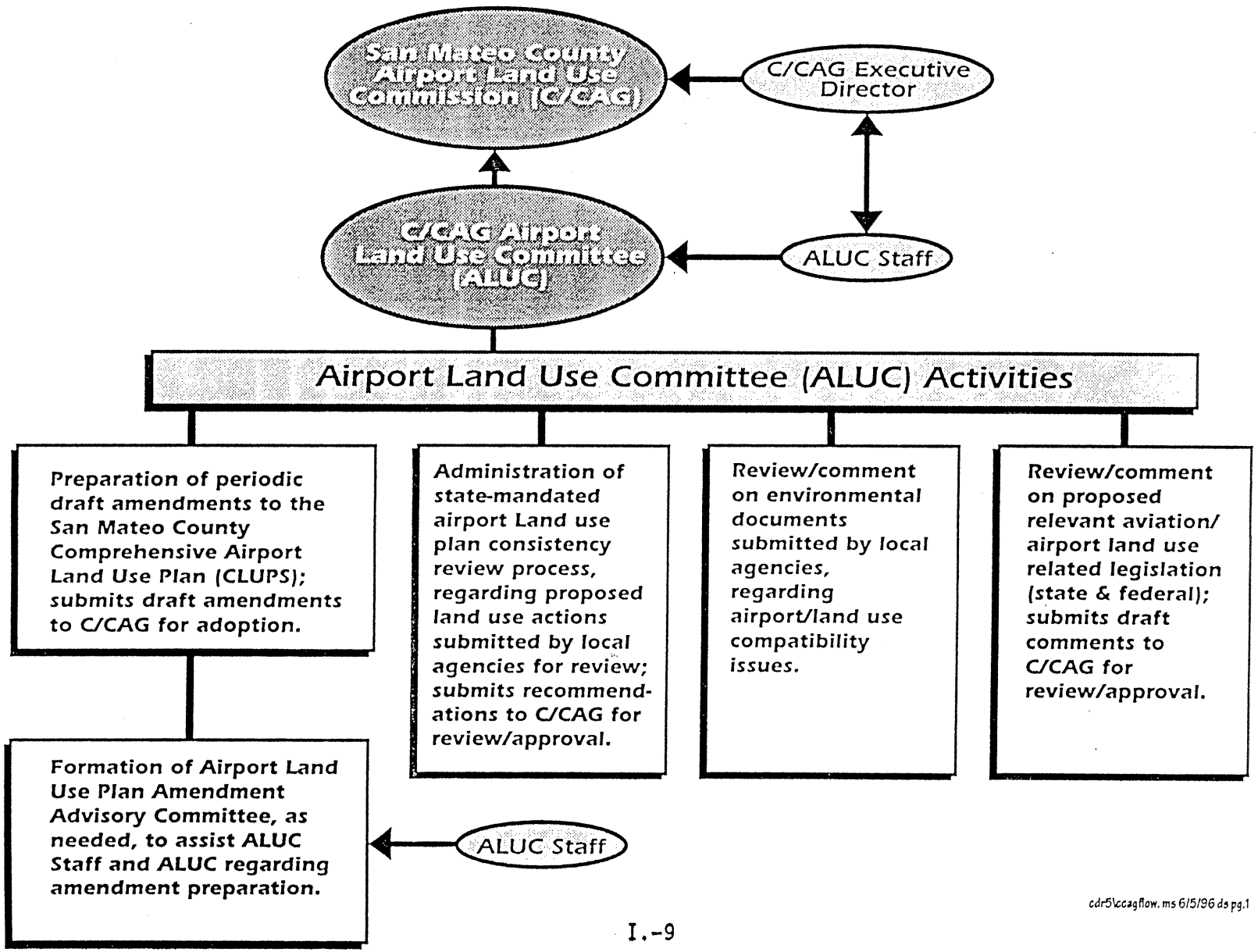
Staff assistance: David F. Carbone, Senior Planner/Airport Planning, San Mateo County Planning and Building Division

* All members are elected officials of the jurisdictions listed, unless otherwise noted.

Figure I. - 4

Overview of C/CAG Airport Land Use Committee (ALUC) Activities

December 1996



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Airport land use commission law does not give a commission jurisdiction over the operation of any airport. **A commission has no authority over such things as the number of aircraft which can be based at an airport, the number of operations (landings or take-offs) which can occur, the flight patterns which aircraft use, the amount of noise that aircraft make, or the hours of the day during which aircraft can operate at an airport.**

2. **Responsibilities of the San Mateo County Airport Land Use Commission (C/CAG).** Under the provisions of the law, the San Mateo County Airport Land Use Commission (C/CAG) has certain responsibilities and specific duties to perform. The San Mateo County Airport Land Use Commission (C/CAG) fulfills its responsibilities in three basic ways:

   * Adoption of a comprehensive airport land use plan (CLUP) that contains airport/land use compatibility policies,standards, and criteria that address height, noise, and safety issues at each airport located in the county.

   * Coordination with local agencies (affected cities and the County of San Mateo) with jurisdiction over any geographic area subject to the provisions of the Comprehensive Airport Land Use Plan (CLUP) to help them implement airport-compatible land use planning, as part of their local land use and zoning authority.

   * Review/determination of the compatibility of proposed local agency land use policy actions, such as general plans and general plan amendments, specific plans and specific plan amendments, and rezonings (resulting in a land use change) near any public use airport in the county, with the applicable policies, standards, and criteria contained in the Comprehensive Airport Land Use Plan (CLUP).

3. **Relationship between the San Mateo County Airport Land Use Commission (C/CAG) and County Government.** The relationship between the San Mateo County Airport Land Use Commission (C/CAG) and County of San Mateo government is often misunderstood. With respect to its two primary duties - adoption of a comprehensive airport land use plan (CLUP) for each public use airport in the county and review of proposed local agency land use policy actions for consistency with the (CLUP), the San Mateo County Airport Land Use Commission (C/CAG) acts independently of the County of San Mateo Board of Supervisors. The Commission is an autonomous agency and is not part of the governmental structure of the County of San Mateo.

The Commission's Comprehensive Airport Land Use Plan (CLUP)) and its review of local land use policy actions and issues are not subject to approval by the County Board of Supervisors. The County of San Mateo is a member of the Commission and is subject to the same requirements and procedures that apply to any other affected local agency, regarding the Comprehensive Airport Land Use Plan (CLUP) referral and review process.

The San Mateo County Airport Land Use Commission's (C/CAG) relationship to the County of San Mateo differs from its relationship to the cities in the county with respect to funding and staffing. Any compensation for Commission members is determined by the County Board of Supervisors (PUC Section 21671.5(b)). In addition, the Commission cannot hire staff or contractors without the prior approval of the Board of Supervisors (PUC Section 21671.5(d)). The County of San Mateo however, is required to provide staff assistance for the operation and support of the San Mateo County Airport Land Use Commission (PUC Section 21671.5(c)).

SAN MATEO COUNTY
COMPREHENSIVE AIRPORT LAND USE PLAN

CHAPTER II. OVERVIEW, GENERAL POLICIES, AND PLAN IMPLEMENTATION

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A. WHY HAVE A COMPREHENSIVE AIRPORT LAND USE PLAN (CLUP)?

1. **Need.** As land around airports is converted to urban uses and as airport activity grows, complaints increase about noise, air pollution, and ground traffic congestion associated with airport and aircraft operations. The introduction of turbojet aircraft in the late 1950s, accompanied by a rapid increase in air traffic, created severe noise impacts in communities near major airports. These impacts continue to adversely affect people who live near airports.

   Some progress has been made toward reducing aircraft noise impacts by rerouting aircraft, modifying aircraft operating procedures, and by airlines acquiring new, quieter aircraft. These measures, however, have been only partially effective. Airport and aircraft operations will continue to have significant effects on surrounding lands.

   Another concern is safety in the areas surrounding airports. The concentration of aircraft flights over a particular area increases the possibility of an aircraft accident. Therefore, comprehensive land use planning for areas surrounding an airport is vitally important. An effective comprehensive airport land use plan (CLUP) provides a framework for local agencies (land use authorities) and airport land use commissions to coordinate land use planning to minimize impacts, especially aircraft noise and safety impacts, in the airport environs area.

2. **Purpose.** State law requires an airport land use commission to prepare and adopt a comprehensive airport/land use compatibility plan (CLUP) for each public-use airport in the county (Section 21675(a)). These plans are the fundamental tools used by airport land use commissions to fulfill their purpose of promoting airport/land use compatibility. The law describes the purpose of these plans in essentially the same terms it uses with respect to the purpose of the commissions themselves. Specifically, airport land use plans (CLUPs) have two purposes:

   * To "provide for the orderly growth of each public airport and the area surrounding the airport within the jurisdiction of the commission . . ."

   * To "safeguard the general welfare of the inhabitants within the vicinity of the airport and the public in general."

The San Mateo County Comprehensive Airport Land Use Plan (CLUP) is the key to implementation of Airport Land Use Commission (C/CAG) policies related to proposed land development in the areas surrounding each airport in San Mateo County. It provides the standards, criteria, and policies on which the compatibility of proposed local agency land use policy actions are determined. It also establishes the planning boundaries around each airport that define height/airspace protection, noise, and safety areas for policy implementation.

B. HOW IS THE COMPREHENSIVE AIRPORT LAND USE PLAN (CLUP) AMENDED?

The first San Mateo County Airport Land Use Plan was prepared and adopted in the late 1970s. The Regional Planning Committee (RPC) was the designated Airport Land Use Commission for San Mateo County at that time.

1. **Plan Amendments.** The airport land use commission statute (Section 21675 (a)) limits amendments to a comprehensive airport land use plan (CLUP) to no more than one per calendar year. The San Mateo County Airport Land Use Commission (C/CAG) has delegated the preparation of draft amendments of the CLUP to the C/CAG Airport Land Use Committee (ALUC). ALUC staff prepares draft amendment documents for review by the ALUC, affected agencies, and the public. The content and scope of the amendments are guided by the relevant provisions in the 1993 Airport Land Use Planning Handbook, as prepared and published by the Caltrans Aeronautics Program (see ALUC statutes Section 4. 21674).

   Upon completion of the preparation of a draft amendment document, the ALUC refers the document to the Airport Land Use Commission (C/CAG) for review and adoption. The C/CAG Joint Powers Agreement (JPA) requires a countywide plan, or an amendment of a countywide plan, to be introduced at a C/CAG meeting prior to final action on the plan or plan amendment at a subsequent C/CAG meeting. Therefore, it takes at least two C/CAG meetings to adopt an amendment to the CLUP. The second meeting includes a public hearing to receive public input prior to final action on the amendment.

2. **Environmental Review.** Requirements for the preparation of California Environmental Quality Act (CEQA) documentation, when adopting or amending a CLUP are not mentioned in the airport land use commission statutes. However, it has been the practice of the San Mateo County Airport Land Use Commission (C/CAG) to prepare an Initial Study and a Negative Declaration, per CEQA requirements, when adopting an amendment to the CLUP. The rationale for concluding that no significant environmental

impacts would result from an amendment to the CLUP is based on two key factors: (1) the Airport Land Use Commission (C/CAG) has no land use authority or final approval authority over any proposed local agency land use policy actions and (2) the CLUP is intended to reduce environmental impacts in an airport environs area, through relevant policy implementation.

C. WHERE DOES THE COMPREHENSIVE AIRPORT LAND USE PLAN (CLUP) APPLY?

The San Mateo County Comprehensive Airport Land Use Plan (CLUP) applies to the geographic areas in various cities and unincorporated county areas in San Mateo County that are impacted by aircraft noise, height limitations/airspace protection, and safety criteria, as established and defined herein, for all three public use airports in San Mateo County. These airports are described as follows:

* **Half Moon Bay Airport** - A general aviation, single runway airport, owned and operated by the County of San Mateo. The airport is administered by the San Mateo County Department of Public Works, through the County Airport Manager. The governing body of the airport is the County Board of Supervisors.

  Aircraft that are compatible with the facilities and constraints at Half Moon Bay Airport are defined by the County of San Mateo as aircraft that weigh 12,500 pounds or less. However, heavier aircraft may operate at the airport with approval from the County Airport Manger. Due to the low number of annual aircraft operations, the airport does not have an air traffic control tower.

  Half Moon Bay Airport is located on the San Mateo County coast, between California Highway 1 and the Pacific Ocean. The airport is approximately four miles north of the City of Half Moon Bay, in the vicinity of the unincorporated areas of Montara, Moss Beach, El Granada, and Princeton-by-the-Sea. The Half Moon Bay Airport Land Use Plan (CLUP) is contained in Chapter III.

* **San Carlos Airport** - A general aviation, single runway airport, owned and operated by the County of San Mateo. The airport is administered by the San Mateo County Department of Public Works, through the County Airport Manager. The governing body of the airport is the County Board of Supervisors.

Aircraft that are compatible with the facilities and constraints at San Carlos Airport are defined by the County of San Mateo as aircraft that weigh 12,500 pounds or less. However, heavier aircraft may operate at the Airport with approval from the County Airport Manager. Due to its relatively high number of annual aircraft operations, the Airport has an air traffic control tower.

San Carlos Airport is located adjacent to the east side of U.S. Highway 101 in the City of San Carlos, south of the Redwood Shores area of the City of Redwood City. The airport is surrounded by the City of Redwood City on three sides (north, east, and south). The San Carlos Airport Land Use Plan (CLUP) is contained in Chapter IV.

* **San Francisco International Airport** - An air carrier airport owned and operated by the City and County of San Francisco. The airport is the major air carrier airport for northern California and one of the major airports in the United States. The runway layout consists of two sets of parallel runways that intersect at 90 degrees. The runway centerlines for both sets of runways are 750 feet apart. The airport facilities include 2.6 million square feet of terminal space in three interconnected terminals. Airline facilities include 80 aircraft gates and various support facilities.

The airport is administered by the San Francisco Airport Commission, through the Airport Director. The five members of the Airport Commission are appointed by the Mayor of the City and County of San Francisco. There is no San Mateo County representation on the San Francisco Airport Commission. In terms of total passengers, San Francisco International Airport is the fifth busiest airport in the United States.

San Francisco International Airport is located in a mostly unincorporated area in the northern portion of San Mateo County, adjacent to U.S. Highway 101, San Francisco Bay and the cities of South San Francisco, San Bruno, Millbrae, and Burlingame. The San Francisco International Airport Land Use Plan (CLUP) is contained in Chapter V.

D. WHAT ARE THE MAJOR CONCERNS OF THE PLAN?

1. **Major Concerns.** The concerns of the San Mateo County Comprehensive Land Use Plan (CLUP) fall into three categories:

   * **Aircraft Noise Impact Reduction** - reduce the exposure of people to noise impacts from airport and aircraft operations.

   * **Safety of Persons on the Ground and in Aircraft in Flight** - minimize the number of people exposed to hazards related to aircraft operations and accidents.

* **Height Restrictions/Airspace Protection** - protect the navigable airspace around airports for the safe and efficient operation of aircraft in flight.

Airport planning boundaries define areas where height, noise, and safety standards, policies, and criteria are applied to certain proposed land use policy actions. Height standards for defining obstructions to air navigation are defined in Federal Aviation Regulation (FAR) Part 77, "Objects Affecting Navigable Airspace." Airport noise levels are governed by California Administrative Code, Title 21, Subchapter 6, "Noise Standards."

An airport land use commission may adopt airport noise/land use compatibility criteria that are more restrictive than the State standards. Airport safety guidelines are determined by the airport land use commission, based on aircraft and airport operational parameters. Aircraft noise abatement procedures are imposed by airport proprietors, based on local land use patterns and conditions, aircraft operational parameters, and FAA review. Height restrictions/airspace protection parameters, as defined by federal regulations, are designed to provide a safe environment for aircraft in flight in the vicinity of an airport. Comprehensive planning in these three areas, reflected in land use policies, standards, and criteria are designed to minimize the exposure of the public to noise and safety hazards, provide for safer aircraft operations, and help protect the airport from encroachment by incompatible land development.

2. **Limitations of the Plan.** This plan establishes planning boundaries for each airport in San Mateo County and identifies land uses that are compatible with airport and aircraft operations. **This plan provides a basis for determining the compatibility of proposed land use actions with the relevant land use compatibility provisions contained herein. The provisions contained herein do not apply to existing development.**

This Plan is not a specific development plan. It neither sets forth specific land uses for any particular parcel or parcels of land, nor is it retroactive with respect to any existing incompatible land uses. It should also be understood that this plan governs the relationship between each public use airport and the land uses that surround it and contains no recommendations concerning the operation of any airport in the county.

3. **Existing Incompatible uses.** While this plan provides a guide to achieve compatible land uses near all three airports in the County, some development already exists in the areas surrounding each airport that is inconsistent with the compatibility policies and guidelines contained in the Plan. **This document is directed at preventing future incompatible land uses from developing in the vicinity of each airport in San Mateo County, not at removing existing incompatible uses.**

Incompatible development that currently exists is recognized as existing incompatible land use by the Airport Land Use Commission (C/CAG). It should be noted that although the Airport Land Use Commission (C/CAG) recognizes the existence of these incompatible land uses, neither this Plan, nor the Commission (C/CAG), finds these uses to be consistent with this Plan.

E. WHAT ARE THE AIRPORT/LAND USE COMPATIBILITY POLICIES?

The policies contained in this Plan have three goals:

* To protect each public use airport in San Mateo County from the encroachment of incompatible land uses

* To safeguard the general welfare of the inhabitants within the vicinity of each airport and the public in general, by protecting them from adverse affects of aircraft noise and reducing the number of people exposed to airport/aircraft related hazards

* To ensure that no structures or land use characteristics adversely affect the navigable airspace in the vicinity of each airport to provide for the safe passage of aircraft in flight.

This Plan contains general policies and specific policies that guide its overall implementation. **The general policies that follow, are to be used, in addition to the specific policies standards, and criteria that are contained in each individual airport land use plan chapter, by the C/CAG Airport Land Use Committee (ALUC), the San Mateo County Airport Land Use Commission (C/CAG), affected local agencies, and others, to implement the relevant provisions in this CLUP.**

1. General Policies - Administration of the CLUP. The following general policies apply to the administration and implementation of the San Mateo County Comprehensive Airport Land Use Plan (CLUP):

   (a) The Airport Land Use Commission (C/CAG) and the C/CAG Airport Land Use Committee shall comply with the provisions in the Aeronautics Law, State Aeronautics Act, Public Utilities Code Chapter 4, Article 3.5 (airport land use commission statutes) Section 21670 et seq, when administering this CLUP and the airport land use compatibility planning process in San Mateo County.

(b) The policies and criteria contained in this CLUP are intended to help achieve compatibility between proposed land use development and/or proposed airport development with airport and aircraft operations. The policies contained herein do not apply to existing development in an airport environs area.

(c) Existing incompatible development in an airport environs area is recognized by the Airport Land Use Commission (C/CAG) as incompatible with the relevant policies and criteria contained in this Plan.

(d) The CLUP shall not be amended more than once in a calendar year, as provided in the airport land use commission statutes, to maintain a current, updated document for all affected agencies and interested parties.

2. General Policies - Airport/Land Use Compatibility Issues. The following general policies apply to the implementation of the CLUP regarding the specified airport/land use comaptibilty issues.

* **Aircraft Noise impact Reduction.** Aircraft noise is one of the most basic airport land use compatibility concerns. Moreover, at major air carrier and busy general aviation airports, it is usually the most geographically extensive form of airport impact. A clear objective of airport/aircraft noise compatibility criteria is to minimize the exposure of people living and working near airports to frequent and/or high levels of aircraft-generated noise.

The San Mateo County Airport Land Use Commission (C/CAG) has adopted aircraft noise/land use compatibility standards to assist the Commission (C/CAG) in evaluating proposed land use policy actions within the in the aircraft noise contours for each airport in the county, for consistency with the applicable provisions in the CLUP. The noise contour maps and the "Aircraft Noise/Land Use Compatibility Standards" tables in the following individual airport chapters are used by the ALUC and the Commission (C/CAG) to evaluate the compatibility of proposed land use policy actions within each noise level.

The aircraft noise impact boundary differs for each type of airport, based on the type of aircraft that operate at an airport. The San Mateo County Comprehensive Airport Land Use Plan (CLUP) addresses airport/land use compatibility issues related to two types of airports: (1). general aviation airports (e.g. Half Moon Bay and San Carlos Airports) and (2). an air carrier (commercial service) airport,(e.g. San Francisco International Airport). The noise characteristics of the aircraft that operate at these airports are the major factors in defining the aircraft noise impact boundary for each airport.

The following is a list of general aircraft noise/land use compatibility policies that apply to the implementation of the Comprehensive Airport Land Use Plan for each airport in San Mateo County, unless otherwise noted:

(a) The 55 dB CNEL noise contour shall define the noise impact boundary for both Half Moon Bay and San Carlos Airports, based on the operating and noise characteristics of the general aviation aircraft that operate at those airports.

This criterion is more restrictive than the State of California Noise Standards 65 dB CNEL noise impact boundary criterion because of the frequency of general aviation aircraft operations, the altitude and traffic pattern of the aircraft that operate at each of those airports, and the proximity of each airport to existing noise-sensitive land uses.

(b) The 65 dB CNEL noise contour shall define the noise impact boundary for San Francisco International Airport, based on the operating and noise characteristics of the air carrier aircraft that operate at that airport.

This criterion is consistent with the State of California Noise Standards for airports and with the Airport's federally-approved 1983 FAR Part 150 Noise Compatibility Program.

(c) The Airport Land Use Committee (ALUC) and the Airport Land Use Commission (C/CAG) shall be guided by the aircraft noise /land use compatibility criteria table for each airport, as contained herein (see individual airport land use plan chapters), when considering the consistency of a proposed local agency land use policy action with the relevant airport land use plan.

* <u>Safety.</u> Compared to noise, safety is a much more difficult concern to address in airport/land use compatibility policies. A major reason for this difference is that safety policies address uncertain events which may occur with occasional aircraft operations, whereas noise policies deal with known, more or less predictable events, which occur with every aircraft operation.

Because aircraft accidents happen infrequently and the time, place, and consequences of their occurrence cannot be accurately predicted, the concept of risk is central to the assessment of safety compatibility. In terms of airport/land use compatibility planning, two variables determine the degree of risk posed by potential aircraft accidents:

* **Accident Frequency** - Where and when do aircraft accidents occur in the vicinity of an airport?

* **Accident Severity** - What land use characteristics contribute to the consequences of an accident when one occurs?

The overall objective of safety compatibility guidelines can be simply stated as being to minimize the risks associated with potential aircraft accidents. There are two components to this objective:

* **Safety of Persons on the Ground** - the most fundamental safety compatibility component is to provide for the safety of people and property on the ground in the event of an aircraft accident near an airport.

* **Safety of Aircraft Occupants** - the other component is to enhance the chances of survival of the occupants of an aircraft involved in an accident that occurs beyond the runway environment.

The following is a list of general safety policies that apply to the implementation of the relevant airport land use plan, as specified:

(a) The following safety zones are established at Half Moon Bay and San Carlos Airports:

1. **Approach Protection Zones (APZ)**

2. **Runway Protection Zones (RPZ)**

3. **Traffic Overflight Zones (TOZ)**

The definition of these zones are contained in the individual airport land use plan chapters (see Chapters III. and IV.)

(b) Approach Protection Zones (APZs), defined and illustrated herein for Half Moon Bay and San Carlos Airport, shall remain free of permanent structures at all times.

(c) Non-structural uses may be permitted in an Approach Protection Zone (APZ) if they do not cause a concentration of more than 10 people per net acre on a 24-hour basis.

(d) Vehicle parking and open storage uses are permitted in Approach Protection Zones (APZ) if they do not generate more than 25 people per acre at any time.

(e) Other uses may be permitted in an Approach Protection Zone (APZ), on a case-by-case basis, based on review of the relevant airport/aircraft public safety issues.

(f) The Airport Land Use Commission (C/CAG) and the C/CAG Airport Land Use Committee (ALUC) shall be guided by the safety/land use compatibility table for each airport , as contained herein (see safety sections of the individual airport land use plan chapters), when considering the consistency of a proposed local agency land use policy action with the relevant airport land use plan.

* **Height Restrictions/Airspace Protection.** Height restrictions are necessary to ensure that objects will not impair flight safety or decrease the operational capability of an airport. Airspace protection is also a critical factor for the safe and efficient use of the airspace in the vicinity of an airport by an aircraft in flight.

Federal Aviation Regulations (FAR) Part 77, "Objects Affecting Navigable Airspace" defines a series of "imaginary" surfaces surrounding airports (see Appendix D.) to provide airspace protection. Any object or structure which would penetrate any of the imaginary surfaces defined in FAR Part 77 for each airport is considered by the FAA to be an obstruction to air navigation. While an obstruction to air navigation may not necessarily be a hazard to air navigation, the FAA presumes it to be a hazard and treats it as such until an FAA aeronautical study has determined that it does not have an adverse effect upon the safe and efficient use of navigable airspace by aircraft. The FAA advises the local agency and the project sponsor of the outcome of the aeronautical study.

Relatively few aircraft accidents are caused by land use conditions which are hazards to aircraft in flight. However, such potential exists, and protecting against such conditions is essential to airport/land use safety compatibility. Because airspace protection is in effect a safety factor, its objective can likewise be thought of in terms of risk. The objective is to avoid the creation of land use conditions, that could potentially increase the risk of an accident occurring. The particular hazards of concern are:

* Airspace obstructions, such as tall buildings, tall trees, antennas, etc.

* Land use characteristics which pose other potential hazards to aircraft in flight, by attracting birds or creating visual or electronic interference with air navigation, such as site lighting, architectural features (e.g., reflective glass or other exterior surfaces), and communication facilities, such as antennas, microwave dishes, etc.

The following is a list of general height restrictions/airspace protection policies that apply to the implementation of the airport land use plan for each airport in San Mateo County, unless otherwise noted:

(a) The applicable provisions of Federal Aviation Regulations Part 77, "Objects Affecting Navigable Airspace" are hereby incorporated, by reference, into this CLUP, to establish height restrictions and airspace protection in the vicinity of each airport located in San Mateo County.

(b) The Airport Land Use Commission (C/CAG) and the C/CAG Airport Land Use Committee (ALUC) shall be guided by the relevant provisions in FAR Part 77 when considering the consistency of a proposed local agency land use policy action with the relevant airport land use plan.

(c) Any object or structure that would penetrate any of the imaginary surfaces defined in FAR Part 77, for each airport located in San Mateo County, shall be considered as an obstruction to air navigation, and therefore, inconsistent with the relevant airport land use plan.

(d) The Airport Land Use Committee (ALUC), ALUC staff, and the Airport Land Use Commission (C/CAG) shall inform the local agency and the project developer of the federal requirement to notify the FAA of proposed land development in the vicinity of an airport, via notice requirements contained in FAA Form 7460-1, "Notice of Proposed Construction or Alternation".

(e) The Airport Land Use Commission (C/CAG) shall inform public agencies, land developers, and other interested parties of airspace protection concerns, as identified herein, at all three airports located in the county. The Commission (C/CAG) will discourage local agency approval of proposed development in an airport environs area that includes land use and/or project design characteristics that would negatively impact the airspace in the vicinity of an airport, as discussed herein, and affect the safety of aircraft in flight.

F. HOW IS THE CLUP IMPLEMENTED?

The implementation of the San Mateo County Comprehensive Airport Land Use Plan (CLUP) by the Airport Land Use Commission (C/CAG) and the C/CAG Airport Land Use Committee (ALUC) is the key to helping local agencies achieve airport-compatible land development in the vicinity of the three airports located in San Mateo County. The following sections explain the

implementation of San Mateo County Comprehensive Airport Land Use Plan (CLUP) and the unique two-step airport land use commission review process in San Mateo County.

1. **Review of Proposed Local Agency Actions.** The review of proposed local agency actions, related to airport/land use compatibility, is one of the fundamental reasons for the creation of airport land use commissions. Proposed local agency actions fall into two broad groups: (1) local land use policy actions and (2) airport and/or heliport plans, including master plans, expansion plans, and plans for construction of new airport and/or heliport facilities.

   a. **Review of Proposed Local Actions to Adopt or Amend General Plans, Specific Plans, and/or Zoning Ordinances.**

   Any city or county general plan, specific plan, and/or zoning ordinance that affects property in an airport environs area, as described herein, **must** be reviewed by the Airport Land Use Commission (C/CAG) for a determination of consistency with the relevant provisions in the Comprehensive Airport Land Use Plan (CLUP). **Compliance with this requirement is initiated by the affected local agency in one of two ways:**

   * **Adoption of an amendment to the Comprehensive Airport Land Use Plan (CLUP) by the Airport Land Use Commission (C/CAG) - Required action by the local agency.** Upon adoption of an amendment to the Comprehensive Airport Land Use Plan (CLUP) by the Airport Land Use Commission (C/CAG), the Commission notifies all affected agencies of the adoption action. State law (Government Code Section 65302.3) gives affected local agencies 180 calendar days to amend their general plans, specific plans, and/or zoning ordinances , as necessary, to be consistent with the adopted amended CLUP. If an affected local agency does not concur with the provisions in the amended CLUP, it must make specific findings that its proposed action(s) is consistent with the intent of the airport land use commission statutes, as amended, via the local agency override process (see Section F.6. of this chapter).

   * **Adoption or amendment of a general plan, specific plan, and/or zoning ordinance by a local agency - Required action by the local agency.** Section 21676 (b) of the airport land use commission statutes, as amended, requires an affected local agency to submit a proposed adoption or amendment of a general plan, specific plan, and/or zoning ordinance to the Airport Land Use Commission (C/CAG) for a determination of the consistency of the proposed action with the relevant provisions in the Comprehensive Airport Land Use Plan (CLUP) prior to local agency approval of such action.

b. Review of Airport and/or Heliport Plans.

Airport Land Use Commission (C/CAG) review of two categories of airport plans is required by state law. These categories include the following:

Airport Master Plans. Section 21676 (c) of the airport land use commission statutes, as amended, mandates that "each public agency owning an airport within the boundaries of an airport land use commission plan shall, prior to modification of its master plan, refer such proposed change to the airport land use commission". The Commission (C/CAG) will then determine if the proposed master plan is consistent with the adopted airport land use plan for the affected airport.

Construction Plans for a New Airport. State law also indicates that no application for the consideration of plans for a new airport may be submitted to any local, regional, state, or federal agency unless the plans have been: (1) approved by the board of supervisors or the city council of the jurisdiction in which the airport is to be located and (2) submitted to and acted upon by the airport land use commission in the county in which the airport is to be located.

2. **Two-Step Process for a Determination of Consistency with the Comprehensive Airport Land Use Plan (CLUP).** The airport/land use comaptibilty review process in San Mateo County is a unique two-step process. A diagram of the process is shown on Figure II.-1 on page II.-14. **The review process is initiated by a local agency, as specified in the airport land use commission statutes, as amended.** Each step of the process is described below.

Step 1.: Review by the C/CAG Airport Land Use Committee (ALUC)

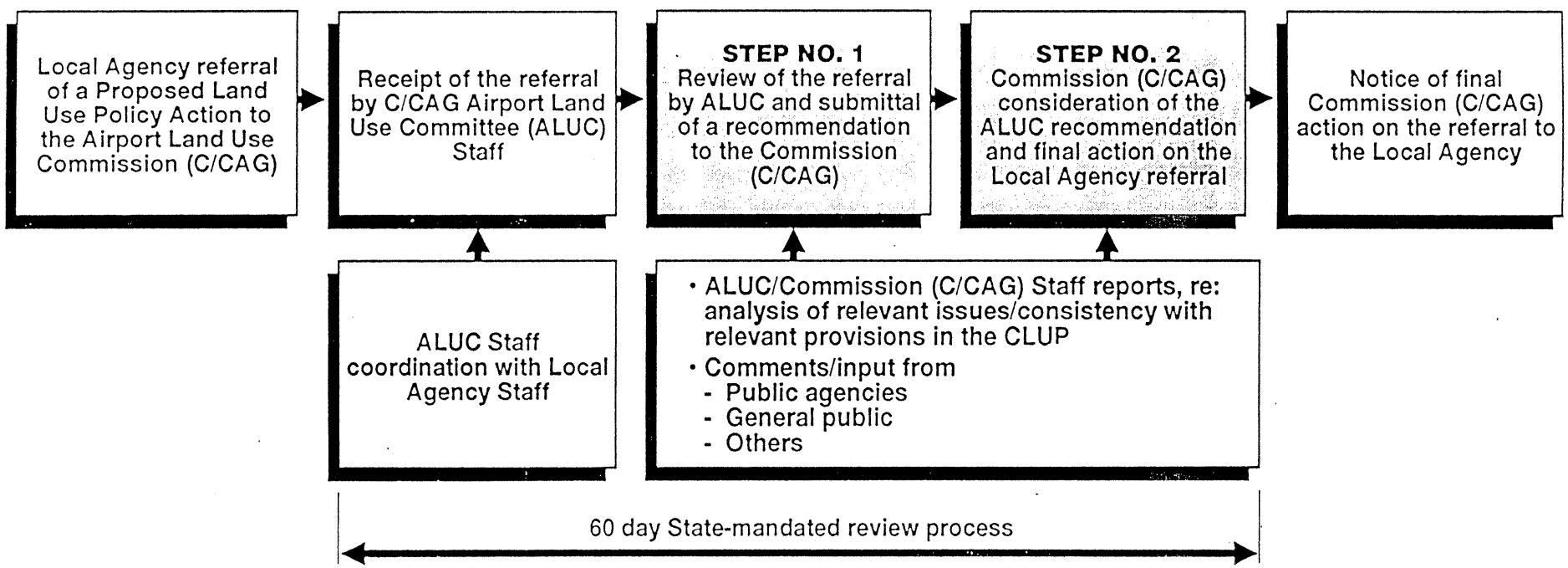
a. The affected agency refers the proposed local action, including all relevant documentation, to ALUC Staff. ALUC staff reviews the submitted materials, coordinates the review with the affected local agency staff and schedules the item for the next available ALUC meeting. ALUC staff also prepares a staff report for ALUC and public review. The staff report describes the proposed action and includes an analysis of the relevant airport/land use comaptibilty issues related to the proposed action and a recommended ALUC action(s).

Figure II - 1

San Mateo County Airport Land Use Commission (C/CAG) Two-Step Review Process

Re: Determination of the Consistency of a Proposed Local Agency Land Use Policy Action with the Relevant Provisions in the San Mateo County Comprehensive Airport Land Use Plan (CLUP)

December 1996



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b. The ALUC reviews the proposed local agency action, considers relevant public input, and takes an action by adopting a motion to recommend to the Airport Land Use Commission (C/CAG) that the Commission determine that the proposed action is consistent or inconsistent with the relevant provisions in the Comprehensive Airport Land Use Plan (CLUP). The ALUC review includes a presentation of the staff report by ALUC staff and opportunities for comments from representatives of the affected local agency, other agencies, and the public.

c. The ALUC refers its recommendation to the Airport Land Use Commission (C/CAG), via a staff report to the Commission, that is prepared by ALUC staff. The item is discussed by ALUC staff at the C/CAG Executive Director's Advisory Committee meeting that is held prior to the next C/CAG meeting.

Step 2.: Review/Final Action by the Airport Land Use Commission (C/CAG)

a. The proposed action is scheduled for consideration at the next available C/CAG meeting. ALUC staff prepares a staff report for review by the Airport Land Use Commission (C/CAG) that describes the proposed local agency action and includes a copy of the ALUC staff report and the ALUC recommendation.

b. The Commission (C/CAG) reviews the ALUC recommendation and takes final action on the proposal by adopting a motion that indicates the proposed local agency action is consistent or inconsistent with the relevant provisions in the Comprehensive Airport Land Use Plan (CLUP). The Commission's review includes opportunities for comments form the affected local agency, other agencies, and the public.

c. The Commission formally notifies the affected local agency, in writing, of its final action on the proposal.

3. **Determination of the Consistency of a Proposed Local Agency Action with the Comprehensive Airport Land Use Plan (CLUP).** The key element of the Airport Land Use Commission's (C/CAG) review of proposed local agency land use policy actions is the concept of "consistency" with the relevant provisions in the Comprehensive Airport Land Use Plan (CLUP). As applied in airport land use planning, "consistency" does not require being identical. It only means that the concepts, standards, and physical characteristics and/or resulting consequences of a proposed local agency action do not conflict with the intent of the CLUP to which the comparison is being made.

4. **Substance of Consistency Reviews.** The substance of consistency reviews varies with the type of proposed action being reviewed. The following is a summary of the key factors considered in the two broad categories of consistency reviews:

a. General Plan, Specific Plan, and Zoning Ordinance/Rezoning Review

General Plan, specific plan, and/or zoning ordinance/rezoning reviews are based on the ability of the proposed local agency action to prevent future development of land uses and/or land use characteristics that would conflict with the relevant airport/and use compatibility policies, standards , and criteria that are contained in the Comprehensive Airport Land Use Plan (CLUP). These consistency evaluations consider the following factors:

* residential densities
* types of non-residential land uses
* open space uses
* height limits/architectural features/materials
* sound insulation requirements
* exposure to aircraft noise/overflight
* potential impact on airspace protection

b. Consistency Reviews of Proposed Airport Master Plans, Construction Plans for New Airports, and Expansion of Airports.

Proposed airport plan consistency reviews focus on the elements of the proposed action(s) that may have off-airport implications. The key question is whether any of the components of the proposed action(s) would result in greater aircraft noise and/or safety impacts on surrounding land uses than are assumed in the Comprehensive Airport Land Use Plan (CLUP). These consistency evaluations consider the following factors:

* aviation activity forecasts

* existing runway/taxiway layout and proposed modifications

* existing flight tracks and changes to flight tracks resulting from the proposed action(s)

* changes to airspace protection parameters

5. **Response Time Requirement.** State law requires local agencies to refer certain proposed local agency land use policy actions to the Airport Land Use Commission (C/CAG) for a determination of consistency with the relevant provisions in the CLUP. The Commission (C/CAG) must respond to a local agency's request for a consistency determination of a proposed action within 60 days of the receipt of the referral by ALUC staff. However, this review period does not begin until all necessary documentation has been received by ALUC staff. The determination of the completeness of the information is made by ALUC staff.

In San Mateo County, the 60-day review period includes a review by the C/CAG Airport Land Use Committee (ALUC). Coordination of the two-step review process by ALUC staff is critical to completing the review by the Airport Land Use Commission (C/CAG) within the mandated 60-day review period. If the Commission (C/CAG) does not act on the referral within the 60 day limit, the proposed local agency action is deemed consistent with the Comprehensive Airport Land Use Plan (CLUP) by law.

6. **Local Agency Override of an Airport Land Use Commission Action.**

a. Process

Various sections of the airport land use commission statutes, as amended, provide for local agencies to override decisions and/or actions by an airport land use commission on land use matters and airport master plans. The local agency override process involves three mandatory steps, as follows:

* the holding of a public hearing by the local agency, regarding the proposed override action

* the making specific findings, by the governing body of the local agency, that the proposed local action is consistent with the purposes of the airport land use commission statutes, as amended

* approval of the override action by a two-thirds vote of the local agency's governing body; the override action must include adoption of the specific findings

b. Findings

Adoption of findings is the key element of the local agency override of an airport land use commission action. The purpose of adopting findings is to assure that the proposed local agency action complies with state law. Findings are defined as legally relevant conclusions that explain the decision making body's method of analyzing the relevant facts, regulations, and policies and the agency's rationale for taking the override action. The findings must show that the proposed local agency action is consistent with the purposes stated in the airport land use commission statutes, as amended.

c. Implications of a Local Agency Override Action

There are two key outcomes of a local agency override of an airport land use action:

* The proposed local agency action is determined by the local agency to be consistent with the relevant provisions of the Comprehensive Airport Land Use Plan (CLUP), just as if the airport land use commission had found the proposed action to be consistent with the CLUP.

* If a city or county overrides an action by an airport land use commission with, respect to a publicly owned airport that is not operated by that city or county, the agency operating 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" (see Section 21678 of the airport land use commission statutes, as amended). The law does not indicate who will become liable under these circumstances.

A diagram that illustrates the implications of a local agency override of an airport land use commission action is shown in Figure II.-2 on page II.-19.

7. **Review Fees.** A 1989 amendment to the state aeronautics act grated airport land use commissions the authority to charge fees for review of proposed local agency actions. However, it has been the practice of the San Mateo County Airport Land Use Commission (C/CAG) not to charge fees for such reviews. This practice is designed to encourage local agencies to comply with the provisions in the airport land use commission statutes, as amended. It is also intended as an incentive to local agencies to participate in the comprehensive airport land use planning process in San Mateo County.

Figure II. - 2

Local Agency Override of a San Mateo County Airport Land Use Commission (C/CAG) Action[1]

December 1996

Override Process

- Local agency must hold a public hearing to consider overriding the Commission's (C/CAG) action.
- Local agency must make specific findings that its proposed action is consistent with the purposes of the Airport Land Use Commission statutes, as amended
- Local agency must approve overriding the Commission's (C/CAG) action by at least a 2/3 vote; the override action must include adoption of the specific findings.

Implications of Override Action

- Proposed action is determined by the local agency, not the Commission (C/CAG), to be consistent with the Comprehensive Airport Land Use Plan (CLUP).
- The relevant airport "shall be immune from liability for damages resulting directly or indirectly from the public agency's decision to override the Commission's action or recommendation." [2]
- The Airport Land Use Commission statutes, as amended, do not specify who will be liable for damages as a result of an override action.

1. A timeframe for completion of the local agency overrride process is not specified in the Airport Land Use Commission statutes, as amended.
2. Source: Section 21678 of the Airport Land Use Commission statutes, as amended.

SAN MATEO COUNTY
COMPREHENSIVE AIRPORT LAND USE PLAN

CHAPTER III. HALF MOON BAY AIRPORT LAND USE PLAN

CHAPTER III. HALF MOON BAY AIRPORT LAND USE PLAN

A. INTRODUCTION

The Half Moon Bay Airport Land Use Plan applies to the geographic areas in the unincorporated communities in the vicinity of the airport that are impacted by aircraft noise, restrictions on the height of structures and/or objects near the airport, and safety compatibility criteria. The Plan includes policies, standards, and criteria to address each of these issues to assist local agencies to achieve land use compatibility with existing and future airport development and operations.

B. AIRPORT OVERVIEW

Half Moon Bay Airport is a general aviation, single runway airport, owned and operated by the County of San Mateo. The airport is administered by the San Mateo County Department of Public Works, through the County Airport Manager. The governing body of the airport is the County of San Mateo Board of Supervisors. A copy of the Half Moon Bay Airport Layout Plan (ALP), as approved by the FAA in May 1991, is shown on Map HMB-1 on page III.-3.

The airport property consists of 345 acres. The on-airport facilities are generally divided into three distinct groups: airside, landside, and aviation support facilities. The airside facilities consist of the runway and taxiway system, as well as lighting aids and navigational aids. The landside facilities consist of terminal area buildings, hangars, tiedowns, auto parking, etc. Aviation support facilities include utilities, maintenance, and fuel storage areas.

Half Moon Bay Airport is situated at an elevation of 67 feet above mean sea level (AMSL). Runway 12-30 is oriented northwest-southeast and is 5,000 feet long (physical length) and 150 feet wide. Both runway ends have a threshold displacement of 763 feet. The operational length of Runway 12-30 is 3,474 feet. Aircraft that are compatible with the facilities and constraints at Half Moon Bay Airport, as defined by the County of San Mateo, are aircraft that weigh 12,500 pounds or less. However, heavier aircraft may operate at the airport with prior approval from the County Airport Manager.

Flights in and out of the airport are currently conducted using Visual Flight Rules (VFR). VFR conditions exist when flight visibility is three miles or greater and the cloud ceiling is at least 1,000 feet above the surface. The airport does not have an air traffic control tower and no formal terminal air traffic control services are available. Air traffic advisories and weather information are provided by the Unicom operator. The terminal and air traffic control services are provided through the FAA Bay Terminal Radar Approach Control (TRACON) and the FAA Oakland Air Route Traffic Control Center (ARTCC).

Currently, Half Moon Bay Airport is classified by the FAA as a Reliever Airport for San Francisco International Airport. General aviation reliever airports are those airports which provide air traffic relief to a commercial service airport in the nearby area, thereby reducing congestion at the neighboring commercial service airport.

C. GENERAL AVIATION

Half Moon Bay Airport is a general aviation facility. General aviation includes every type of civil flying other than FAA-certificated air carrier aircraft and military aircraft. General aviation flying or usage falls into four major categories:

* **Business** - use of an aircraft for executive or business transportation.

* **Commercial** - use of an aircraft for commercial purposes (other than commuter and air carrier), including air taxi, aerial applications, special industrial usage, aerial surveys, advertising, aerial photography, and emergency medical transportation.

* **Instructional** - use of an aircraft for flight training under the supervision of an instructor.

* **Personal** - use of a aircraft for a variety of personal reasons.

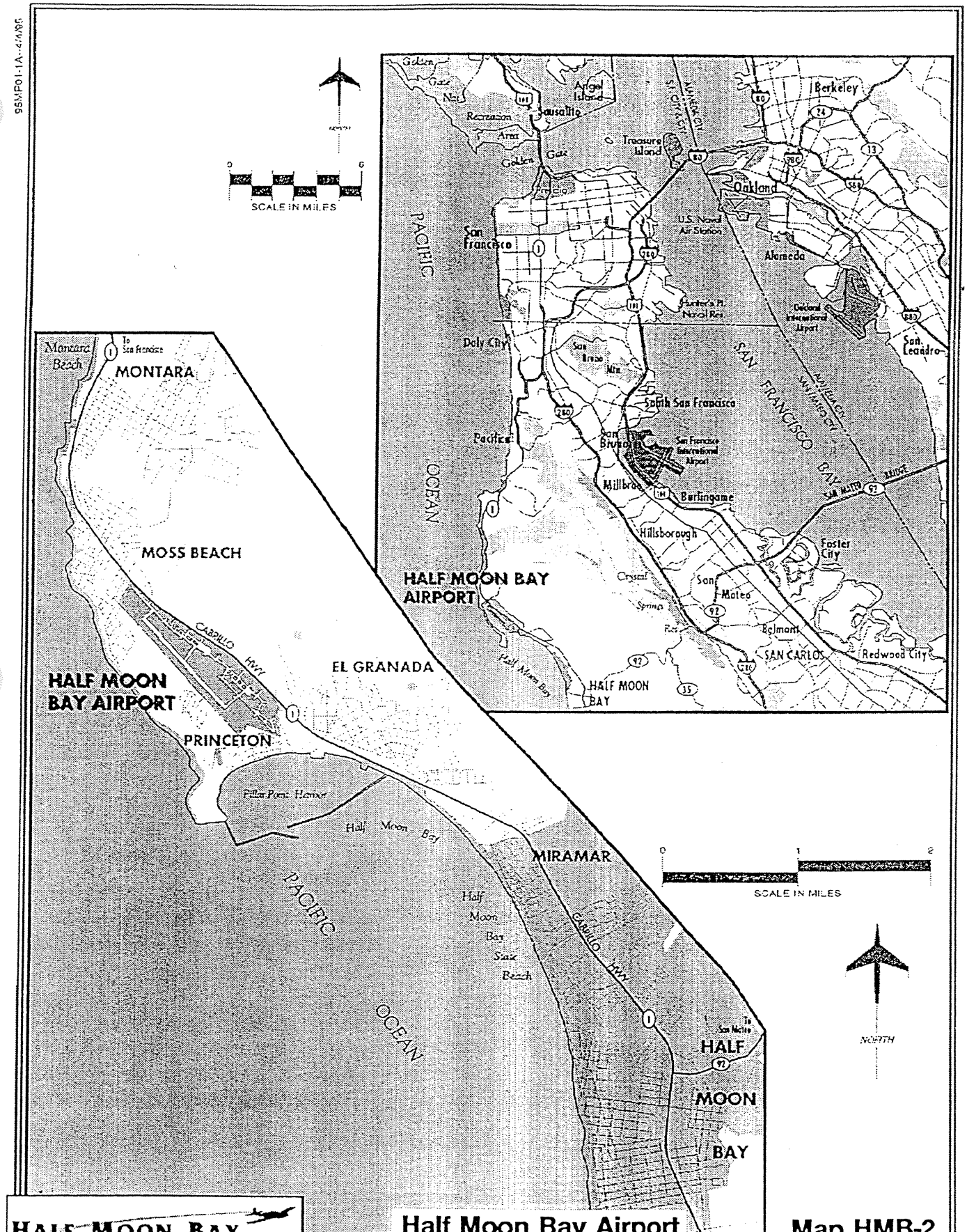
D. AIRPORT SETTING AND LAND USE PLANNING CONSIDERATIONS

1. Location

Half Moon Bay Airport is situated on the San Mateo County coast, between California Highway 1 and the Pacific Ocean. The airport is located approximately four miles north of the City of Half Moon Bay, in the vicinity of the unincorporated areas of Montara, Moss Beach, El Granada, and Princeton-by-the-Sea (see Map HMB-2 on page III.-4). El Granada, Moss Beach, and Montara are primarily residential areas. Princeton-by-the-Sea is comprised of mostly commercial and light industrial uses. The James V. Fitzgerald Marine Reserve is located along the Pacific Ocean coastline, due west of the airport (see Map HMB-3 on page III.-5)

2. County of San Mateo Planning and Zoning Provisions

The County of San Mateo has adopted General Plan policies and Zoning Regulations to address airport noise, safety, and height issues related to aircraft operations at Hal Moon Bay Airport. Each of these provisions is described elsewhere in this Chapter.



HALF MOON BAY AIRPORT

Half Moon Bay Airport Vicinity Map

Map HMB-2
III. - 4

Exhibit 1A
VICINITY MAP

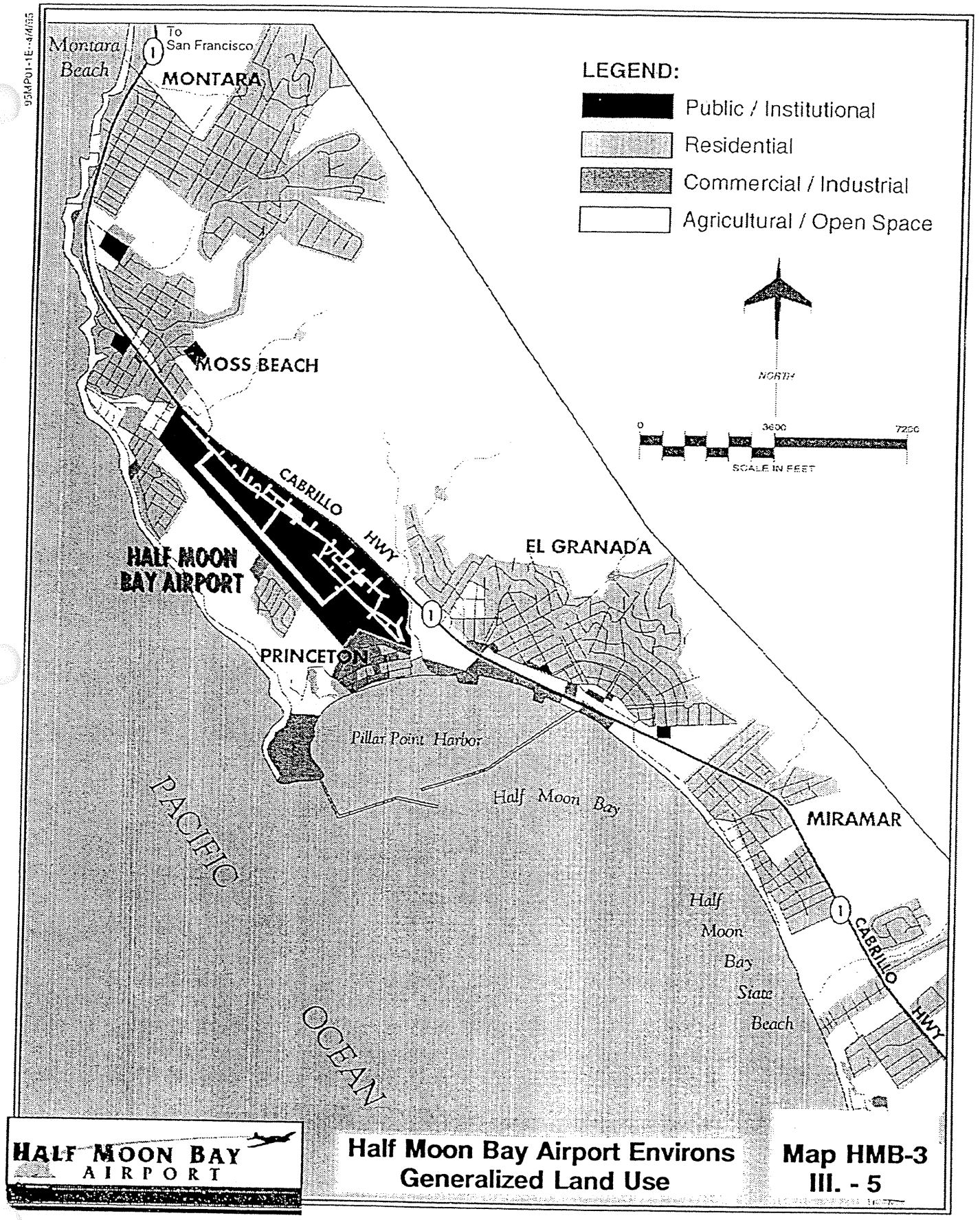
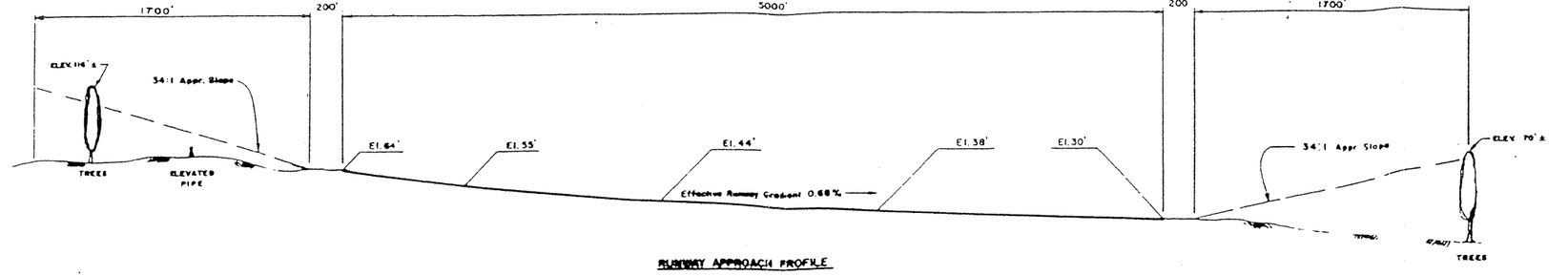


Exhibit 1E
GENERALIZED EXISTING
LAND USE

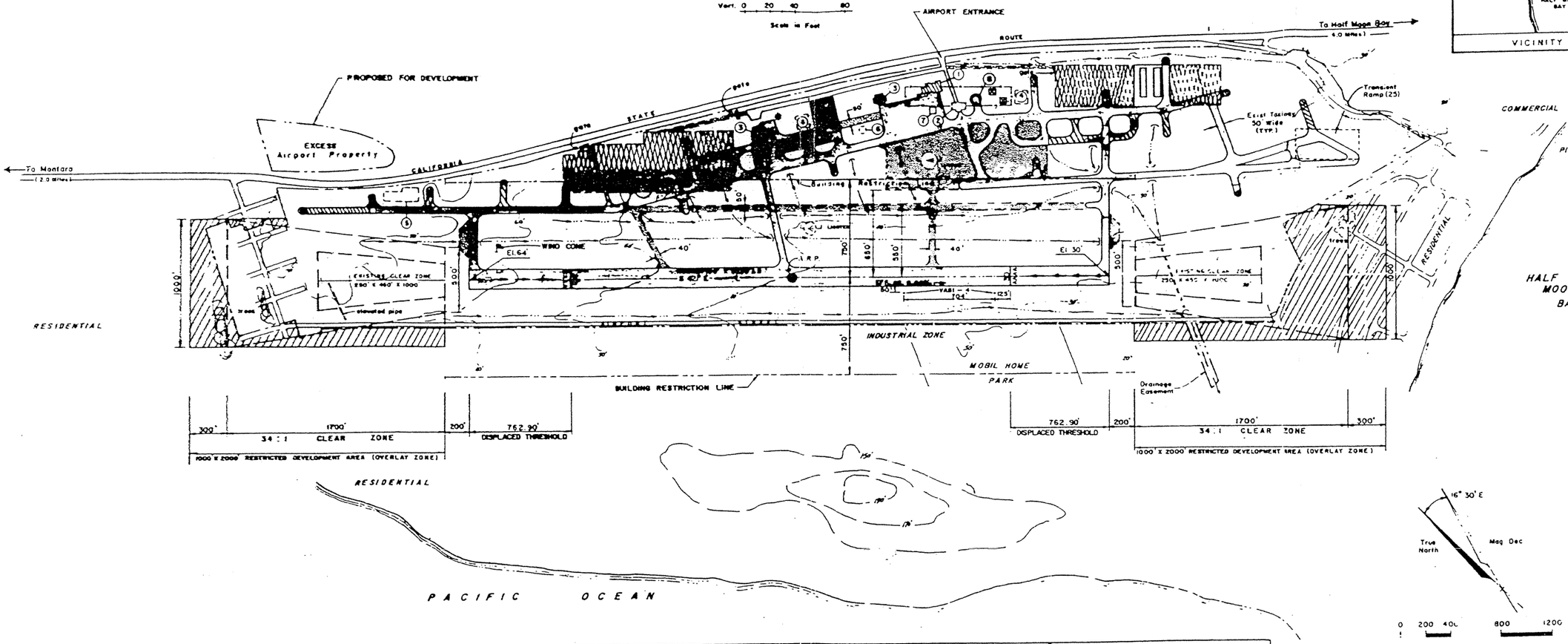


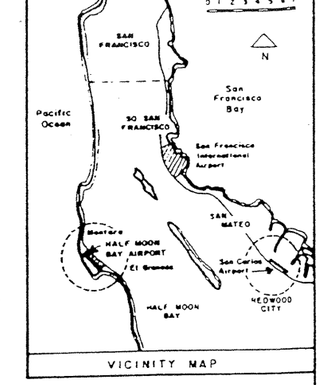
RUNWAY APPROACH PROFILE

Horiz. 0 200 400 800

Vert. 0 20 40 80

Scale in Feet





VICINITY MAP

RUNWAY DATA

	RUNWAY 12-30	
	EXISTING	FUTURE
PHYSICAL LENGTH	5000'	SAME
EFFECTIVE RUNWAY GRADIENT (%)	0.68	SAME
% WIND COVERAGE (Data Not Avail. This Site)	UNK	—
OBSTRUCTIONS: 1600' FROM END R/W 12	TREES	—
PAVEMENT STRENGTH (GROSS SW)	12,500 LBS	SAME
APPROACH RATIO: R/W 12—30	34:1	SAME
LIGHTING	MIRL	SAME
MARKING	BASIC	SAME
NAVIGATIONAL AIDS: VASI & REIL	R/W 30	SAME
OPERATIONAL ROLE	UTILITY	SAME

AIRPORT DATA

		EXISTING	FUTURE
COORDINATES OF AIRPORT REFERENCE POINT (A.R.P.)	LAT.	37° 30' 49"	SAME
	LONG.	122° 30' 00"	SAME
NORMAL MAX. TEMP. OF HOTTEST MONTH		67° EST	SAME
TERMINAL NAVIGATIONAL AIDS		NONE	TOWER
CRITICAL AIRCRAFT		KING AIR	SAME
STAGE LENGTH OF CRITICAL AIRCRAFT		1250 nm	SAME
FUNCTIONAL ROLE (NASP)		S3	S2
AIRPORT ELEVATION (Mean Sea Level)		64'	SAME
TEE HANGARS		60	230
BASED AIRCRAFT		84	340

LEGEND

	EXISTING	FUTURE
AIRPORT PROPERTY LINE		
TOWER (S) — 80' (I), 100' (I)		
FENCE (Detail shown on Service Area Plan)		
FACILITIES, RUNWAY, APRON, BLDGS., ETC.		
DRAINAGE DITCHS		
GROUND CONTOURS (Detail shown on Topo. Map)		
AIRPORT REFERENCE POINT (A.R.P.)		
ROTATING BEACON		
FACILITIES TO BE REMOVED OR ABANDONED		
BUILDINGS		
FUTURE T-HANGAR AREAS		
RESTRICTED DEVELOPMENT AREA		
PROPOSED PAVEMENT		
EXISTING PAVEMENT		

BUILDINGS

NO.	STRUCTURE
1	TERMINAL BLDG. (EXIST.)
2	FUTURE TERMINAL BLDG.
3	FIXED BASE OPERATORS (EXIST)
4	FIXED BASE OPERATORS (FUTURE)
5	FUTURE FUEL FARM
6	FUTURE TOWER SITE
7	FUEL ISLAND (EXIST)
8	FUTURE CRASH, FIRE AND RESCUE

Map HMB-1
III. - 3

APPROVED
DATE: 4-22-91
R. L. Sans
R.L. SANS
DIRECTOR OF PUBLIC WORKS

APPROVED
DATE: 4/22/91
Ken DeForest
KEN DeFOREST
AIRPORTS - MANAGER

DATE
DRAWN
CHECKED D.L.L.
REVISED APRIL 22, 1991
FILE NO.

COUNTY OF SAN MATEO
DEPARTMENT OF PUBLIC WORKS
805 VETERANS BOULEVARD, SUITE 301, REDWOOD CITY, CA. 94063 TEL. (415) 363-4100

APPROVED
FEDERAL AVIATION ADMINISTRATION
AIRPORT DISTRICT OFFICE, SAN FRANCISCO, CALIFORNIA
BY: _____ TITLE: _____ DATE: _____

SAN MATEO COUNTY AIRPORTS
LAYOUT PLAN
HALF MOON BAY AIRPORT
HALF MOON BAY, CALIFORNIA

3. Montara-Moss Beach-El Granada Community Plan

In 1978, the County Planning Commission and the Board of Supervisors approved the Montara-Moss Beach-El Granada Community Plan. Half Moon Bay Airport is identified as a community facility in the Plan. The Community Plan emphasizes the preservation of the residential character of the Plan area. It also includes a section that recognizes and discusses land use conflicts that exist between Half Moon Bay Airport and surrounding residential development. In 1980, the Montara-Moss Beach-El Granada Community Plan was incorporated into the adopted San Mateo County Local Coastal Program (LCP) (see LCP Policy 1.5).

4. The California Coastal Zone and the 1980 San Mateo County Local Coastal Program (LCP), as amended

The California Coastal Act was adopted by the State Legislature in 1976 and became effective on January 1, 1977. The Act established the California Coastal Zone to preserve and protect coastal resources. In San Mateo County, the Coastal Zone stretches for approximately 55 miles along the coast from San Francisco County to the Santa Cruz County line. It includes approximately 88,000 acres of land area. The Half Moon Bay Airport is located within the Coastal Zone boundary (see Map HMB-4 on page III.-8).

The Coastal Act required the County of San Mateo to prepare a Local Coastal Program (LCP) to guide existing and future development in the Coastal Zone. The County adopted an LCP in 1980. Future development of the Half Moon Bay Airport will be subject to relevant LCP policies.

E. AIRPORT/AIRCRAFT NOISE REDUCTION

As noted in the previous section, Half Moon Bay Airport is located in a noise sensitive area that consists of predominately residential land uses. Therefore, airport noise impacts are of concern to the County of San Mateo, both as the airport proprietor and as the local land use and zoning authority. Such impacts are also of concern to residents who live in the airport environs.

To address airport noise/land use compatibility issues in the Half Moon Bay Airport environs area, the county has adopted both general plan and zoning provisions related to airport/aircraft noise issues. In addition, the county has implemented noise abatement procedures at Half Moon Bay Airport to further reduce aircraft noise impacts in the surrounding noise sensitive areas. This Half Moon Bay Airport Land Use Plan also contains aircraft noise contours and aircraft noise/land use compatibility criteria to address airport/aircraft noise reduction. Each of these elements is described in the following sections.

1. 1986 County of San Mateo General Plan, as amended, Chapter 16 Man-Made Hazards

This chapter of the County General Plan addresses noise issues related to a variety of sources, including aircraft. The text provides a comprehensive discussion of noise issues and contains numerous policies to specifically address aircraft noise impacts. General Plan Policy 16.27 directly relates to airport/land use compatibility at Half Moon Bay Airport and to the on-going efforts of the Airport Land Use Commission (C/CAG) to achieve such compatibility. General Plan Policy 16.27 is stated as follows:

"16.27 Airport Land Use Commission (ALUC) Noise Planning Efforts

> Encourage and support the Airport Land Use Commission to continue existing efforts toward promoting noise compatible development surrounding the County's airports."

A copy of the airport noise and safety related policies contained in Chapter 16 Man-Made Hazards is included in Appendix H.

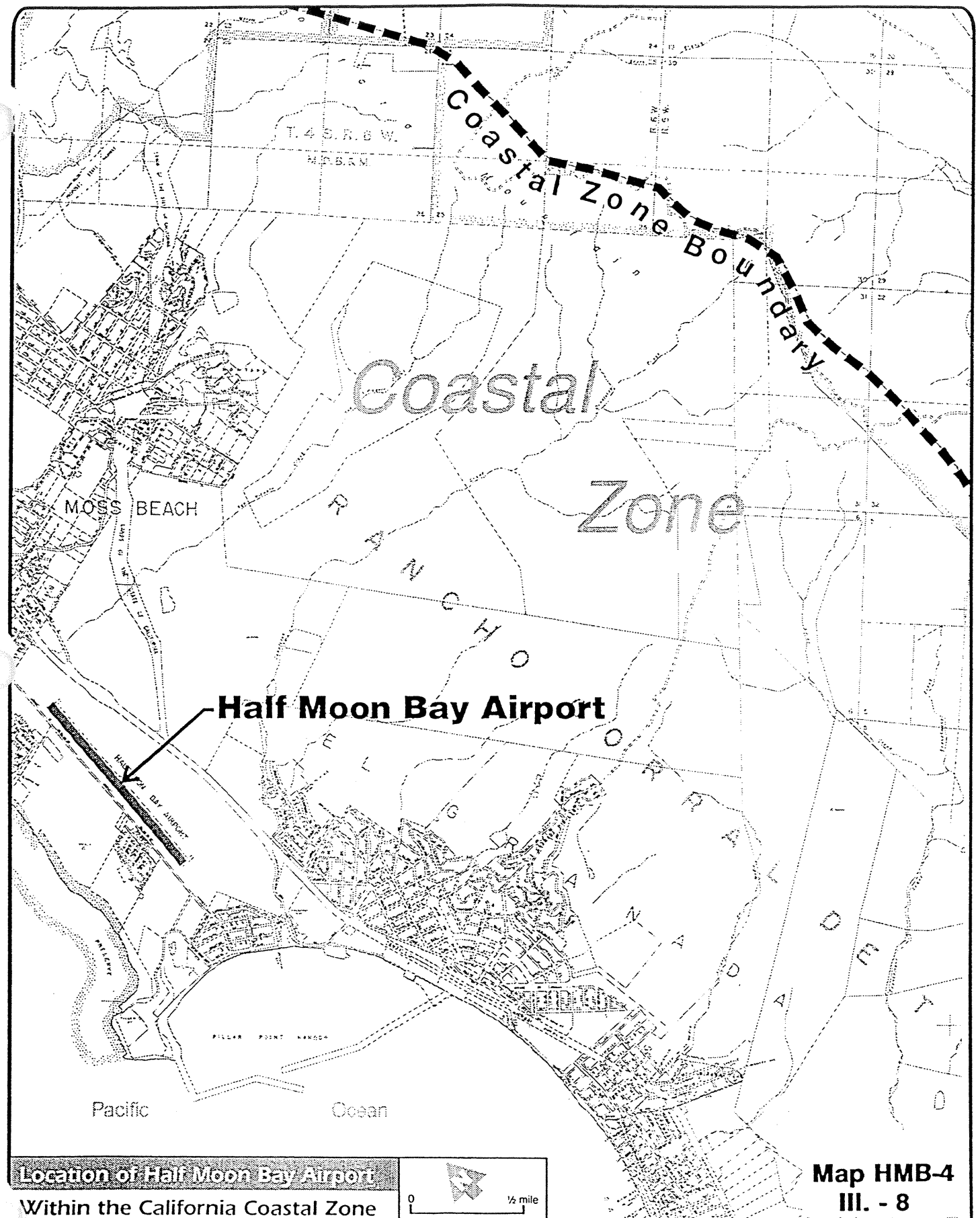
2. 1994 County of San Mateo Zoning Regulations, as amended

a. Chapter 18.6. Airport Overlay (A-O) District

The Airport Overlay (A-O) District was adopted by the County Board of Supervisors in July 1980 and amended in March 1991. The A-O District includes noise insulation requirements to mitigate aircraft noise impacts from aircraft operating at Half Moon Bay Airport. These requirements are stated as follows:

"SECTION 6288.5 NOISE INSULATION REQUIREMENTS All new development shall be subject to the following requirements:

> a. Submit an acoustical analysis, prepared by a qualified acoustical consultant, demonstrating that the new construction has been designed to comply with the following standard:
>
> > Interior community noise levels (CNEL) with windows closed, attributable to exterior sources shall not exceed an annual CNEL of 55 dB.
>
> b. Construct buildings in accordance with the recommendations of the acoustical analysis."



Location of Half Moon Bay Airport
Within the California Coastal Zone

Map HMB-4
III. - 8

San Mateo County Comprehensive Airport Land Use Plan
San Mateo County Airport Land Use Commission • December 1995

Half Moon Bay Airport Land Use Plan

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Table III. - 2

SAN MATEO COUNTY COMPREHENSIVE AIRPORT LAND USE PLAN
HALF MOON BAY AIRPORT
AIRCRAFT NOISE/LAND USE COMPATIBILITY CRITERIA

LAND USE CATEGORY	COMPATIBILITY WITH				
	Less Than 55 CNEL	55-60 CNEL	60-65 CNEL	65-70 CNEL	Greater Than 70 CNEL
RESIDENTIAL					
Single-Family Detached	Yes[1]	Yes[2,3,4]	No[5]	No[5]	No[5]
Two-Family Dwelling	Yes[1]	Yes[2,3,4]	No[5]	No[5]	No[5]
Multi-Family Dwelling (3 + Families)	Yes[1]	Yes[2,3,4]	No[5]	No[5]	No[5]
Group Quarters and Rooming Houses	Yes[1]	Yes[2,3,4]	No[5]	No[5]	No[5]
Mobile Homes and Mobile Home Parks	Yes[1]	Yes[2,3,4]	No[5]	No[5]	No[5]
COMMERCIAL					
Wholesale Trade Facilities/Activities	Yes	Yes	Yes	Yes[2]	Yes[2]
Retail Trade Establishments	Yes	Yes	Yes	Yes[2]	Yes[2]
Eating and Drinking Establishments	Yes	Yes	Yes	Yes[2]	Yes[2]
Neighborhood/Community/Regional Shopping Centers	Yes	Yes	Yes	Yes[2]	Yes[2]
Miscellaneous Commercial	Yes	Yes	Yes	Yes[2]	Yes[2]
BUSINESS AND PROFESSIONAL SERVICES					
Professional Offices	Yes	Yes	Yes	Yes[2]	Yes[2]
Banks, Credit Unions, Financial Institutions	Yes	Yes	Yes	Yes[2]	Yes[2]
Hotels, Motels, Inns, Bed and Breakfast	Yes	Yes[2,3]	Yes[2,3]	Yes[2,3]	Yes[2]
Business and Vocation Schools	Yes	Yes[2]	Yes[2]	Yes[2]	Yes[2]
Automobile Repair	Yes	Yes	Yes	Yes	Yes[2]
Miscellaneous Personal Services	Yes	Yes	Yes	Yes	Yes[2]

Table III. 2, continued

SAN MATEO COUNTY COMPREHENSIVE AIRPORT LAND USE PLAN
HALF MOON BAY AIRPORT
AIRCRAFT NOISE/LAND USE COMPATIBILITY CRITERIA

LAND USE CATEGORY	COMPATIBILITY WITH				
	Less Than 55 CNEL	55-60 CNEL	60-65 CNEL	65-70 CNEL	Greater Than 70 CNEL
PUBLIC AND QUASI PUBLIC SERVICES					
Government Offices	Yes	Yes	Yes	Yes[2]	Yes[2]
Schools, Colleges and Universities	Yes	Yes	Yes	Yes[2,3]	Yes[2,3]
Hospitals, Nursing Care Facilities, Medical Offices	Yes	Yes	Yes	Yes[2,3]	Yes[2,3]
Libraries	Yes	Yes	Yes	Yes[2,3]	Yes[2,3]
Churches	Yes	Yes	Yes	Yes[2,3]	Yes[2,3]
Cemeteries	Yes	Yes	Yes	Yes	Yes
Jails and Detention Facilities	Yes	Yes	Yes	Yes	Yes
Child Care Facilities	Yes	Yes	Yes	Yes[2,3]	Yes[2,3]
RECREATION					
Public Parks/Open Space/Camping Facilities	Yes	Yes	Yes	Yes	Yes
Golf Courses	Yes	Yes	Yes	Yes	Yes
Motion Picture Theater (Single or Complex)	Yes	Yes	Yes	Yes[2]	Yes[2]
Auditoriums, Concert Halls, Amphitheaters	Yes	Yes	Yes	Yes[2]	Yes[2]
Stadiums, Arenas, Outdoor Sports Facilities	Yes	Yes	Yes	Yes	Yes
INDUSTRIAL					
Manufacturing	Yes	Yes	Yes	Yes	Yes
Transportation	Yes	Yes	Yes	Yes	Yes
Communications	Yes	Yes	Yes	Yes	Yes
Utilities	Yes	Yes	Yes	Yes	Yes

Table III. - 2, continued

SAN MATEO COUNTY COMPREHENSIVE AIRPORT LAND USE PLAN
HALF MOON BAY AIRPORT
AIRCRAFT NOISE/LAND USE COMPATIBILITY CRITERIA

LAND USE CATEGORY	COMPATIBILITY WITH				
	Less Than 55 CNEL	55-60 CNEL	60-65 CNEL	65-70 CNEL	Greater Than 70 CNEL
AGRICULTURE AND MINING					
Crop Production	Yes	Yes	Yes	Yes	Yes
Livestock - Pasture and Grazing	Yes	Yes	Yes	Yes	Yes
Mining and Quarrying	Yes	Yes	Yes	Yes	Yes
Oil and Gas Extraction	Yes	Yes	Yes	Yes	Yes

FOOTNOTES:

1. No special noise insulation or acoustic attenuation is required; however, the proposed development may be subject to aircraft noise and/or overflight.

2. An acoustic study should be prepared to identify aircraft noise impacts and recommended noise attenuation measures. Local agency approval of the proposed action should require the identified noise attenuation measures to achieve an interior noise level of 45 dB CNEL with all windows closed.

3. If the proposed action is located within the County of San Mateo Airport Overlay Zone (A-O), all new development should be subject to the noise insulation requirements of Chapter 18.6, Section 6288.5 of the County of San Mateo Zoning Regulations, as amended.

4. If the proposed action is located within the County of San Mateo S-17 Combining District, all new development should be subject to the provisions of Chapter 20, Section 6300.2.7 of the County of San Mateo Zoning Regulations, as amended.

5. New construction or development should not be approved.

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NOTE: Airport/land use compatibility is determined by comparing a proposed land use policy action with the aircraft noise/land use compatibility criteria, the relevant FAR Part 77 height restrictions, and safety criteria contained in this Plan. A proposed land use policy action must be compatible with each of these elements for the Airport Land Use Commission (C/CAG) to determine that the proposed action is consistent with the relevant policies, standards, and criteria contained in the Comprehensive Airport Land Use Plan (CLUP).

F. SAFETY CRITERIA

Areas around airports are continually exposed to the possibility of aircraft accidents, even with well-maintained aircraft and highly trained pilots. Despite stringent maintenance requirements and countless hours of training, history makes it clear that aircraft accidents will occur.

The risk of people on the ground being killed or injured by a falling plane is small; however, an aircraft crash is a high consequence event. When a crash does occur, the result is often catastrophic. Because of this, most attempts to establish safety criteria to protect persons on the ground have not estimated accident probabilities. They have, instead, approached safety criteria by determining compatible land uses, assuming a crash would occur. The safety criteria in this Plan are based on that approach.

To address safety compatibility issues related to aircraft operations at Half Moon Bay Airport, the County of San Mateo has adopted both general plan and zoning provisions related to safety and land use compatibility. These provisions are further explained below.

1. 1986 County of San Mateo General Plan, as amended - Chapter 16 Man-Made Hazards

This chapter of the County General Plan contains a discussion on safety related to aircraft operations. The text explains Airport Land Use Commission (C/CAG) and FAA policies regarding approach zones, clear zones (now called Runway Protection Zones (RPZs) by the FAA), and approach surfaces at both Half Moon Bay Airport and San Carlos Airport.

In addition to the text discussion on aircraft-related safety, the General Plan contains 12 policies that address safety issues related to aircraft operations at Half Moon Bay Airport. Three of those policies (16.41, 16.42, and 16.43) address the regulation of land development in at each end of Runway 12-30. The General Plan also contains two additional policies (16.44 and 16.45) that specify the role of the county, regarding aircraft-related safety and land use protection. A copy of the airport noise and safety-related policies contained in Chapter 16 Man-Made Hazards is included in Appendix H.

2. 1994 County of San Mateo Zoning Regulations, as amended - Chapter 18.6 Airport Overlay (A-O) District

As indicated in Section E.2. of this Plan, the Airport Overlay (A-O) District was adopted by the County Board of Supervisors in July 1980 and amended in March 1991. The A-O District applies to properties near both ends of Runway 12-30 at Half Moon Bay Airport. In addition to noise insulation requirements, the A-O District includes specific aircraft-related safety regulations. These regulations are stated below.

> "SECTION 6288.1. INTENT. The intent of the Airport Overlay (A-O) District is to provide a margin of safety at the ends of airport runways by limiting the concentration of people where hazards from aircraft are considered to be greatest."
>
> "SECTION 6288.2. USES PERMITTED. All uses permitted by the underlying district shall be permitted in the A-O District except residential or uses with more than three (3) persons occupying the site at any one time. Permitted uses shall be subject to a use permit."

The configuration of the A-O District at each end of Runway 12-30 is shown on Map HMB-5 on page III.-9 and Map HMB-6 on page III.-10. The complete text of Chapter 18.6 Airport Overlay (A-O) District is shown in Appendix I.

3. Airport Safety Zones

Airport safety zones are used as airport/land use compatibility tools to help minimize the number of people exposed to potential aircraft accidents. This is accomplished by placing restrictions on land uses in safety zone areas (see Section 4.) This Plan designates three airport safety zones for Half Moon Bay Airport : (1) the Runway Protection Zone (RPZ) (formerly identified by the FAA as the Clear Zone), (2) the Approach Protection Zone (APZ), and (3) the Traffic Overflight Zone (TOZ).

The Runway Protection Zone (RPZ) begins 200 feet from the end of Runway 12-30 and is the most restrictive, in terms of safety compatibility criteria. The Approach Protection Zone (APZ) is located under the FAR Part 77 Approach Surface (see Section F) and is less restrictive. The Traffic Overflight Zone (TOZ) is a large area under the airport traffic pattern and is even less restrictive. The configuration of the TOZ coincides with the boundary of the Horizontal Surface for Half Moon Bay Airport, as defined in FAR Part 77 (see Section F.). The airport safety zones for Half Moon Bay Airport are shown on Map HMB-8, Map HMB-9, and Map HMB-10 on pages III.-25, III.-26, and III.-27.

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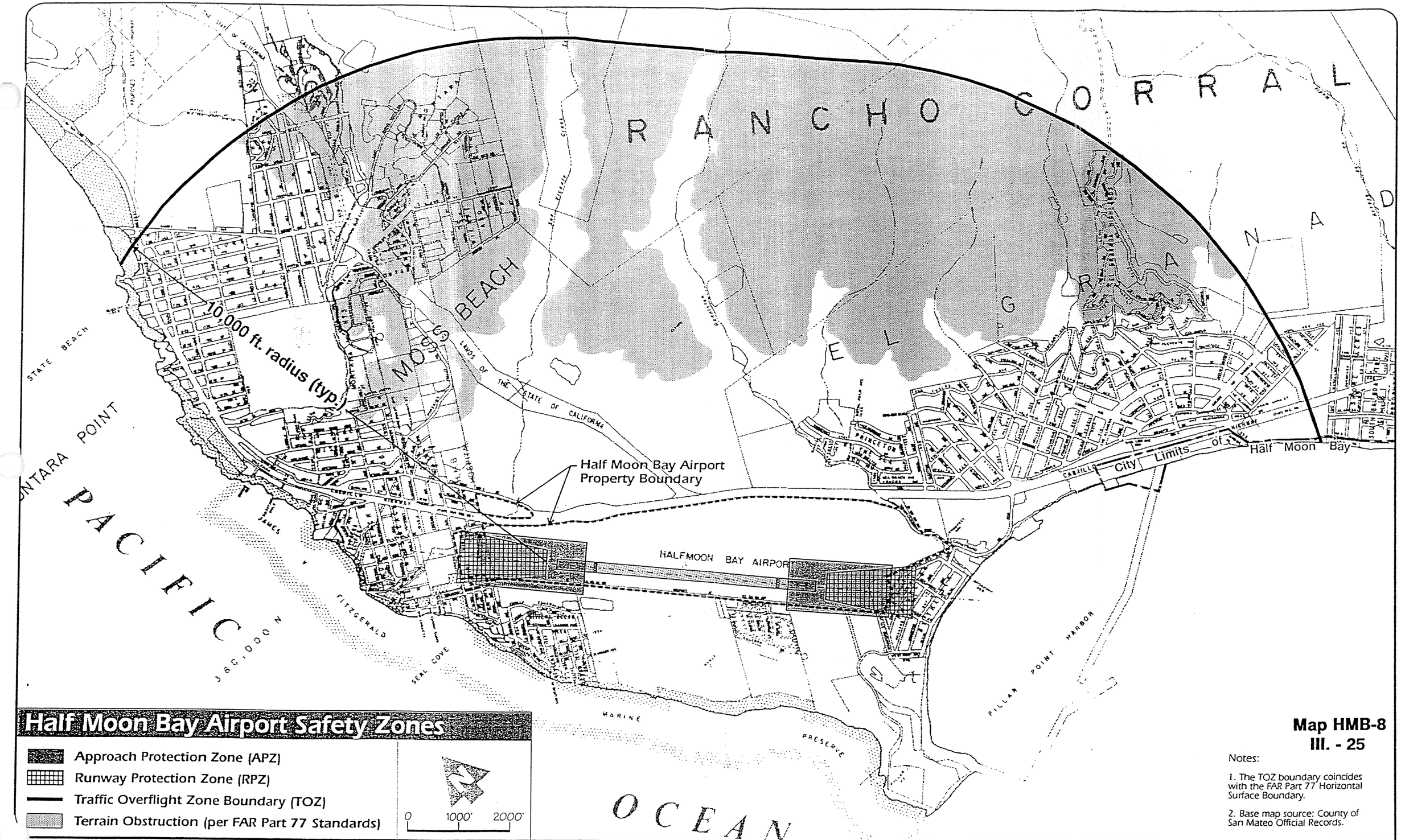

Map HMB-8
III. - 25

Notes:

1. The TOZ boundary coincides with the FAR Part 77 Horizontal Surface Boundary.

2. Base map source: County of San Mateo Official Records.

San Mateo County Comprehensive Airport Land Use Plan
San Mateo County Airport Land Use Commission · December 1995

Half Moon Bay Airport Land Use Plan

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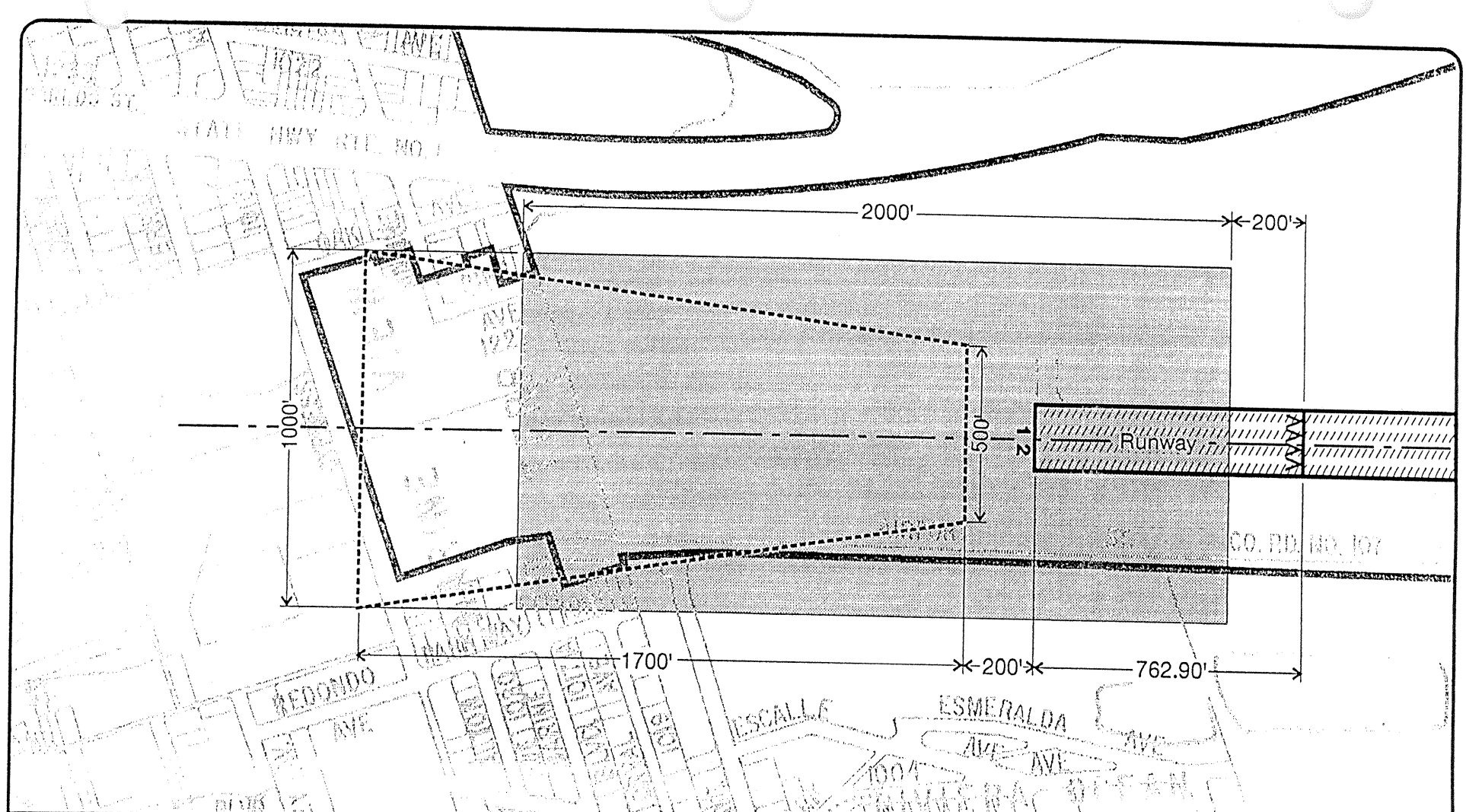

Half Moon Bay Airport Safety Zones

Northern Approach - Runway 12

- Half Moon Bay Airport Property Boundary
- Approach Protection Zone (APZ)
- Runway Protection Zone (RPZ)
- Displaced Runway Threshold

0 400'

Map HMB-9
III. - 26

Base Map Source: San Mateo County Official Records

San Mateo County Comprehensive Airport Land Use Plan
San Mateo County • Airport Land Use Commission • December 1995

Half Moon Bay Airport Land Use Plan

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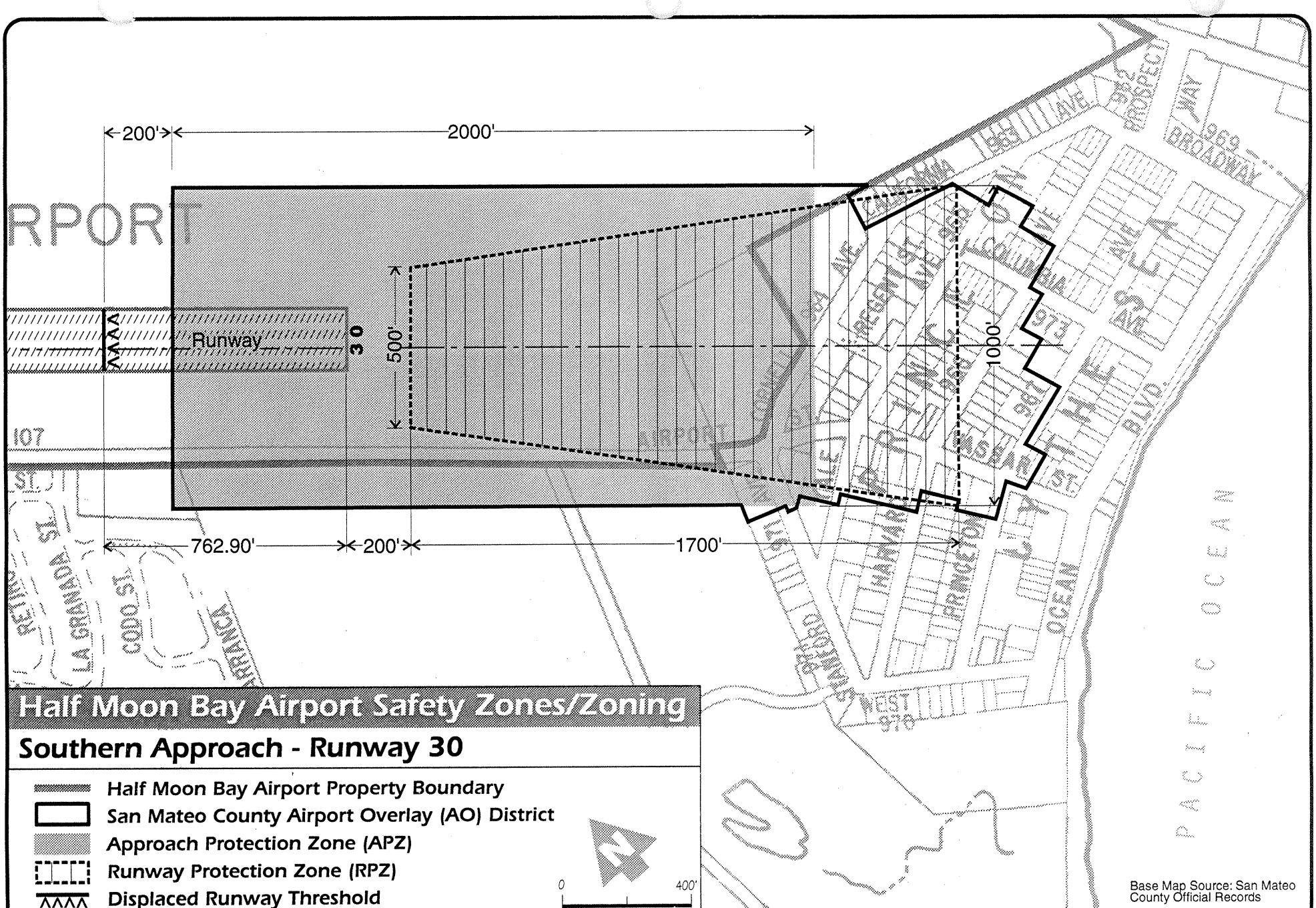

San Mateo County Comprehensive Airport Land Use Plan
San Mateo County · Airport Land Use Commission · December 1995

Half Moon Bay Airport Land Use Plan

MAP 9-2

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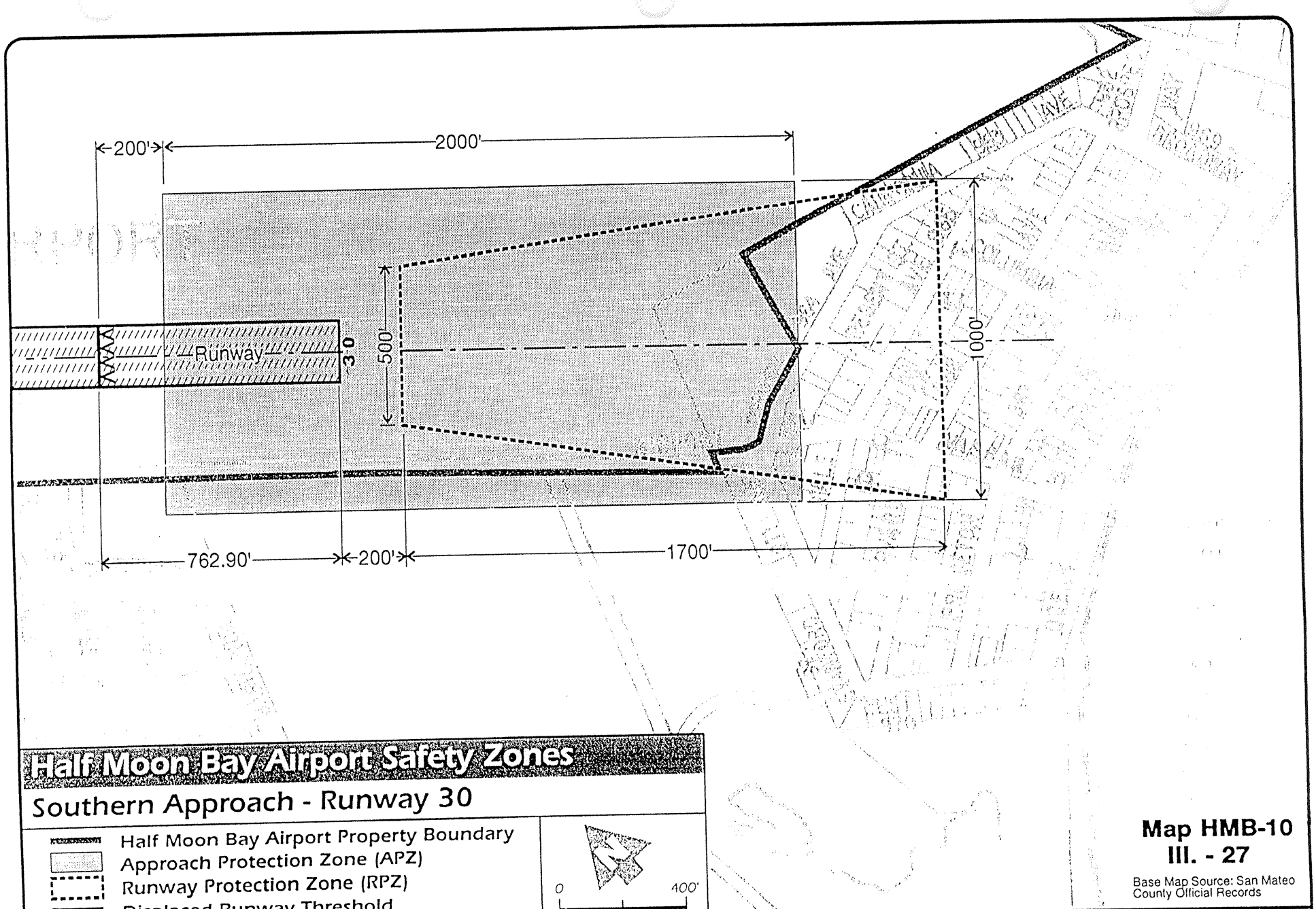

Half Moon Bay Airport Safety Zones

Southern Approach - Runway 30

- Half Moon Bay Airport Property Boundary
- Approach Protection Zone (APZ)
- Runway Protection Zone (RPZ)
- Displaced Runway Threshold

Map HMB-10
III. - 27

Base Map Source: San Mateo County Official Records

San Mateo County Comprehensive Airport Land Use Plan
San Mateo County • Airport Land Use Commission • December 1995

Half Moon Bay Airport Land Use Plan

CDR5\aluphmb1.cdr rev. de 11-30-95

It is the policy of the Airport Land Use Commission (C/CAG) to keep Approach Protection Zones (APZs) free of structures. Non-structural uses may be permitted in APZs if they do not cause a concentration of more than 10 people per net acre. Motor vehicle parking and open storage uses that generate up to 25 persons per net acre are also permitted.

4. Safety/Land Use Compatibility Criteria

Because aircraft accidents happen infrequently and the time, place, and consequence of their occurrence cannot be predicted, the concept of risk is central to the assessment of safety compatibility. From a land use planning perspective, two variables determine the degree of risk posed by potential aircraft accidents: (1) accident frequency - where and when do aircraft accidents occur and (2) accident severity - what land use characteristics contribute to the consequences of an accident.

The objective of safety compatibility criteria is to minimize the risks associated with potential aircraft accidents. The most fundamental safety compatibility component is to increase the safety of people and property on the ground in the event of an aircraft accident near an airport. Another important component is to enhance the chances of survival of the occupants of an aircraft involved in an accident.

The safety/land use compatibility criteria for the Half Moon Bay Airport environs area are shown in Table III.-3 on pages III.-29, III.-30, and III.-31. These criteria are designed to minimize the risks associated with potential aircraft accidents. The criteria indicate the compatibility of the specified land uses with the three safety zones that are designated in this Plan for Half Moon Bay Airport. The criteria are not intended to be a specific development plan, do not set forth specific land uses for any particular parcel(s), and are not retroactive with respect to existing land uses.

NOTE: Airport/land use compatibility is determined by comparing a proposed land use policy action with the Aircraft Noise/Land Use Compatibility Standards, the relevant FAR Part 77 height restrictions, and safety criteria contained in this Plan. A proposed land use policy action must be compatible with each of these elements for the Airport Land Use Commission (C/CAG) to determine that the proposed action is consistent with the relevant policies, standards, and/or criteria contained in the relevant Comprehensive Airport Land Use Plan (CLUP).

Table III. - 3

SAN MATEO COUNTY COMPREHENSIVE AIRPORT LAND USE PLAN
HALF MOON BAY AIRPORT
SAFETY/LAND USE COMPATIBILITY CRITERIA

LAND USE CATEGORY	COMPATIBILITY WITH		
	Runway Protection Zone (RPZ)	Approach Protection Zone (APZ)	Traffic Overnight Zone (TOZ)
RESIDENTIAL			
Single-Family Detached	No	No	Yes
Two-Family Dwelling	No	No	Yes
Multi-Family Dwelling (3 + Families)	No	No	Yes
Group Quarters and Rooming Houses	No	No	Yes
Mobile Homes and Mobile Home Parks	No	No	Yes
COMMERCIAL			
Wholesale Trade Facilities/Activities	No	No	Yes
Retail Trade Establishments	No	No	Yes
Eating and Drinking Establishments	No	No	Yes
Neighborhood/Community/Regional Shopping Centers	No	No	Yes
Miscellaneous Commercial	No	No	Yes
BUSINESS AND PROFESSIONAL SERVICES			
Professional Offices	No	No	Yes
Banks, Credit Unions, Financial Institutions	No	No	Yes
Hotels, Motels, Inns, Bed and Breakfast	No	No	Yes
Business and Vocation Schools	No	No	Yes
Automobile Repair	No	No	Yes
Miscellaneous Personal Services	No	No	Yes

Table III. - 3, continued

SAN MATEO COUNTY COMPREHENSIVE AIRPORT LAND USE PLAN
HALF MOON BAY AIRPORT
SAFETY/LAND USE COMPATIBILITY CRITERIA

LAND USE CATEGORY	COMPATIBILITY WITH		
	Runway Protection Zone (RPZ)	Approach Protection Zone (APZ)	Traffic Overnight Zone (TOZ)
PUBLIC AND QUASI PUBLIC SERVICES			
Government Offices	No	No	Yes
Schools, Colleges and Universities	No	No	Yes[4]
Hospitals, Nursing Care Facilities, Medical Offices	No	No	Yes
Libraries	No	No	Yes
Churches	No	No	Yes
Cemeteries	No	Yes[1,7]	Yes
Jails and Detention Facilities	No	No	Yes
Child Care Facilities	No	No	Yes
RECREATION			
Public Parks/Open Space/Camping Facilities	No	No	Yes
Golf Courses	No	Yes[2]	Yes
Motion Picture Theater (Single or Complex)	No	No	Yes
Auditoriums, Concert Halls, Amphitheaters	No	No	Yes
Stadiums, Arenas, Outdoor Sports Facilities	No	No	Yes
INDUSTRIAL			
Manufacturing	No	Yes[3,7]	Yes
Transportation	No	Yes	Yes
Communications	No	Yes	Yes[5]
Utilities	No	No	Yes

Table III. - 3, continued

SAN MATEO COUNTY COMPREHENSIVE AIRPORT LAND USE PLAN
HALF MOON BAY AIRPORT
SAFETY/LAND USE COMPATIBILITY CRITERIA

LAND USE CATEGORY	COMPATIBILITY WITH		
	Runway Protection Zone (RPZ)	Approach Protection Zone (APZ)	Traffic Overnight Zone (TOZ)
AGRICULTURE AND MINING			
Crop Production	Yes[6]	Yes[6]	Yes[6]
Livestock - Pasture and Grazing	No	Yes[6]	Yes[6]
Mining and Quarrying	No	No	Yes[6]
Oil and Gas Extraction	No	No	Yes

FOOTNOTES:

1. Chapels and/or funeral homes are not permitted.
2. Club houses, bars, restaurants, and/or banquet facilities are not permitted. Ancillary uses such as pro shops and snack bars are permitted. New course layouts and revisions to existing courses shall be submitted to the Airport Land Use Commission (C/CAG) for an evaluation of safety impacts.
3. Storage of bulk petroleum products or chemicals is not permitted.
4. School facilities are compatible only if the requirements of the California Education Code, Sections 39005.7, 81036, and 81038, as amended, are fulfilled.
5. Uses that would cause interference with aircraft communications and/or instrumentation are not permitted.
6. Compatible only if it does not result in a possibility that a water area may cause ground fog or result in bird hazard.
7. No uses resulting in a gathering of more than 10 persons per acre at any time.

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G. HEIGHT OF STRUCTURES, USE OF AIRSPACE, AND AIRSPACE COMPATIBILITY

The height of structures and the use of airspace are key safety elements related to airspace compatibility. There are three key objectives related to the preservation and maintenance of airspace compatibility, as follows:

* to avoid airspace impacts that may require significant changes in existing air traffic patterns

* to avoid airspace impacts that may result in a shifting of aircraft noise from one area to another

* to avoid the creation of land use conditions which, by posing hazards to aircraft in flight, can increase the risk of an accident occurring. These hazards include: airspace obstructions and land use characteristics, which pose other potential hazards to aircraft in flight, by attracting birds or creating visual and/or electronic interference with air navigation.

1. Federal Aviation Regulations (FAR) Part 77, "Objects Affecting Navigable Airspace", As Amended

The Airport Land Use Commission (C/CAG) has adopted the provisions in FAR Part 77, "Objects Affecting Navigable Airspace", as amended, to establish height restrictions and federal notification requirements for project sponsors, related to proposed development within the FAR Part 77 airspace boundaries for Half Moon Bay Airport. The FAR Part 77 regulations contain three key elements: (1.) they establish standards for determining obstructions in the navigable airspace and designate and define imaginary surfaces for airspace protection, (2.) they set forth the requirements for project sponsors to provide notice to the FAA Administrator of certain proposed construction of alterations that may adversely affect the airspace in the airport environs, and (3.) they initiate aeronautical studies conducted by FAA staff, to determine the potential effect of proposed construction or alterations on the safe and efficient use of the affected airspace.

a. Imaginary Surfaces

The Airport Land Use Commission (C/CAG) has adopted the provisions in FAR Part 77 for civil airport imaginary surfaces for airspace protection and to establish height restrictions for natural and man-made objects in the vicinity of Half Moon Bay Airport. These imaginary surfaces are described as follows:

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* Horizontal Surface: A horizontal plane 150 feet above the established airport elevation, the perimeter of which is constructed by scribing an arc 10,000 feet out from the center of each end of the primary surface and connecting the arcs with tangents.

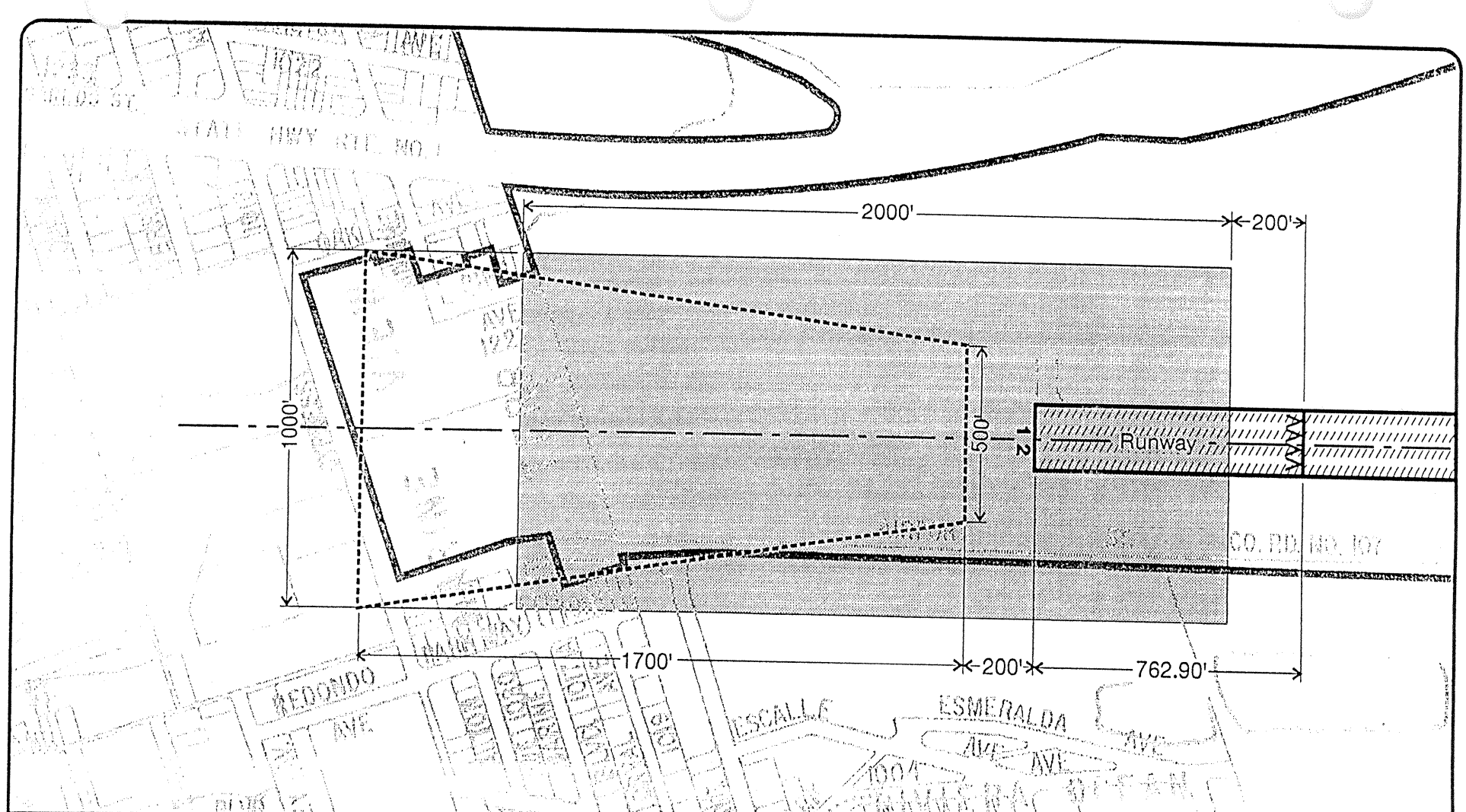
* Conical Surface: A surface extending outward and upward from the periphery of the horizontal surface at a slope of 20 to 1 for a horizontal distance of 4,000 feet.

* Approach Surface: A surface longitudinally centered on the extended runway centerline, extending outward and upward from each end of the primary surface at a slope of 34 to 1 for a length of 10,000 feet. The width of this surface starts the same as the Primary Surface, 250 feet, and flares to 1,250 feet at 5,000 feet.

* Transitional Surface: A surface extending outward and upward from the sides of the primary surface and from the sides of the approach surfaces at a slope of 7 to 1.

Where imaginary surfaces overlap, such as in the case where the Approach Surface penetrates and continues upward and outward from the Horizontal Surface, the lowest surface is used to determine if an object would be an obstruction to air navigation. Any proposed new construction or expansion of existing structures that would penetrate any of the FAR Part 77 imaginary surfaces for Half Moon Bay Airport, as adopted by the Airport Land Use Commission (C/CAG), is deemed to be an incompatible land use, unless either the FAA has determined that the proposed structure does not constitute a hazard to air navigation or the State Aeronautics Program has issued a permit to allow construction of the proposed structure.

A map that illustrates the configuration of the FAR Part 77 imaginary surfaces for Half Moon Bay Airport is shown on Map HMB-11 on page III.-34. An example of the FAR Part 77 imaginary surfaces at Half Moon Bay Airport, in an isometric view, is shown in Figure HMB-3 on page III.-35. A diagram of the runway approach profile for Runway 12-30 and the height restrictions at Half Moon Bay Airport, based on the configuration of the FAR Part 77 34:1 Approach Surface, is shown on Figure HMB-4 on page III.-36.



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0 400'

Map HMB-9
III. - 26

Base Map Source: San Mateo County Official Records

San Mateo County Comprehensive Airport Land Use Plan
San Mateo County • Airport Land Use Commission • December 1995

Half Moon Bay Airport Land Use Plan

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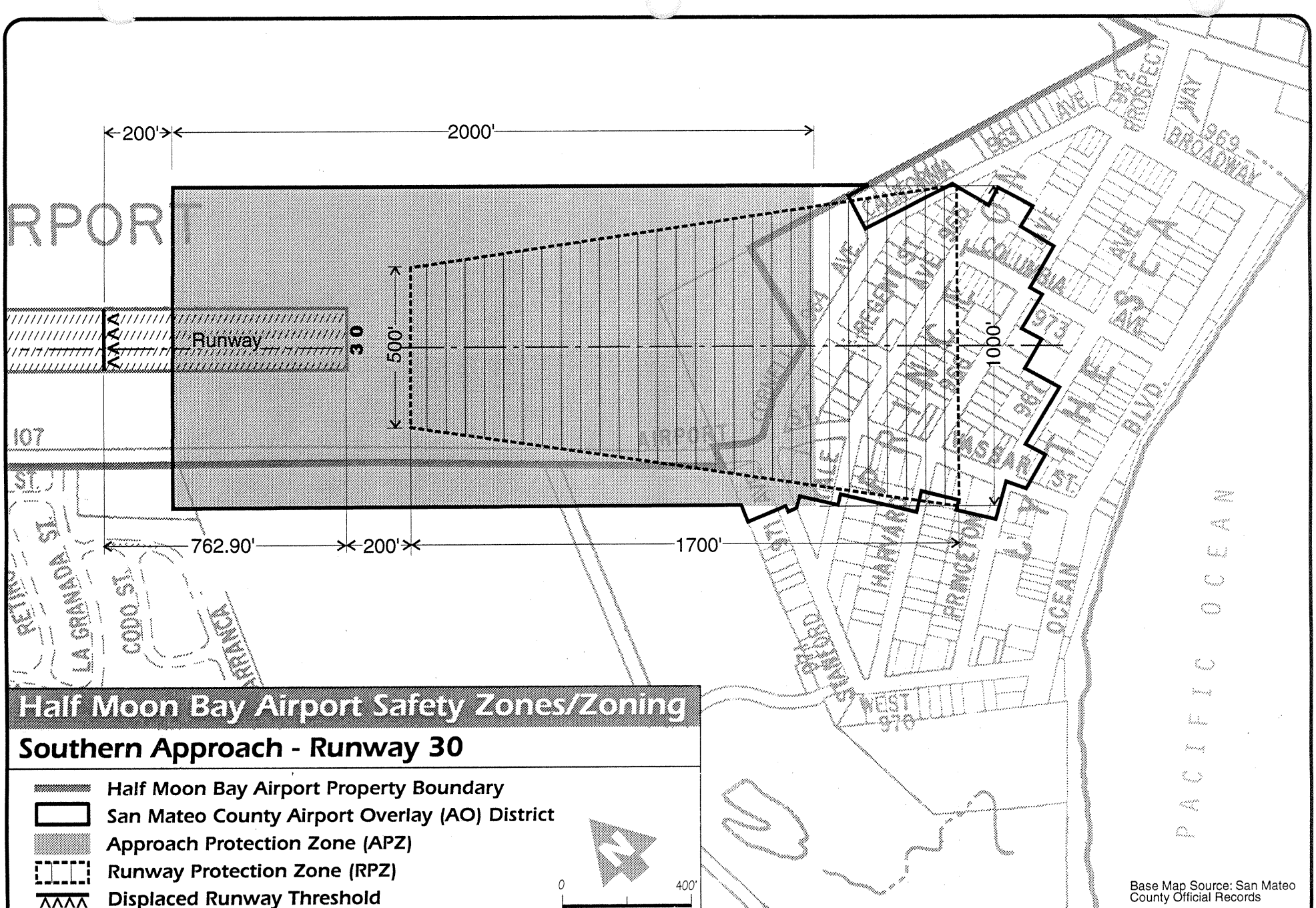

San Mateo County Comprehensive Airport Land Use Plan
San Mateo County · Airport Land Use Commission · December 1995

Half Moon Bay Airport Land Use Plan

MAP 9-2

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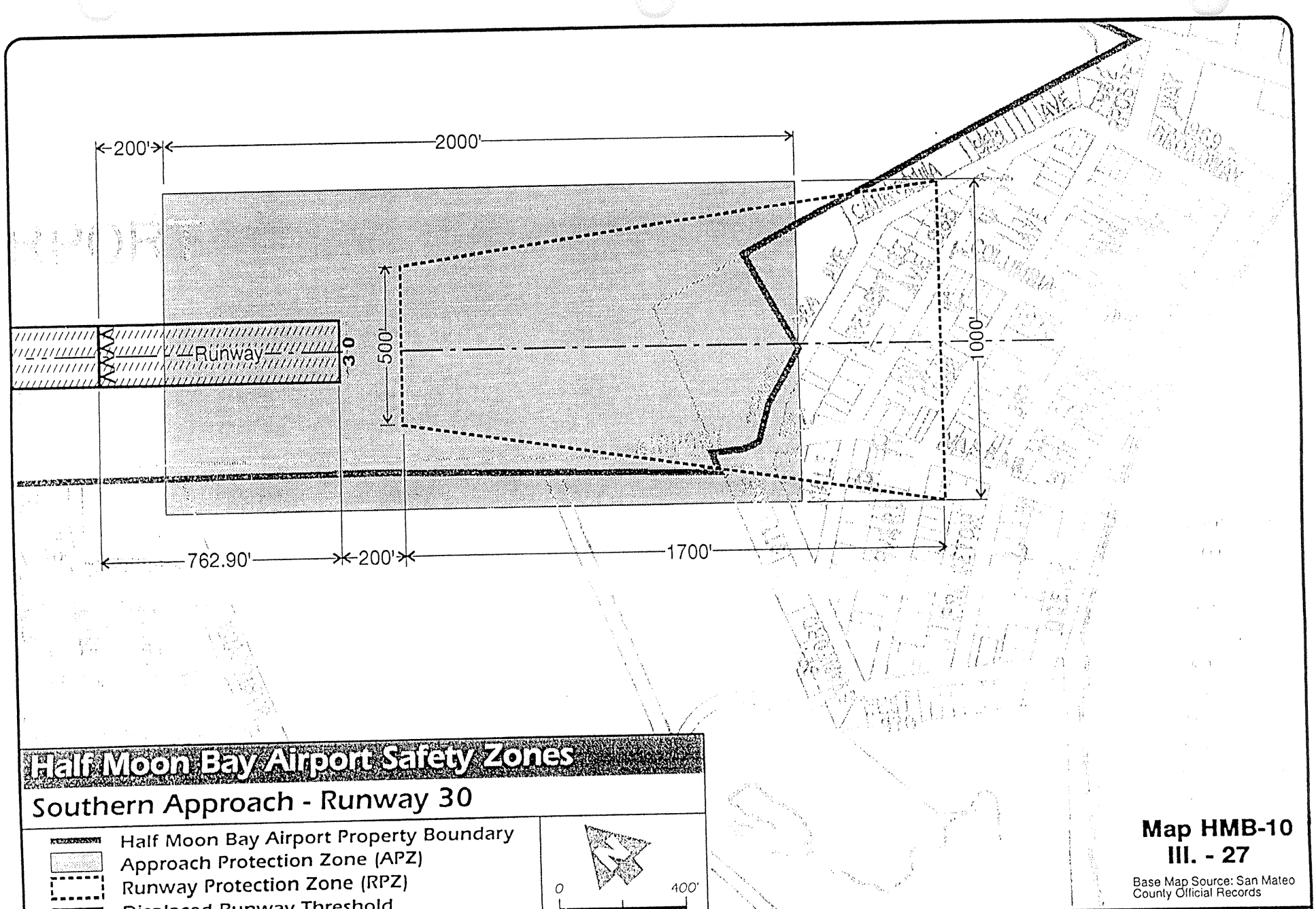

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Southern Approach - Runway 30

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- Approach Protection Zone (APZ)
- Runway Protection Zone (RPZ)
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Map HMB-10
III. - 27

Base Map Source: San Mateo County Official Records

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Half Moon Bay Airport Land Use Plan

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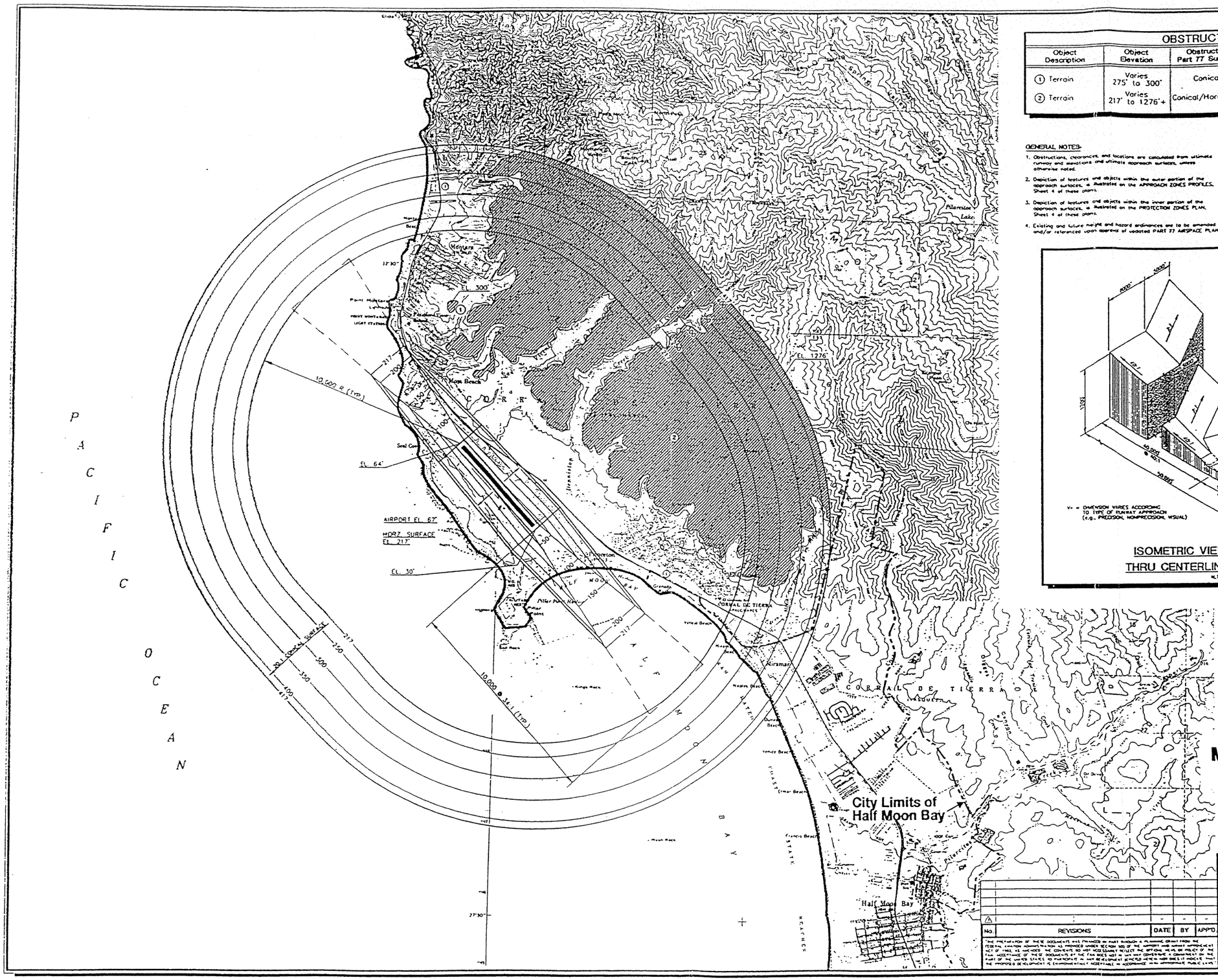


OBSTRUCTION TABLE

Object Description	Object Elevation	Obstructed Part 77 Surface	Surface Elevation	Object Penetration	Proposed Object Disposition
① Terrain	Varies 275' to 300'	Conical	217'	Varies	
② Terrain	Varies 217' to 1276'+	Conical/Horizontal	Varies	Varies	

GENERAL NOTES:

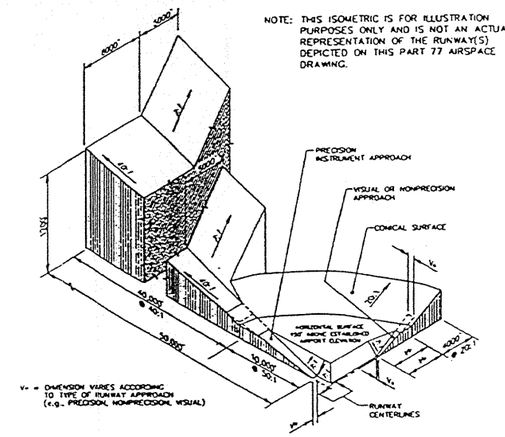
1. Obstructions, clearances, and locations are calculated from ultimate runway and elevations and ultimate approach surfaces, unless otherwise noted.
2. Depiction of features and objects within the outer portion of the approach surfaces, is illustrated on the APPROACH ZONES PROFILES, Sheet 4 of these plans.
3. Depiction of features and objects within the inner portion of the approach surfaces, is illustrated on the PROTECTION ZONES PLAN, Sheet 4 of these plans.
4. Existing and future height and hazard ordinances are to be amended and/or referenced upon approval of updated PART 77 AIRSPACE PLAN.

OBSTRUCTION LEGEND

EL. 1276' OBSTRUCTION HIGH POINT

① GROUP or MULTIPLE OBSTRUCTIONS

NOTE: THIS ISOMETRIC IS FOR ILLUSTRATION PURPOSES ONLY AND IS NOT AN ACTUAL REPRESENTATION OF THE RUNWAY(S) DEPICTED ON THIS PART 77 AIRSPACE DRAWING.



ISOMETRIC VIEW OF SECTION THRU CENTERLINE OF RUNWAYS

N.T.S.

Map HMB-11
III. - 34

MAGNETIC VARIANCE - 15°38'E (May 1995)
RATE OF CHANGE 0.8' WEST

0 2000 4000 6000
SCALE IN FEET

No.	REVISIONS	DATE	BY	APP'D

HALF MOON BAY AIRPORT

PART 77 AIRSPACE PLAN

SAN MATEO COUNTY, CALIFORNIA

PLANNED BY: Kathryn W. Hay/Scott T. Gray
DETAILED BY: W.G. Kirkland
APPROVED BY: Jeanette D. Coffman

June 16, 1995 | SHEET 3 of 6

Coffman Associates
Airport Consultants

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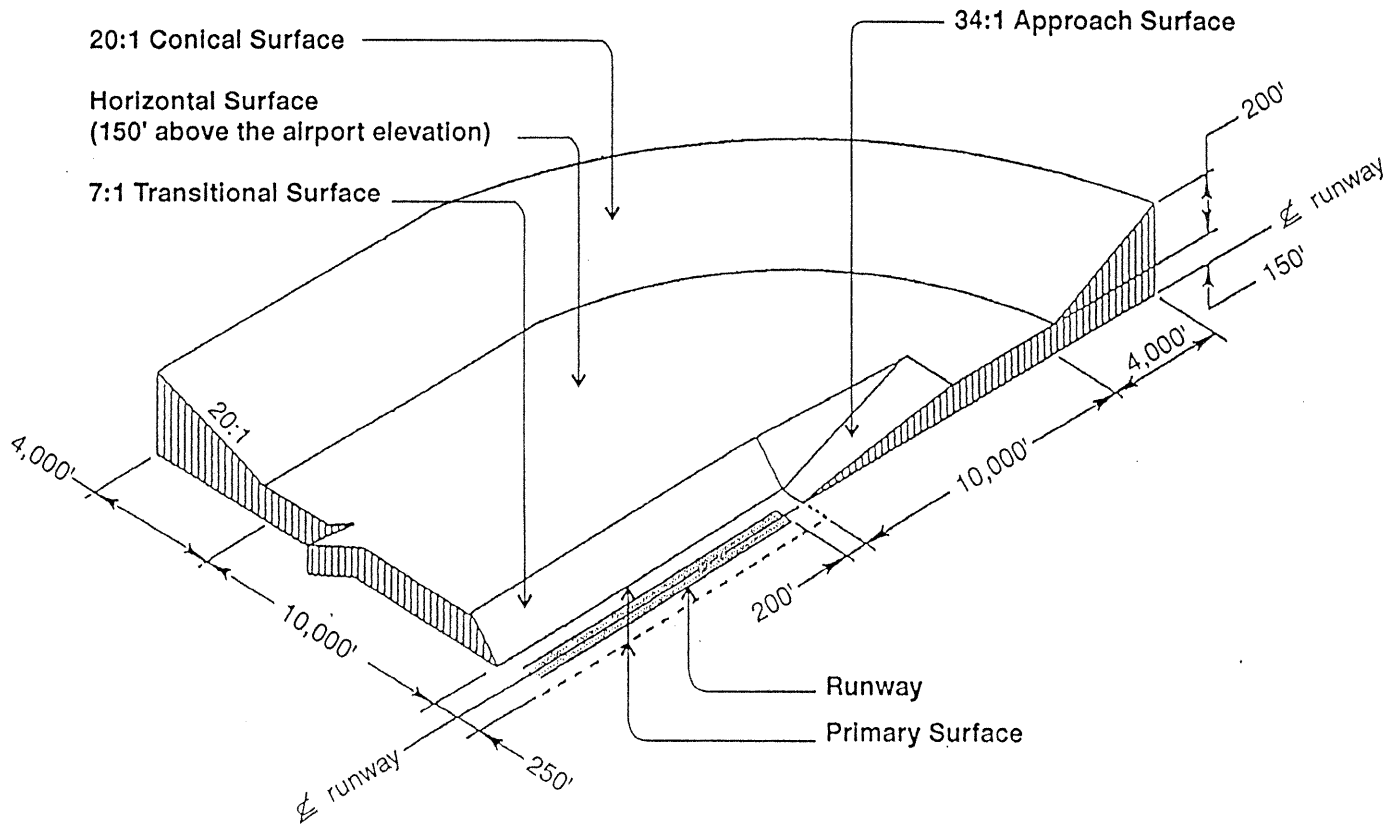
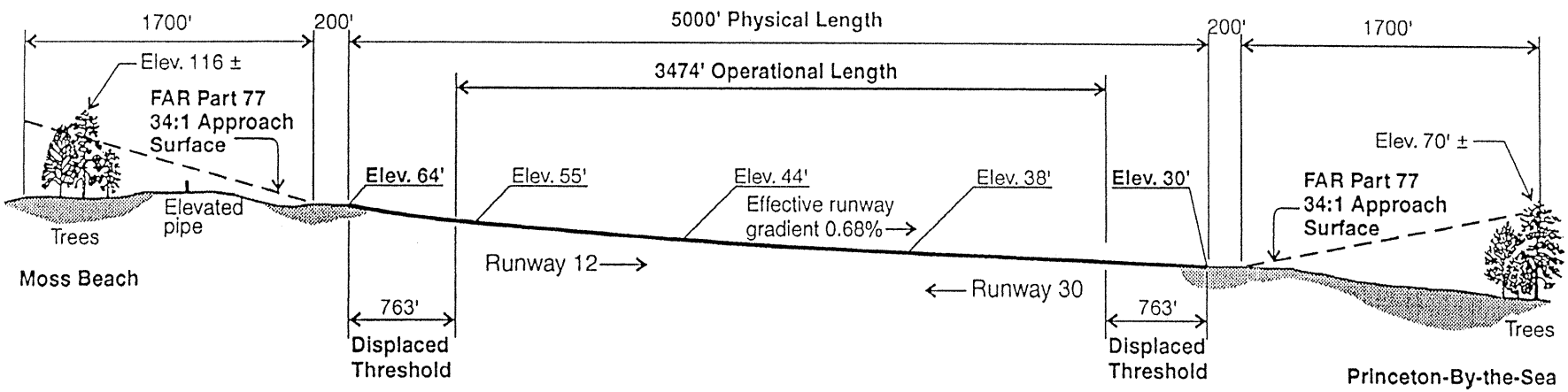


Half Moon Bay Airport Safety Zones

Example of Federal Aviation Regulations FAR Part 77
Civil Airport Imaginary Surfaces

Isometric View

Figure HMB-3
III. - 35



Half Moon Bay Airport Height Restrictions

Runway 12-30 Approach Profile

Source:
Half Moon Bay Airport Layout Plan
Approved by FAA Airports District Office 5/7/91

Runway Approach Profile

Horiz. 0 200 400 800 Feet

Vert. 0 200 400 800 Feet

Figure HMB-4
III. - 36

b. Notice of Proposed Construction or Alteration of Objects that May Affect the Navigable Airspace (FAA Advisory Circular AC No. 70/7460-2I)

In administering FAR Part 77, the prime objective of the FAA is to ensure the safety of aircraft in flight and the efficient use of navigable airspace by aircraft. The FAA recognizes that there are varied demands for the use of airspace, by both aviation and non-aviation interests. When conflicts arise out of construction proposals, the FAA emphasizes the need for conserving and protecting the navigable airspace. Therefore, early notice of proposed construction or alteration provides the FAA with the opportunity to review development proposals to evaluate the potential aviation and airspace effects.

Upon completion of its evaluation, the FAA informs the project sponsor, the airport proprietor, and the local land use and zoning authority of its findings. **The FAA has no authority to approve, modify, or prohibit the proposed construction or alteration. It is up to the local land use and zoning authority to consider the FAA's findings, regarding airspace impacts of the proposed action, as part of its review and final action on the proposed development.**

The Airport Land Use Commission (C/CAG) supports the FAR Part 77 notification process related to proposed construction or alterations in the Half Moon Bay Airport airspace and advises project sponsors to comply with such notice requirements. Persons failing to comply with the federal notice provisions of FAR Part 77 may be subject to a criminal penalty under Section 902 of the Federal Aviation Act of 1958, as amended. A copy of FAA Advisory Circular AC No. 70/7460-2I is included in Appendix J.

2. State of California Airport Approaches Zoning, California Government Code, Chapter 2., Article 6.5, as amended

The State of California adopted the "Approaches Zoning Law" in 1953. The purpose of the law is stated in Section 50485.3, as follows:

> "50485.3 In order to prevent the creation or establishment of airport hazards, every city or county having an airport hazard area within its territorial limits may adopt, administer, and enforce, under the police power and in the manner and upon the conditions hereinafter prescribed, airport zoning regulations for such airport hazard area, which regulations may divide such area into zones, specify the land uses permitted, and regulate and restrict the height to which structures and trees may be erected or allowed to grow."

The complete text of Chapter 2., Article 6.5, is shown in Appendix K.

3. 1994 County of San Mateo Zoning Regulations, as amended - Chapter 32. Height of Structures and Use of Airspace Near Half Moon Bay Airport

The County of San Mateo has adopted zoning provisions to regulate the height of structures and the use of the airspace in the vicinity of Half Moon Bay Airport. These provisions are based on the authority granted to the county by the Airport Approaches Zoning Law and incorporate the provisions and restrictions contained in FAR Part 77, as applicable to Half Moon Bay Airport. The purpose of the airspace zoning provisions for Half Moon Bay Airport is described in Section 6600 of the County of San Mateo Zoning Regulations, as follows:

> "SECTION 6600. PURPOSE. Pursuant to the authority conferred by the Airport Approaches Zoning Law of the State of California and in conformity with Sections 50485 to 50485.13 of the Government Code, the Board of Supervisors of the County of San Mateo, State of California, deem it necessary to regulate the use of airspace for the purposes of promoting the public health, safety, and general welfare of the inhabitants of the County of San Mateo, by preventing the creation or establishment of airport hazards, thereby protecting the lives and property of the users of the Half Moon Bay Airport and the occupants of the land in the vicinity and preventing destruction and impairment of the utility of the airport and the public investment therein."

The complete text of Chapter 32 of the County of San Mateo Zoning Regulations, as amended, is included in Appendix L.

4. Hazards to Aircraft in Flight

Certain land use characteristics are recognized by the Airport Land Use Commission (C/CAG) as hazards to air navigation in the vicinity of Half Moon Bay Airport. These include the following:

* Any use that would direct a steady or flashing light of white, red, green, or amber color toward an aircraft engaged in an initial straight climb following take-off or toward an aircraft engaged in straight final approach toward a landing, other than FAA-approved navigational lights.

* Any use that would cause sunlight to be reflected toward an aircraft engaged in a straight climb following take-off or toward an aircraft engaged in a straight final approach toward a landing.

* Any use that would generate smoke or rising columns of air.

* Any use that would attract large concentrations of birds within approach-climbout areas.

* Any use that would generate electrical/electronic interference that may interfere with aircraft communication equipment and/or aircraft instrumentation.

NOTE: Airport/land use compatibility is determined by comparing a proposed land use policy action with the aircraft noise/land use compatibility standards, the relevant FAR Part 77 height restrictions, and safety criteria contained in this Plan.. A proposed land use policy action must be compatible with each of these elements for the Airport Land Use Commission (C/CAG) to determine that the proposed action is consistent with the relevant policies, standards, and/or criteria contained in the Comprehensive Airport Land Use Plan (CLUP).

hmbamd295.dfc

SAN MATEO COUNTY
COMPREHENSIVE AIRPORT LAND USE PLAN

CHAPTER IV. SAN CARLOS AIRPORT LAND USE PLAN

CHAPTER IV. SAN CARLOS AIRPORT LAND USE PLAN

A. INTRODUCTION

The San Carlos Airport Land Use Plan applies to the geographic areas in unincorporated areas and incorporated cities in the vicinity of San Carlos Airport are impacted by aircraft noise, restrictions on the height of structures and/or objects near the airport, and airport/aircraft safety criteria. The Plan includes policies, standards, and criteria to address each of these issues to assist affected local agencies to achieve land use compatibility with existing and future airport development and operations. In addition, the Plan identifies an Avigation Easement Review Area (AERA) surrounding San Carlos Airport that defines a geographic boundary within which the Airport Land Use Commission (C/CAG) will consider requesting affected local agencies to require the grant of an avigation easement to the County of San Mateo, as the airport proprietor, related to certain proposed land use policy actions within the AERA boundary.

B. AIRPORT OVERVIEW

San Carlos Airport is a general aviation, single runway airport, owned and operated by the County of San Mateo. The airport is administered by the San Mateo County Department of Public Works, through the County Airport Manager. The governing body of the airport is the County of San Mateo Board of Supervisors. The San Carlos Airport Layout Plan (ALP), as approved by the FAA, is shown on Map SC-1 on page IV.-3

The airport property consists of approximately 160 acres. The on-airport facilities are generally divided into three distinct groups: airside, landside, and aviation support facilities. The airside facilities consist of the runway (Runway 12-30) and taxiway system, lighting aids and navigational aids. The landside facilities consist of the terminal building, hangars, tiedowns, and auto parking. Aviation support facilities include utilities, maintenance, and fuel storage areas.

San Carlos Airport was constructed in its present location in 1948. The airport is situated at an elevation of two (2) feet above mean sea level (AMSL). Runway 12-30 is 2,600 feet long (physical length) and 75 feet wide. Aircraft that are compatible with the facilities and constraints at San Carlos Airport are defined by the County of San Mateo, as aircraft that weigh 12,500 pounds or less. However, heavier aircraft may operate at the airport with prior approval from the County Airport Manager.

Flights in and out of the airport are currently conducted using Visual Flight Rules (VFR), as established by FAA regulations. VFR conditions exist when flight visibility is three miles or

greater and the cloud ceiling is at least 1,00 feet above the surface. Due to the high number of annual aircraft operations, the airport has an FAA Air Traffic Control Tower (ATCT).

Currently, San Carlos Airport is classified by the FAA as a Reliever Airport for San Francisco International Airport. General aviation reliever airports are those airports which provide air traffic relief to a commercial service airport in the nearby area, thereby reducing congestion at the neighboring commercial service airport.

C. GENERAL AVIATION

San Carlos Airport is a general aviation facility. General aviation includes every type of civil flying other than FAA-certificated air carrier aircraft and military aircraft. General aviation flying or usage falls into four major categories:

* **Business** - use of an aircraft for executive or business transportation.

* **Commercial** - use of an aircraft for commercial purposes (other then commuter and air carrier), including air taxi, aerial applications, special industrial usage, aerial surveys, advertising, aerial photography, and emergency medical transportation.

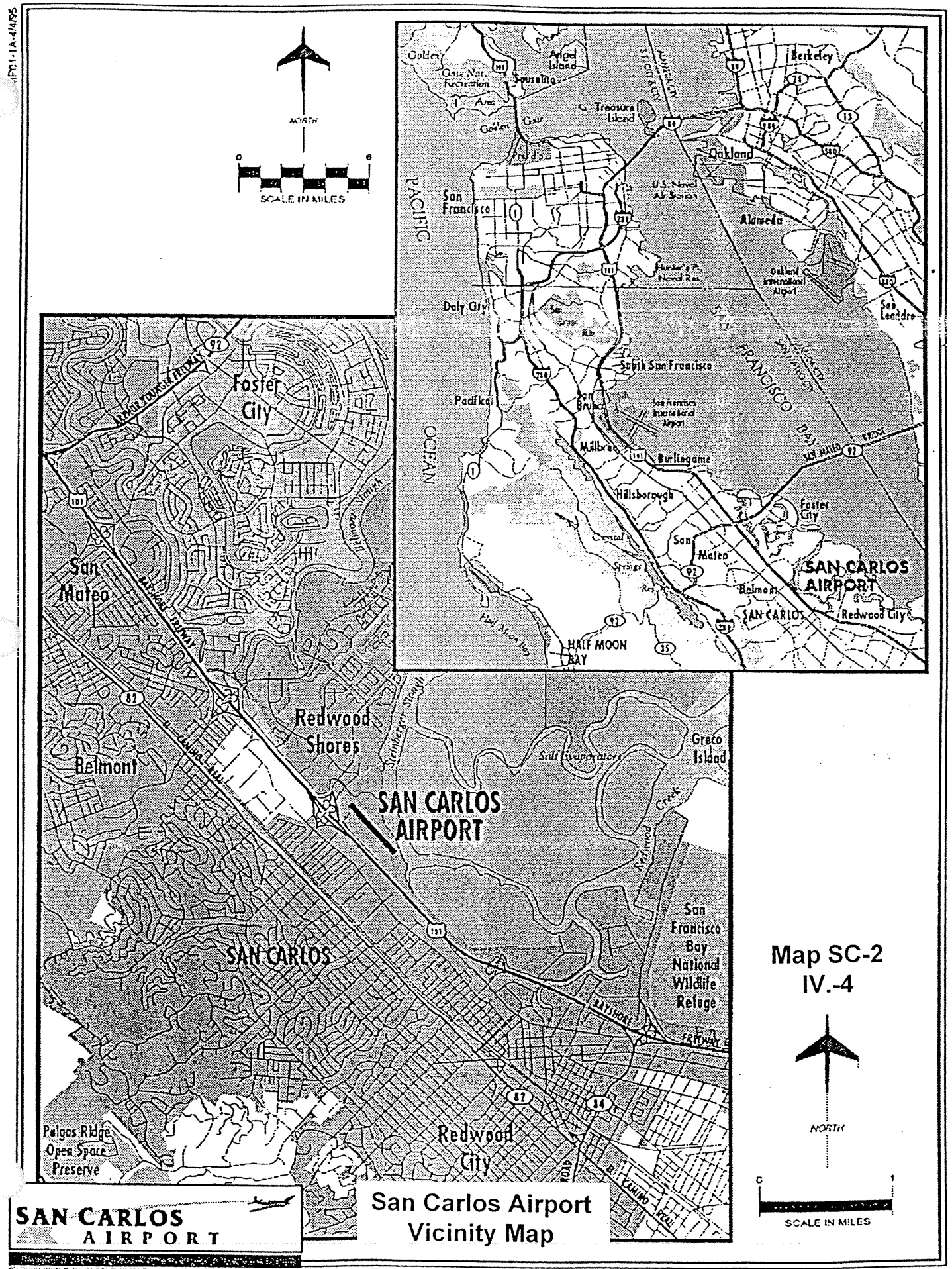
* **Instructional** - use of a an aircraft for flight training under the supervision of a flight instructor.

* **Personal** - use of a aircraft for a variety of personal reasons.

D. AIRPORT SETTING AND LAND USE PLANNING CONSIDERATIONS

1. Location

San Carlos Airport is located adjacent to the east side of the U.S. Highway 101 in the City of San Carlos. It is surrounded by the City of Redwood City on three sides (north, east, and south) (see Map SC-2 on page IV.-4). The Redwood Shores area of Redwood City is located north and east of the airport, on the Redwood Peninsula, between the Belmont and Steinberger Sloughs. This mixed-use development contains airport-compatible commercial/office uses along the runway alignment, near the freeway, and noise-sensitive land uses, e.g., residential uses, further to the north and east of the airport.

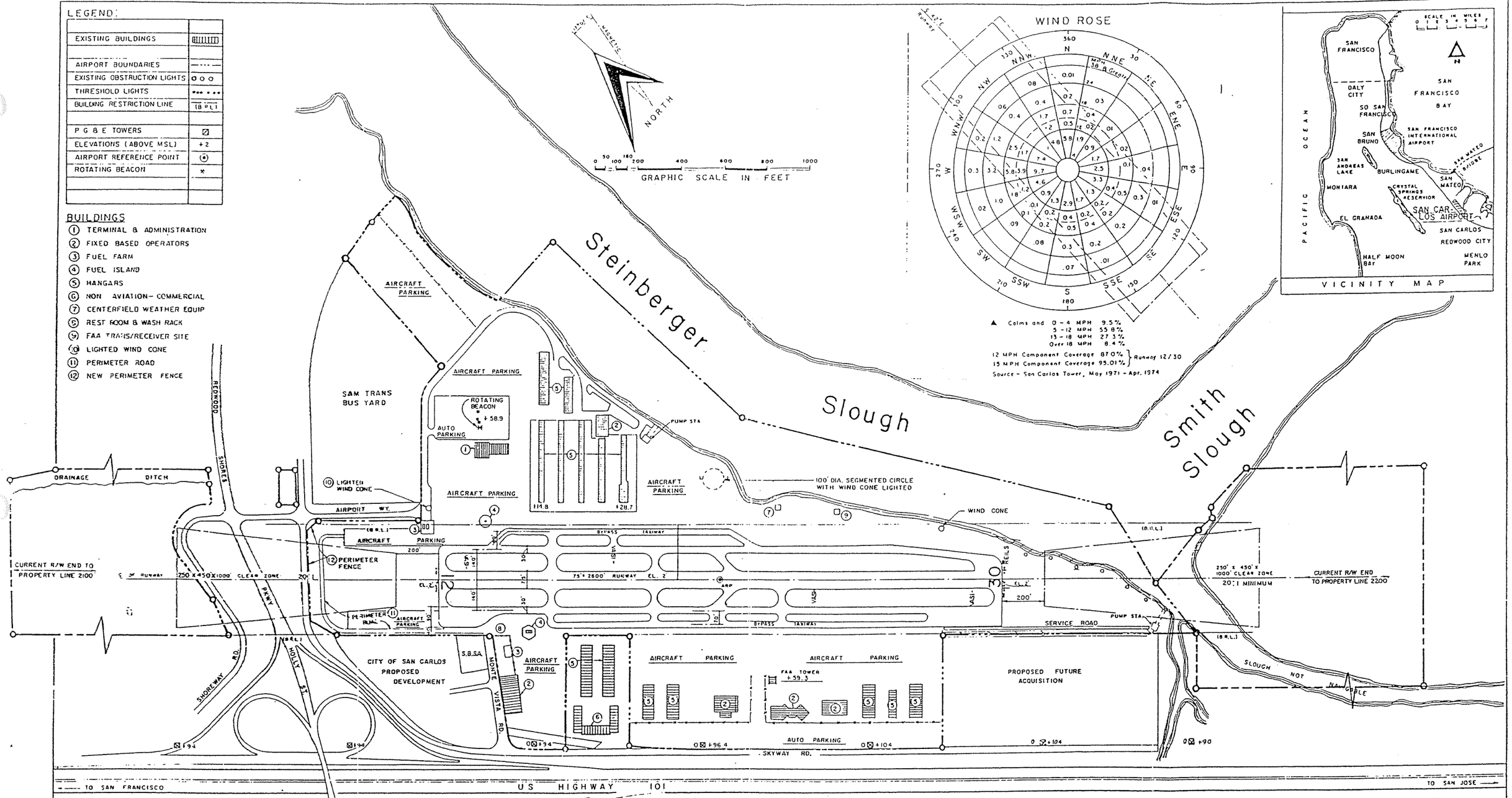


Map SC-2
IV.-4

SAN CARLOS AIRPORT

San Carlos Airport Vicinity Map

Exhibit 1A
VICINITY MAP



AIRPORT DATA	
	EXISTING
AIRPORT ELEVATION	2' MSL
AIRPORT REFERANCE PT. (ARP)	LAT. 37° 30' 40" LONG. 122° 14' 55"
MEAN MAX. TEMP. HOT TEST MO.	80° F
TERMINAL NAVIGATION AIDS	CONTROL TOWER
BASED AIRCRAFT	451
TEE HANGAR UNITS	106
PUBLIC TIE-DOWNS	345
PRIVATE TIE-DOWNS	34
CRITICAL AIRCRAFT	KING AIR
STAGE LENGTH OF CRITICAL AIRCRAFT (MILES)	1250 NM
FUNCTIONAL ROLE (NASP)	S1

RUNWAY DATA	
	RUNWAY EXISTING
RUNWAY SERVICE TYPE	UTILITY
RUNWAY LENGTH	2600
% EFFECTIVE RUNWAY GRADIENT	0
PAVEMENT STRENGTH (gross weight single gear)	12,500 lbs.
APPROACH SURFACES	20:1
RUNWAY LIGHTING	MIRL L-802
RUNWAY MARKING	BASIC
NAVIGATIONAL AIDS	VASI/REILS
% WIND COVERAGE (15 MPH)	96

APPROVED
DATE: 12/17/91
R. L. Sams

APPROVED
DATE: 12/17/91
[signature]

DATE MARCH 4, 1971
DRAWN jlb
CHECKED
REVISED DECEMBER 1991

COUNTY OF SAN MATEO
DEPARTMENT OF PUBLIC WORKS

AIRPORT LAYOUT PLAN
SAN CARLOS AIRPORT

FAA APPROVAL:

APPROVED
FEDERAL AVIATION ADMINISTRATION
AIRPORTS DISTRICT OFFICE
SAN FRANCISCO, CALIFORNIA
By [signature] Date 1-14

Map SC-1
IV. - 3

Near San Carlos Airport, to the west and south, in the cities of Belmont and San Carlos, and between the U.S. Highway 101 freeway and El Camino Real, are predominantly airport-compatible land uses (e.g. industrial, commercial, and office uses). Some pockets of residential uses also occur in these areas, off Holly Street in San Carlos and Ralston Avenue in Belmont. Further south and east of the airport are undeveloped lands in Redwood City that include Bair Island and several unnamed islands. The San Francisco Bay National Wildlife Refuge is located near Bair Island (see Map SC-3 on page IV-7).

2. City of Redwood City Land Use Categories and Zoning Regulations

The City of Redwood City has established land use categories in its 1990 Strategic General Plan and adopted zoning regulations to guide land development, within its jurisdiction, in the vicinity of San Carlos Airport. The land use categories include residential, commercial/office, and open space (see Map SC 4 on page IV.-8). Each land use designation has one or more corresponding zoning districts (see Table IV -1 on pp IV.-9 and 10). The relevant zoning districts (Redwood Shores area and areas east of U.S. Highway 101) are shown on Maps SC-5 through SC-11 on pp IV.-11 through IV.-17.

3. City of San Carlos Land Use Designations and Zoning Regulations

The City of San Carlos has established land use categories in its 1991 East San Carlos Specific Plan and in its 1994 West Side Specific Plan and adopted zoning regulations to guide future land development, within its jurisdiction, in the vicinity of San Carlos Airport. The primary land uses in the 1991 East San Carlos Specific Plan include Regional Retail, Light Industrial, Industrial Park, High Tech, Mixed Use, Office/Residential, and Landmark. The primary land use categories in the 1994 West Side Specific Plan include Highway and Regional Retail, Retail, Personal Services, and Business and Professional Services (see Map SC-12 on page IV.-18 and Map SC-13 on page IV.-19). The relevant zoning districts in the vicinity of San Carlos Airport are shown on Map SC-14 on page IV.-20.

4. San Carlos Airport Aircraft Traffic Pattern

Federal Aviation Administration (FAA) guidelines establish a standard traffic pattern to be flown by aircraft approaching and departing airports under VFR conditions. Aircraft traffic patterns are defined in terms of a generalized routing and altitude or height above mean sea level (AMSL). The generalized routing is in the form of a "racetrack-shaped" path leading to and from the runway.

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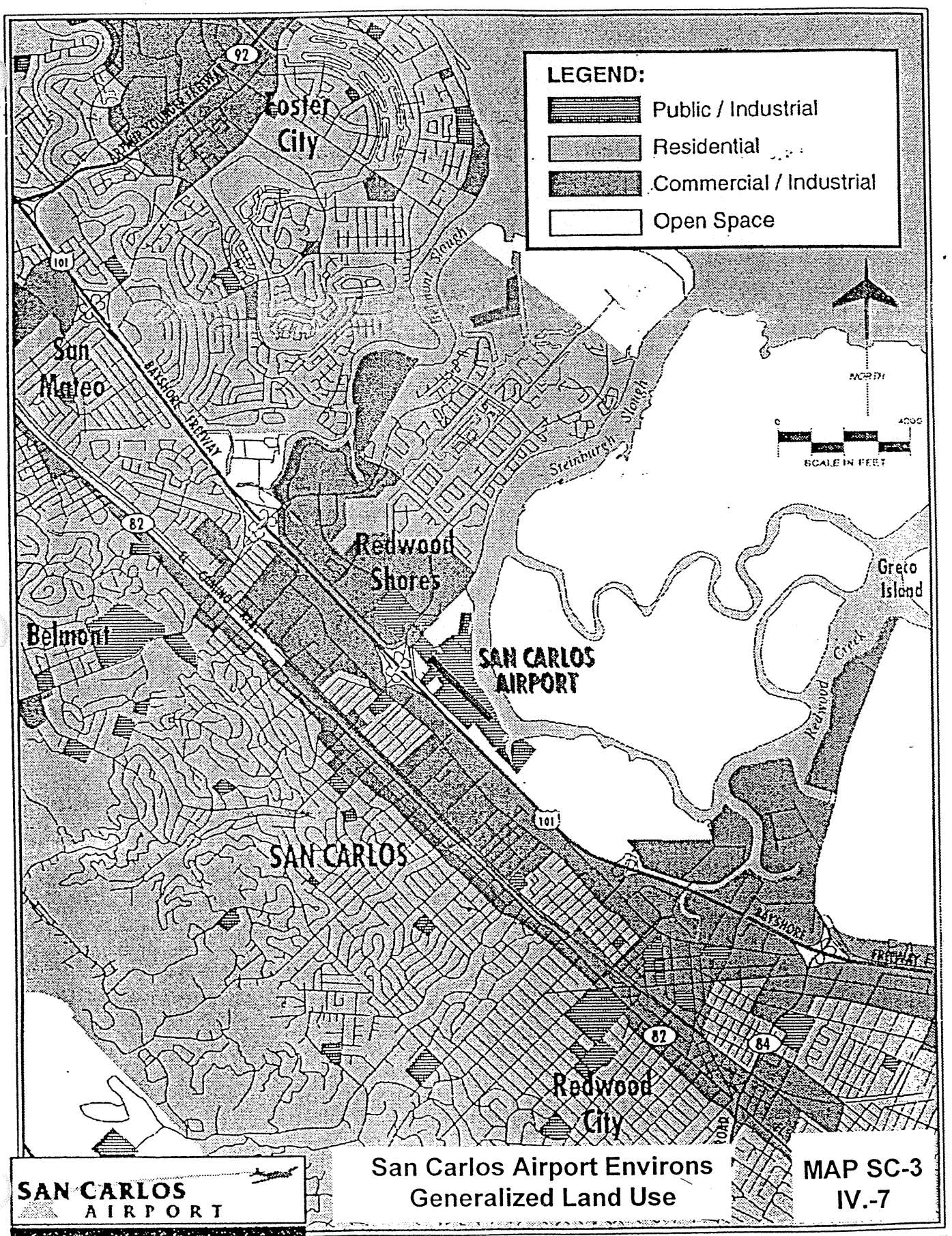


San Carlos Airport Environs
Generalized Land Use

MAP SC-3
IV.-7

Exhibit 1F
GENERALIZED LAND USES

CITY OF REDWOOD CITY 1990 STRATEGIC GENERAL PLAN LAND USE CATEGORIES IN THE VICINITY OF SAN CARLOS AIRPORT

LEGEND

CIRCULATION

- FREEWAY
- MAJOR HIGHWAY
- COLLECTOR STREET
- LOCAL STREET
- RAILROAD & TRANSIT STATION
- CITY LIMITS

SCHOOLS

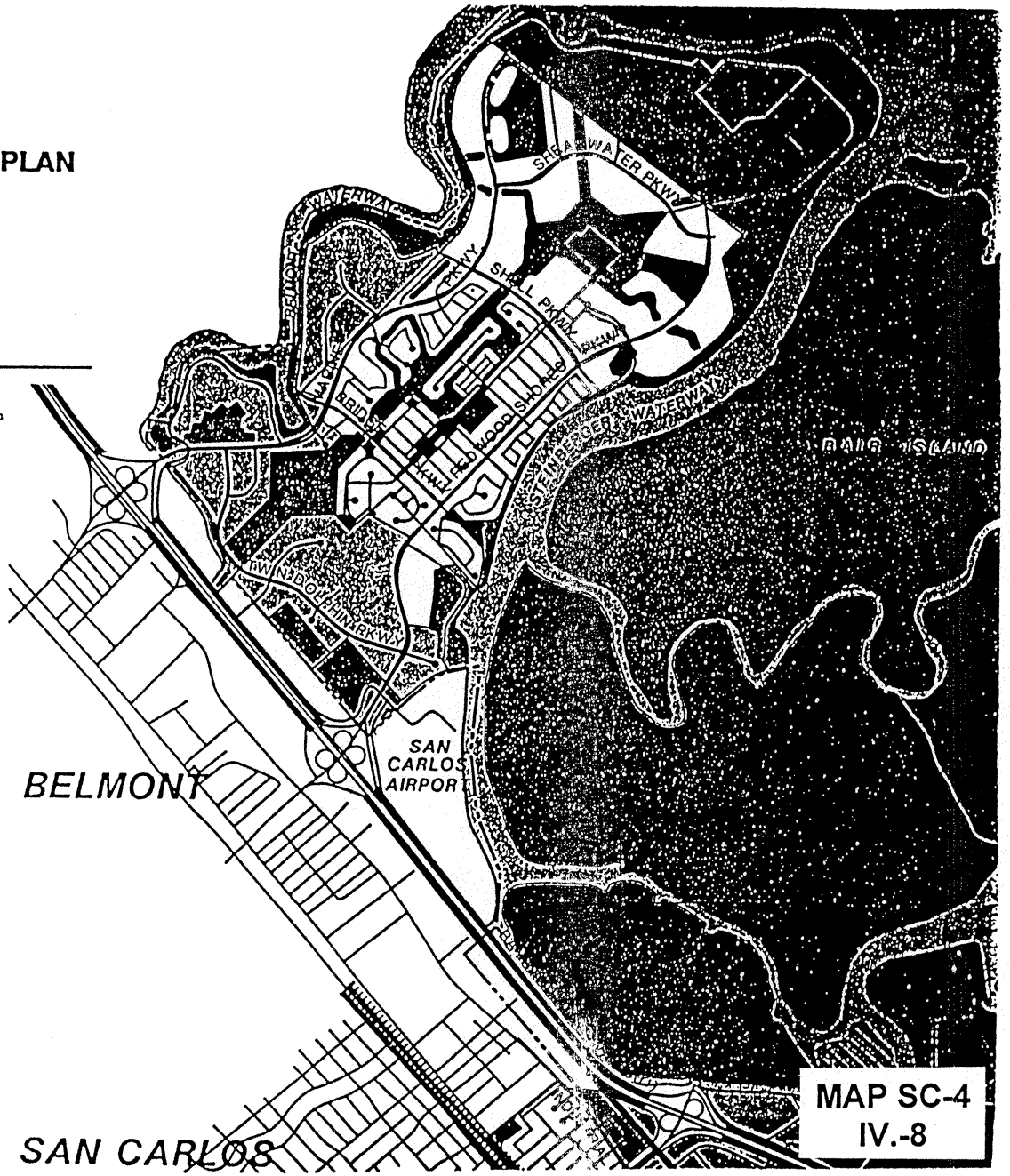
- ELEMENTARY
- JUNIOR HIGH
- HIGH SCHOOL
- CAÑADA JUNIOR COLLEGE

PUBLIC AND QUASI-PUBLIC

- PARK
- GOVERNMENT
- HOSP HOSPITAL

DESCRIPTION	TYPE	DWELLING UNITS (PER NET AC.)	CORRESPONDING ZONES
RESIDENTIAL			
Single Family Dwellings (Hillside and/or Flatlands)	Low Density	1-7	RH, R-1
Two To Three Story Structures	Medium Density	8-20	R-2, RG, R-3
Moderate and High-Rise Structures	High Density	20 to 40	R-4, R-5
COMMERCIAL/OFFICE			
Single-Story Structures Adjacent Residential Neighborhoods	Neighborhood		PD, CN
Office Park Oriented Uses	Intermediate		CA, CP
Multi-Story Structures for Office and Retail Uses (Central Business District)	Heavy		CB, CG
Mixed Use (Commercial and Residential)			CB, CA, CP, R-5
INDUSTRIAL			
Research and Development Uses	Light		IR, IP
Manufacturing Processing and Shipping (Truck and Rail Traffic Connections and Outdoor Storage)	Heavy		GI, IR
OPEN SPACES			
Unimproved Areas (Land or Water) Devoted to Preservation of Natural Resources, the Managed Production of Resources, Outdoor Recreation, or Public Health and Safety			TP
Future Development Expanding Limits of Urbanization			TP
Centralized Waterway (Redwood Shores Area)			TP
San Francisco Bay Water			TP

Source: City of Redwood City 1990 Strategic General Plan Land Use Plan



MAP SC-4
IV.-8

TABLE IV.- 1

CITY OF REDWOOD CITY LAND USE CATEGORIES AND CORRESPONDING ZONING DISTRICTS

LAND USE CATEGORY	CORRESPONDING ZONING DISTRICTS
Residential	
Low density	**RH** - Residential Hillside **R-1** -Residential Single-Family
Medium density	**R-2** - Residential Duplex **R-3** - Multi-family - low density
High density	**R-4** - multi-family - medium density **R-5** - multi-family - high density
Commercial/Office	
Neighborhood	**PO** - Professional Office **CN** - Neighborhood Commercial
Intermediate	**CA** - Central Administrative **CP** - Commercial Park
Heavy	**CB** - Central Business **CG** - General Commercial
Commercial/Residential	**CB** - Central Business **CA** - Central Administrative **CP** - Commercial Park **R-5** - Multi-family - high density

continued on page IV-10

TABLE IV.-1 - Continued

CITY OF REDWOOD CITY LAND USE CATEGORIES AND CORRESPONDING ZONING DISTRICTS

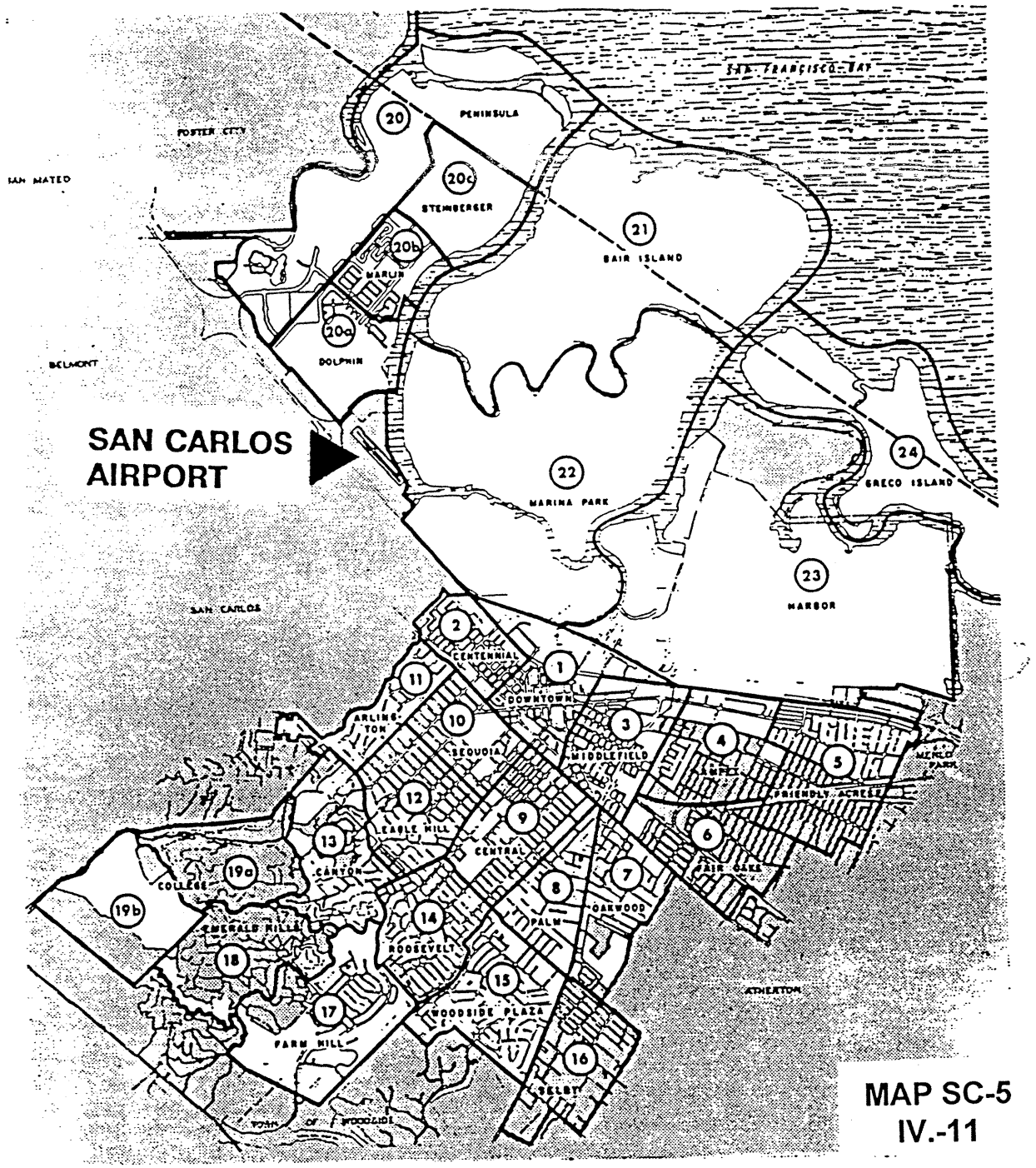
LAND USE CATEGORY	CORRESPONDING ZONING DISTRICT
Industrial	
Light	**IR** - Industrial-restricted **IP** - Industrial Park
Heavy	**GI** - General Industrial **IR** - Industrial-restricted
Open Space	**TP** - Tidal Plain

Source: 1990 City of Redwood City Strategic Plan Land Use Plan

CITY OF REDWOOD CITY ZONING DISTRICTS IN THE VICINITY OF SAN CARLOS AIRPORT

DATE: 12-31-70

NEIGHBORHOOD INDEX MAP



THIS INDEX MAP SHOWING NEIGHBORHOOD BOUNDARIES IS FOR USE IN CONNECTION WITH THE OFFICIAL ZONING MAP

0 2500 OFFICIAL ZONING MAP • CITY OF REDWOOD CITY • CALIFORNIA NORTH

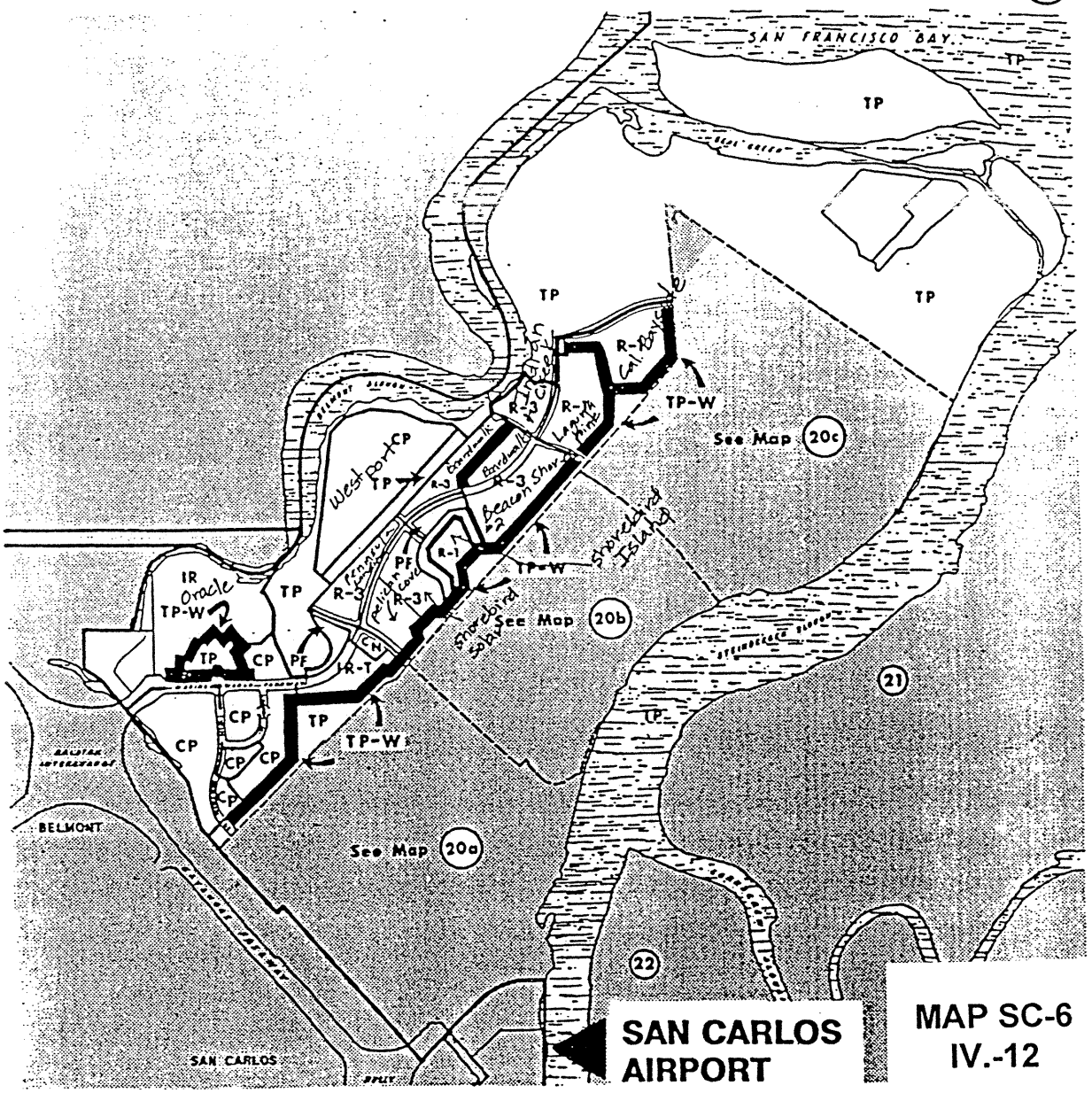
SHADED AREAS SHOWN ON THIS MAP ARE OUTSIDE REDWOOD CITY LIMITS AS OF THE EFFECTIVE DATE SHOWN ABOVE

Source: City of Redwood City Zoning Ordinance

CITY OF REDWOOD CITY ZONING DISTRICTS IN THE VICINITY OF SAN CARLOS AIRPORT

DATE: 08-26-92

PENINSULA NEIGHBORHOOD (20)



MAP SC-6
IV.-12

ZONING DISTRICTS

RH	RESIDENTIAL — HILLSIDE	CN	NEIGHBORHOOD COMMERCIAL	IS	INTERIM STUDY
R-1	RESIDENTIAL — SINGLE FAMILY	CB	CENTRAL BUSINESS	PF	PUBLIC FACILITY
R-2	RESIDENTIAL — DUPLEX	CG	GENERAL COMMERCIAL		
RG	GARDEN APARTMENTS	CP	COMMERCIAL PARK		
R-3	MULTIFAMILY — LOW DENSITY	IR	INDUSTRIAL — RESTRICTED		
R-4	MULTIFAMILY — MEDIUM DENSITY	IP	INDUSTRIAL PARK		
R-5	MULTIFAMILY — HIGH DENSITY	GI	GENERAL INDUSTRIAL		
PO	PROFESSIONAL OFFICE	TP	TIDAL PLAIN		
CA	CENTRAL ADMINISTRATIVE	AG	AGRICULTURAL — GREENHOUSE		

COMBINING DISTRICTS

- -T TRANSIENT RESIDENTIAL UNITS
- -W WATER
- -O OFFICE
- -V VEHICULAR

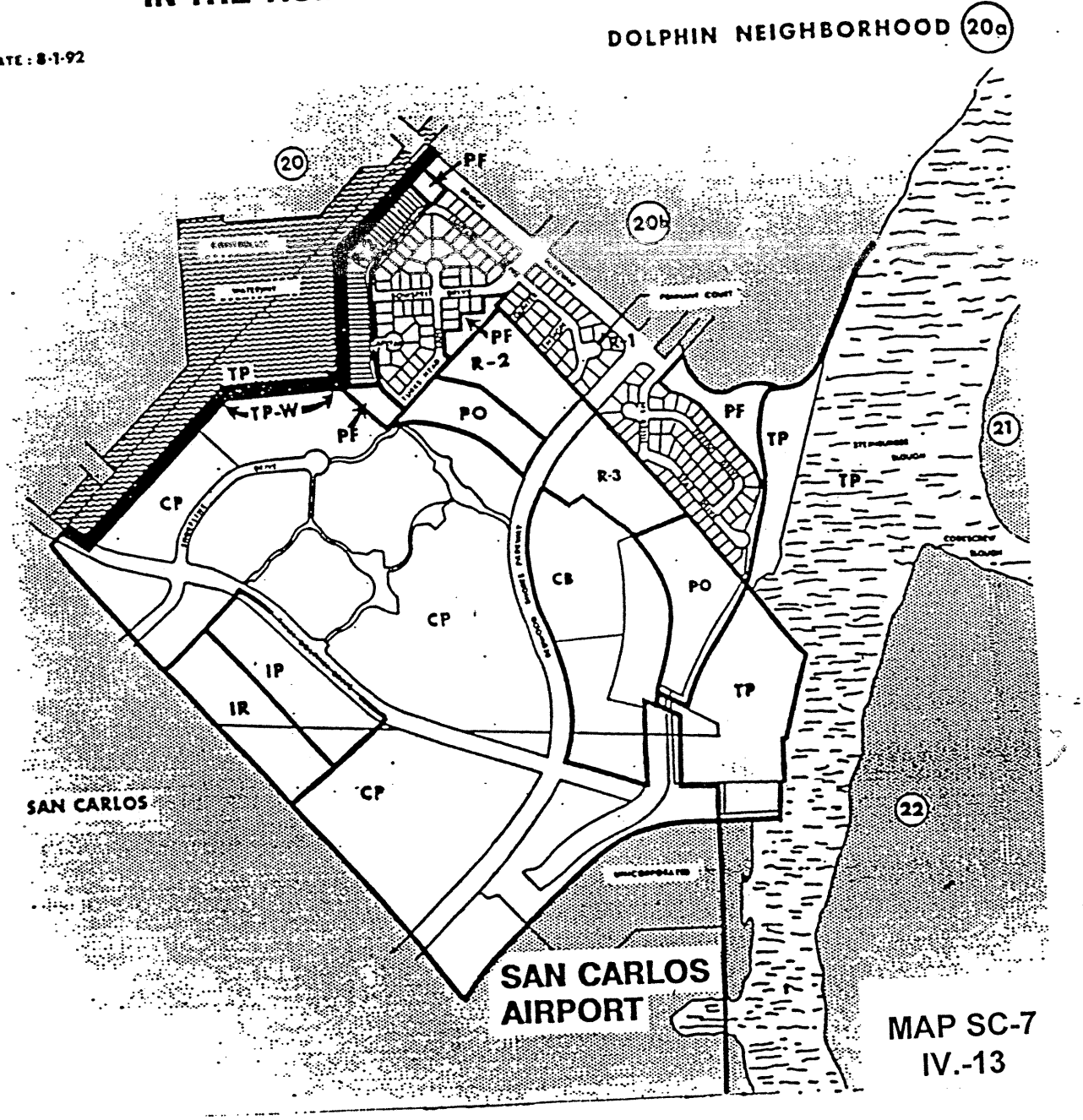
0 1000 OFFICIAL ZONING MAP • CITY OF REDWOOD CITY • CALIFORNIA NORTH

PREZONING DESIGNATIONS OF ~~AREAS OUTSIDE~~ REDWOOD CITY ARE SHOWN ON THE MAP BUT WILL HAVE NO EFFECT PRIOR TO ANNEXATION

Source: City of Redwood City Zoning Ordinance

CITY OF REDWOOD CITY ZONING DISTRICTS IN THE VICINITY OF SAN CARLOS AIRPORT

DATE: 8-1-92



MAP SC-7
IV.-13

ZONING DISTRICTS

RH RESIDENTIAL — HILLSIDE
R-1 RESIDENTIAL — SINGLE FAMILY
R-2 RESIDENTIAL — DUPLEX
RG GARDEN APARTMENTS
R-3 MULTIFAMILY — LOW DENSITY
R-4 MULTIFAMILY — MEDIUM DENSITY
R-5 MULTIFAMILY — HIGH DENSITY
PO PROFESSIONAL OFFICE
CA CENTRAL ADMINISTRATIVE

CN NEIGHBORHOOD COMMERCIAL
CB CENTRAL BUSINESS
CG GENERAL COMMERCIAL
CP COMMERCIAL PARK
IR INDUSTRIAL — RESTRICTED
IP INDUSTRIAL PARK
GI GENERAL INDUSTRIAL
TP TIDAL PLAIN
AG AGRICULTURAL — GREENHOUSE

IS INTERIM STUDY
PF PUBLIC FACILITY

COMBINING DISTRICTS

-T TRANSIENT RESIDENTIAL UNITS
-W WATER
-O OFFICE
-V VEHICULAR

0 500 OFFICIAL ZONING MAP • CITY OF REDWOOD CITY • CALIFORNIA NORTH

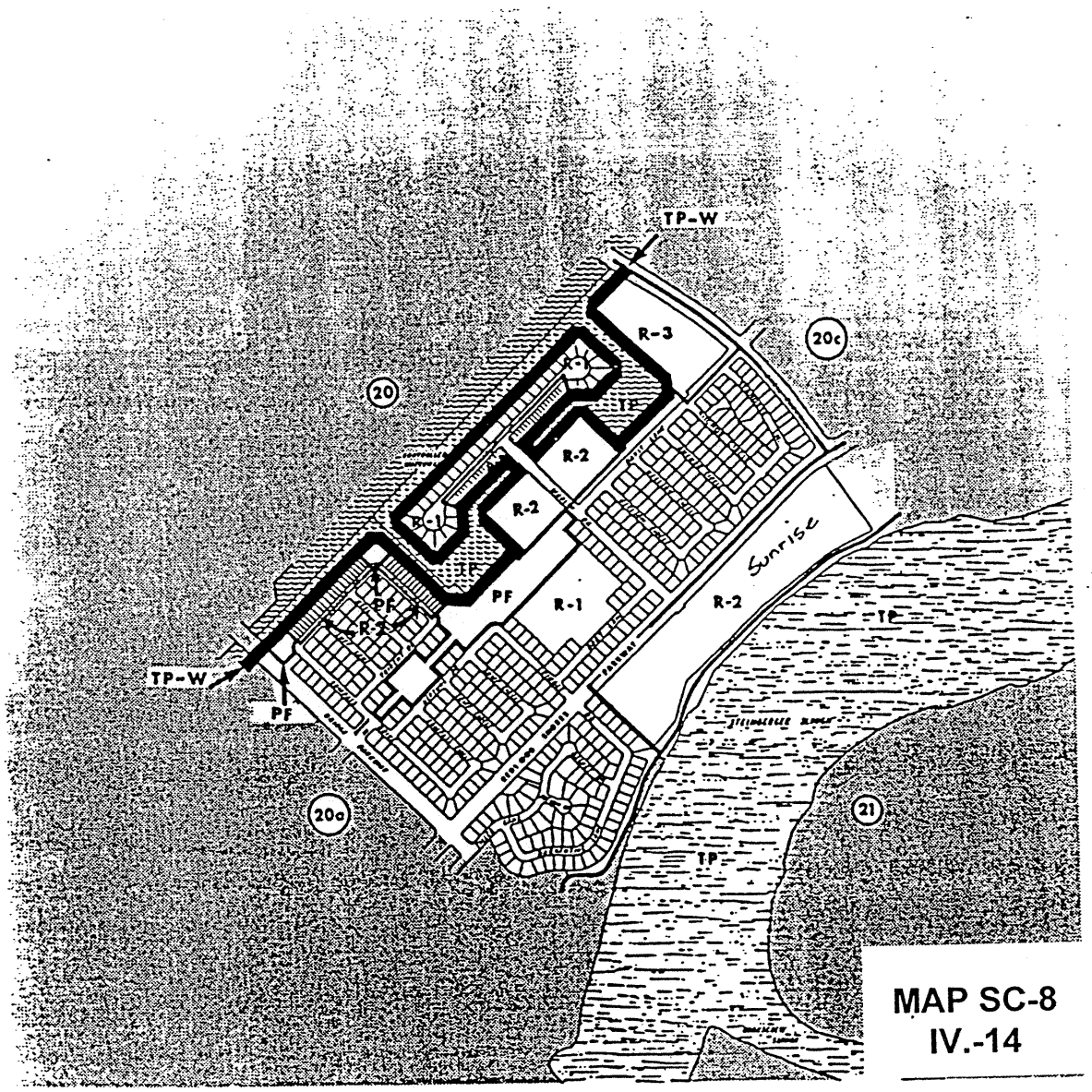
PREZONING DESIGNATIONS OF AREAS OUTSIDE REDWOOD CITY ARE SHOWN ON THE MAP BUT WILL HAVE NO EFFECT PRIOR TO ANNEXATION

Source: City of Redwood City Zoning Ordinance

CITY OF REDWOOD CITY ZONING DISTRICTS IN THE VICINITY OF SAN CARLOS AIRPORT

DATE: 2-11-87

MARLIN NEIGHBORHOOD (20b)



MAP SC-8
IV.-14

ZONING DISTRICTS

RH RESIDENTIAL — HILLSIDE
R-1 RESIDENTIAL — SINGLE FAMILY
R-2 RESIDENTIAL — DUPLEX
RG GARDEN APARTMENTS
R-3 MULTIFAMILY — LOW DENSITY
R-4 MULTIFAMILY — MEDIUM DENSITY
R-5 MULTIFAMILY — HIGH DENSITY
PO PROFESSIONAL OFFICE
CA CENTRAL ADMINISTRATIVE

CN NEIGHBORHOOD COMMERCIAL
CB CENTRAL BUSINESS
CG GENERAL COMMERCIAL
CP COMMERCIAL PARK
IR INDUSTRIAL — RESTRICTED
IP INDUSTRIAL PARK
GI GENERAL INDUSTRIAL
TP TIDAL PLAIN
AG AGRICULTURAL — GREENHOUSE

IS INTERIM STUDY
PF PUBLIC FACILITY

COMBINING DISTRICTS

-T TRANSIENT RESIDENTIAL UNITS
-W WATER
-O OFFICE
-V VEHICULAR

0 200 OFFICIAL ZONING MAP • CITY OF REDWOOD CITY • CALIFORNIA NORTH

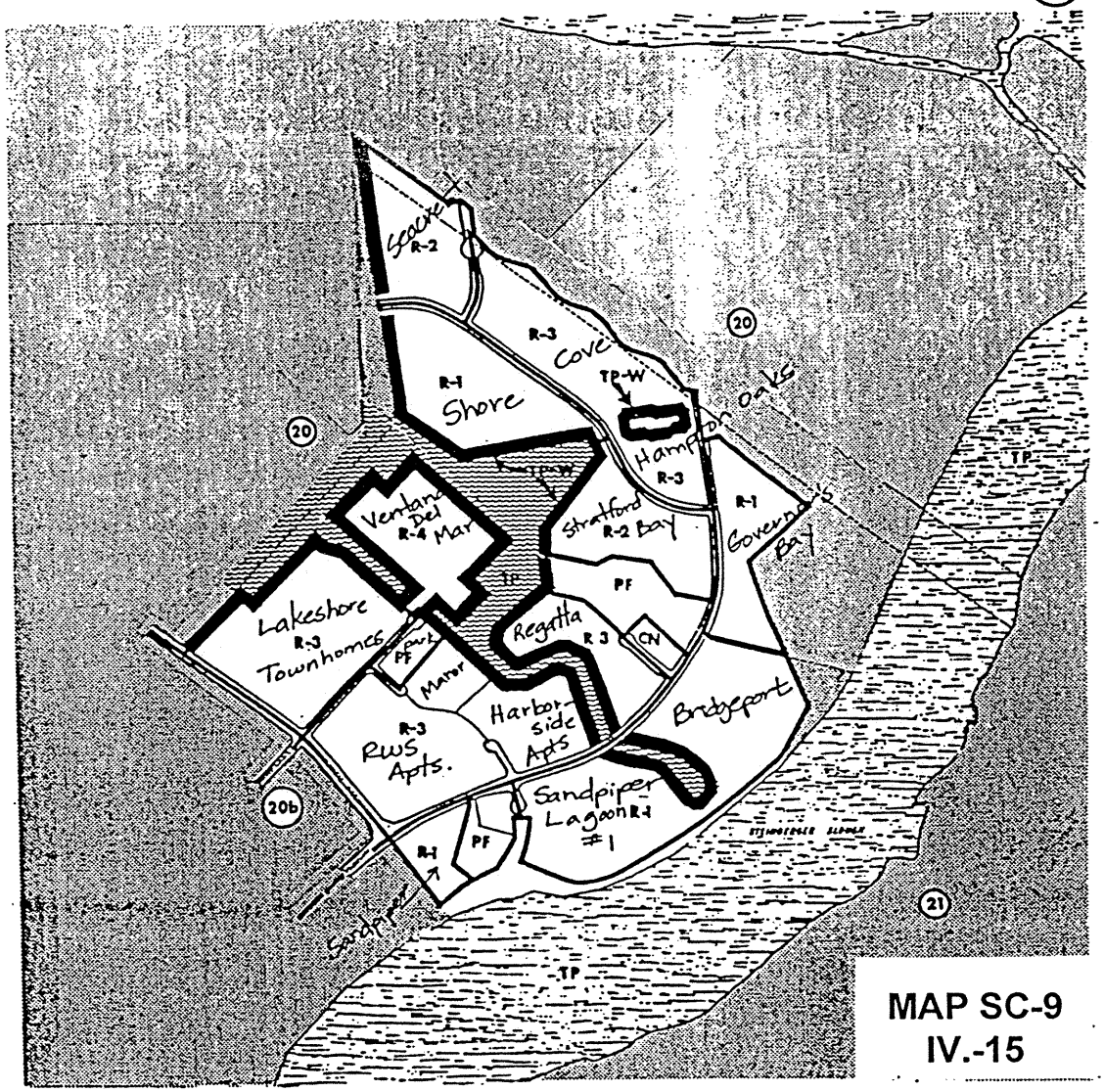
PREZONING DESIGNATIONS OF AREAS OUTSIDE REDWOOD CITY ARE SHOWN ON THE MAP BUT WILL HAVE NO EFFECT PRIOR TO ANNEXATION

Source: City of Redwood City Zoning Ordinance

CITY OF REDWOOD CITY ZONING DISTRICTS IN THE VICINITY OF SAN CARLOS AIRPORT

DATE: 9-30-89

STEINBERGER NEIGHBORHOOD 20c



MAP SC-9
IV.-15

ZONING DISTRICTS

RH RESIDENTIAL—HILLSIDE
R-1 RESIDENTIAL—SINGLE FAMILY
R-2 RESIDENTIAL—DUPLEX
RG GARDEN APARTMENTS
R-3 MULTIFAMILY—LOW DENSITY
R-4 MULTIFAMILY—MEDIUM DENSITY
R-5 MULTIFAMILY—HIGH DENSITY
PO PROFESSIONAL OFFICE
CA CENTRAL ADMINISTRATIVE

CN NEIGHBORHOOD COMMERCIAL
CB CENTRAL BUSINESS
CG GENERAL COMMERCIAL
CP COMMERCIAL PARK
IR INDUSTRIAL—RESTRICTED
IP INDUSTRIAL PARK
GI GENERAL INDUSTRIAL
TP TIDAL PLAIN
AG AGRICULTURAL—GREENHOUSE

IS INTERIM STUDY
PF PUBLIC FACILITY.

COMBINING DISTRICT

-T TRANSIENT RESIDENTIAL UNITS
-W WATER
-O OFFICE
-V VEHICULAR

OFFICIAL ZONING MAP · CITY OF REDWOOD CITY · CALIFORNIA

NORTH

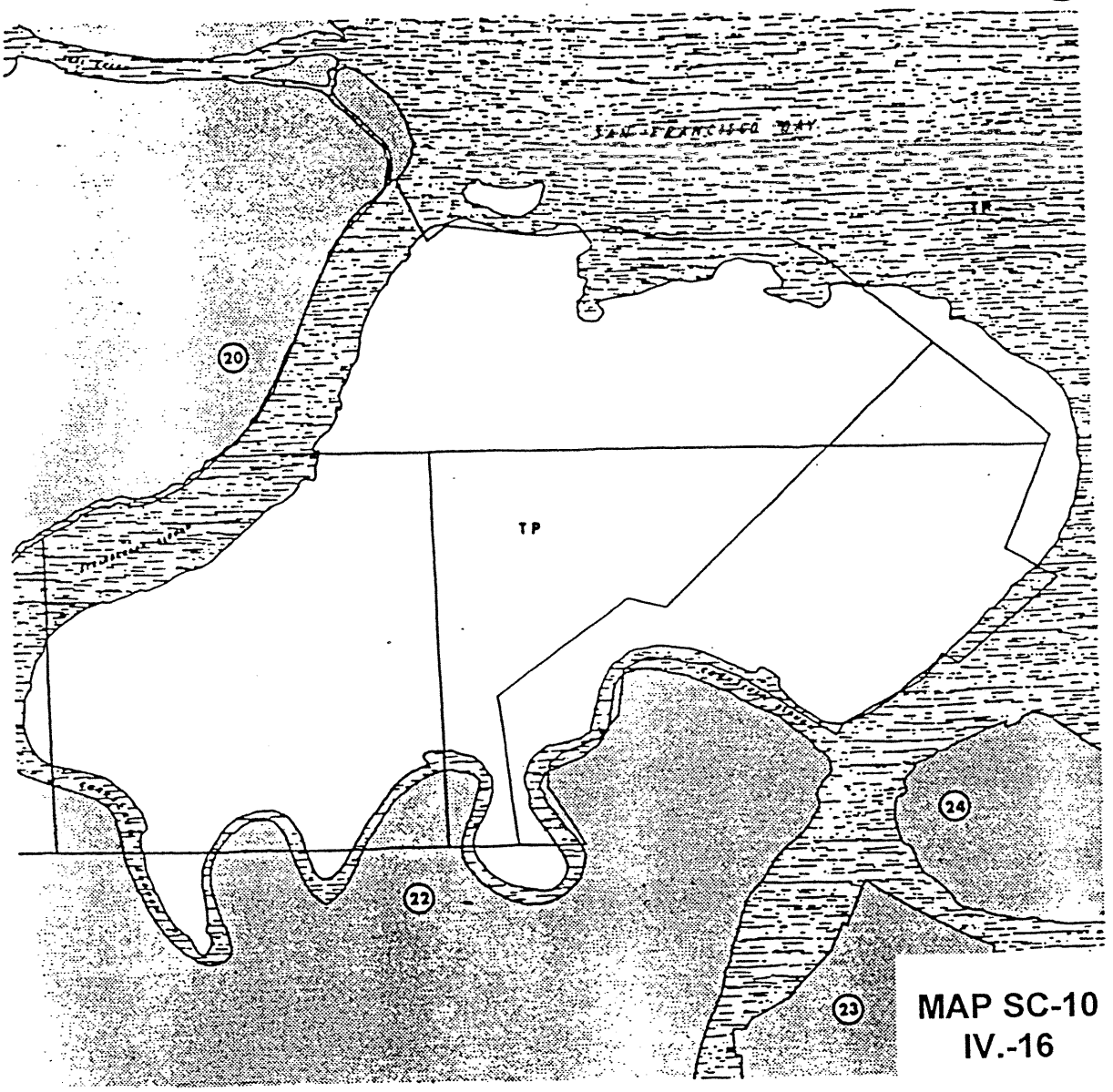
PREZONING DESIGNATIONS OF AREAS OUTSIDE REDWOOD CITY ARE SHOWN ON THE MAP BUT WILL HAVE NO EFFECT PRIOR TO ANNEXATION

Source: City of Redwood City Zoning Ordinance

CITY OF REDWOOD CITY ZONING DISTRICTS IN THE VICINITY OF SAN CARLOS AIRPORT

DATE: 12-31-67

BAIR ISLAND NEIGHBORHOOD (21)



MAP SC-10
IV.-16

ZONING DISTRICTS

RH RESIDENTIAL — HILLSIDE
R-1 RESIDENTIAL — SINGLE FAMILY
R-2 RESIDENTIAL — DUPLEX
RG GARDEN APARTMENTS
R-3 MULTIFAMILY — LOW DENSITY
R-4 MULTIFAMILY — MEDIUM DENSITY
R-5 MULTIFAMILY — HIGH DENSITY
PO PROFESSIONAL OFFICE
CA CENTRAL ADMINISTRATIVE

CN NEIGHBORHOOD COMMERCIAL
CB CENTRAL BUSINESS
CG GENERAL COMMERCIAL
CP COMMERCIAL PARK
IR INDUSTRIAL — RESTRICTED
IP INDUSTRIAL PARK
GI GENERAL INDUSTRIAL
TP TIDAL PLAIN
AG AGRICULTURAL — GREENHOUSE

IS INTERIM STUDY

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-T TRANSIENT RESIDENTIAL UNITS
-O OFFICE
-V VEHICULAR

0 1000 OFFICIAL ZONING MAP • CITY OF REDWOOD CITY • CALIFORNIA NORTH

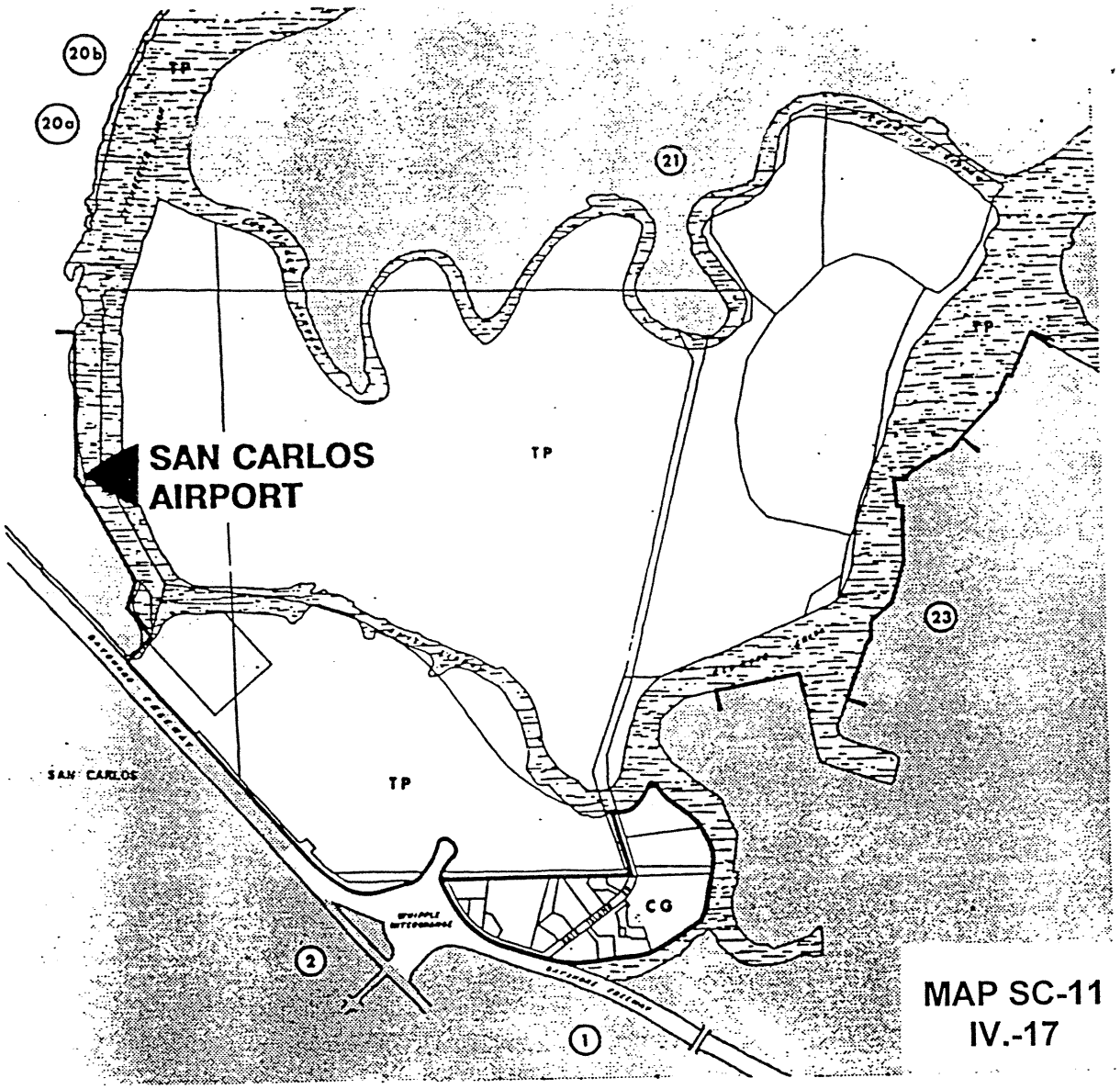
PREZONING DESIGNATIONS OF AREAS OUTSIDE REDWOOD CITY ARE SHOWN ON THE MAP BUT WILL HAVE NO EFFECT PRIOR TO ANNEXATION

Source: City of Redwood City Zoning Ordinance

CITY OF REDWOOD CITY ZONING DISTRICTS IN THE VICINITY OF SAN CARLOS AIRPORT

DATE: 1-1-84

MARINA PARK NEIGHBORHOOD (22)



MAP SC-11
IV.-17

ZONING DISTRICTS

RH RESIDENTIAL — HILLSIDE
R-1 RESIDENTIAL — SINGLE FAMILY
R-2 RESIDENTIAL — DUPLEX
RG GARDEN APARTMENTS
R-3 MULTIFAMILY — LOW DENSITY
R-4 MULTIFAMILY — MEDIUM DENSITY
R-5 MULTIFAMILY — HIGH DENSITY
PO PROFESSIONAL OFFICE
CA CENTRAL ADMINISTRATIVE

CN NEIGHBORHOOD COMMERCIAL
CB CENTRAL BUSINESS
CG GENERAL COMMERCIAL
CP COMMERCIAL PARK
IR INDUSTRIAL — RESTRICTED
IP INDUSTRIAL PARK
GI GENERAL INDUSTRIAL
TP TIDAL PLAIN
AG AGRICULTURAL — GREENHOUSE

IS INTERIM STUDY
PF PUBLIC FACILITY

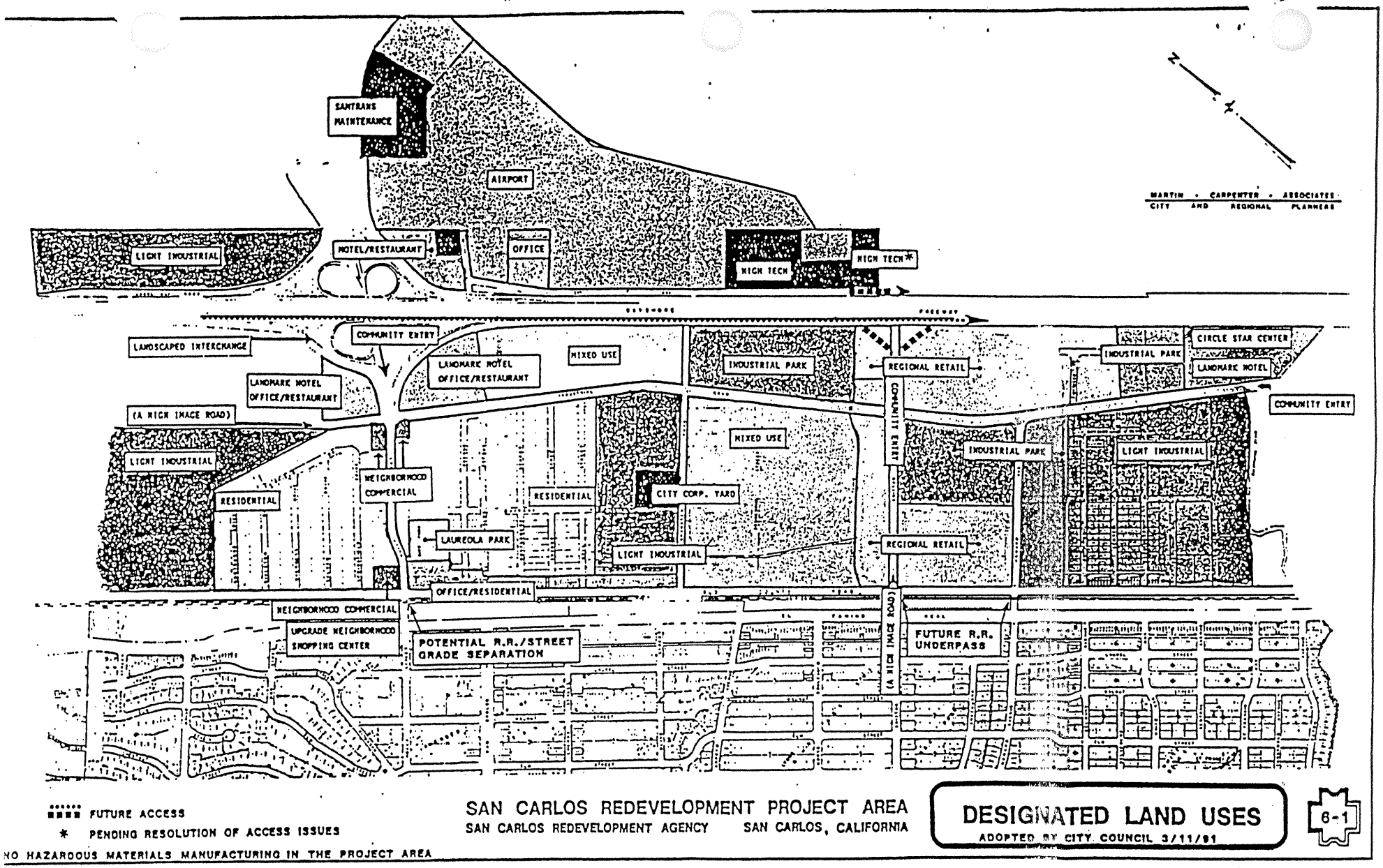
COMBINING DISTRICTS

-T TRANSIENT RESIDENTIAL UNITS
-W WATER
-O OFFICE
-V VEHICULAR

0 1000 OFFICIAL ZONING MAP • CITY OF REDWOOD CITY • CALIFORNIA NORTH

PREZONING DESIGNATIONS OF AREAS OUTSIDE REDWOOD CITY ARE SHOWN ON THE MAP BUT WILL HAVE NO EFFECT PRIOR TO ANNEXATION

Source: City of Redwood City Zoning Ordinance


SAMTRANS MAINTENANCE
AIRPORT
LIGHT INDUSTRIAL
HOTEL/RESTAURANT
OFFICE
HIGH TECH
HIGH TECH*
LANDSCAPED INTERCHANGE
COMMUNITY ENTRY
LANDMARK HOTEL OFFICE/RESTAURANT
MIXED USE
INDUSTRIAL PARK
REGIONAL RETAIL
CIRCLE STAR CENTER
INDUSTRIAL PARK
LANDMARK HOTEL
COMMUNITY ENTRY
LANDMARK HOTEL OFFICE/RESTAURANT
(A HIGH IMAGE ROAD)
LIGHT INDUSTRIAL
RESIDENTIAL
NEIGHBORHOOD COMMERCIAL
RESIDENTIAL
CITY CORP. YARD
MIXED USE
COMMUNITY ENTRY
INDUSTRIAL PARK
LIGHT INDUSTRIAL
LAUREOLA PARK
LIGHT INDUSTRIAL
REGIONAL RETAIL
OFFICE/RESIDENTIAL
NEIGHBORHOOD COMMERCIAL
UPGRADE NEIGHBORHOOD SHOPPING CENTER
POTENTIAL R.R./STREET GRADE SEPARATION
(A HIGH IMAGE ROAD)
FUTURE R.R. UNDERPASS
MARTIN • CARPENTER • ASSOCIATES
CITY AND REGIONAL PLANNERS
FUTURE ACCESS
* PENDING RESOLUTION OF ACCESS ISSUES
NO HAZARDOUS MATERIALS MANUFACTURING IN THE PROJECT AREA
SAN CARLOS REDEVELOPMENT PROJECT AREA
SAN CARLOS REDEVELOPMENT AGENCY SAN CARLOS, CALIFORNIA
DESIGNATED LAND USES
ADOPTED BY CITY COUNCIL 3/11/91
6-1

MAP SC-12

Multiple Family, High Density

Retail Core

Highway Service

Personal Services

Business and Professional Services

Mixed Use

Open Space

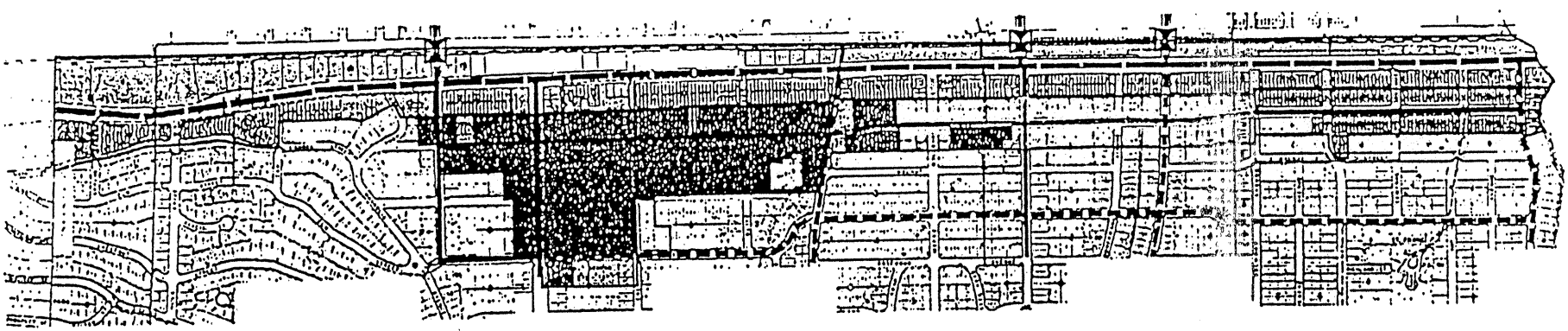
Public

State Highway

Arterial

Collector

Railroad Grade Separation



0 400 800 1600

Scale in Feet

North

City of San Carlos

General Plan Amendment
Land Use & Circulation Diagram

Exhibit 1

MAP SC-13

CITY OF SAN CARLOS ZONING DISTRICTS IN THE VICINITY OF SAN CARLOS AIRPORT

KEY

DISTRICTS:

R-1-LD	LOW-DENSITY SINGLE-FAMILY RESIDENTIAL
R-1	SINGLE-FAMILY RESIDENTIAL
R-3	RESTRICTED MULTIPLE-FAMILY RESIDENTIAL
R-3-G	GARDEN MULTIPLE-FAMILY RESIDENTIAL
R-4	MULTIPLE-FAMILY RESIDENTIAL
P-R	PROFESSIONAL / RESIDENTIAL
C-2	CENTRAL COMMERCIAL
C-4	COMMERCIAL SERVICE
C-R	CENTRAL RETAIL CORE
C-P	CENTRAL BUSINESS PERIMETER
C-S	HIGHWAY SERVICE COMMERCIAL
M-2	HEAVY INDUSTRIAL
PM-1,2	PLANNED MANUFACTURING
A	AIRPORT
P-C	PLANNED COMMUNITY
O-S	OPEN SPACE

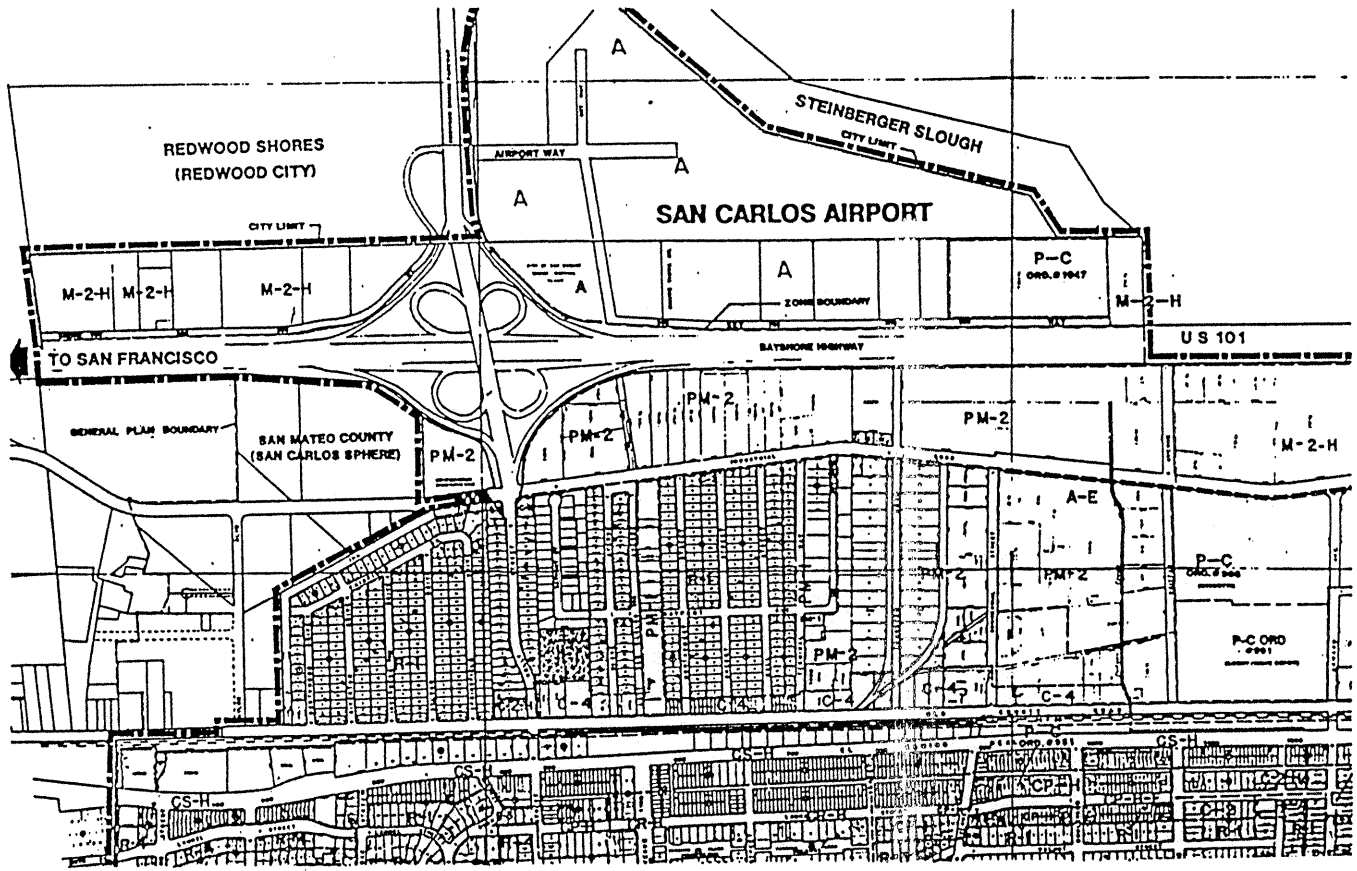
A-E - ADULT ENTERTAINMENT
H - PARKING REQUIREMENTS
B - EXPANDED BUILDING SITE AREAS
F - HOUSING PRESERVATION
L - COMMUNITY ENTRY

ZONE BOUNDARY
CITY LIMIT LINE

DATE OF LATEST REVISION JUNE, 1980

GRAPHIC SCALE

HAMM, WISE & ASSOC.
JAN. 1969



SOURCE: CITY OF SAN CARLOS ZONING MAP

MAP SC-14

The direction of flow within a traffic pattern depends mostly on the wind conditions that affect the airport. Winds at San Carlos Airport generally favor the use of Runway 30 for takeoffs and landings (toward the northwest). This is the predominant operating configuration of the airport (approximately 60% of the time). Runway 12 is used for takeoffs and landings under calm wind conditions and during inclement weather when the wind direction requires southeast or "reverse flow" operations. The published pattern altitude for both operating configurations is 800 feet above mean sea level (AMSL).

Due to the predominant wind direction and the location of high tension electrical transmission lines to the southwest of the airport adjacent to U.S. Highway 101, aircraft using Runway 30 fly a right-hand traffic pattern (all right-hand turns). Aircraft using Runway 12, during calm winds or reverse flow conditions, use a left-hand pattern (all left hand turns). Both directions create the same generalized aircraft traffic pattern over the commercial/office and residential areas of the Redwood Shores area and the open space area south and east of the Steinberger Slough (see Figure SC-1 on page IV-23). Because of these traffic patterns, aircraft noise impacts and the allowable height of structures are key airport/land use and airspace compatibility issues in the Redwood Shores area of Redwood City.

The existence of a standard aircraft traffic pattern tends to give the public a false impression that aircraft follow well-defined "highways in the sky". The reality is that considerable variation occurs in how pilots fly a traffic pattern. This variation is expected and normal. More importantly, it provides air traffic controllers with the needed flexibility to maintain a safe air traffic flow in the vicinity of the airport.

E. AIRPORT/AIRCRAFT NOISE REDUCTION

This Plan contains three elements to address airport/aircraft noise reduction, as follows:

* aircraft noise contours.

* aircraft noise/land use compatibility standards.

* County of San Mateo aircraft noise abatement procedures.

Each of these elements is described in the following sections.

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CONFIGURATION OF THE GENERALIZED RIGHT-HAND AIRCRAFT TRAFFIC PATTERN AT SAN CARLOS AIRPORT

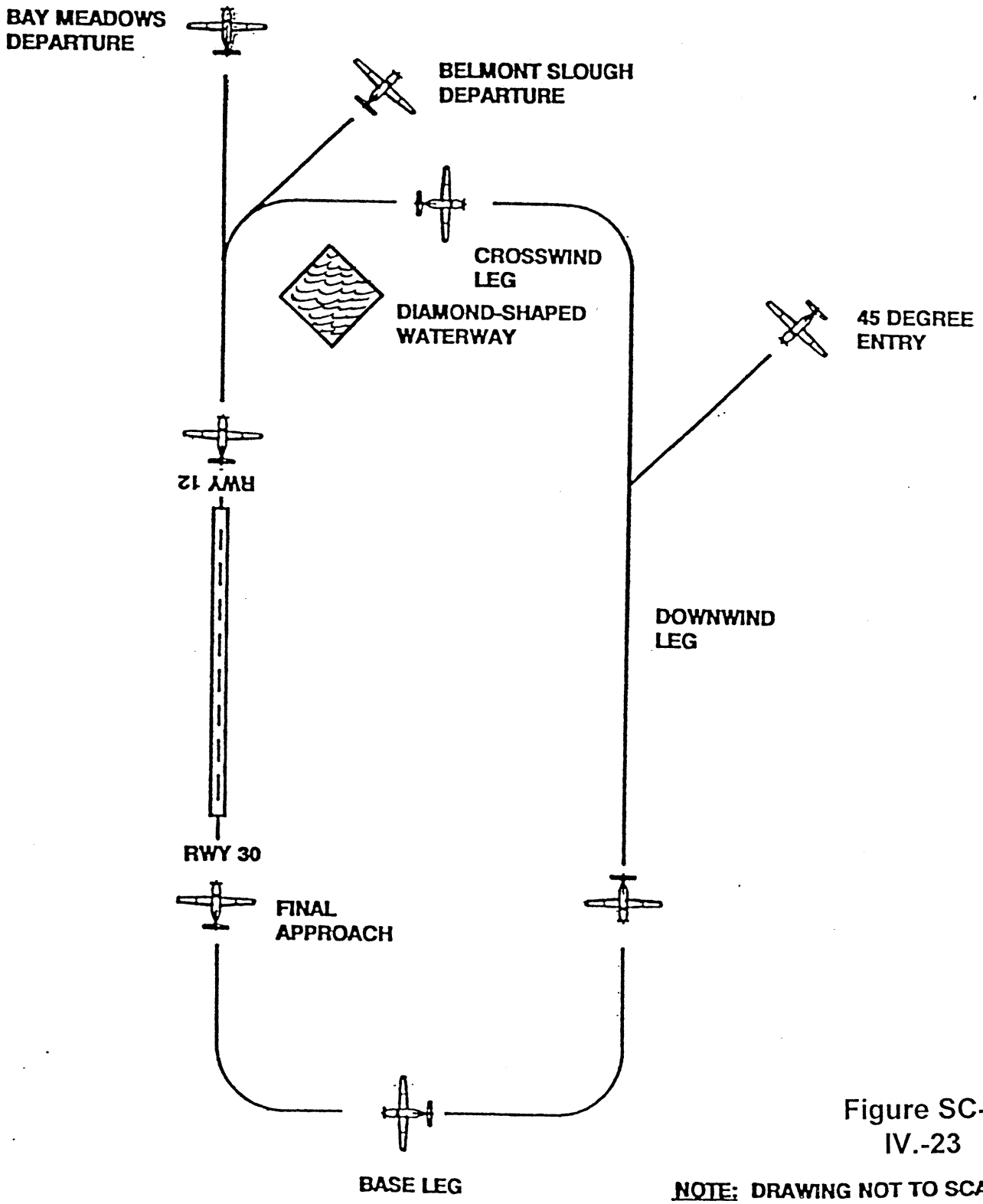

Figure SC-1
IV.-23

NOTE: DRAWING NOT TO SCALE

1. Aircraft Noise Contours

Aircraft noise contours are continuous lines of equal noise level that define an airport's noise impact boundary and noise impact area. The lines are usually drawn in 5-decibel increments so that they resemble elevation contours shown on topographic maps. They are usually drawn on street base maps and identify the average aircraft noise level within the boundary of the contour. They are the principal tool for analyzing airport/land use compatibility in the vicinity of airports. These lines are usually generated from FAA's Integrated Noise Model (INM), a computer program that simulates actual aircraft noise measurements. However, other computer modeling techniques can be used.

Noise contours identify existing and projected areas affected by aircraft noise. They do not represent absolute noise levels. Variations in flight activity and locational characteristics (e.g. microclimate, vegetation, buildings, etc.) can expand or reduce noise affected areas.

The noise metric used in defining aircraft noise contours in California is the Community Noise Equivalent Level metric, referred to as CNEL. The CNEL value represents a 24-hour, time-weighted annual average noise level. It is a measure of the overall noise experienced during an entire day. The time weighting refers to the fact that noise levels that occur during certain sensitive time periods are penalized for occurring at these times. In the CNEL scale, those aircraft noise events that take place during the evening hours (7 p.m. to 10 p.m.) are penalized by an additional 5 decibels (dB) and those events that occur during the nighttime hours (10 p.m. to 7 a.m.) are penalized additional 10 dB. These penalties were selected by the State of California to attempt to account for increased human sensitivity to noise during the quieter periods of the day, where home activities and sleeping are the most probable activities.

The CNEL value accounts for the individual aircraft noise events per day, the time of day, and the loudness of the events. The CNEL metric is the scale specified by the State of California and used by local agencies in California to assess aircraft noise/land use compatibility.

The San Carlos Airport noise contours contained in this Plan are computer-projected noise contours for the year 1995. The projected noise contours include the 55 dB CNEL, 60 dB CNEL, and 65 dB CNEL noise contours. The computer projections included the following assumptions:

* The runway would be extended 1400 feet to the south
* Touch and go operations restricted to thirty percent
* Airport will be operated at its calculated capacity
* No jet operations were included
* Planned annual operations - 340,000 (PANCAP)
* Peak day operations - 1490
* 60 percent of operations on Runway 30; 40 percent on Runway 12
* 70 percent of north departures turned right; remainder departed straight out
* Virtually all Runway 12 departures were left turn outs
* Daily operations data: 7 a.m. to 7 p.m. - 94 percent; 7 p.m. to 10 p.m. - 5 percent; after 10 p.m. - 1 percent

The "racetrack " configuration of the 55 CNEL contour reflects noise generated by aircraft entering the traffic pattern, in addition to the aircraft assumed to remain in the traffic pattern after takeoff.

Source: San Mateo County Airports Plan, July 1975, page 123.

The projected 1995 aircraft noise contours for San Carlos Airport are shown on Map SC-15 on page IV.-26.

2. Airport Noise/Land Use Compatibility Standards For San Carlos Airport

Considerable study has been done by medical researchers regarding the effects of noise on people. There is general agreement that certain types of land uses are not compatible in high noise areas. Interference with speech, sleep disturbance, and nervousness are some of the human health effects of exposure to excessive noise.

Recommendations from the Federal Aviation Administration and the Association of Bay Area Government's Regional Airports System Study (RASS) were used to establish land use compatibility standards for San Mateo County. The airport/land use compatibility standards contained in this Plan are based upon the following conditions:

* Accumulated case history experience of noise complaints near airports
* How well speech can be understood at various noise levels
* Subjective tests of how much noise people judge as acceptable
* Need for freedom from noise
* Typical noise insulation provided by common types of building construction

The aircraft noise/land use compatibility standards were developed for housing built with ordinary construction. It is possible to build structures which are insulated from aircraft noise for almost any given location. The cost of providing such insulation, however, increases sharply with increasing exterior noise levels. For land uses involving outdoor and indoor activities, such as typical residential uses, the noise environment outdoors usually remains unchanged, resulting in only a partial solution to the noise problem.

The airport noise/land use compatibility standards for the San Carlos Airport Land Use Plan Area are shown in Table IV.-2 on pp. IV.-28 and IV.-29. The standards indicate three types of compatibility of the proposed land uses listed, based on the relative CNEL range as shown. The compatibility standards indicate if a proposed land use is "Compatible", "Conditionally Compatible", or "Incompatible" within the identified CNEL ranges. **The Airport Land Use Commission (C/CAG) recognizes the 55 dB CNEL aircraft noise contour at San Carlos Airport as the noise level threshold for review and evaluation of proposed land use policy actions in the airport environs area.**

NOTE: Airport/land use compatibility is determined by comparing a proposed land use policy action with the aircraft noise/land use compatibility standards, the relevant FAR Part 77 height restrictions, and safety criteria contained in this Plan. A proposed land use policy action must be compatible with each of these elements for the Airport Land Use Commission (C/CAG) to determine that the proposed action is consistent with the relevant policies, standards, and criteria contained in the Comprehensive Airport Land Use Plan (CLUP).

Table IV.-2

SAN MATEO COUNTY COMPREHENSIVE AIRPORT LAND USE PLAN

AIRCRAFT NOISE/LAND USE COMPATIBILITY STANDARDS FOR
SAN CARLOS AIRPORT LAND USE PLAN AREA

PROPOSED LAND USE	CNEL RANGE	COMPATIBILITY STANDARDS
RESIDENTIAL Detached Single - Family Dwellings Multi-Family Dwellings (includes duplexes, apartments, condominiums, townhouses, group quarters, etc.) Mobile Homes (includes mobile home parks)	Less than 55	Compatible, with little aircraft noise impact and requiring no special noise insulation features or attenuation for new construction.
	55 to 60	Conditionally compatible; new construction or development should be undertaken only after an analysis of noise reduction requirements is made and the required noise insulation features or attenuation elements are included in the design. The Airport Land Use Commission will request the local referring agency (land use authority) to require a grant of an avigation easement to the County of San Mateo (airport proprietor) as a condition of approval. The appropriate easement document to be used will be specified by the Commission.
	Greater than 60	Incompatible; new construction or development should not be undertaken.
PUBLIC AND QUASI-PUBLIC Schools Libraries Churches and other places of worship Hospitals/nursing homes Cemeteries	Less than 55	Compatible, with little aircraft noise impact and requiring no special noise insulation features or attenuation for new construction.
	55 to 60	Conditionally compatible; new construction or development should be undertaken only after an analysis of noise reduction requirements is made and the required noise insulation features or attenuation elements are included in the design. The Airport Land Use Commission will request the local referring agency (land use authority) to require a grant of an avigation easement to the County of San Mateo (airport proprietor) as a condition of approval (except for cemeteries). The appropriate easement document to be used will be specified by the Commission.
	Greater than 60	Incompatible; new construction or development should not be undertaken.

Table IV.-2 -continued

SAN MATEO COUNTY COMPREHENSIVE AIRPORT LAND USE PLAN

AIRCRAFT NOISE/LAND USE COMPATIBILITY STANDARDS FOR SAN CARLOS AIRPORT LAND USE PLAN AREA

PROPOSED LAND USE	CNEL RANGE	COMPATIBILITY STANDARDS
COMMERCIAL/RECREATION Retail Restaurants Office Buildings Hotels/Motels Movie theaters Auditoriums Sports arenas Playgrounds Golf courses	Less than 70	Compatible, with little noise impact and requiring no special noise insulation features or attenuation elements for new construction.
	70 to 80	Conditionally compatible; new construction or development should be undertaken only after an analysis of noise reduction requirements is made and needed noise insulation features or attenuation elements are included in the design.
	Greater than 80	Incompatible; new construction or development should not be undertaken unless related to airport activities or services. If airport-related, special noise insulation features or attenuation elements should be included in the design; land uses involving concentrations of people (spectator sports and some recreational facilities) should generally be avoided.
INDUSTRIAL Manufacturing Transportation Communications Utilities	Less than 75	Compatible, with little noise impact and requiring no special noise insulation features or attenuation elements for new construction.
	75 to 85	Conditionally compatible; new construction or development should be undertaken only after an analysis of noise reduction requirements is made and needed noise insulation features or attenuation elements are included in the design.
	Greater than 85	Incompatible; new construction or development should not be undertaken unless related to airport activities or services. If airport-related, special noise insulation features or attenuation elements should be included in the design.
OPEN Agriculture Mining Fishing	Less than 75	Compatible, with little noise impact and requiring no special noise insulation features or attenuation elements for new construction.
	Greater than 75	Incompatible; land uses involving concentrations of animals (livestock farming and animal breeding) should generally be avoided.

OFC:kcd - OFC02096.AKA

SOURCE: 1981 Airport Land Use Plan. This Table will be updated as part of a future amendment to the Airport Land Use Plan.

3. County of San Mateo Aircraft Noise Abatement Procedures

San Carlos Airport is surrounded by many noise sensitive land uses. The County of San Mateo has adopted noise abatement procedures to be used by pilots operating aircraft to and from San Carlos Airport. **It is important to remember, however, that safety always supersedes noise abatement procedures.** A copy of the San Carlos Airport Noise Abatement Procedures is shown in Figure SC-2 on page IV.-31.

F. SAFETY GUIDELINES

Areas around airports are continually exposed to the possibility of aircraft accidents, even with well-maintained aircraft and highly trained pilots. Despite stringent maintenance requirements and countless hours of training, history makes it clear that aircraft accidents will occur.

The risk of people on the ground being killed or injured by a falling plane is small; however, an aircraft crash is a high consequence event and when a crash does occur, the result is often catastrophic. Because of this, most attempts at setting safety standards on the ground have not attempted to estimate accident probabilities. They have, instead, approached safety standards by determining compatible land uses, assuming a crash would occur. The safety guidelines in this Plan are based on that approach. The National Transportation Safety Board (NTSB) maintains extensive data on aviation accidents and their causes. Although the NTSB collects data on all accidents, the characteristics of aircraft accidents in the airport environs are of greatest concern.

Certain types of land uses are recognized by the Airport Land Use Commission as hazards to air navigation in the vicinity of San Carlos Airport. These land uses include the following:

* Any use that would direct a steady or flashing light of white, red, green, or amber color toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in straight final approach toward a landing, other than an FAA-approved navigational signal light or visual approach a landing.

* Any use that would cause sunlight to be reflected toward an aircraft engaged in an initial straight climb following take-off or toward an aircraft engaged in a straight final approach toward a landing.

* Any use that would generate smoke or rising columns of air.

* Any use that would attract large concentrations of birds within approach-climbout areas.

* Any use that would generate electrical interference that may interfered with aircraft communications or aircraft instrumentation.

The safety of persons on the ground and in aircraft in flight is always the primary consideration of airport planning and airport operations. **These safety guidelines are not intended to be a specific development plan, do not set forth specific uses for any parcel of land, and are not retroactive with respect to existing incompatible uses.**

NOTE: Airport/land use compatibility is determined by comparing a proposed land use policy action with the Aircraft Noise/Land Use Compatibility Standards, the relevant FAR Part 77 height restrictions, and safety criteria contained in this Plan. A proposed land use policy action must be compatible with each of these elements for the Airport Land Use Commission (C/CAG) to determine that the proposed action is consistent with the relevant policies, standards, and/or criteria contained in the Comprehensive Airport Land Use Plan (CLUP).

G. HEIGHT OF STRUCTURES, USE OF AIRSPACE, AND AIRSPACE COMPATIBILITY

The height of structures and the use of airspace are key safety elements related to airspace compatibility. There are three key objectives related to the preservation and maintenance of airspace compatibility, as follows:

* to avoid airspace impacts that may require significant changes in existing air traffic patterns

* to avoid airspace impacts that may result in a shifting of aircraft noise from one area to another

* to avoid the creation of land use conditions which, by posing hazards to aircraft in flight, can increase the risk of an accident occurring. These hazards include airspace obstructions and land use characteristics, which pose other potential hazards to aircraft in flight, by attracting birds or creating visual and/or electronic interference with air navigation.

1. Federal Aviation Regulations (FAR) Part 77, "Objects Affecting Navigable Airspace", As Amended

The Airport Land Use Commission (C/CAG) has adopted the provisions in FAR Part 77, "Objects Affecting Navigable Airspace", as amended, to establish height restrictions and federal notification requirements for project sponsors, related to proposed development within the FAR Part 77 airspace boundaries for San Carlos Airport. The FAR Part 77 regulations contain three key elements:

* they establish standards for determining obstructions in the navigable airspace and designate and define imaginary surfaces for airspace protection,

* they set forth the requirements for project sponsors to provide notice to the FAA Administrator of certain proposed construction of alterations that may adversely affect the airspace in the airport environs, and

* they provide for the preparation of aeronautical studies conducted by FAA staff, to determine the potential effect of proposed construction or alterations on the safe and efficient use of the affected airspace.

a. FAR Part 77 Imaginary Surfaces

The Airport Land Use Commission (C/CAG) has adopted the provisions in FAR Part 77 for civil airport imaginary surfaces for airspace protection and to establish height restrictions for natural and man-made objects in the vicinity of San Carlos Airport. These imaginary surfaces are described as follows:

* Primary Surface: A surface longitudinally centered along the runway, extending 200 feet beyond each end of the paved runway and having a width of 250 feet.

* Horizontal Surface: A horizontal plane 150 feet above the airport elevation, the perimeter of which is constructed by scribing an arc 10,000 feet out from the center of each end of the primary surface and connecting the arcs with tangents.

* Conical Surface: A surface extending outward and upward from the periphery of the horizontal surface at a slope of 20 to 1 for a horizontal distance of 4,000 feet.

* Approach Surface: A surface longitudinally centered on the extended runway centerline, extending outward and upward from each end of the primary surface at a slope of 34 to 1 for a length of 10,000 feet. The width of this surface starts the same as the Primary Surface, 250 feet, and flares to 1,250 feet at 5,000 feet.

* Transitional Surface: A surface extending outward and upward from the sides of the primary surface and from the sides of the approach surfaces at slope of 7 to 1.

Where imaginary surfaces overlap, such as in the case where the approach surface penetrates and continues upward and outward from the horizontal surface, the lowest surface is used to determine if an object would be an obstruction to air navigation. **Any proposed new construction or expansion of existing structures that would penetrate any of the FAR Part 77 imaginary surfaces for San Carlos Airport, as adopted by the Airport Land Use Commission (C/CAG), is deemed to be an incompatible land use, unless either the FAA has determined that the proposed structure does not constitute a hazard to air navigation and/or the Caltrans Aeronautics Program staff has issued a permit to allow construction of the proposed structure.**

The configuration of the imaginary surfaces for San Carlos Airport is shown on Map SC-16 on page IV.-36 and in cross section in Figure SC-3 on page IV.-37. An example of the imaginary surfaces for San Carlos Airport, in an isometric view, is shown in Figure SC-4 on page IV.-38. A diagram of the runway approach profile for Runway 12-30 and the related height restrictions, based on the configuration of the FAR Part 77 20:1 Approach Surface, is shown in Figure SC-5 on page IV.-39.

b. Notice of Proposed Construction or Alteration of Objects that May Affect the Navigable Airspace (FAA Advisory Circular AC No. 70/7460-2I)

In administering FAR Part 77, the prime objective of the FAA is to ensure the safety of aircraft in flight and the efficient use of navigable airspace by aircraft. The FAA recognizes that there are varied demands for the use of airspace, by both aviation and non-aviation interests. When conflicts arise out of construction proposals, the FAA emphasizes the need for conserving and protecting the navigable airspace. Therefore, early notice of proposed construction or alteration by the project sponsor provides the FAA with sufficient time to review development proposals to evaluate the potential aviation and airspace effects.

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San Carlos Airport—Noise Abatement Procedures

San Mateo County Airports Facts

Over 200,000 activities (landings, takeoffs, or touch-and-goes) took place at San Mateo Co. Airports last year. Of these activities, nearly half were business related.

San Mateo Co. Airports are home to an FAA Control Tower, the Civil Air Patrol, the San Mateo Co. Sheriffs' Air Squadron, the 99's (an international organization of women pilots), the Experimental Aircraft Assoc., the San Carlos and Half Moon Bay Pilots' Associations, and many other aviation service and educational organizations.

Over 3,000 aircraft from other cities, states, and countries visit San Mateo Co. Airports each year.

Over 75 jobs with a total annual payroll exceeding one million dollars are located at San Mateo Co. Airports.

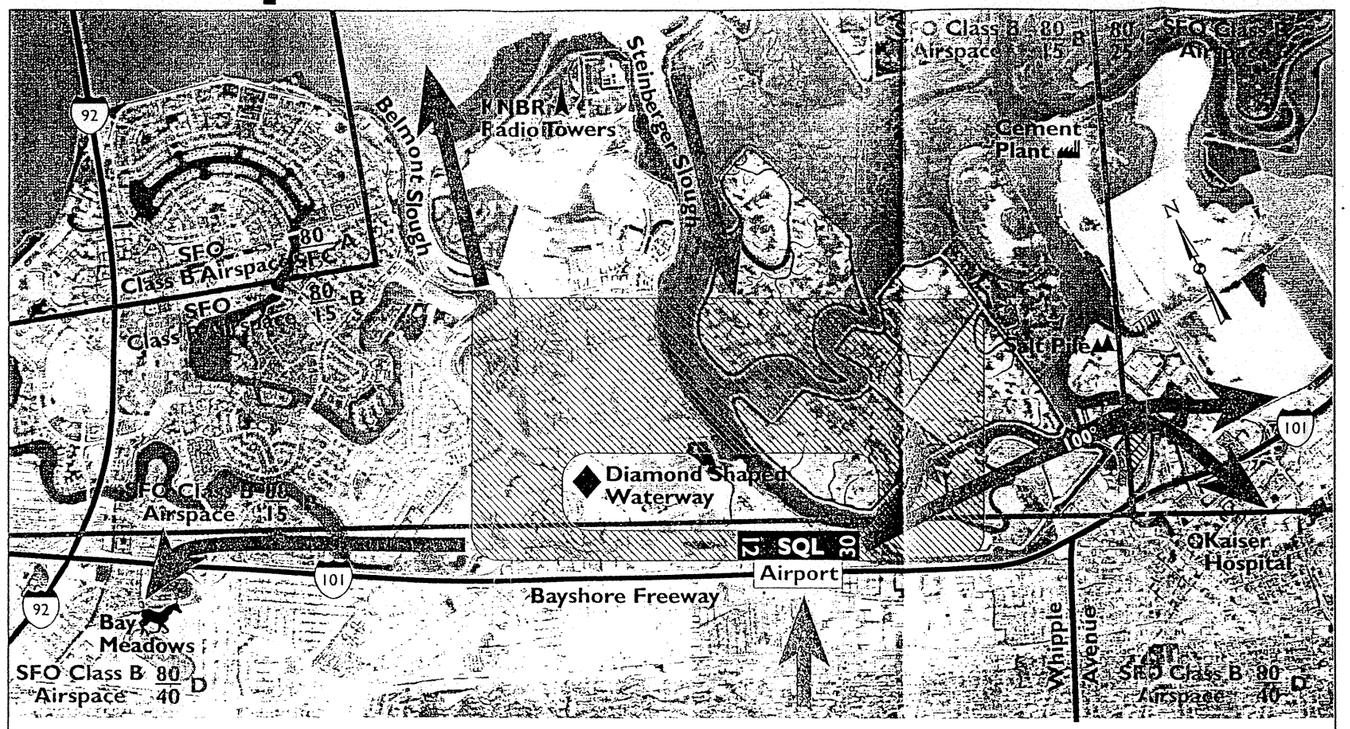
San Mateo Co. Airports are completely self-funded and annually contribute over $500,000 in sales and personal property taxes to the local government.

San Mateo Co. Airports will bring over $1.5 million in federal money into the local economy during fiscal year 1993-94.

General Aviation Facts

General Aviation moves more people, and creates more jobs than any other aspect of aviation.

General Aviation aircraft are responsible for 80% of all aviation activities.



Traffic pattern area

Extremely noise sensitive areas

Approximate SFO Class B Airspace boundaries

Arrival & departure routes

For Information only—Not to be used for navigation

San Carlos Airport is surrounded by noise sensitive areas. By using your aircraft's quietest departure techniques and following the guidelines and procedures below, we can reduce the noise impact on our neighbors.

- ➤ No turns until past the diamond-shaped waterway (Runway 30).
- ➤ No downwind turns until reaching 800' MSL (Runway 30).
- ➤ **Reduce power as soon as safe and practical.**
- ➤ Departing traffic use Runway 12, wind permitting.
- ➤ No touch-and-goes when the Tower is not in operation.
- ➤ Pattern work is discouraged when the Tower is not in operation, and on weekend and holiday mornings.
- ➤ IFR departures: Give consideration to your noise impact.
- ➤ Use common sense and be considerate to airport neighbors.

San Carlos Airport Facts

San Carlos Airport is located next to the Bayshore Freeway at the Holly Street off-ramp in San Carlos on the bay side of the freeway. Cooley Field which was constructed in 1932, was the first airport at this site. The original San Carlos Airport was on the opposite side of the freeway further south where Breuner's Furniture is currently located. In 1950, it was moved adjacent to Cooley Field.

San Carlos Airport is home to over 500 aircraft and many aviation related businesses. Airport facilities include aircraft hangars, tiedowns, and a 2,600' runway.

Contact Information

Civil Air Patrol	
Hal Stoner	(415) 591-8855
Mark Mason	(415) 574-5212
Ed Vreeland	(415) 493-6995
San Carlos Control Tower	
Bob Ensten (Mgr.)	(415) 592-5289
The 99s	
Bernedette Hayward	(415) 578-8944
San Carlos Pilots' Association	
Herb Foreman	(415) 692-3833
Experimental Aircraft Association	
Gerry Stimple	(415) 591-1842
San Carlos Airport Businesses	
San Carlos Flight Ctr.	(415) 591-7611
TransAir	(415) 592-7804
Chuck's Aircraft	(415) 593-8403
Transbay	(415) 592-1000
San Carlos Aviation	(415) 592-2322
San Carlos Avionics	(415) 591-6046
Rabbit Aviation	(415) 591-5857
Texaco Aviation	(415) 595-8575

PREFERRED ARRIVALS—*Use low noise setting inbound.*

FROM NORTH/NORTHWEST: Make entry via the Steinberger Slough (southeast of KNBR radio towers). **Caution:** Traffic departing via Belmont Slough (3/4 mile northwest of radio towers).

FROM SOUTHWEST THROUGH NORTHWEST: Remain at least 1000' above terrain. Make entry overhead the airport northeastbound. Cross overhead mid-field at or above 1200' MSL **(Remain Below SFO Class B Airspace). Caution:** Traffic Pattern at 800' MSL.

STRAIGHT-IN ENTRY RUNWAY 30: Remain at or above 1200' MSL until passing Kaiser Hospital **(Remain Below SFO Class B Airspace).**

PREFERRED DEPARTURES RUNWAY 30

CROSSWIND DEPARTURES: "BELMONT SLOUGH DEPARTURE". Climb straight-out, parallel the Bayshore Freeway until past the diamond-shaped waterway. Turn right and follow the winding slough until crossing the shoreline. Avoid flying over housing. **Caution:** Remain northwest of KNBR radio towers to avoid inbound traffic. **Stay clear of SFO Class B Airspace.**

DOWNWIND DEPARTURES: Maintain 800' MSL, at reduced power setting, until abeam the approach end of Runway 30. Make a left 45° turn, or continue straight-out until 1/4 mile past the Whipple Avenue interchange before making a right turn. **Caution:** Aircraft arriving via cement plant.

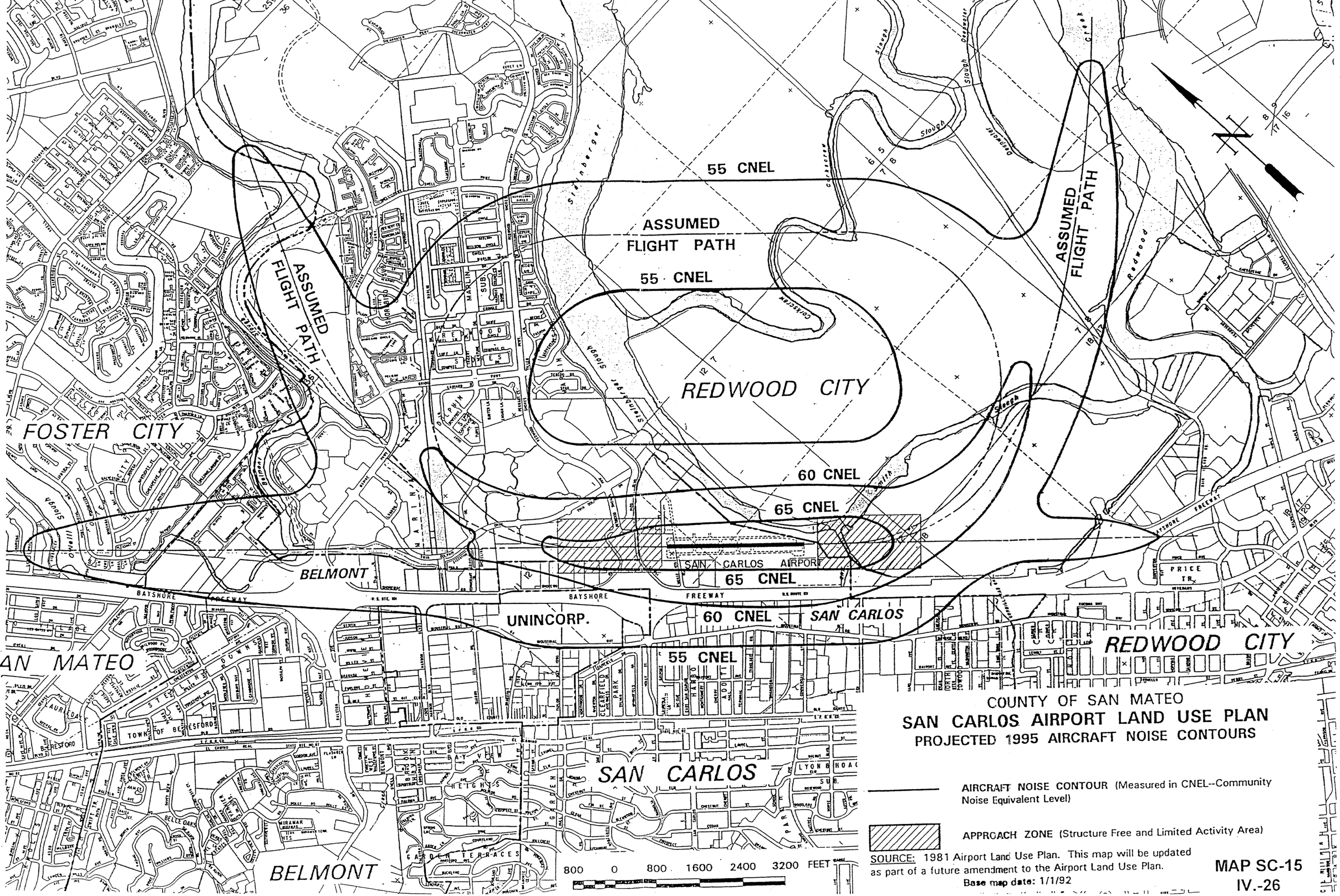
UPWIND DEPARTURES: "BAY MEADOWS DEPARTURE". Climb straight-out, parallel the Bayshore Freeway until abeam the racetrack, then turn left to a southwesterly heading, remaining south of Highway 92. **Stay Clear of SFO Class B Airspace.**

PREFERRED DEPARTURES RUNWAY 12—*All runway 12 departures turn left 20° to a heading of 100° upon reaching the end of the runway.*

SOUTHBOUND AND WESTBOUND: "SALT PILE DEPARTURE". Continue outbound on a heading of 100° until abeam the Salt Pile prior to initiating a right turn **(Note Palo Alto ATA boundary).**

CROSSWIND DEPARTURES AND PATTERN TRAFFIC: Begin your left turn as soon as traffic permits, after reaching the end of the runway.

SAN MATEO COUNTY
AIRPORTS
SAN MATEO COUNTY DEPARTMENT OF PUBLIC WORKS, AIRPORTS DIVISION



COUNTY OF SAN MATEO

SAN CARLOS AIRPORT LAND USE PLAN

PROJECTED 1995 AIRCRAFT NOISE CONTOURS

AIRCRAFT NOISE CONTOUR (Measured in CNEL--Community Noise Equivalent Level)

APPROACH ZONE (Structure Free and Limited Activity Area)

SOURCE: 1981 Airport Land Use Plan. This map will be updated as part of a future amendment to the Airport Land Use Plan.

Base map date: 1/1/92

MAP SC-15

CROSS SECTION INDEX

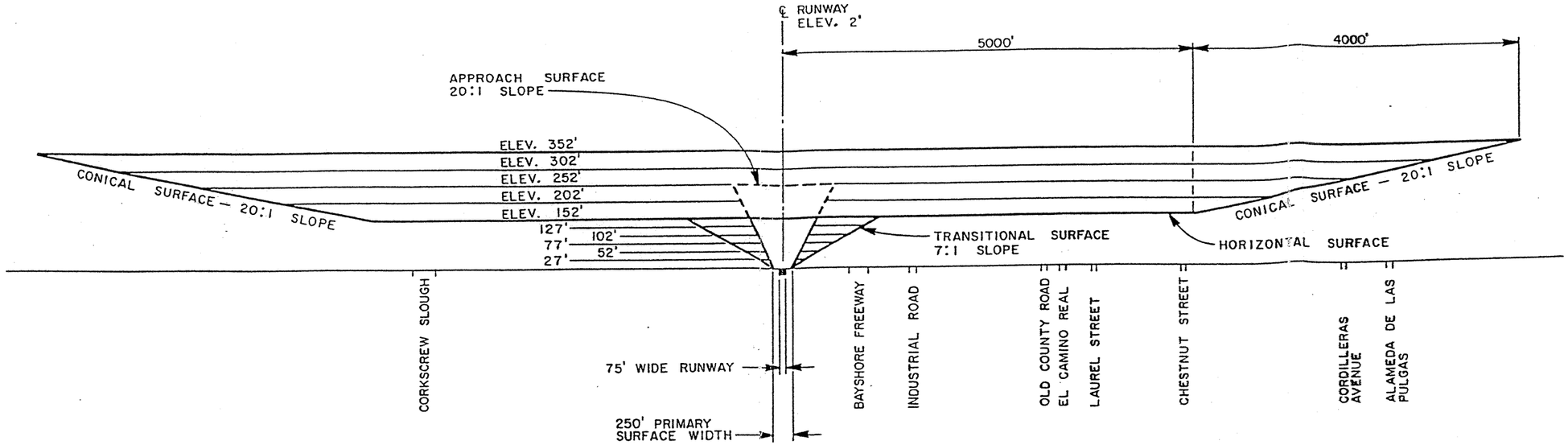
COUNTY OF SAN MATEO
SAN CARLOS AIRPORT LAND USE PLAN
FAR PART 77* CIVIL AIRPORT
IMAGINARY SURFACES HEIGHT RESTRICTIONS

TERRAIN PENETRATION OF IMAGINARY SURFACE

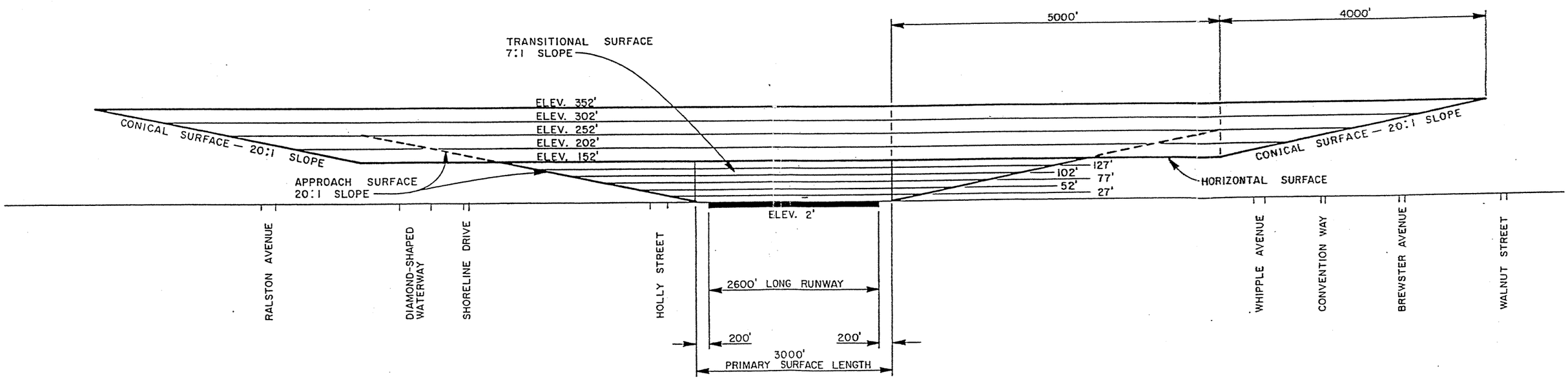
*FAR (Federal Aviation Regulations) PART 77, "Objects Affecting Navigable Airspace"

Base map date: 1/1/92

MAP SC-16



SECTION "A-A"



SECTION "B-B"

HORIZONTAL SCALE:

800 0 800 1600 2400 3200 FEET

VERTICAL SCALE:

200 0 200 400 600 800 FEET

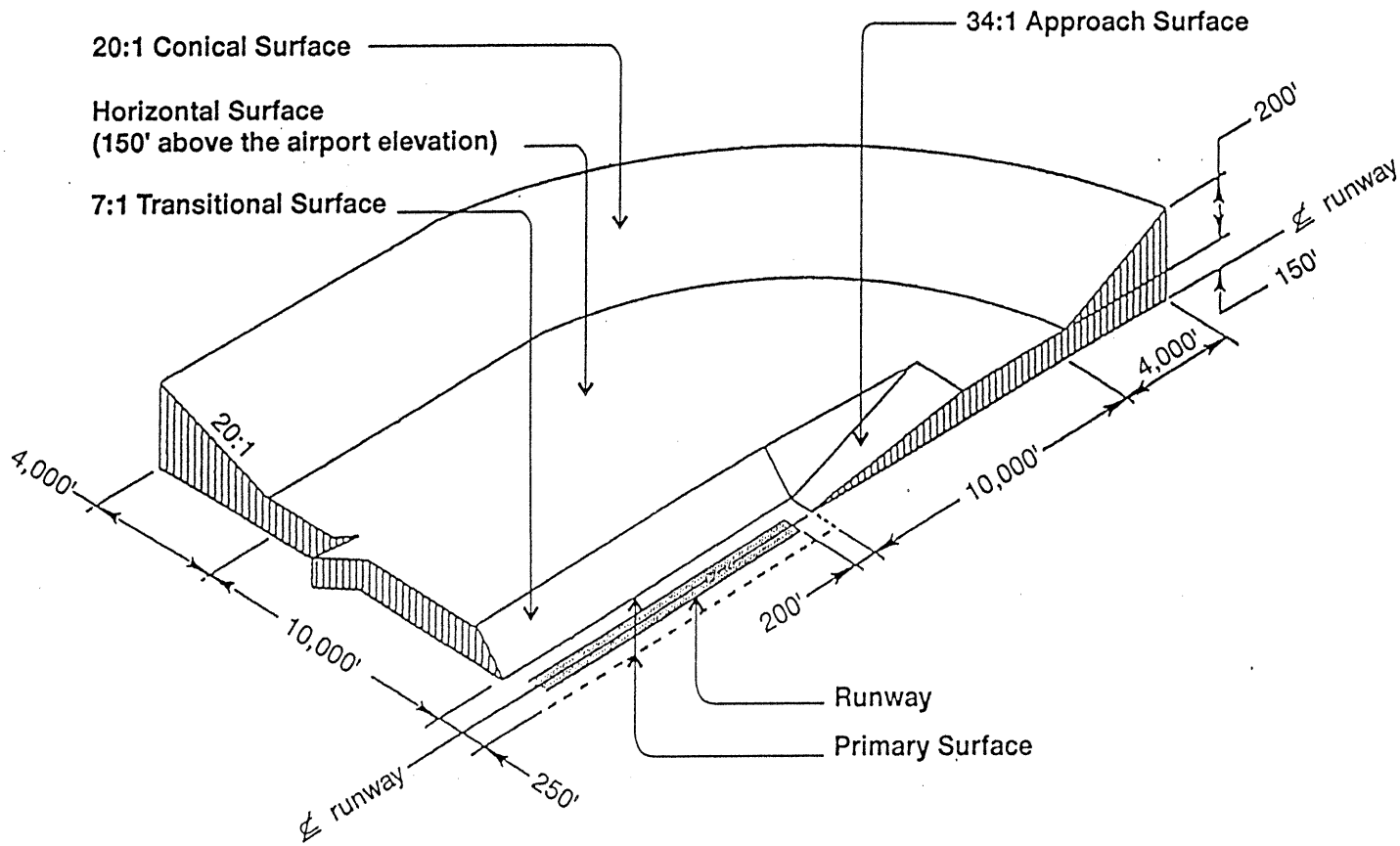
SAN MATEO COUNTY AIRPORT LAND USE PLAN

SAN CARLOS AIRPORT

CROSS SECTIONS OF
FAR PART 77 IMAGINARY SURFACES

AIRPORT ELEVATION: 2' AMSL

Figure SC-3



San Carlos Airport Safety Criteria

Example of Federal Aviation Regulations FAR Part 77
Civil Airport Imaginary Surfaces

Isometric View

Figure SC-4
IV.-38

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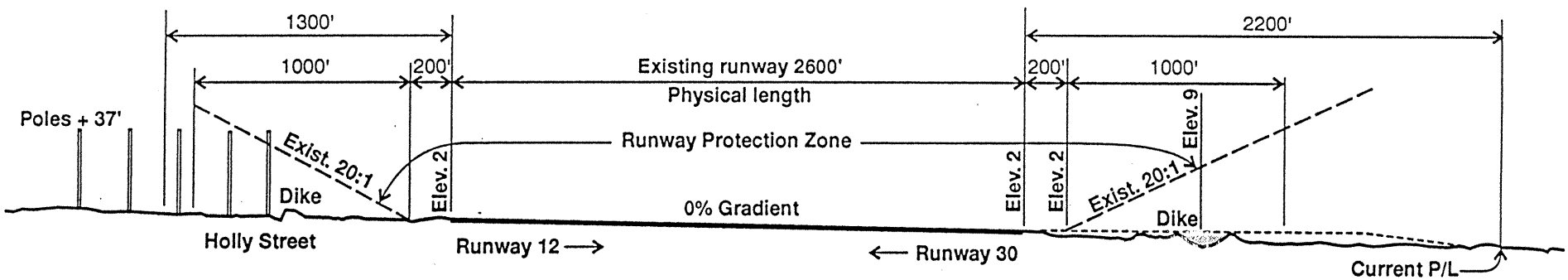


San Carlos Airport Height Restrictions

Runway 12 - 30 Approach Profile

Source:
San Carlos Airport Layout Plan
Approved by FAA Airports Disctrict Officer 1/14/92

Runway Approach Profile

Horiz. 0 200 400 800 Feet

Vert. 0 20 40 80 Feet

Figure SC-5
IV.-39

The Airport Land Use Commission (C/CAG) fully supports the FAR Part 77 federal notification process related to proposed construction or alteration of objects and/or structures in the San Carlos Airport airspace and advises project sponsors to comply with the federal notice requirements. Persons failing to comply with the federal notice provisions of FAR Part 77 may be subject to a criminal penalty under Section 902 of the Federal Aviation Act of 1958, as amended. A copy of FAA Advisory Circular AC No. 70/7460-2I is included in Appendix J.

Upon completion of its evaluation, the FAA informs the project sponsor, the airport proprietor, and the local land use and zoning authority of its findings. **The FAA has no authority to approve, modify, or prohibit the proposed construction or alteration. It is up to the local land use and zoning authority to consider the FAA's findings, regarding airspace impacts of the proposed action, as part of its review and final action on the proposed development.**

2. **State of California Airport Approaches Zoning (California Government Code, Chapter 2., Article 6.5, as amended)**

The State of California adopted the above-referenced law, known as the "Airport Approaches Zoning Law" in 1953. The purpose of the law is stated in Section 50485.3, as follows:

> "50485.3 In order to prevent the creation or establishment of airport hazards, every city or county having an airport hazard area within its territorial limits may adopt, administer, and enforce, under the police power and in the manner and upon the conditions hereinafter prescribed, airport zoning regulations for such airport hazard area, which regulations may divide such area into zones, specify the land uses permitted, and regulate and restrict the height to which structures and trees may be erected or allowed to grow."

The complete text of Chapter 2., Article 6.5, is shown in Appendix K.

3. **1994 County of San Mateo Zoning Regulations, as amended - Chapter 33. Height of Structures and Use of Airspace Near San Carlos Airport**

The County of San Mateo has adopted zoning provisions to regulate the height of structures and the use of the airspace in the vicinity of San Carlos Airport. These

provisions are based on the authority granted to the County by the Airport Approaches Zoning Law and incorporate the provisions and restrictions contained in FAR Part 77, as applicable to San Carlos Airport.

The purpose of the airspace zoning provisions for San Carlos Airport is described in Section 6620 of the County of San Mateo Zoning Regulations, as follows:

> "SECTION 6620. PURPOSE. Pursuant to the authority conferred by the Airport Approaches Zoning Law of the State of California and in conformity with Sections 50485 to 50485.13 of the Government Code, the Board of Supervisors of the County of San Mateo, State of California, deem it necessary to regulate the use of airspace for the purposes of promoting the public health, safety, and general welfare of the inhabitants of the County of San Mateo, by preventing the creation or establishment of airport hazards, thereby protecting the lives and property of the users of the San Carlos Airport and the occupants of the land in its vicinity and preventing destruction and impairment of the utility of the airport and the public investment therein."

The complete text of Chapter 33 of the County of San Mateo Zoning Regulations, as amended, is included in Appendix M.

4. City of Redwood City 1990 Strategic General Plan Policies and Zoning Regulations Related to the Height of Structures

a. Safety Element - 1990 Strategic General Plan

The Safety Element of the City of Redwood City 1990 Strategic General Plan contains the following narrative about airport safety issues and the height of structures near San Carlos Airport:

> **"SAN CARLOS AIRPORT**
>
> Although aircraft accidents can occur anywhere, incidents which affect life and property on the ground are more likely to occur in areas immediately surrounding the airport. Residences and other occupied buildings in these areas are subject to

ever present risk from crashes or collisions, especially during take-off and landing. It is essential that people and property are protected from aircraft accidents.

In 1983, Redwood Shores, Inc. voluntarily restricted heights of buildings, within two flight paths, to 60 feet above mean sea level, which is approximately 50 feet above ground level. All buildings constructed so far, have met these voluntary height limits. Policy S-13 will ensure that this height limit (60 feet above mean sea level) will be implemented by an appropriate means, such as deed restrictions, flight corridor Noise Ordinance, or other appropriate mechanisms. The existing zoning classifications at the northerly end of the runway [Runway 30] allow 75 and 100 foot height limits.

The San Carlos Hazard Zoning Plan, as shown on page 11 of the 1981 San Mateo County Airport Land Use Plan, is hereby incorporated by reference. All height limitations will be compatible with Federal Aviation Regulations FAR Part 77, Objects Affecting Navigable Airspace. The ALUC height restrictions for approach surfaces for San Carlos Airport, as defined in Appendix B at Page B-1 of the 1981 San Mateo County Airport Land Use Plan, are hereby incorporated by reference."

NOTE: The San Mateo County Airport Land Use Plan, now known as the San Mateo County Comprehensive Airport Land Use Plan (CLUP), has been amended several times since 1981. The above references to the 1981 Airport Land Use Plan are no longer accurate.

The location and configuration of the 50-foot height corridor in the Redwood Shores area, near San Carlos Airport, is shown in Map SC-17 on page IV.-44.

In addition to the above narrative, the Safety Element contains several policies that address general plan consistency with the Comprehensive Airport Land Use Plan (CLUP) and the height of structures within the 50-foot height corridor in Redwood Shores. Those policies (S-11., S-12., and S-13. are included herein, as follows:

"S-11. Review and update the General Plan as necessary to ensure the General Plan is consistent with the County Airport Land Use Plan. Refer all General Plan amendments/updates, Specific Plans and amendments affecting property in the

Planning Boundary for San Carlos Airport to the Airport Land Use Commission for a determination of consistency with the County Airport Land Use Plan. The "Planning Boundary" for San Carlos Airport is considered the ground area encompassed by the combination of the line depicting the 55 CNEL Noise Contour at page 7 of the 1981 San Mateo County Airport Land Use Plan and the outer boundary (Elevation 359) of the Hazard Zoning Plan at page 11 of the 1981 San Mateo County Airport Land Use Plan.

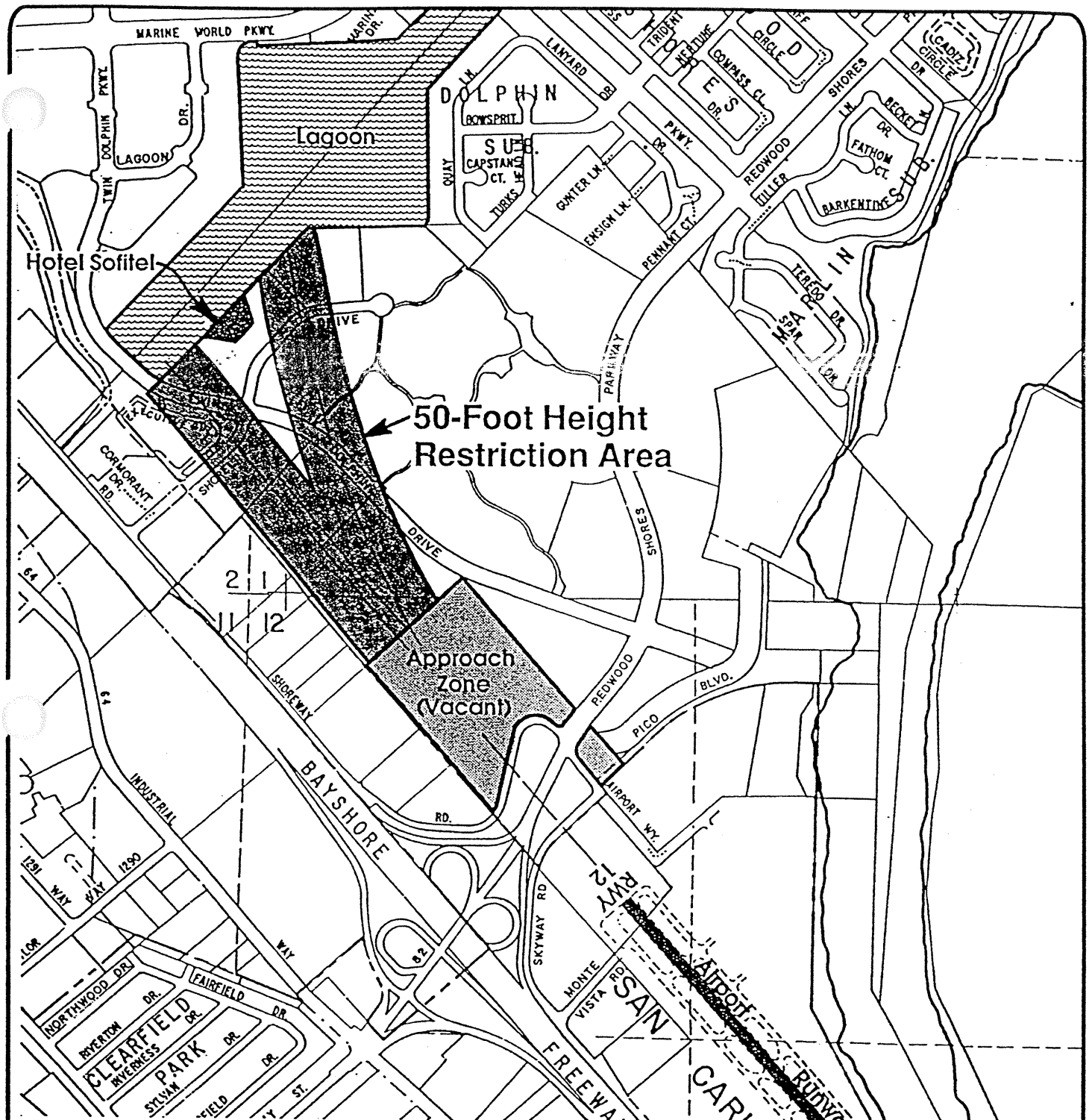
S-12. Regulate land uses surrounding airports to assure airport safety. Measures may include restrictions on permitted land uses and development criteria.

S-13. Structures located within the shaded area shown on Map* would be limited in height to 60 feet above mean sea level which is approximately 50 feet above the airport runway."

b. Zoning Regulations

Because of the location and configuration of the aircraft traffic pattern at San Carlos Airport, the permitted height of structures, as provided in the City of Redwood City zoning regulations, is critical to establishing and maintaining airspace compatibility in the vicinity of the airport. The aircraft traffic pattern primarily affects the Redwood Shores area of Redwood City. Although the City of Redwood City does not have an airport overlay zone to address airport/land use compatibility issues, the permitted height of structures in the relevant zoning districts help to achieve airspace compatibility in the vicinity of San Carlos Airport. The relevant zoning districts in the Redwood Shores area and their corresponding height limitations are shown in Table IV-3 on page IV-45.

The maximum permitted structure heights shown in Table IV.-3 can be increased by Planning Commission approval of a Planned Development Permit (PDP) that includes a height increase. The PDP modifies the height restriction of the underlying zoning district. Approval of a Planned Development Permit (PDP) by the Planning Commission does not constitute a rezoning, and therefore, would not require a determination of consistency with the relevant provisions of the Comprehensive Airport Land Use Plan by the Airport Land Use Commission (C/CAG).



San Carlos Airport Safety Criteria

Runway 30 50ft Height Restriction Corridor

Source:
City of Redwood City Strategic General Plan
Adopted January 22, 1990

MAP SC-17
IV.-44

San Mateo County Comprehensive Airport Land Use Plan
San Mateo County • Airport Land Use Commission • December 1996

San Carlos Airport
Land Use Plan

cdr5\alupscs2 rp 8-14-96

TABLE IV.-3

CITY OF REDWOOD CITY ZONING DISTRICTS* MAXIMUM HEIGHT LIMITS FOR STRUCTURES LOCATED IN ZONING DISTRICTS IN THE REDWOOD SHORES AREA

ZONING DISTRICT	MAXIMUM HEIGHT LIMIT
RH - Residential Hillside	30 feet
R-1 - Residential Single-Family	30 feet
R-2 - Residential Duplex	30 feet
R-3 - Multi-Family - low density	35 feet
PO - Professional Office	35 feet
CN - Neighborhood Commercial	35 feet
CA - Central Administrative	75 feet
CP - Commercial Park	100 feet
TP - Tidal Plain	30 feet

* The maximum height limits shown can be increased via Planning Commission approval of a Planned Development Permit (PDP). A PDP enables modification of certain provisions in the underlying zoning district, on a site specific basis, to allow flexibility in design and development of the site, where such flexibility is not provided by the underlying zoning regulation(s).

Source: City of Redwood City Zoning Ordinance and Planning Staff

5. City of San Carlos Zoning Regulations Related to the Height of Structures

The City of San Carlos Zoning Ordinance establishes maximum height limits for each zoning district included in the ordinance. The maximum height limits for structures located in the vicinity of San Carlos Airport are shown in Table IV.-4 on page IV-47.

The maximum permitted structure heights shown in Table IV.-4 can be increased via City Council approval of a rezoning that includes a height increase. Such an action must be referred to the Airport Land Use Commission (C/CAG) for a determination of consistency with the relevant provisions in the San Carlos Airport Land Use Plan.

6. Hazards to Aircraft in Flight

Certain land use characteristics are recognized by the Airport Land Use Commission (C/CAG) as hazards to air navigation in the vicinity of San Carlos Airport. These include the following:

* Any use that would direct a steady or flashing light of white, red, green, or amber color toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in straight final approach toward a landing, other than FAA-approved navigational lights.

* Any use that would cause sunlight to be reflected toward an aircraft engaged in a straight climb following take-off or toward an aircraft engaged in a straight final approach toward a landing.

* Any use that would generate smoke or rising columns of air.

* Any use that would attract large concentrations of birds within approach-climbout areas.

* Any use that would generate electrical/electronic interference that may interfere with aircraft communication equipment and/or aircraft instrumentation.

TABLE IV.-4

CITY OF SAN CARLOS ZONING DISTRICTS* MAXIMUM HEIGHT LIMITS FOR STRUCTURES LOCATED IN THE VICINITY OF SAN CARLOS AIRPORT

ZONING DISTRICT	MAXIMUM HEIGHT LIMIT
C-4 - Commercial Service District	50 feet
C-P - Central Business Perimeter	50 feet
C-R - Central Retail Core	50 feet
C-S - Highway Service Commercial District	50 feet
M-2 - Heavy Industrial District	50 feet
P-C - Planned Community	50 feet
PM-1 - Planned Manufacturing District	50 feet
PM-2 - Planed Manufacturing District	50 feet
R-1 - Single-family Residential District	28 feet

* The maximum height limits shown can be increased via City Council approval of a rezoning that includes a height increase.

Source: City of San Carlos Zoning Ordinance and Planning Staff.

NOTE: Airport/land use compatibility is determined by comparing a proposed land use policy action with the Aircraft Noise/Land Use Compatibility Standards, the relevant FAR Part 77 height restrictions, and safety criteria contained in this Plan. A proposed land use policy action must be compatible with each of these elements for the Airport Land Use Commission (C/CAG) to determine that the proposed action is consistent with the relevant policies, standards, and/or criteria contained in the Comprehensive Airport Land Use Plan (CLUP).

H. AVIGATION EASEMENTS RELATED TO PROPOSED DEVELOPMENT

1. Overview

Experience at many airports has shown that aircraft noise-related impacts are not confined to the boundary of the outermost (lowest noise level) aircraft noise contour. Many people are sensitive to the frequent presence of aircraft overhead, even at noise levels that are lower than those typically measured and illustrated by cumulative noise contours. A "fear factor" may also contribute to this sensitivity, in terms of the fear of a potential aircraft accident. This land use compatibility concern is often expressed as overflight annoyance.

The ideal land use strategy, with respect to overflight annoyance, is to prohibit the development of residential land uses and other noise-sensitive land uses on areas subject to aircraft overflight. To the extent that such an approach is not practical, the best alternative os to inform potential buyers of property near an airport of the airport's proximity to a residential area before they move into that area. This can be accomplished through a buyer awareness measure, such as the granting on an avigation easement, by the property owner, to the airport proprietor. The easement is recorded on the title of the property and runs with the property, not with the property ownership.

The overall goal of obtaining avigation easements in the vicinity of San Carlos Airport, as intended in this Plan, is to balance the public need for the development of land in the vicinity of San Carlos Airport wit the additional and sometimes conflicting need for the orderly development and continued safe and efficient operation of San Carlos Airport and to maintain the airport as a viable element of the local regional, state, and national air transportation systems.

2. Purpose.

Pursuant to the Aeronautics Law, State Aeronautics Act related to airport land use commissions, the San Mateo County Airport Land Use Commission (C/CAG) deems it necessary to: (1) protect the airspace in the vicinity of San Carlos Airport for the safe passage of aircraft in flight and (2) to notify owners of property near San Carlos Airport of the proximity of the airport and of the potential impacts that could occur on the property from airport/aircraft operations. This is accomplished by a request to the relevant local agency, from the Airport Land Use Commission (C/CAG), to require the grant of an avigation easement to the County of San Mateo, as the airport proprietor, as part of the agency's approval of certain land use policy actions, as described herein.

The Airport Land Use Commission (C/CAG) has determined that the granting of avigation easements to the County of San Mateo, as the airport proprietor of San Carlos Airport, is necessary for the purposes explained below. An avigation easement is a legal instrument that provides an airport proprietor with certain rights regarding the use and protection of airspace over non-airport property. It also provides the current affected property owner and subsequent affected property owner(s) with formal notice that his/her property is located near an airport and may be subject to impacts from airport and/or aircraft operations. Avigation easements are obtained for the following purposes:

* to prevent the creation or establishment of airport and/or airspace hazards for the free and unobstructed passage of aircraft through the air, thereby protecting the lives and property of users of San Carlos Airport and the occupants of land in the vicinity of the airport.

* to prevent the impairment of the utility of San Carlos Airport and the public investment reflected therein to provide for the orderly development of the airport, which will help promote and enhance air transportation the region.

* to provide current affected property owners and subsequent affected property owners with formal notice that their properties are located near San Carlos Airport and be nay subject to impacts from airport and/or aircraft operations.

3. Avigation Easement Review Area (AERA).

This San Mateo County Comprehensive Airport Land Use Plan (CLUP) establishes as Avigation Easement Review Area (AERA) for San Carlos Airport (see Map SC-18 on page IV.-52). The AERA is a finite boundary that identifies a geographic area around San Carlos Airport within which the Airport Land Use Commission (C/CAG) will request a local agency to require the grant of an avigation easement to the County of San Mateo, as part of the Commission's review of certain proposed local agency land use policy actions located within the AERA boundary.

The AERA boundary for the San Carlos Airport is based on a combination of the following elements:

* the 55 dB CNEL aircraft noise contour.

* the FAR Part 77 horizontal surface.

* the FAR Part 77 approach surface.

* the FAR Part 77 transitional surface.

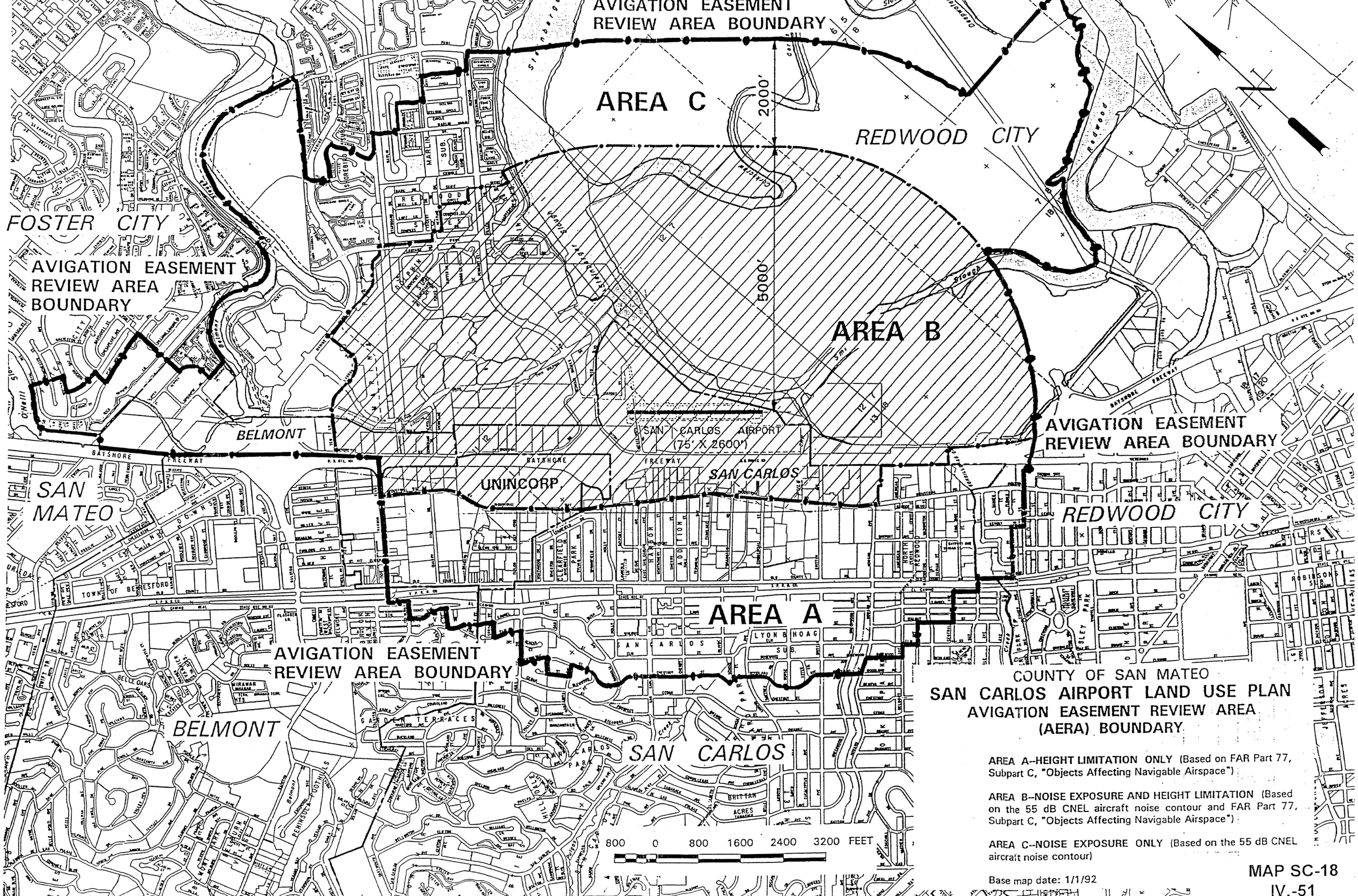
Based on the combination of these elements, three types of avigation easement areas have been created that affect property within the AERA for San Carlos Airport:

* **Area A** - property that is affected by FAR Part 77 height restrictions only

* **Area B** - property that is affected by aircraft noise impacts of 55 dB CNEL or higher and FAR Part 77 height restrictions

* **Area C** - property that is affected by aircraft noise impacts of 55 dB CNEL or higher only.

Some local land use policy actions may include areas that extend beyond the Avigation Easement Review Area (AERA) boundary. In such cases, the Airport Land Use Commission (C/CAG) will only request that an avigation easement by granted over those properties that are located within the AERA. The County of San Mateo will record the avigation easement document with the County Recorder at its own expense.



COUNTY OF SAN MATEO

SAN CARLOS AIRPORT LAND USE PLAN

AVIGATION EASEMENT REVIEW AREA (AERA) BOUNDARY

AREA A--HEIGHT LIMITATION ONLY (Based on FAR Part 77, Subpart C, "Objects Affecting Navigable Airspace")

AREA B--NOISE EXPOSURE AND HEIGHT LIMITATION (Based on the 55 dB CNEL aircraft noise contour and FAR Part 77, Subpart C, "Objects Affecting Navigable Airspace")

AREA C--NOISE EXPOSURE ONLY (Based on the 55 dB CNEL aircraft noise contour)

Base map date: 1/1/92

MAP SC-18

4. Process for Requesting the Grant of an Avigation Easement to the County of San Mateo.

Both the C/CAG Airport Land Use Committee (ALUC) and C/CAG, acting as the Airport Land Use Commission, will consider the need for the grant of an avigation easement to the County of San Mateo, as part of their reviews of proposed local agency land use policy actions that affect property near San Carlos Airport. The process will include the following:

* **The C/CAG Airport Land Use Committee (ALUC) reviews a proposed local agency land use policy action and submits a recommendation to the Airport Land Use Commission (C/CAG), regarding a request for a grant of an avigation easement to the County of San Mateo.**

  The ALUC will evaluate the need for an avigation easement, based on the criteria established herein, as part of its review of the consistency of a proposed local agency land use policy action with the relevant polices, standards, and criteria in the Comprehensive Airport Land Use Plan (CLUP) for San Carlos Airport. The ALUC will then recommend to the Airport Land Use Commission (C/CAG), that an avigation easement be granted to the County of San Mateo, as part of the Commission's consideration and action on the ALUC's recommendation.

* **The Airport Land Use Commission (C/CAG) reviews the proposed local agency land use policy action and considers the ALUC recommendation.**

  The Commission (C/CAG) will review the ALUC recommendation regarding the consistency of the proposed action with the relevant provisions in the CLUP, consider the recommendation for the grant of and avigation easement, and take final action on the local agency proposal.

* **The Airport Land Use Commission (C/CAG) formally requests the local agency to require the grant of an avigation easement to the County of San Mateo.**

  If the Commission (C/AG) concurs with the ALUC recommendation, the Commission will notify the affected local agency of its action and formally request the agency to require the grant of an avigation easement to the County of San Mateo, as part of the agency's final approval of the proposed action.

5. Criteria for Basing a Request for the Grant of an Avigation Easement to the County of San Mateo.

The request for the grant of an avigation easement to the County of San Mateo will be made to the local agency that is proposing the land use policy action. Such request will be based on the criteria outlined in Table IV.-5 on page IV.-55.

6. Voluntary Grant of an Avigation Easement to the County of San Mateo

In addition to the formal process described in Section No. 4, the County of San Mateo may obtain an avigation easement, over any property in the vicinity of San Carlos Airport, via a voluntary grant of an easement by a property owner. A voluntary grant of an avigation easement would not involve any formal action by a local agency or by the Airport Land Use Commission (C/CAG). Such action would only involve the affected property owner (grantor) and the County of San Mateo (grantee). The County would provide the appropriate easement document, as shown in Appendix E. The easement document would be recorded with the County Recorder at the county's expense.

7. Types of Avigation Easements.

Appendix E. includes examples of the County of San Mateo avigation easement documents that will be used by the county to obtain avigation easements, based on the process and criteria described herein and for a voluntary grant of a easement to the county, as described above. Three types of avigation easement documents have been created as follows:

* noise easement document

* noise and obstruction (height restriction) easement document

* obstruction (height restriction) easement document

The Airport Land Use Commission (C/CAG) will specify the appropriate easement document to be used, based on the location and characteristics of the proposed land use policy action (e.g. Area A, Area B, or Area C). The request for the grant of an avigation easement to the County of San Mateo is included in the aircraft noise/land use compatibility standards for the San Carlos Airport Land Use Plan Area.

TABLE IV.-5

CRITERIA FOR BASING A REQUEST FOR THE GRANT OF AN AVIGATION EASEMENT TO THE COUNTY OF SAN MATEO

Key Elements of the Proposed Action		Criteria for Requesting the Grant of an Avigation Easement
1.	Location	the affected property is located within the Avigation Easement Review Area (AERA) for San Carlos Airport, as shown on Map SC-18 on page IV.-51)
2.	Policy Action(s)	the proposed land use policy action(s) includes adoption of one or more of the following: a. general plan b. general plan amendment (includes maps and/or text that result in a land use change that includes any of the land uses listed in Item No. 4) c. zoning ordinance d. zoning ordinance amendment (includes maps and/or text that result in a land use change that includes any of the land uses listed in Item No. 4) e. specific plan f. specific plan amendment (includes maps and/or text that result in a land use change that includes any of the land uses listed in Item No. 4)

continued on page IV.-55

TABLE IV.-5 - Continued

CRITERIA FOR BASING A REQUEST FOR THE GRANT OF AN AVIGATION EASEMENT TO THE COUNTY OF SAN MATEO

Key Elements of the Proposed Action		Criteria for Requesting the Grant of an Avigation Easement
3.	FAR Part 77 Height Restrictions	the proposed land use policy action(s) will allow any land use(s) that includes elements, features, and/or characteristics that are subject to the federal notice requirement and height restrictions specified in FAR Part 77, "Objects Affecting Navigable Airspace", as amended, as applicable to San Carlos Airport.
4.	Land Uses	the proposed land use policy action(s) includes one or more of the following land uses: a. residential dwelling units, as follows: 1. detached single-family dwellings 2. multi-family dwellings (duplexes, apartments, condominiums, townhouses, group quarters, etc.) 3. mobile homes; modular homes b. schools c. libraries d. hospitals, nursing homes, and similar facilities e. churches, synagogues, and other places of worship

Source: 1994 amendment to the San Mateo County Comprehensive Airport Land Use Plan (CLUP) for San Carlos Airport, adopted by the Airport Land Use Commission (C/CAG) on December 8, 1994.

SAN MATEO COUNTY
COMPREHENSIVE AIRPORT LAND USE PLAN

CHAPTER V. SAN FRANCISCO INTERNATIONAL AIRPORT LAND USE PLAN

CHAPTER V. SAN FRANCISCO INTERNATIONAL AIRPORT LAND USE PLAN

A. INTRODUCTION

The San Francisco International Airport Land Use Plan applies to the geographic areas in incorporated cities and unincorporated areas in the vicinity of San Francisco International Airport that are impacted by aircraft noise, restrictions on the height of structures and/or objects near the airport, and airport/aircraft safety guidelines. The Plan includes policies, standards, and criteria to address each of these issues, as explained below.

B. AIRPORT OVERVIEW

1. Current Status (1994)

San Francisco International Airport is the major air carrier airport for the San Francisco Bay Area and Northern California. The airport is located entirely within San Mateo County. The airport is owned and operated by the City and County of San Francisco. It is administered by the San Francisco Airport Commission and the Airport Director. The Commission consists of five members appointed by the Mayor of San Francisco. There is no County of San Mateo representation on the Airport Commission.

The airport property consists of approximately 5,171 acres, of which 2,383 acres have been developed for airport use. The remaining 2,788 acres are undeveloped tidelands and/or wetlands. The runway layout consists of two sets of parallel runways that intersect at 90 degrees. The runway centerlines are 750 feet apart. The airport has 80 aircraft gates, 49 of which can serve wide-body jets. The total amount of current terminal space is 2.6 million square feet. San Francisco International Airport Layout Plan (ALP) is shown on Map SFO-1 on page V.-3.

San Francisco International Airport is the fifth busiest airport in the Unites States in terms of total passengers and is the third largest origin/destination airport in the country. The airport is currently served by 48 passenger airlines and 11 cargo carriers (1994). In the fiscal year ending June 30, 1993, over 32.7 million travelers passed through the airport terminals. This is a daily average of nearly 90,000 passengers.

In the fiscal year ending June 30, 1993, the airport reported 412,585 aircraft operations (landings and take-offs). About 70% of aircraft operations are commercial jet carriers. The remaining 30% are third-level air carriers (commercial, non-jet), military aircraft, and general aviation operations.

San Francisco International Airport is located approximately 14 miles south of downtown San Francisco in an unincorporated area in northern San Mateo County. The airport lies adjacent to U.S. Highway 101, San Francisco Bay, and the cities of South San Francisco, San Bruno, Millbrae, and Burlingame.

2. San Francisco International Airport Master Plan Program (1986-2006)

The San Francisco Airport Commission initiated a Master Plan program for San Francisco International Airport in 1986. The program included preparation of several working papers, a Final Draft Master Plan, and an environmental impact report (EIR). The Commission approved a final Master Plan for San Francisco International Airport on November 3, 1992. The approved Mater Plan included a Memorandum of Understanding (MOU), between the Airport Director and signatory jurisdictions in San Mateo County , that identifies certain mitigation measures to be implemented in addition to those contained in the certified Final EIR on the Master Plan.

The Master Plan includes a Near Term Plan (1996) and a Long Term Plan (2006). The total Master Plan responds to the projected economic growth of the Bay Area and the demands placed on airport facilities by passengers, tenants, the surrounding communities, and the general public. The Plan outlines major terminal improvements that will handle up to 51 million annual passengers (MAP) by the year 2006.

A new International Terminal is the centerpiece of the Master Plan program. The new terminal is scheduled for completion in the late 1990s. It will consist of 26 aircraft gates that will be capable of processing 5,000 passengers per hour through a new Customs processing facility. The new terminal complex will also include the following facilities: 1). a Ground Transportation Center (GTC) that will provide short-term public parking and staging facilities for rental car operators, 2). a light rail system (LRS) that will provide free train service to all airport terminals, rental car facilities, the GTC, an on-airport hotel, remote parking lots, aircraft maintenance, and cargo areas. It may also include a future connection to nearby mass transit systems, and 3). a new three-level loop road and a modified airport/U.S. Highway 101 interchange to serve the new International Terminal, GTC, and rental car facilities. Implementation of the total Master Plan is expected to begin in fiscal year 1994/95 and be completed in the year 2006.

C. AIRPORT/AIRCRAFT NOISE REDUCTION

The San Francisco International Airport Land Use Plan contains seven elements that address airport/aircraft noise reduction, as follows:

RUNWAY	RUNWAY LENGTHS (IN FEET)			
	PRESENT		FUTURE	
	TAKE-OFF	LANDING	TAKE-OFF	LANDING
28R	11,870	11,870	11,870	11,870
28L	10,600	10,600	10,600	10,600
10L	11,870	11,870	11,870	11,870
10R	10,600	10,600	10,600	10,600
19R	7,000	7,000	7,000	7,000
19L	8,901	8,901	8,901	8,901
1L	7,000	7,000	7,000	7,000
1R	8,901	8,400	8,901	8,400

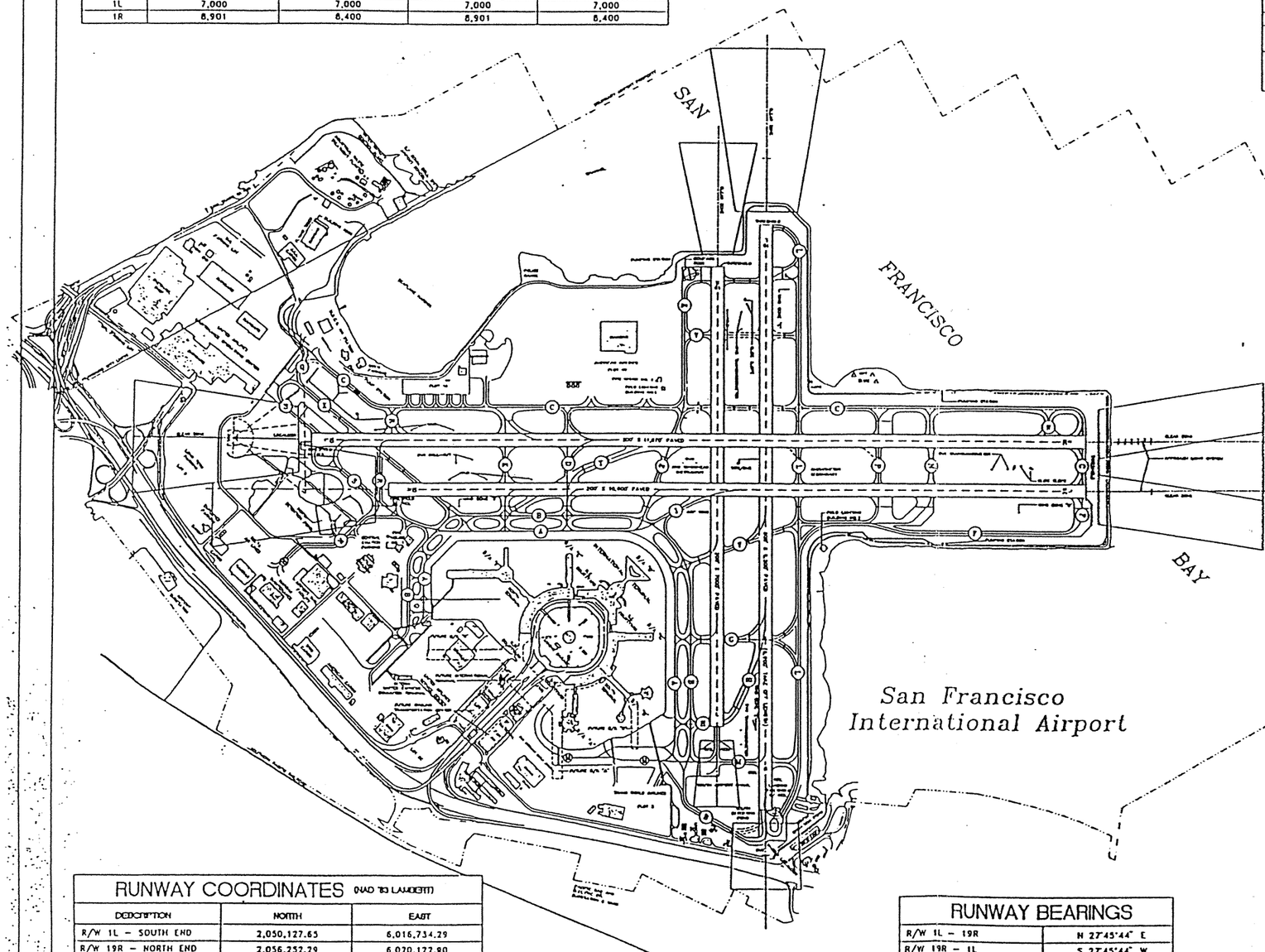
AIRPORT DATA

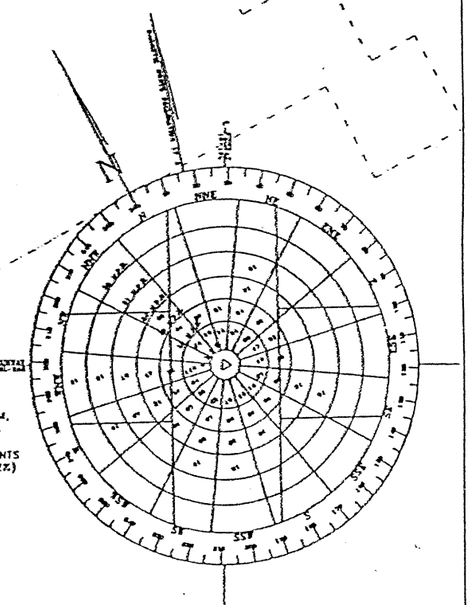
AIRPORT ELEVATION	10' MSL DATUM 13' AIRPORT DATUM
AIRPORT REFERENCE POINT (ARP) COORDINATES	LAT. 37°37'08" LONG. 122°22'29"
MEAN MAX. TEMP. OF HOTTEST MONTH (SEPT.)	73.2°F
AIRPORT AND TERMINAL NAV. AIDS	VOR, ASDE, RIR ALS, ILS, RVR, VASI, SALS

RUNWAY

	RUNWAY 1R/1L-28L	RUNWAY 10L-28R	RUNWAY 1R-19L	RUNWAY 1L-19R
EFFECTIVE GRADIENT	0.06%	0.05%	0.02%	0.04%
% WIND COVERAGE (15 MPH)	96.0	96.0	81.4	81.4
INSTRUMENT RUNWAY	✓	✓	✓	
PAVEMENT STRENGTH	D 700M DT 355M DDT 710M	D 700M DT 355M DDT 710M	D 195M DT 325M DDT 710M	D 170M DT 270M DDT 710M
APPROACH SURFACE	10R 42:1 28L 50+:1	10L 35:1 28R 50+:1	* 1R 22:1 19L 50+:1	1L 30:1 19R 50+:1
RUNWAY LIGHTING	HIRL	HIRL	HIRL	HIRL
RUNWAY MARKING	PIR	PIR	PIR	NPI
NAVIGATIONAL AIDS	28L & ALS, ILS, RVR	** 28R ILS, ALS, RVR	19L SALS, ILS, RVR	19R VOR STRAIGHT-IN-APPROACH FUTURE

NOTE: CENTERLINE LIGHTING ON RUNWAYS 28L-10R, 28R-10L AND 19L-1R.
TOUCHDOWN ZONE LIGHTING ON RUNWAYS 28R & 19L.
* TO DISPLACED THRESHOLD. ** 10L & 10R ILS/ALS FUTURE.





15.2% CALM, 0-3 M.P.H.

COVERAGE FOR 15 M.P.H. CROSSWIND COMPONENTS
RUNWAY 10-28R (96.3%), RUNWAY 1R-19L (82.2%)

WIND ROSE
DATA COMPILED FROM 5 YEAR ANEMOGRAPH
RECORD SAN FRANCISCO INTERNATIONAL AIRPORT.
JANUARY 1, 1951 - DECEMBER 3, 1955

SET MAGNETIC DECLINATION
15°42'E @ COMPASS ROSE, MARCH 1991

RUNWAY COORDINATES (NAD '83 LAMBERT)

DESCRIPTION	NORTH	EAST
R/W 1L - SOUTH END	2,050,127.65	6,016,734.29
R/W 19R - NORTH END	2,056,252.29	6,020,122.90
R/W 1R - SOUTH END	2,049,108.61	6,017,027.22
R/W 19L - NORTH END	2,056,458.12	6,021,093.69
R/W 28L - EAST END	2,050,542.36	6,023,420.53
R/W 10R - WEST END	2,055,673.59	6,014,145.79
R/W 28R - EAST END	2,051,198.44	6,023,783.57
R/W 10L - WEST END	2,056,944.49	6,013,398.06
TO OBTAIN GROUND DISTANCE - MULTIPLY BY 1.0000682		

GENERAL NOTES:

1. TAXIWAYS ARE 75' WIDE WITH 50' WIDE PAVED SHOULDER.
2. CENTERLINE LIGHTINGS ARE ON ALL TAXIWAYS EXCEPT PORTIONS OF TAXIWAYS A, C, P AND N.
3. FUTURE DEVELOPMENT INCLUDES REALIGNMENT OF T/W "D" AND TAXIWAY CENTERLINE LIGHT ON ALL TAXIWAYS.
4. FUTURE PLANS TO RENAME VARIOUS TAXIWAYS.

RUNWAY BEARINGS

R/W 1L - 19R	N 27°45'44" E
R/W 19R - 1L	S 27°45'44" W
R/W 1R - 19L	N 27°45'44" E
R/W 19L - 1R	S 27°45'44" W
R/W 28L - 10R	N 62°14'16" W
R/W 10R - 28L	S 62°14'16" E
R/W 28R - 10L	N 62°14'16" W
R/W 10L - 28R	S 62°14'16" E

NO.	DATE	DESCRIPTION	BY	APPRD.

REVISIONS

CITY AND COUNTY OF SAN FRANCISCO
AIRPORTS COMMISSION
SAN FRANCISCO INTERNATIONAL AIRPORT

AIRPORT LAYOUT PLAN

			1" = 1000'
	EIA	C.Y.T.	AUGUST '93
		CA-20780	0

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REFERENCE: AIRPORT LAYOUT PLAN, RA-10578, REV. 13

SHEET

Map SFO-1
V. - 3

* San Francisco International Airport aircraft noise monitoring system
* Aircraft noise contours
* Aircraft noise/land use compatibility standards
* San Francisco International Airport Noise Abatement Regulation, as amended
* San Francisco International Airport Variance from the State Noise Standards
* Aircraft noise insulation program
* San Francisco International Airport/Community Roundtable

Each of these elements is explained below.

1. San Francisco International Airport Noise Monitoring System

Airport noise monitoring requirements for noise-problem airports are contained in the California Code of Regulations, Title 21, Chapter 2.5, Subchapter 6, Noise Standards. Airports designated as noise-problem airports, as determined by the county in which they are located, are required to install and maintain an airport noise monitoring system that provides noise measurements for at least 48 continuous weeks per calendar year.

San Francisco International Airport is located entirely within San Mateo County and has been designated by the County Board of Supervisors as a noise-problem airport. The airport is required by the State of California to monitor airport noise and the County of San Mateo is required to review the airport's noise monitor data and enforce the State Noise Standards.

The San Francisco International Airport noise monitoring system consists of 27 noise monitors, located at various sites in cities around the airport in San Mateo County and in various neighborhoods in the City and County of San Francisco. Two additional monitors are located on the airport near the ends of the runways. The noise monitor locations are shown on Map SFO-2 on page V.-6. The location of each monitor, by city and in certain neighborhoods in San Francisco, is shown in Table V.-I on page V.-7.

The San Francisco International Airport noise monitoring system has three objectives, as described by airport staff:

* to identify and define the 65 dB Community Noise Equivalent Noise Level (CNEL) noise impact boundary (noise contour) as required by the State of California Noise Standards

* to monitor flight operations at the airport and in the surrounding environs area to identify aircraft noise levels.

* to identify aircraft operating at the airport and the noise level impact from each operation throughout the noise monitoring system.

The noise monitors measure and record individual aircraft noise events over each 24-hour period. The data is collected at a central computer at the airport's Noise Monitoring Center. The CNEL levels are calculated from this data. The noise monitor data are published each calendar quarter, as required by the Sate of California. The County of San Mateo prepares and distributes a quarterly noise report for San Francisco International Airport for the benefit of the general public.

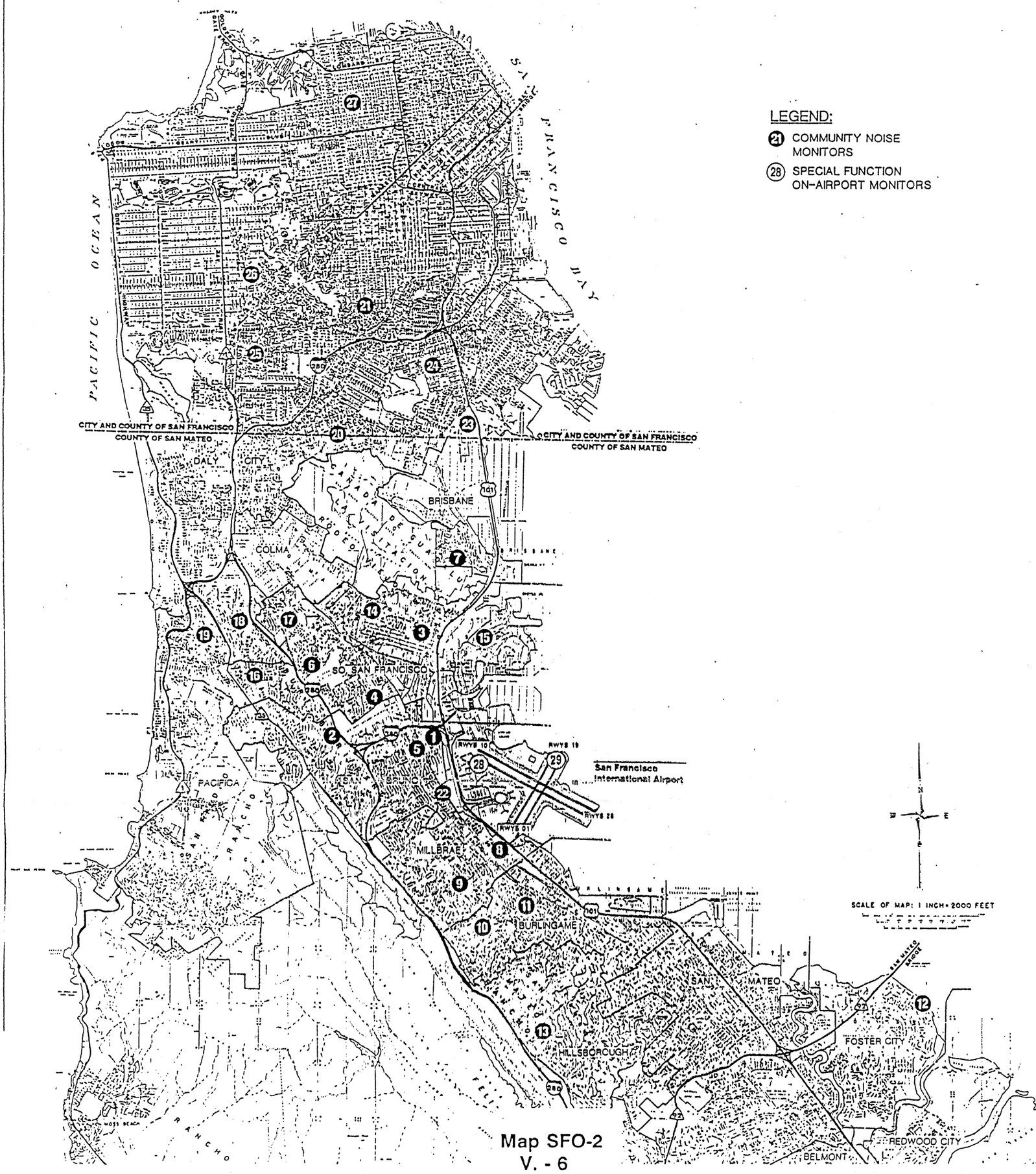
2. Aircraft Noise Contours

Aircraft noise contours are continuous lines of equal noise levels that define an airport's aircraft noise impact area and noise impact boundary. The lines are usually drawn in 5-decibel (dB) increments that resemble elevation contours on topographic maps. They are usually drawn on street base maps and identify the average aircraft noise level within the boundary of the contour. They are the principal tool for analyzing airport/land use compatibility in the vicinity of airports. These lines are usually generated from FAA's Integrated Noise Model (INM), a computer program that simulates actual aircraft noise measurements. However, other computer modeling techniques can be used. **Noise contours identify existing and projected areas affected by aircraft noise. They do not represent absolute noise levels.** Variations in flight activity and locational characteristics (e.g. microclimate, vegetation, buildings, etc.) can expand or reduce the noise affected area.

The noise metric used in defining aircraft noise contours in California is the Community Noise Equivalent Level metric, referred to as CNEL. The CNEL value represents a 24-hour, time-weighted annual average noise level. It is a measure of the overall noise experienced during an entire day. The time-weighting refers to the fact that noise that occurs during certain sensitive time periods is penalized for occurring at these times. In the CNEL scale, those aircraft noise events that take place during the evening hours (7 p.m. to 10 p.m.) are penalized by an additional 5 decibels (dB) and those events that occur during the nighttime hours (10 p.m. to 7 a.m.) are penalized an additional 10 dB.

San Francisco International Airport

Airport Noise Monitoring System ▪ Noise Monitor Locations ▪ January 1989



Map SFO-2

TABLE V-I

San Francisco International Airport (SFIA)

Noise Monitor Locations

Monitor Number	Monitor Location	Monitor Number	Monitor Location
1	San Bruno	15	So. San Francisco
2	San Bruno	16	So. San Francisco
3	So. San Francisco	17	So. San Francisco
4	So. San Francisco	18	Daly City
5	San Bruno	19	Pacifica
6	So. San Francisco	20	Daly City
7	Brisbane	21	San Francisco (Glen Park)
8	Millbrae	22	San Bruno
9	Millbrae	23	San Francisco (Visitacion Valley)
10	Burlingame	24	San Francisco (Excelsior)
11	Burlingame	25	San Francisco (Balboa Terrace/St. Francis Wood)
12	Foster City	26	San Francisco (Forest Hill)
13	Hillsborough	27	San Francisco (Pacific Heights)
14	So. San Francisco		

SOURCE: San Francisco International Airport

These penalties were selected by the State of California to attempt to account for increased human sensitivity to noise during the quieter periods of the day, where home activities and sleeping are the most probable activities. The CNEL value accounts for the individual aircraft noise events per day, the time of day, and the loudness of the events. The CNEL metric is the scale specified by the State of California and used by local agencies in California to assess aircraft noise/land use compatibility.

The 65 dB CNEL aircraft noise contour defines an airport's noise impact boundary, as specified by the State of California in the State Noise Standards. San Francisco International Airport has two recognized noise impact boundaries, a federal boundary and a State of California boundary. Each noise impact boundary has been established for different purposes. The purpose of each boundary is described below.

a. Federal Aviation Regulations FAR Part 150 Noise Compatibility Program - Noise Exposure Map (NEM)

The 1980 Joint Land Use Study Final Technical Report prepared for the Joint Powers Board, was submitted to the Federal Aviation Administration (FAA) for evaluation and compliance under the Federal Aviation Regulations FAR Part 150 Noise Compatibility Program on June 14, 1982. The airport's Noise Compatibility Program (NCP) was approved by the FAA on July 22, 1983.

The 1980 Joint Land Use Study Final Technical Report includes a map (Figure 11D-4) that illustrates projected CNEL aircraft noise contours (1980 baseline), based on a computer model that was designed specifically for the conditions and aircraft operational characteristics at San Francisco International Airport. This map was accepted by the FAA on January 25, 1983, as the Noise Exposure Map (NEM) for San Francisco International Airport, under the provisions contained in the FAR Part 150 Noise Compatibility Program. The 65 dB CNEL noise contour, as shown on the NEM, presently serves as a basis for the FAA to determine the eligibility of local agencies to receive federal grant funding for aircraft noise insulation projects.

The aircraft noise contours for San Francisco International Airport have shrunk since the FAA accepted the Airport's 1983 Noise Exposure Map (NEM) in 1983. The smaller contours can be attributed to the airport's on-going noise abatement and noise management efforts and a steady increase in Stage 3 aircraft operations at the airport.

The FAA has requested the airport to update its 1983 Noise Exposure Map (NEM) to reflect the current, smaller aircraft noise contours. The airport will soon initiate an update

of the Noise Exposure Map (NEM), as requested. The updated NEM could be accepted by the FAA by the end of 1995. Upon the acceptance of the updated NEM by the FAA, the Airport Land Use Commission (C/CAG) will amend the Airport Land Use Plan for San Francisco International Airport to include the updated Noise Exposure Map (NEM) and incorporate revised text, as needed.

b. State of California Noise Impact Boundary (65 dB CNEL Noise Contour)

The State of California Noise Standards require airports, that have been designated as noise problem airports, to install and maintain a noise monitoring system that identifies and defines the airport's noise impact boundary, based upon the aircraft noise levels recorded by the noise monitors. **A CNEL level of 65 dB is defined by the State of California Noise Standards as the maximum level "acceptable to a reasonable person residing in the vicinity of an airport."** Hence, the 65 dB CNEL noise contour, as measured by the airport's noise monitoring system, defines the airport's noise impact boundary, as required by the State of California.

The noise monitor data and a map that illustrate the 65 dB CNEL noise contour (noise impact boundary) are prepared by the staff of the airport's Noise Monitoring Center each calendar quarter and submitted to the County of San Mateo for review and submittal to the State Aeronautics Program, as required. Since the noise impact boundary changes slightly each calendar quarter, a copy of a quarterly noise impact boundary map is not included in the Comprehensive Airport Land Use Plan (CLUP) for San Francisco International Airport. It should be noted, however, that the area within each quarterly noise impact boundary (65 dB CNEL noise contour) is much smaller than the area within the 65 dB CNEL noise contour shown on the FAA-accepted 1983 Noise Exposure Map (NEM).

c. Airport Land Use Commission (C/CAG) Use of the San Francisco International Airport (SFIA) Noise Impact Boundary Maps

As contained herein, the main function of both the federally-accepted 1983 SFIA Noise Exposure Map (NEM) and the State Quarterly Aircraft Noise Impact Boundary Map for SFIA is to help the Airport Land Use Commission (C/CAG) determine the compatibility of a proposed local land use policy action with the aircraft noise environment in the vicinity of San Francisco International Airport, as illustrated by the maps.

For the purposes of the Comprehensive Airport Land Use Plan (CLUP) for San Francisco International Airport, the federally-accepted 1983 SFIA Noise Exposure

Map (NEM) is the noise contour map the Airport Land Use Commission (C/CAG) will use in making its determination of the consistency of a proposed local agency land use policy action with the San Francisco International Airport Land Use Plan. The SFIA 1983 FAA-accepted Noise Exposure Map (NEM), which illustrates the aircraft noise contours, is shown on Map SFO-3 on page V.-11.

The Commission's determination will also note if the proposed land use policy action is within the latest quarterly noise impact boundary as reported by the airport's noise monitoring system and submitted to the County of San Mateo. **For the purposes of the Comprehensive Airport Land Use Plan (CLUP) for San Francisco International Airport, the aircraft noise /land use compatibility standards shown in Table V.-II on pages V.-13 and V.-14 apply to the noise contour areas shown on the FAR Part 150 Noise Exposure Map (NEM) and the area within the 65 dB CNEL noise contour, as shown on the noise impact boundary map in the latest SFIA Quarterly Aircraft Noise Report.**

3. Airport Noise/Land Use Compatibility Standards

Considerable study has been done by medical researchers regarding the effects of noise on people. There is general agreement that certain types of land uses are not compatible in high noise areas. Interference with speech, sleep disturbance, and nervousness are some of the human health effects of exposure to excessive noise.

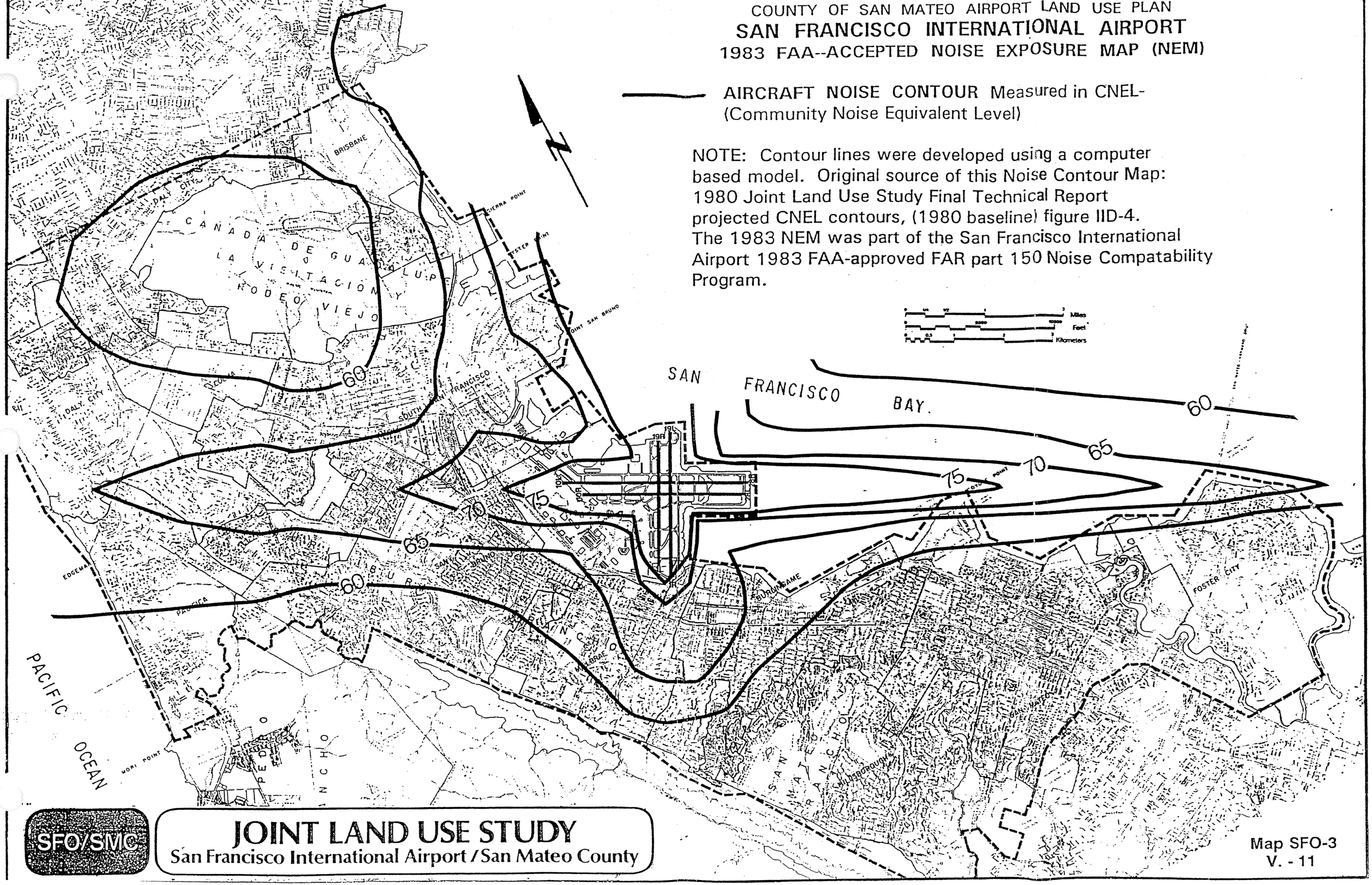
Recommendations from the Federal Aviation Administration (FAA) and the Association of Bay Area Government's (ABAG) Regional Airports System Study (RASS) were used to establish land use compatibility standards for airports located in San Mateo County. The Comprehensive Airport Land Use Plan (CLUP) land use compatibility standards for San Francisco International Airport are based upon the following conditions:

* Accumulated case history of aircraft noise complaints.
* How well speech can be understood at various noise levels.
* Subjective tests of how much noise people judge as acceptable.
* Need for freedom from noise.
* Typical noise insulation provided by common types of building construction.

COUNTY OF SAN MATEO AIRPORT LAND USE PLAN

SAN FRANCISCO INTERNATIONAL AIRPORT

1983 FAA--ACCEPTED NOISE EXPOSURE MAP (NEM)



The aircraft noise/land use compatibility standards were developed for housing built with ordinary construction. It is possible to build structures which are insulated from aircraft noise for almost any given location. The cost of providing such insulation, however, increases sharply with increasing exterior noise levels. For land uses normally involving both outdoor and indoor activities, such as typical residential uses, the noise environment outdoors usually remains unchanged, resulting in only a partial solution to the problem.

The airport noise/land use compatibility standards for the San Francisco International Airport Land Use Plan environs area are shown in Table V.-II. on pages V.-13 and V.-14. The standards indicate three types of compatibility of the proposed land uses listed, based on the relative CNEL range, as shown. The compatibility standards indicate if a proposed land use is "Compatible", "Conditionally Compatible", or "Incompatible" within the identified CNEL ranges.

NOTE: Airport/land use compatibility is determined by comparing a proposed land use policy action with the aircraft noise/land use compatibility standards, the relevant FAR Part 77 height restrictions, and safety contained in this Plan. A proposed land use policy action must be compatible with each of these elements for the Airport Land Use Commission (C/CAG) to determine that the proposed action is consistent with the relevant policies, standards, and criteria contained in the Comprehensive Airport Land Use Plan (CLUP).

4. San Francisco International Airport Noise Abatement Regulation, as amended

In addition to implementing an aircraft noise monitoring system, the San Francisco Airport Commission adopted an Aircraft Noise Abatement Regulation in January 1988. The regulation became effective on January 1, 1989. The most recent amendment of the regulation was adopted on December 7, 1993. The regulation reflects a delicate balance between the need to preserve a high level of aviation and air transportation services and the competing need to protect and enhance existing residential neighborhoods and other noise-sensitive land uses in the vicinity of the airport. The purpose of the regulation is stated in the regulation, as follows:

"PURPOSE

The Airports Commission of the City and County of San Francisco ("Commission") promulgates this regulation to provide for a continual reduction of cumulative noise resulting from aircraft operations at San Francisco International Airport ("SFIA") in accordance with the Commission's authority as

TABLE V.-II.

SAN MATEO COUNTY COMPREHENSIVE AIRPORT LAND USE PLAN

AIRCRAFT NOISE/LAND USE COMPATIBILITY STANDARDS FOR
SAN FRANCISCO INTERNATIONAL AIRPORT PLAN AREA

LAND USE	CNEL RANGE	GENERAL LAND USE CRITERIA
Residential, etc. Single-Family Multi-Family Mobilehomes Schools Libraries Churches Hospitals Nursing Homes Auditoriums	Less than 65	Compatible, with little noise impact and requiring no special noise insulation requirements for new construction.
	65 to 70	Conditionally compatible; new construction or development should be undertaken only after an analysis of noise reduction requirements is made and needed noise insulation features included in the design.
	Greater than 70	Incompatible; new construction or development should not be undertaken.
Commercial Retail Restaurants Office Bldgs. Hotels-Motels Movie Theaters Sports Arenas Playgrounds Cemeteries Golf Courses	Less than 70	Compatible, with little noise impact and requiring no special noise insulation requirements for new construction.
	70 to 80	Conditionally compatible; new construction or development should be undertaken only after an analysis of noise reduction requirements is made and needed noise insulation features included in the design.
	Greater than 80	Incompatible; new construction or development should not be undertaken unless related to airport activities or services. Conventional construction will generally be inadequate and special noise insulation features should be included in construction.

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TABLE V.-II. continued

SAN MATEO COUNTY COMPREHENSIVE AIRPORT LAND USE PLAN

AIRCRAFT NOISE/LAND USE COMPATIBILITY STANDARDS FOR SAN FRANCISCO INTERNATIONAL AIRPORT PLAN AREA		
LAND USE	CNEL RANGE	GENERAL LAND USE CRITERIA
Industrial Manufacturing Transportation Communications Utilities	Less than 75	Compatible, with little noise impact and requiring no special noise insulation requirements for new construction.
	75 to 85	Conditionally compatible; new construction or development should be undertaken only after an analysis of noise reduction requirements is made and needed noise insulation features included in the design.
	Greater than 85	Incompatible; new construction or development should not be undertaken unless related to airport activities or services. Conventional construction will generally be inadequate and special noise insulation features should be included in construction.
Open Agriculture Mining Fishing	Less than 75	Compatible, with little noise impact and requiring no special noise insulation requirements for new construction.
	Greater than 75	Incompatible; land uses involving concentrations of people (spectator sports and some recreational facilities) or of animals (livestock farming and animal breeding) should generally be avoided.

SOURCE: 1981 Airport Land Use Plan. This Table will be updated as part of a future amendment to the San Francisco International Airport Land Use Plan.

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> proprietor of SFIA, the Charter of the City and County of San Francisco, and the provisions of Title 21, Sub-Chapter 6 of the California Administrative Code, while allowing SFIA to continue its historic function as the leading gateway to the Pacific, as a vital contributor to a strong and growing economy, and as a major source of employment for the Bay Area."

The complete text of the San Francisco International Airport Noise Abatement Regulation, as amended, is included in Appendix H.

5. San Francisco International Airport Variance from the State Noise Standards

The State Noise Standards (California Code of Regulations, Title 21) state the following:

> "No airport proprietor of a noise problem airport shall operate an airport with a noise impact area based on the standard of 65 dB CNEL unless the operator has applied for or received a variance as prescribed in Article 5 of this subchapter."

The State Noise Standards define a noise impact area as "... the area within the noise impact boundary that is composed of incompatible land use." Due to existing incompatible land uses within the SFIA noise impact boundary (65 dB CNEL aircraft noise contour), the airport applied to the State of California Department of Transportation (Caltrans) for a variance from the State Noise Standards. Caltrans issued a variance decision on to SFIA on May 20, 1994. The variance became effective on June 19, 1994 and will expire on June 19, 1997.

The SFIA variance decision includes 12 terms and conditions. Those terms and conditions are summarized as follows:

* variance decision was granted for a period of three years (this is the maximum time period allowed by the State Noise Standards)

* continue to meet with the Airport/Community Roundtable for the purpose of reducing the effects of aircraft noise on the communities surrounding SFIA

* assist the Airport/Community Roundtable in developing an annual work program for its noise abatement efforts, including funding to support Roundtable activities in accordance with the SFIA Master Plan Mitigation Plan MOU

* within six months of the effective date of the variance, submit to Caltrans and the Airport/Community Roundtable and commence implementation of a Noise Mitigation Plan (NMP) to address incompatible land uses, as defined in the State Noise Standards

* continue, in cooperation with the Airport/Community Roundtable, to manage the existing noise abatement program

* continue policy of not shifting noise from one community to another

The terms and conditions of the 1994 SFIA variance decision are intended to reduce incompatible land uses in the airport's noise impact area by reinforcing and augmenting the airport's existing noise management program. The complete text of the 1994 SFIA variance decision is shown in Appendix I.

6. Aircraft Noise Insulation Program

The Federal Aviation Administration (FAA) and the San Francisco Airport Commission have been jointly funding local aircraft noise insulation projects in communities near San Francisco International Airport since 1983. The overall local aircraft noise insulation program was made possible by the FAA's approval of the airport's FAR Part 150 Noise Compatibility Program in 1983. The approved program included a noise insulation test program to evaluate the effectiveness of acoustical treatment of noise-sensitive land uses (dwelling units, schools, churches, etc.).

The first local agency aircraft noise insulation project started with a pilot project in the City of South San Francisco. The project included insulating 12 single-family dwelling units and two schools and was very successful. The overall program has since expanded to include projects in the cities of San Bruno, Millbrae, Pacifica, Daly City, and an unincorporated area (Country Club Park) within the jurisdiction of the County of San Mateo. Based on recent data provided by the participating cities and certified by airport staff, over 18,000 dwelling units are eligible to receive acoustical treatment to mitigate aircraft noise in the environs near San Francisco International Airport. Other noise-sensitive land uses, such as churches and schools, are also eligible for acoustical treatment to reduce aircraft noise impacts.

The goal of all the local agency aircraft noise insulation programs is to achieve an interior noise level of 45 dB CNEL during an aircraft noise event. Each jurisdiction intends to insulate all eligible dwelling units by the year 2000. The program has been very successful to date.

7. San Francisco International Airport/Community Roundtable

In addition to the various elements described above, a public body known as the San Francisco International Airport/Community Roundtable was created in 1981 to address aircraft noise impacts in neighborhoods and communities near San Francisco International Airport. The Roundtable was created by a Memorandum of Understanding (MOU) between interested cities and airport management, to monitor the implementation of the recommendations of the 1980 Joint Land Use Study Final Technical Report, as contained in the Joint Action Plan. The Joint Land Use Study was a multi-year comprehensive study conducted by San Francisco International Airport and the County of San Mateo to address airport ground access, air quality, and aircraft noise issues in the airport environs area..

The Roundtable provides the public with direct access to local elected officials, airport management, representatives of the Federal Aviation Administration (FAA), and airline representatives, to address aircraft noise issues. The focus of the Roundtable continues to be aircraft noise and overflight issues in the communities and neighborhoods near San Francisco International Airport, as highlighted in the 1980 Joint Land Use Study.

The Roundtable monitors a performance-based noise mitigation program, interprets community concerns, and attempts to achieve additional aircraft noise mitigation through a cooperative sharing of authority brought forth by the aviation industry, airport management, the FAA, and local government. The Roundtable prepares a semi-annual Work Program to focus its efforts on timely issues.

The Roundtable membership is shown in Table V-III. on page V.-18. Costs for a technical consultant/project manager, a media consultant, and additional technical consultants, as needed, are shared by the airport, the member cities, and the County of San Mateo. A Roundtable Staff Coordinator is provided by the County of San Mateo. The Roundtable has been meeting on a monthly basis since 1981. The meetings are well attended by local agency staff, FAA Staff, airport management, airline officials, and the general public.

D. SAFETY GUIDELINES

Areas around airports are continually exposed to the possibility of aircraft accidents, even with well-maintained aircraft and highly trained pilots. Despite stringent maintenance requirements and countless hours of training, history makes it clear that aircraft accidents will occur.

TABLE V-III.
San Francisco International Airport/Community Roundtable Membership
December 1996

Appointed Officials

City and County of San Francisco
Board of Supervisors' Representative

City and County of San Francisco
Mayor's Office Representative

City and County of San Francisco
Airport Commission

C/CAG* Airport Land Use
Committee (ALUC)

Elected Officials

County of San Mateo Board of Supervisors

Town of Atherton (Non-Voting)

City of Brisbane

City of Burlingame

City of Daly City

City of Millbrae

City of Pacifica

City of San Bruno

City of San Carlos (Non-Voting)

City of South San Francisco

City of Foster City

Advisory Members

Designated Airline Chief Pilots

Federal Aviation Administration (FAA) Staff

Staff Assistance:

* David F. Carbone, Senior Planner/Airport Planning, San Mateo County Planning and Building Division

* Marvin Ellis, Noise Abatement Officer, San Francisco International Airport

* Selected consultants, as needed

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* City/County Association of Governments of San Mateo County

The risk of people on the ground being killed or injured by a falling plane is small; however, an aircraft crash is a high consequence event and when a crash does occur, the result is often catastrophic. Because of this, most attempts at setting safety standards on the ground have not attempted to estimate accident probabilities. They have, instead, approached safety standards by determining compatible land uses, assuming a crash would occur. The safety guidelines in this Plan are based on that approach. The National Transportation Safety Board (NTSB) maintains extensive data on aviation accidents and their causes. Although the NTSB collects data on all accidents, the characteristics of aircraft accidents in the airport environs are of greatest concern.

Certain types of land uses are recognized by the Airport Land Use Commission (C/CAG) as hazards to air navigation in the vicinity of San Francisco International Airport. These land uses include the following:

* Any use that would direct a steady or flashing light of white, red, green, or amber color toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in straight final approach toward a landing, other than FAA-approved navigational lights.

* Any use that would cause sunlight to be reflected toward an aircraft engaged in an initial straight climb following take-off or engaged in a straight final approach toward a landing.

* Any use that would generate smoke or rising columns of air.

* Any use that would attract large concentrations of birds within approach-climbout areas.

* Any use that would generate electrical interference that may interfered with aircraft communications or aircraft instrumentation.

The safety of persons on the ground and in aircraft in flight is always the primary consideration in airport planning and in airport/aircraft operations. **These safety guidelines are not intended to be a specific development plan, do not set forth specific uses for any parcel of land, and are not retroactive with respect to existing incompatible uses.**

NOTE: Airport/land use compatibility is determined by comparing a proposed land use policy action with the Aircraft Noise/Land Use Compatibility Standards, the relevant FAR Part 77 height restrictions, and safety criteria contained in this Plan. A proposed land use policy action must be compatible with each of these elements for the Airport Land Use Commission (C/CAG) to determine that the proposed action is consistent with the relevant policies, standards, and/or criteria contained in the Comprehensive Airport Land Use Plan (CLUP).

E. HEIGHT RESTRICTIONS

The guidelines to determine if an object is an obstruction to air navigation are set forth in Federal Aviation Regulations FAR Part 77, "Objects Affecting Navigable Airspace." Objects that would be of greater height than the imaginary horizontal and sloping surfaces, as defined in FAR Part 77, are deemed to be an obstruction to air navigation by the FAA. Penetration of these imaginary surfaces by permanent structures would interfere with the aircraft operating at the airport and would pose a hazard to persons occupying those structures.

The Airport Land Use Commission (C/CAG) has adopted the Federal Aviation Regulation FAR Part 77, "Objects Affecting Navigable Airspace" imaginary surfaces to establish height restrictions for natural and man-made objects in the vicinity of San Francisco International Airport. Any proposed new construction or expansion of existing structures that would penetrate any of the FAR Part 77 imaginary surfaces for San Francisco International Airport, as adopted by the Airport Land Use Commission (C/CAG), is deemed to be an incompatible land use, unless either the FAA has determined that the proposed structure does not constitute a hazard to air navigation or the State Aeronautics Program has issued a permit to allow construction of the proposed structure.

The configuration of the FAR Part 77 imaginary surfaces for San Francisco International Airport is shown in on Map SFO-4 on page V.-22. The map also depicts certain areas where height criteria are more restrictive than those defined by FAR Part 77. These areas are designated "TERPS 40:1 and "SID 24:1". These criteria are defined in the United States Standard for Terminal Instrument Procedures. An obstruction chart for San Francisco International Airport, prepared by the National Oceanic and Atmospheric Administration (NOAA), is shown in Figure SFO-1 on page V.-23.

NOTE: Airport/land use compatibility is determined by comparing a proposed land use policy action with the aircraft noise/land use compatibility standards, the relevant FAR Part 77 height restrictions, and safety criteria contained in this Plan. A proposed land use policy action must be compatible with each of these elements for the Airport Land Use Commission (C/CAG) to determine that the proposed action is consistent with the relevant policies, standards, and criteria contained in the Comprehensive Airport Land Use Plan (CLUP).

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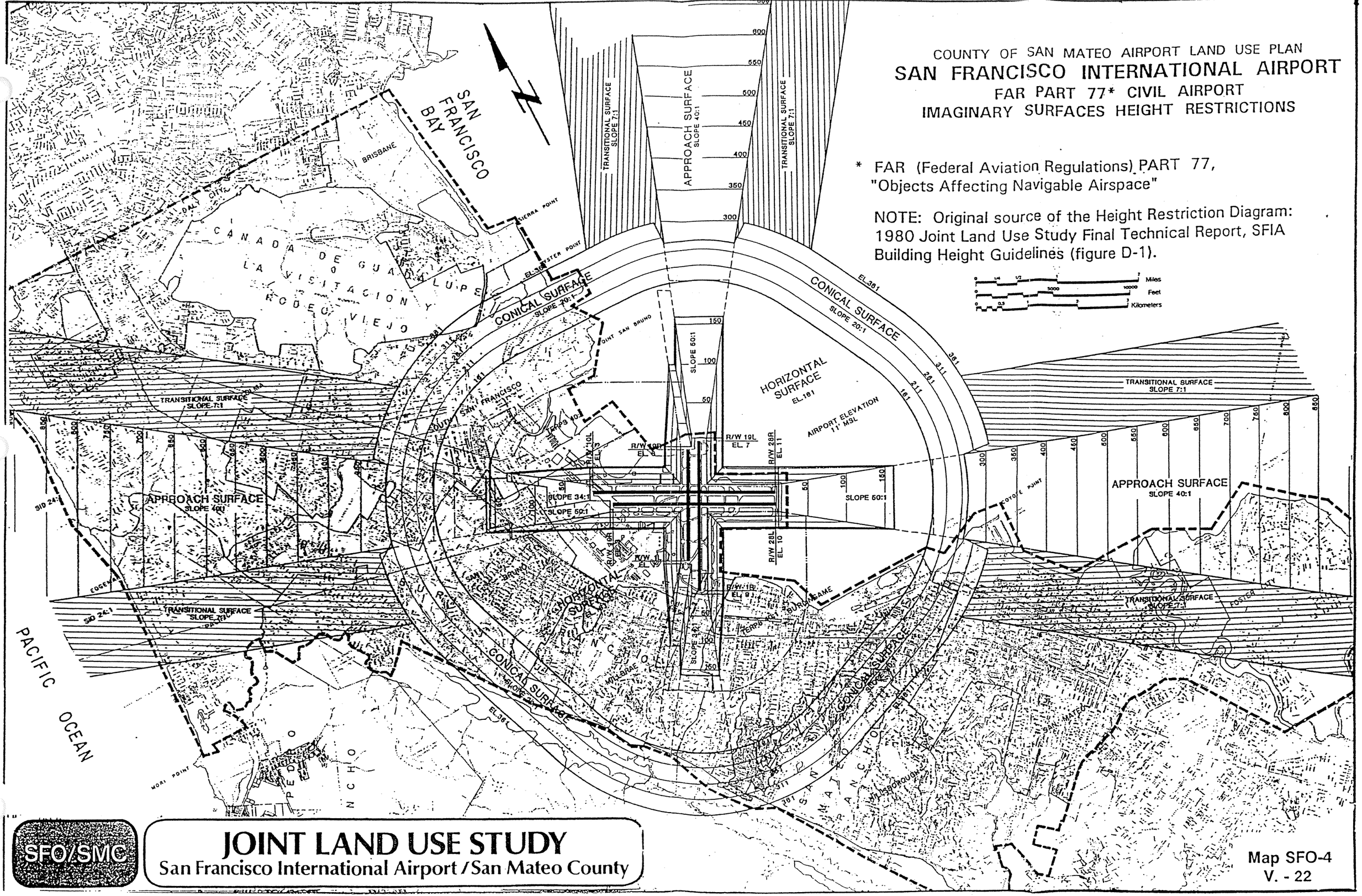
COUNTY OF SAN MATEO AIRPORT LAND USE PLAN

SAN FRANCISCO INTERNATIONAL AIRPORT

FAR PART 77* CIVIL AIRPORT IMAGINARY SURFACES HEIGHT RESTRICTIONS

* FAR (Federal Aviation Regulations) PART 77, "Objects Affecting Navigable Airspace"

NOTE: Original source of the Height Restriction Diagram: 1980 Joint Land Use Study Final Technical Report, SFIA Building Height Guidelines (figure D-1).

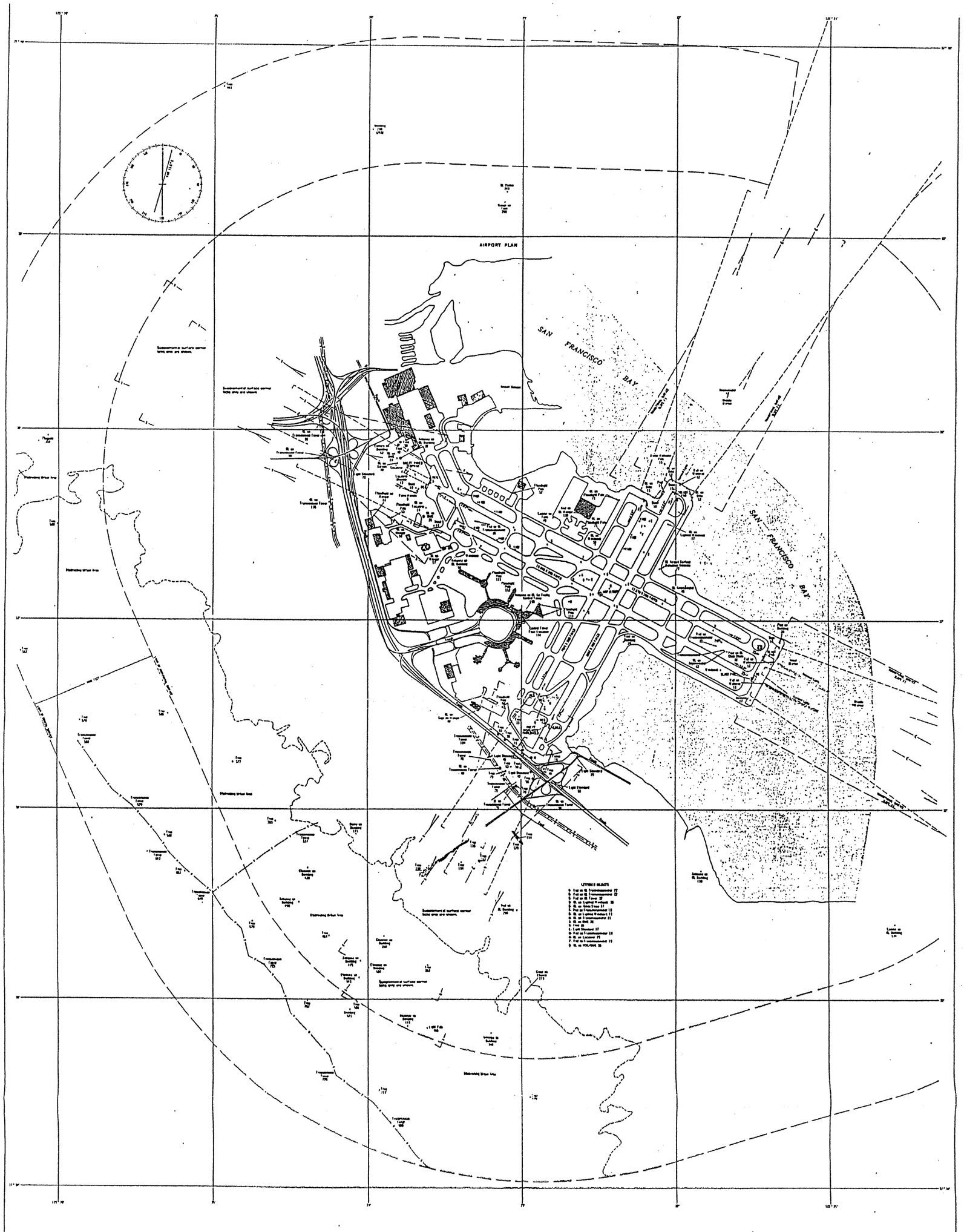


SFO/SMC

JOINT LAND USE STUDY

San Francisco International Airport / San Mateo County

Map SFO-4
V. - 22



AIRPORT OBSTRUCTION CHART
SAN FRANCISCO INTERNATIONAL AIRPORT

Figure SFO-1
V. - 23

AMENDMENT DATA

DIMENSIONS AND ELEVATIONS ARE IN FEET

SEE OTHER SIDE FOR PROFILES

SAN FRANCISCO INTERNATIONAL AIRPORT, SAN FRANCISCO, CALIFORNIA

VI. APPENDICES

A. State Laws Related to Airport Land use Planning

B. Physical Properties of Sound

C. State of California Code of Regulations Title 21, Subchapter 6, State Noise Standards, effective March 22, 1990

D. Federal Aviation Regulations FAR Part 77, "Objects Affecting Navigable Airspace", as amended

E. Examples of the County of San Mateo Avigation Easement Documents

   a. Noise Easement document
   b. Noise and Obstruction Easement document
   c. Obstruction Easement document

F. San Francisco International Airport Noise Abatement Regulation, as amended

G. San Francisco International Airport Variance from the State Noise Standards: Notice of Decision by the California Department of Transportation Division of Aeronautics, dated May 20, 1994; effective June 19, 1994

H. 1986 County of San Mateo General Plan Chapter 16 Man-Made Hazards Airport noise and safety related policies

I. 1994 County of San Mateo zoning Regulations, as amended, chapter 18.6 Airport Overlay (A-O) District

J. Notice of Proposed Construction or Alteration of Objects that May Affect the Navigable Airspace (FAA Advisory Circular AC 70/7460-2I)

K. State of California Airport Approaches Zoning, California Government Code Chapter 2, Article 6.5, as amended

L. 1994 County of San Mateo Zoning Regulations, as amended, Chapter 32. Height of Structures and Use of Airspace Near Half Moon Bay Airport

M. 1994 County of San Mateo Zoning Regulations, as amended, Chapter 33. Height of Structures and Use of Airspace near San Carlos Airport

AERONAUTICS LAW

PUBLIC UTILITIES CODE
Division 9 — Aviation
Part 1 — State Aeronautics Act
Chapter 4 — Airports and Air Navigation Facilities

Article 3.5
AIRPORT LAND USE COMMISSION

(As of July 1993)

21670. Creation; Membership; Selection

(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 may 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, may 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 may, 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 (2) and (3) 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.

21670.1. Action by Designated Body Instead of Commission

(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.

21670.2. Applicability to Counties Having over 4 Million Population

(a) Sections 21670 and 21670.1 do not apply to the County of Los Angeles. In that county, the county regional planning commission has the responsibility for 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.

(c) Sections 21675.1, 21675.2, and 21679.5 do not apply to the County of Los Angeles until January 1, 1992. If the comprehensive land use plans required pursuant to Section 21675 are not adopted by the county regional planning commission by January 1, 1992, Sections 21675.1 and 21675.2 shall apply to the County of Los Angeles until the plans are adopted.

21671. Airports Owned by a City, District, or County; Appointment of Certain Members by Cities and Counties

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 (b) 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 (b) of Section 21670 shall be appointed by the board of supervisors of the county in which the owner of that airport is located.

21671.5. Term of Office; Removal of Members; Vacancies; Compensation; Staff Assistance; Meetings

(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 necessary to comply with this article. 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 Section 66016 of the Government Code. Except as provided in subdivision (g), 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.

(g) In any county which has undertaken by contract or otherwise completed land use plans for at least one-half of all public use airports in the county, the commission may continue to charge fees necessary to comply with this article until June 30, 1992, and, if the land use plans are complete by that date, may continue charging fees after June 30, 1992. If the land use plans are not complete by June 30, 1992, the commission shall not charge fees pursuant to subdivision (f) until the commission adopts the land use plans.

21672. Rules and Regulations

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.

21673. Initiation of Proceedings for Creation by Owner of Airport

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.

21674. Powers and Duties

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.

21674.5. Training of Airport Land Use Commission's Staff

(a) The Department of Transportation shall develop and implement a program or programs to assist in the training and development of the staff of 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.

21675. Land Use Plan

(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.

21675.1. Adoption of Land Use Plan

(a) By June 30, 1991, each commission shall adopt the comprehensive land use plan required pursuant to Section 21675, except that any county which has undertaken by contract or otherwise completed land use plans for at least one-half of all public use airports in the county, shall adopt that plan on or before June 30, 1992.

(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.

21675.2. Approval or Disapproval of Actions, Regulations, or Permits

(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.

21676. Review of Local General Plans

(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.

21676.5. Review of Local Plans

(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 ac-

tions, 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.

21677. Marin County Override Provisions

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.

21678. Airport Owner's Immunity

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.

21679. Court Review

(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 within 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 making findings based on substantial evidence in the record 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.

21679.5. Deferral of Court Review

(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 or 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.

AERONAUTICS LAW

PUBLIC UTILITIES CODE
Division 9, Part 1, Chapter 4

Article 2.7
REGULATION OF OBSTRUCTIONS
(excerpts)

21655. Proposed Site for Construction of State Building Within Two Miles of Airport; Investigation and Report; Expenditure of State Funds

Notwithstanding any other provision of law, if the proposed site of any state building or other enclosure is within two miles, measured by air line, of that point on an airport runway, or runway proposed by an airport master plan, which is nearest the site, the state agency or office which proposes to construct the building or other enclosure shall, before acquiring title to property for the new state building or other enclosure site or for an addition to a present site, notify the Department of Transportation, in writing, of the proposed acquisition. The department shall investigate the proposed site and, within 30 working days after receipt of the notice, shall submit to the state agency or office which proposes to construct the building or other enclosure a written report of the investigation and its recommendations concerning acquisition of the site.

If the report of the department does not favor acquisition of the site, no state funds shall be expended for the acquisition of the new state building or other enclosure site, or the expansion of the present site, or for the construction of the state building or other enclosure, provided that the provisions of this section shall not affect title to real property once it is acquired.

AERONAUTICS LAW

PUBLIC UTILITIES CODE
Division 9, Part 1, Chapter 4

Article 3
REGULATION OF AIRPORTS
(excerpts)

21661.5 Approval of Construction Plans; Submission of Plan to Airport Land Use Commission

No political subdivision, any of its officers or employees, or any person may submit any application for the construction of a new airport to any local, regional, state, or federal agency unless the plan for such construction is first approved by the board of supervisors of the county, or the city council of the city, in which the airport is to be located and unless the plan is submitted to the appropriate commission exercising powers pursuant to Article 3.5 (commencing with Section 21670) of Chapter 4 of Division 9, and acted upon by such commission in accordance with the provisions of such article.

21664.5 Approval of Sites; Amended Airport Permits; Airport Expansion Defined

An amended airport permit shall be required for every expansion of an existing airport. An applicant for an amended airport permit shall comply with each requirement of this article pertaining to permits for new airports. The department may by regulation provide for exemptions from the operation of the section pursuant to Section 21661, except that no exemption shall be made limiting the applicability of subdivision (e) of Section 21666, pertaining to environmental considerations, including the requirement for public hearings in connection therewith.

As used in this section, "airport expansion" includes any of the following:

(a) The acquisition of clear zones or of any interest in land for the purpose of any other expansion as set forth in this section.

(b) The construction of a new runway.

(c) The extension or realignment of an existing runway.

(d) Any other expansion of the airport's physical facilities for the purpose of accomplishing or which are related to the purpose of subdivision (a), (b), or (c).

This section shall not apply to any expansion of an existing airport if the expansion commenced on or prior to the effective date of this section and the expansion met the approval on or prior to such effective date of each governmental agency which by law required such approval.

PLANNING AND ZONING LAW

GOVERNMENT CODE
Title 7 – Planning and Land Use
Division 1 – Planning and Zoning
Chapter 3 – Local Planning

Article 5
AUTHORITY FOR AND SCOPE OF GENERAL PLANS
(excerpts)

65302.3. General and Applicable Specific Plans; Consistency with Airport Land Use Plans; Amendment; Nonconcurrence Findings

(a) The general plan, and any applicable specific plan prepared pursuant to Article 8 (commencing with Section 65450), shall be consistent with the plan adopted or amended pursuant to Section 21675 of the Public Utilities Code.

(b) The general plan, and any applicable specific plan, shall be amended, as necessary, within 180 days of any amendment to the plan required under Section 21675 of the Public Utilities Code.

(c) If the legislative body does not concur with any of the provisions of the plan required under Section 21675 of the Public Utilities Code, it may satisfy the provisions of this section by adopting findings pursuant to Section 21676 of the Public Utilities Code.

LEGISLATIVE HISTORY SUMMARY

PUBLIC UTILITIES CODE
Sections 21670 et seq.
Airport Land Use Commission Statutes

1967 Original ALUC statute enacted.
- Establishment of ALUCs required in each county containing a public airport served by a certificated air carrier.
- The purpose of ALUCs is indicated as being to make recommendations regarding height restrictions on buildings and the use of land surrounding airports.

1970 Assembly Bill 1856 (Badham) Chapter 1182, Statutes of 1970 — Adds provisions which:
- Require ALUCs to prepare comprehensive land use plans.
- Require such plans to include a long-range plan and to reflect the airport's forecast growth during the next 20 years.
- Require ALUC review of airport construction plans (Section 21661.5).
- Exempt Los Angeles County from the requirement of establishing an ALUC.

1971 The function of ALUCs is restated as being to require new construction to conform to Department of Aeronautics standards.

1973 ALUCs are permitted to establish compatibility plans for military airports.

1982 Assembly Bill 2920 (Rogers) Chapter 1041, Statutes of 1982 — Adds major changes which:
- More clearly articulate the purpose of ALUCs.
- Eliminate reference to "achieve by zoning."
- Require consistency between local general and specific plans and airport land use commission plans; the requirements define the process for attaining consistency, they do not establish standards for consistency.
- Eliminate the requirement for proposed individual development projects to be referred to an ALUC for review once local general/specific plans are consistent with the ALUC's plan.
- Require that local agencies make findings of fact before overriding an ALUC decision.
- Change the vote required for an override from 4/5 to 2/3.

1984 Assembly Bill 3551 (Mountjoy) Chapter 1117, Statutes of 1984 — Amends the law to:
- Require ALUCs in all counties having an airport which serves the general public unless a county and its cities determine an ALUC is not needed.
- Limit amendments to compatibility plans to once per year.
- Allow individual projects to continue to be referred to the ALUC by agreement.

- Extend immunity to airports if an ALUC action is overridden by a local agency not owning the airport.
- Provide state funding eligibility for preparation of compatibility plans through the Regional Transportation Improvement Program process.

1987 Senate Bill 633 (Rogers) Chapter 1018, Statutes of 1987 — Makes revisions which:
- Require that a designated body serving as an ALUC include two members having "expertise in aviation."
- Allows an interested party to initiate court proceedings to postpone the effective date of a local land use action if a compatibility plan has not been adopted.
- Delete *sunset* provisions contained in certain clauses of the law.
- Allows reimbursement for ALUC costs in accordance with the Commission on State Mandates.

1989 Senate Bill 255 (Bergeson) Chapter 54, Statutes of 1989 —
- Sets a requirement that comprehensive land use plans be completed by June 1991.
- Establishes a method for compelling ALUCs to act on matters submitted for review.
- Allows ALUCs to charge fees for review of projects.
- Suspends any lawsuits that would stop development until the ALUC adopts its plan or until June 1, 1991.

1989 Senate Bill 235 (Alquist) Chapter 788, Statutes of 1989 — Appropriates $3,672,000 for the payment of claims to counties seeking reimbursement of costs incurred during fiscal years 1985-86 through 1989-90 pursuant to state-mandated requirement (Chapter 1117, Statutes of 1984) for creation of ALUCs in most counties. This statute was repealed in 1993.

1990 Assembly Bill 4164 (Mountjoy) Chapter 1008, Statutes of 1990 — Adds section 21674.5 requiring the Division of Aeronautics to develop and implement a training program for ALUC staffs.

1990 Assembly Bill 4265 (Clute) Chapter 563, Statutes of 1990 — With the concurrence of the Division of Aeronautics, allows ALUCs to use an airport layout plan, rather than a long-range airport master plan, as the basis for preparation of a compatibility plan.

1990 Senate Bill 1288 (Beverly) Chapter 54, Statutes of 1990 — Amends Section 21670.2 to give Los Angeles County additional time to prepare compatibility plans and meet other provisions of the ALUC statutes.

1991 Senate Bill 532 (Bergeson) Chapter 140, Statutes of 1991 —
- Allows counties having half of their compatibility plans completed or under preparation by June 30, 1991, an additional year to complete the remainder.
- Allows ALUCs to continue to charge fees under these circumstances.
- Fees may be charged only until June 30, 1992, if plans are not completed by then.

1993 Senate Bill 443 (Committee on Budget and Fiscal Review) Chapter 59, Statutes of 1993 — Amends Section 21670(b) to make the formation of ALUCs permissive rather than mandatory as of June 30, 1993. (Note: Section 21670.2 which assigns responsibility for coordinating the airport planning of public agencies in Los Angeles County is not affected by this amendment.)

APPENDIX B

PHYSICAL PROPERTIES OF SOUND

Source: **Airport Land Use Planning Handbook December 1993**
California Department of Transportation
Division of Aeronautics

PHYSICAL PROPERTIES OF SOUND

Sound is transmitted in the form of pressure waves. These waves are created by oscillation of particles of air – that is, air particles being displaced from and returning to an equilibrium position. As the particles are displaced, they bump into surrounding particles which bump into others and so on. In this manner, sound is transmitted through the atmosphere. Sounds are heard when the pressure waves of displaced air particles strike the eardrum, causing it to vibrate.

Measurement of Sound

A tabulation of approximate decibel levels generated by common indoor and outdoor sound sources is presented in Table 6A.

The physical properties of a sound can be measured in terms of three basic components: *magnitude*, *frequency*, and *duration*. Although these components can be directly measured, useful measures of sound are complicated both by environmental variables and the way in which people hear sound.

Magnitude

The magnitude or strength of a sound is determined by how much the air particles are displaced from equilibrium by the sound pressure waves. The greater the amplitude of the pressure fluctuation, the more acoustic energy the sound wave carries. Simply measuring the magnitude of sound on a linear scale is not practical, however, because the range of sound pressures which the human ear can detect is enormous – a ratio of 1 to approximately 10^{14} (1 followed by 14 zeros). By converting this ratio to a logarithmic scale, the range can be reduced to 14 units. The unit of sound level measurement on this scale is the *bel* (in honor of Alexander Graham Bell). Normally, though, these units are divided into tenths – that is, *decibels*. The range of human hearing thus extends from 0 decibels, corresponding to the faintest sound level that the healthy, unimpaired human ear can detect, to more than 140 decibels. (Sound levels of nearly 200 decibels are possible – such as inside a rocket engine – but are greater than the unprotected human ear can withstand.)

The use of a logarithmic scale for measurement of the magnitude of sound is often the cause for confusion because it does not directly correspond to the way in which people perceive the relative *loudness* of different sound levels. People tend to think that, if two equal sounds are combined, the result will seem twice as loud. In reality, however, combining two equal sounds – although it doubles the sound energy – produces only a 3 dB increase in magnitude. For one sound to be judged twice as loud as another, it actually must be 10 dB higher (meaning that the acoustic energy must increase 10-fold). Also confusing is that

INDOORS	A-weighted Decibels	Tolerance	OUTDOORS
	140	Threshold of Pain	
	130		Pneumatic Riveter Military Jet takeoff with after-burner at 50 feet
Oxygen Torch	120	Uncomfortably Loud	
Rock and Roll Band	110		Jet takeoff at 1,000 feet Jet flyover at 1,000 feet
Inside Subway Train (New York) Newspaper Press	100	Very Loud	Farm Tractor at 50 feet Power Mower at 3 feet
Food Blender at 3 feet	90		Motorcycle at 50 feet Diesel Truck at 50 feet
Garbage Disposal at 3 feet Shouting at 3 feet	80	Moderately Loud	Noisy Urban Daytime Auto 65 mph at 50 feet Light Airplane at 1,000 feet
Vacuum Cleaner at 10 feet	70		Power Mower at 100 feet Commercial Area Auto 30 mph at 50 feet
Normal Speech at 3 feet Electric Typewriter at 10 feet Conversation Background Music Large Business Office	60		Air Conditioner at 50 feet
Dishwasher, Next Room	50	Quiet	Light Traffic at 100 feet Quiet Urban Daytime
Very Quiet Radio at Home Library	40		Quiet Urban Nighttime Quiet Suburban Nighttime
	30		Quiet Rural Nighttime
Concert Hall (background) Broadcasting Studio		Very Quiet	
	20		
	10	Barely Audible	Leaves Rustling

Source: Compiled by Hodges & Shutt from various sources (December 1993)

Table 6A

Approximate Sound Level of Common Sound Sources

this relationship of 10 dB per doubling of loudness applies to any 10 dB increase — sound level increases from 40 dB to 50 dB or from 80 dB to 90 dB are both perceived as representing a doubling of loudness.

Frequency

The frequency of a sound — its *tonal quality* — depends upon the relative rapidity of the air pressure oscillation. In a low-pitched tone, the sound waves are relatively far apart (that is, the wavelength is relatively long), while in a high-pitched tone they are squeezed much closer together. Frequency is measured in cycles per second (also called *hertz* or Hz). Although some *pure* tone sounds contain only one frequency, more often sound is a mixture of different frequencies.

The response of the human ear to different sounds is significantly affected by the frequency of those sounds. Although people can hear sound frequencies as low as 20 hz and as high as 20,000 hz, they do not hear all frequencies in this range equally well. Very low and very high frequency sounds are perceived to be less loud than mid-range sounds. Most environmental sound measurements consequently are weighted to simulate the varying frequency sensitivity of the human ear. A widely used weighting for general environmental sounds (as opposed to large-amplitude impulse sounds such as sonic booms) is the A-weighted sound level expressed in decibels (sometimes abbreviated dBA).

Duration

The third component of sound is the length of time over which it occurs. Many sounds have a distinct beginning and ending; others, such as from aircraft overflights, gradually increase and decrease without a sharp definition of when they start or stop. In the latter case, the duration of the sound is usually measured in terms of the time period over which the sound level exceeds a specified threshold.

Because sound levels vary from one moment to the next, it is not possible to say that a given noise was "so many decibels" except when referring to an instantaneous measurement or by averaging the sound level over time. As discussed below under the heading of *Measuring Environmental Noise*, numerous methods have been developed which seek to measure the overall *exposure* produced by a noise event or events within a defined period of time.

Sound Attenuation

Sound Attenuation in the Outdoor Environment

Among the basic characteristics of sound which are of particular interest in the discussion of aircraft-generated noise are sound attenuation or reduction over distance. Part of the reduction occurs because sound energy is spread over a three-dimensional, geometrically increasing area as the distance from the source increases. At sufficient distances from the source, geometric spreading alone results in a 6 dB loss per doubling of distance. Actual attenuation of sound is greater than this as a result of factors such as absorption by the atmosphere. Also, atmospheric attenuation is greater for high-frequency sound than for sound with a low frequency.

Other factors also influence the extent to which sound is attenuated in the environment. Sound propagation through the air is affected by meteorological conditions including air temperature, temperature inversions, humidity, wind speed, and air turbulence. Sound travelling along a hard ground surface is attenuated by approximately an additional 2.5 dB in 1,000 feet (compared to the attenuation in air alone) and tall grasses or shrubs can double this figure. Structures, terrain, or other barriers can provide significant attenuation for ground-to-ground sound as well. Ground cover and objects on the ground, however, have little effect on reducing air-to-ground sound such as that from aircraft. Moreover, buildings and other such objects can cause reflections which may even *increase* the localized sound level.

Sound Attenuation Provided by Buildings

For indoor activities, another significant factor affecting the level of aircraft-generated noise to which people are exposed is the amount of sound attenuation provided by the building. Several different metrics have been developed for use in measuring the sound insulation capabilities of buildings.

One metric commonly associated with the individual structural components of a building is the *Sound Transmission Class* (STC). The STC rating of a component is expressed as a single number, in decibels, and is calculated in laboratory testing of the component. STC ratings are often used in construction specifications to indicate a required sound insulation capability. The original application of STC ratings was with regard to interior partitions, but it can also give some indication of the sound attenuation provided by exterior walls, windows, and doors.

Caution must be used, however, when attempting to evaluate the exterior-to-interior sound level attenuation of a building by means of STC ratings. First, as a single number, the STC of a structural component

may not adequately reflect differences in the component's relative abilities to block sounds of different frequencies. Secondly, the overall sound attenuation provided by most buildings cannot be calculated from STC ratings. The various components of a building each have different noise insulation qualities. Moreover, sound tends to enter an interior space not so much through individual components but by way of openings and gaps such as vents, door jambs, and so forth. Interior noise levels from exterior sources thus are substantially determined by the weak link in the overall construction.

A more general measure of a building's sound attenuation attributes is its *Noise Level Reduction* (NLR). Like STC, NLR is a single-number value measured in decibels and as such may disguise a building's varying response to different sound frequencies. Unlike STC, though, NLR is measured in field testing of actual structures. It thus takes into account the fact that buildings are made up of numerous components.

Table 6B is offered here as a very general guide to the overall Noise Level Reduction afforded by average types of building construction.

State airport land use commission statutes (Public Utilities Code, Section 21675(a)) specifically note that ALUCs may "determine building standards, including soundproofing" when developing airport land use compatibility plans. ALUCs have mostly steered clear of setting detailed building standards, however. Those that deal with the question of acceptable indoor noise levels typically use one of two approaches. One method is to indicate the noise level standards for various indoor building uses and require project proponents to show how those standards will be met. Another common approach is for the ALUC to establish criteria specifying the amount of Noise Level Reduction a building in a particular noise environment must provide. Again, the details of how the criterion is met are left to the proponent.

Construction Type	Typical Occupancy	General Description	Noise Level Reduction (NLR) in dB
1	Residential, Commercial, Schools	Wood framing. Exterior stucco or wood sheathing. Interior drywall or plaster. Sliding glass windows. Windows partially open.	15-20
2	Same as 1 above	Same as 1 above, but windows closed.	25-30
3	Commercial, Schools	Same as 1 above, but windows are fixed 1/4-inch plate glass.	30-35
4	Commercial	Steel or concrete framing. Curtain-wall or masonry exterior wall. Fixed 1/4-inch plate glass windows.	30-40

Notes:

- Construction methods assume no special control provisions.
- The NLR range depends upon the openness of the windows, the degree of seal, and the window area involved.
- Buildings constructed to meet 1990s standards for energy efficiency may slightly increase the NLR values indicated above.

Source: Paul S. Veneklasen & Associates (1973)
Supplemental notes, Hodges & Shutt (December 1993)

Table 6B

Noise Reduction Afforded by Common Building Construction

APPENDIX C.

STATE OF CALIFORNIA CODE OF REGULATIONS, TITLE 21, SUBCHAPTER 6, STATE NOISE STANDARDS

effective March 22, 1990

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY GEORGE DEUKMEJIAN, Governor

DEPARTMENT OF TRANSPORTATION
DIVISION OF AERONAUTICS
K STREET - 4th FLOOR
P.O. BOX 942873
SACRAMENTO, CA 94273-0001
(916) 322-3090
TDD (916) 445-5945

JUL 16 10 37 AM '90

July 12, 1990

TO ALL INTERESTED PARTIES:

Adopted Noise Standards

The attached copy of the Noise Standards is forwarded for your use. The regulatory language is identical to that contained in a previous "interim" copy mailed under a cover letter dated March 22, 1990. Formal footnotes indicating the authority and history of each section have now been added to the regulation. Please discard the previously issued "interim" copy and file this copy in its place.

Should you have questions or comments regarding the adopted Noise Standards, please contact the undersigned at the above address or by telephone at (916) 322-9946.

Sincerely,

Richard G. Dyer

Richard G. Dyer
Airport Environmental Specialist

Attachment

SUBCHAPTER 6. NOISE STANDARDS

Article 1. General

5000. Preamble.

The following rules and regulations are promulgated in accordance with Article 3, Chapter 4, Part 1, Division 9, Public Utilities Code (Regulation of Airports) to provide noise standards governing the operation of aircraft and aircraft engines for all airports operating under a valid permit issued by the Department of Transportation. These standards are based upon two separate legal grounds: (1) the power of airport proprietors to impose noise ceilings and other limitations on the use of the airport, and (2) the power of the state to act to an extent not prohibited by federal law. The regulations are designed to cause the airport proprietor, aircraft operator, local governments, pilots, and the department to work cooperatively to diminish noise problems. The regulations accomplish these ends by controlling and reducing the noise impact area in communities in the vicinity of airports.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. Amendment filed 2-20-90; operative 3-22-90 (Register 90, No. 10).

5001. Definitions.

The definitions in the following subsections apply to this subschapter.

(a) Air Carrier: Air carrier is any aircraft operating pursuant to a federal certificate of public convenience and necessity, including any certificate issued pursuant to 49 U.S.C. Section 1371 and any permit issued pursuant to 49 U.S.C. Section 1371.

(b) Aircraft Operator: Aircraft operator means the legal or beneficial owner of the aircraft with authority to control the aircraft utilization except where the aircraft is leased, the lessee is the operator.

(c) Airport Proprietor: Airport proprietor means the holder of an airport permit issued by the department pursuant to Article 3, Chapter 4, Part 1, Division 9, Public Utilities Code.

(d) Annual CNEL: The annual CNEL, in decibels, is the average (on an energy basis) of the daily CNEL over a 12-month period. The annual CNEL is calculated in accordance with the following:

$$\text{Annual CNEL} = 10 \log_{10} [(1/365) \Sigma \text{ Antilog } (\text{CNEL}(i)/10)]$$

where CNEL(i) = the daily CNEL for each day in a continuous 12-month period, and Σ means summation.

When the annual CNEL is approximated by measurements on a statistical basis, as specified in Section 5034, the number 365 is replaced by the number of days for which measurements are obtained.

(e) County: County, as used herein, shall mean the county board of supervisors or its designee authorized to exercise the powers and duties herein specified.

(f) Daily Community Noise Equivalent Level (CNEL): Community noise equivalent level, in decibels, represents the average daytime noise level during a 24-hour day, adjusted to an equivalent level to account for the lower tolerance of people to noise during evening and night time periods relative to the daytime period. Community noise equivalent level is calculated from the hourly noise levels by the following:

$$\text{CNEL} = 10 \log (1/24) \left[\Sigma \text{ antilog } (\text{HNLD}/10) + 3\, \Sigma \text{ antilog } (\text{HNLE}/10) + 10\, \Sigma \text{ antilog } (\text{HNLN}/10)\right]$$

Where
HNLD are the hourly noise levels for the period 0700–1900 hours;
HNLE are the hourly noise levels for the period 1900–2200 hours;
HNLN are the hourly noise levels for the period 2200–0700 hours; and Σmeans summation.

(g) Department: Department means the Department of Transportation of the State of California.

(h) General Aviation: General aviation aircraft are all aircraft other than air carrier aircraft and military aircraft.

(i) Hourly Noise Level (HNL): The hourly noise level, in decibels, is the average (on an energy basis) noise level during a particular hour. Hourly noise level is determined by subtracting 35.6 decibels (equal to 10 $\log_{10}$ 3600) from the noise exposure level measured during the particular hour, integrating for those periods during which the noise level exceeds a threshold noise level.

For implementation in this subchapter of these regulations, the threshold noise level shall be a noise level which is 10 decibels below the numerical value of the appropriate Community Noise Equivalent Level (CNEL) standard specified in Section 5012. At some microphone locations, sources of noise other than aircraft may contribute to the CNEL. Where the airport proprietor can demonstrate that the accuracy of the CNEL measurement will remain within the required tolerance specified in Section 5070, the department may grant a waiver to increase the threshold noise level.

(j) Noise Exposure Level (NEL): The noise exposure level is the level of noise accumulated during a given event, with reference to a duration of one second. More specifically, noise exposure level, in decibels, is the level of the time-integrated A-weighted squared sound pressure for a stated time interval or event, based on the reference pressure of 20 micronewtons per square meter and reference duration of one second.

(k) Noise Impact Area: Noise impact area is the area within the noise impact boundary that is composed of incompatible land use.

(*l*) Noise Impact Boundary: Noise impact boundary is the locus of points around an airport for which the annual CNEL is equal to the airport noise standard established in Section 5012. The concepts of noise impact boundary and noise impact area are illustrated in Figure 1.

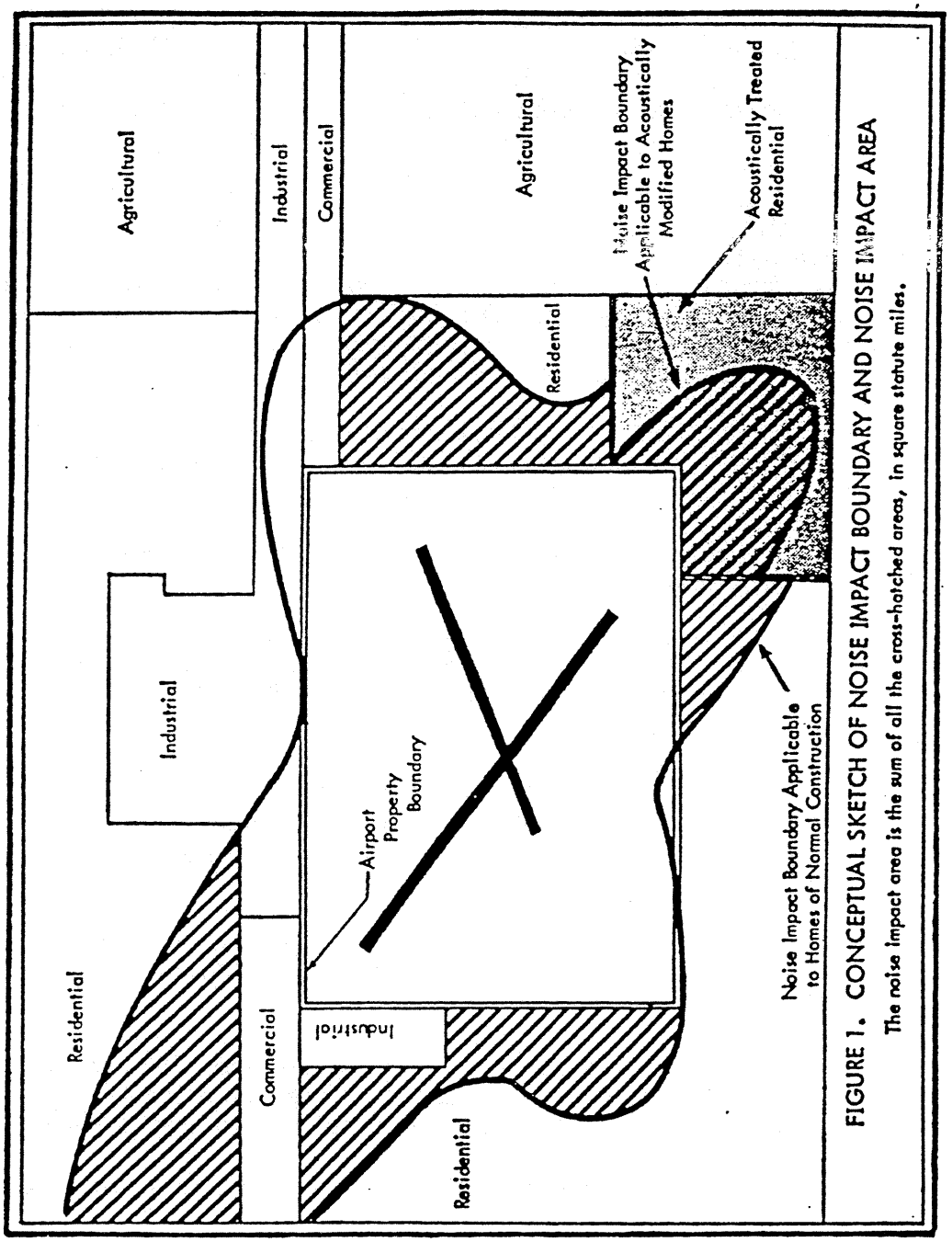


Figure 1. Conceptual Sketch of Noise Impact Boundary and Noise Impact Area

(m) Noise Level (NL): Noise level is the measure in decibels of an A-weighted sound pressure level as measured using the slow dynamic characteristic for sound level meters specified in American National Standard Specification for Sound Level Meters, (ANSI S1.4-1983 as revised by ANSI S1.4A-1985) which is hereby incorporated by reference. The A-weighting characteristic modifies the frequency response of the measuring instrument to account approximately for the frequency characteristics of the human ear. The reference pressure is 20 micronewtons/square meter (2×10^{-4} microbar).

(n) Noise Problem Airport: "Noise problem airport" is an airport that the county in which the airport is located has declared to have a noise problem under section 5020.

(o) Single Event Noise Exposure Level (SENEL): The single event noise exposure level, in decibels, is the noise exposure level of a single event, such as an aircraft flyby, measured over the time interval between the initial and final times for which the noise level of a single event exceeds a predetermined threshold noise level.

(p) Sound Pressure Level (SPL): The sound pressure level, in decibels (dB), of a sound is 20 times the logarithm to the base 10 of the ratio of the pressure of that sound to the reference pressure 20 micronewtons/square meter (2×10^{-4} microbar).

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. Renumbering and amendment of former Section 5001 to Section 5002, and renumbering and amendment of former Section 5006 to Section 5001 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Register 79, No. 21.

5002. Liberal Construction.

This subchapter shall be liberally construed and applied to promote its underlying purposes which are to protect the public from noise and to resolve incompatibilities between airports and their surrounding neighbors.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. Renumbering of former Section 5002 to Section 5003, and renumbering of Section 5001 to Section 5002 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Register 79, No. 21.

5003. Constitutionality.

If any provision of this subchapter or the application thereof to any person or circumstance is held to be unconstitutional, the remainder of the subchapter and the application of such provision to other persons or circumstances shall not be affected thereby.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. Renumbering of former Section 5003 to Section 5004, and renumbering of former Section 5002 to Section 5003 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Register 79, No. 21.

5004. Provisions Not Exclusive.

The provisions of this subchapter are not exclusive, and the remedies provided for in this subchapter shall be in addition to any other remedies provided for in any other law or available under common law. It is not the intent of these regulations to preempt the field of aircraft noise limitation in the state. The noise limits specified herein are not intended to prevent any local government to the extent not prohibited by federal law or any airport proprietor from setting more stringent standards.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. Renumbering and amendment of former Section 5004 to Section 5005, and renumbering of former Section 5003 to Section 5004 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Register 79, No. 21.

5005. Applicability.

These regulations establish to the extent not prohibited by Federal law a mandatory procedure which is applicable to all airports in California that are required to operate under a valid permit issued by the department. These regulations are applicable (to the extent not prohibited by Federal law) to all operations of aircraft and aircraft engines which produce noise.

The regulations established by this subchapter are not intended to set noise levels applicable in litigation arising out of claims for damages occasioned by noise. Nothing herein contained in these regulations shall be construed to prescribe a duty of care in favor of, or to create any evidentiary presumption for use by, any person or entity other than the State of California, counties and airport proprietors in the enforcement of these regulations.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. Renumbering and amendment of former Section 5005 to Section 5006, and renumbering and amendment of former Section 5004 to Section 5005 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Register 79, No. 21.

5006. Findings.

Citizens residing in the vicinity of airports are exposed to the noise of aircraft operations. There have been numerous instances wherein individual citizens or organized citizen groups have complained about airport noise to various authorities. The severity of these complaints has ranged from a few telephone calls to organized legal action. Many of these cases have been studied by acoustics research workers under sponsorship of governmental and private organizations. These studies have generally shown that the severity of the complaint is principally associated with a combination of the following factors:

(a) Magnitude and duration of the noise from aircraft operations;
(b) Number of aircraft operations; and
(c) Time of occurrence during the day (daytime, evening or night).

There are many reasons given by residents for their complaints; however, those most often cited are interference with speech communication, TV, and sleep. Numerous studies have been made related to speech interference and hearing damage, and some studies have been made related to sleep disturbance and other physiological effects. These studies provide substantial evidence for the relationship between noise level and its interference with speech communication and its effect relative to hearing loss. Significantly less information is available from the results of sleep and physiological studies.

In order to provide a systematic method for evaluating and eventually reducing noise incompatibilities in the vicinity of airports, it is necessary to quantify the noise problem. For this purpose, these regulations establish a procedure for defining a noise impact area surrounding an individual airport. The criteria and noise levels utilized to define the boundaries of the noise impact area have been based on existing evidence from studies of community noise reaction, noise interference with speech and sleep, and noise induced hearing loss.

One of the fundamental philosophies underlying the procedures in these regulations is that any noise quantity specified by these regulations be measurable by relatively simple means. Therefore, these regulations utilize as their basic measure the A-weighted noise level, which is the most commonly accepted simple measure. To insure consistency between criteria and measurement, the units for the criteria are also based on the A-weighted sound level rather than one of the several more complex perceived noise levels.

The level of noise acceptable to a reasonable person residing in the vicinity of an airport is established as a community noise equivalent level (CNEL) value of 65 dB for purposes of these regulations. This criterion level has been chosen for reasonable persons residing in urban residential areas where houses are of typical California construction and may have windows partially open. It has been selected with reference to speech, sleep and community reaction.

It is recognized that there is a considerable individual variability in the reaction to noise. Further, there are several factors that undoubtedly influence this variability and which are not thoroughly understood. Therefore, this criterion level does not have a degree of precision which is often associated with engineering criteria for a physical phenomenon (e.g., the strength of a bridge, building, et cetera). For this reason, the state will review the criterion periodically, taking into account any new information that might become available.

NOTE: Authority cited: Sections 21243 and 21669, Public Utilities Code. Reference: *Air Transport Association of America* v. *Crotti* (N.D.Cal. 1975) 389 F.Supp. 58.

HISTORY:

1. Renumbering and amendment of former Section 5006 to Section 5001, and renumbering and amendment of former Section 5005 to Section 5006 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Register 79, No. 21.

5010. Purpose.

The purpose of these regulations is to provide a positive basis to accomplish resolution of existing noise problems in communities surrounding airports and to prevent the development of new noise problems. To accomplish this purpose, these regulations establish a quantitative framework within which the various interested parties (i.e., airport proprietors, aircraft operators, local communities, counties and the state) can work together cooperatively to reduce and prevent airport noise problems.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. Amendment filed 2-20-90; operative 3-22-90 (Register 90, No. 10).

5011. Methodology for Controlling and Reducing Noise Problems.

HISTORY:

1. Renumbering and amendment of former Section 5011 to Section 5037 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Register 79, No. 21.

5012. Airport Noise Standard.

The standard for the acceptable level of aircraft noise for persons living in the vicinity of airports is hereby established to be a community noise equivalent level of 65 decibels. This standard forms the basis for the following limitation.

No airport proprietor of a noise problem airport shall operate an airport with a noise impact area based on the standard of 65 dB CNEL unless the operator has applied for or received a variance as prescribed in Article 5 of this subchapter.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. Repealer of former Section 5012, and renumbering and amendment of former Section 5062 to Section 5012 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Register 79, No. 21.

5013. Noise Impact Boundary.

HISTORY:

1. Repealer filed 2-20-90; operative 3-22-90 (Register 90, No. 10).

5014. Incompatible Land Uses Within the Noise Impact Boundary.

For the purpose of determining the size of the noise impact area, the following land uses are incompatible:

(a) Residences, including but not limited to, detached single-family dwellings, multi-family dwellings, high-rise apartments or condominiums, and mobile homes, unless:

(1) an avigation easement for aircraft noise has been acquired by the airport proprietor, or

(2) the dwelling unit was in existence at the same location prior to January 1, 1989, and has adequate acoustic insulation to ensure an interior CNEL due to aircraft noise of 45 dB or less in all habitable rooms. However, acoustic treatment alone does not convert residences having an exterior CNEL of 75 dB or greater due to aircraft noise to a compatible land use if the residence has an exterior normally occupiable private habitable area such as a backyard, patio, or balcony. Or,

(3) the residence is a high rise apartment or condominium having an interior CNEL of 45 dB or less in all habitable rooms due to aircraft noise, and an air circulation or air conditioning system as appropriate, or

(4) the airport proprietor has made a genuine effort as determined by the department in accordance with adopted land use compatibility plans and appropriate laws and regulatons to acoustically treat residences exposed to an exterior CNEL less than 80 dB (75 dB if the residence has an exterior normally occupiable private habitable area such as a backyard, patio, or balcony) or acquire avigation easements, or both, for the residences involved, but the property owners have refused to take part in the program, or

(5) the residence is owned by the airport proprietor.

(b) Public and private schools of standard construction for which an avigation easement for noise has not been acquired by the airport proprietor, or that do not have adequate acoustic performance to ensure an interior CNEL of 45 dB or less in all classrooms due to aircraft noise;

(c) hospitals and convalescent homes for which an avigation easement for noise has not been acquired by the airport proprietor, or that do not have adequate acoustic performance to provide an interior CNEL of 45 dB or less due to aircraft noise in all rooms used for patient care;

(d) churches, synagogues, temples, and other places of worship for which an avigation easement for noise has not been acquired by the airport proprietor, or that do not have adequate acoustic performance to ensure an interior CNEL of 45 dB or less due to aircraft noise.

NOTE: Authority cited: Sections 21243 and 21669, Public Utilities Code. Reference: *Air Transport Association of America* v. *Crotti* (N.D.Cal 1975) 389 F. Supp. 58.

HISTORY:

1. Amendment filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Registers 79, No. 21 and 78, No. 38.

5015. Changes in Airport Ownership or Control.

NOTE: Authority cited: Section 21243, Public Utilities Code. Reference: Sections 21669–21669.5, Public Utilities Code.

HISTORY:

1. New section filed 5-30-78 as an emergency, effective upon filing (Register 78, No. 22).
2. Certificate of Compliance filed 9-22-78 (Register 78, No. 38).
3. Renumbering and amendment of former Section 5015 to Section 5090 filed 2-20-90; operative 3-22-90 (Register 90, No. 10).

Article 2. Implementation by Counties

5020. Designating Noise Problem Airport.

Any county may, at any time, in accordance with the procedure herein, declare any airport within its boundaries to have a noise problem, by adopting a resolution to this effect and forwarding it to this department. In making the determination, the county shall:

(a) Review relevant information, including but not limited to, the record of complaints made, and litigation filed, by residents of the area regarding airport related aircraft noise.

(b) Investigate the possible existence of a noise impact area.

(c) Coordinate with and give due consideration to the recommendations of the applicable airport land use commission established under section 21670 of the Public Utilities Code.

(d) For an airport with joint use by both military and civilian aircraft operations, base its finding only on civilian operations.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. Renumbering and amendment of former Section 5020 to Section 5032, and new Section 5020 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Register 78, No. 22.

5021. Review of Finding.

Any person or government agency shown, by the results of an investigation conducted under section 5020(b) or by independent competent evidence, to own, reside in, or have jurisdiction over any area within the 65 dB CNEL boundary of any airport may seek review of the finding of the county under section 5020 solely on the issue of substantial evidence by filing a petition to this effect with the department within 10 days of adoption of the finding.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. Repealer and new section filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Register 78, No. 22.

5022. County Enforcement.

The county wherein a noise problem airport is situated shall enforce this subchapter.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. Renumbering and amendment of former Section 5022 to Section 5034, and new Section 5022 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Register 78, No. 22.

5023. Noise Monitoring.

The county shall require the airport proprietor for each airport within its jurisdiction determined to have a noise problem, for which the estimated location of the noise impact boundary extends into incompatible land uses, to establish a program of noise monitoring to validate the location of the noise impact boundary in accordance with a monitoring plan approved by the department.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. Repealer and new section filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Register 78, No. 22.

5024. Audit.

For each noise problem airport, the county shall review and audit noise monitoring data supplied by the airport proprietor for the purpose of ensuring that the data were produced in accordance with the monitoring system plan approved by the department and that the information presented by the airport proprietor is certified as being true and correct by the person in charge of operating the noise monitoring system. Duplicative monitoring by the county is not required.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. Renumbering of former Section 5024 to Section 5047, and new Section 5024 filed 2-20-90; operative 3-22-90 (Register 90, No 10). For prior history, see Register 78, No. 22.

5025. County Report.

The county shall submit quarterly to the department for each noise problem airport within 75 days after the end of each calendar quarter, a report containing at least the following information:

(a) A map illustrating the location of the noise impact boundary, as validated by measurement, and the location of measurement points, in the four preceding calendar quarters;

(b) The annual noise impact area as obtained from the preceding four calendar quarterly reports, an estimate of the number of dwelling units, and the number of people residing therein;

(c) The daily CNEL measurement, together with identification of the date on which each measurement was made, number of total aircraft operations during the calendar quarter, estimated number of operations of the highest noise level aircraft type (as defined in the 14th Code of Federal Regulations, Part 1, for the certification of airmen) in the calendar quarter, and any other data pertinent to the activity. The Hourly Noise Level (HNL) data shall be retained for at least 3 years, and made available to the department upon request.

(d) The quarterly report shall include use of a standard information format provided by the department (form DOA 617, dated 10/89). The standard form provides a listing for certain summary information including size of noise impact area and the aircraft operational data specified in paragraph (c) above.

NOTE: Authority cited: Sections 21243 and 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. Renumbering and amendment of former Section 5025 to Section 5049, and new Section 5025 filed 2-20-90; operative 2-20-90 (Register 90, No. 10). For prior history, see Register 78, No. 22.

Article 3. Implementation by Airport Proprietors

5030. Cooperation with County.

(a) Each airport proprietors shall cooperate with the county in the county's investigations to determine the existence of a noise problem and shall furnish data it may have concerning the location of the 65 and 70 dB CNEL contours upon request by the county.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. Renumbering and amendment of former Section 5060(a) to Section 5030 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For history of former Section 5030, see Register 79, No. 21.

5031. Establishment of the Noise Impact Boundary.

Each noise problem airport shall measure, establish and validate noise impact boundaries by noise monitoring as required by this subchapter and shall furnish such information to the county.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. Renumbering and amendment of former Section 5060(b) to Section 5031 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For history of former Section 5031, see Register 79, No. 21.

5032. Validation of the Noise Impact Boundary.

The noise impact boundary shall be validated by measurements made at locations approved for this purpose by the department. The noise problem airport proprietor shall ascertain the noise impact boundary within a tolerance of plus or minus 1.5 decibels annual CNEL by measurements made in accordance with, and at locations designated in, a noise monitoring plan approved by the department. The noise impact boundary may be ascertained directly from information gathered from monitors or from the combined use of an approved computer model and the data reported by the noise monitoring system. Monitoring shall be accomplished at locations in the approved monitoring system layout plan. The locations shall be selected to facilitate locating the maximum extent (closure points) of the noise impact boundary when the contour extremities encompass incompatible land uses.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. Renumbering and amendment of former Section 5020 to Section 5032 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For history of former Section 5032, see Register 79, No. 21.

5033. Submittal of Monitoring Plan.

Each proprietor of a noise problem airport shall submit a description of the proposed monitoring plan to the department for approval containing at least the following information:

(a) the general monitoring system plan, including at least locations and the type of instrumentation to be employed;

(b) Justification for any proposed deviations from the measurement system locations specified in these regulations;

(c) Statistical sampling plan proposed for intermittent monitoring at community locations;

(d) Additional information as pertinent or as requested by the department.

NOTE: Authority cited: Sections 21243 and 21669, Public Utilities Code. Reference: *Air Transport Association of America* v. *Crotti* (N.D.Cal. 1975) 389 F.Supp. 58.

HISTORY:

1. Renumbering and amendment of former Section 5063 to Section 5033 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Register 79, No. 21.

5034. Frequency of Measurement.

(a) For airports with 1,000 or more homes within the noise impact boundary based on CNEL of 70 dB, continuous monitoring is required at those monitoring positions which fall within residential areas. Measurement for at least 48 weeks in a year shall be considered as continuous monitoring.

(b) For all other noise problem airports, an intermittent monitoring schedule is allowed. The intermittent monitoring schedule shall be designed so as to obtain the resulting annual CNEL as computed from measurements at each location which will correspond to the value that would be measured by a monitor operated continuously throughout the year at that location, within an accuracy of plus or minus 1.5 dB.

Thus, it is required that the intermittent monitoring schedule be designed to obtain a realistic statistical sample of the noise at each location. As a minimum, this requires that measurements be taken continuously for 24-hour periods during four 7-day samples throughout the year, chosen so that for each sample, each day of the week is represented, the four seasons of the year are represented, and the results account for the effect of annual proportion of runway utilization. At most airports, these intermittent measurements can be accomplished by a single portable monitoring instrument.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. Renumbering and amendment of former Section 5022 to Section 5034 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Register 79, No. 21.

5035. Schedule of Implementation.

Within 90 days following the declaration by a county that an airport has a noise problem, and current estimates indicate that a noise impact area exists, the airport proprietor shall forward a schedule of major actions and events involved in the initiation of noise monitoring to the county and to the department. The schedule shall include an estimate of the number of dwelling units inside the 70 dB CNEL contour based upon current airport operations, and the forecast dates for budget amendments, contract award, system design, system

construction, system installation, and the system becoming operational in cases where continuous monitoring is required.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. New section filed 2-20-90; operative 3-22-90 (Register 90, No. 9). For history of former Section 5035, see Register 79, No. 21.

5037. Suggested Methodology for Controlling and Reducing Noise Problems.

The methods whereby the impact of airport noise may be controlled and reduced include, but are not limited to, the following:

(a) Encouraging use of the airport by aircraft classes with lower noise level characteristics and discouraging use by higher noise level aircraft classes;

(b) Encouraging approach and departure flight paths and procedures to minimize the noise in residential areas;

(c) Planning runway utilization schedules to take into account adjacent residential areas, noise characteristics of aircraft and noise sensitive time periods;

(d) Reduction of the flight frequency, particularly in the most noise sensitive time periods and by the noisier aircraft;

(e) Employing shielding for advantage, using natural terrain, buildings, and other obstructions to noise; and

(f) Development of compatible land uses within the noise impact boundary through rezoning, acquisition of avigation easements for noise (voluntarily in exchange for acoustical insulation, an agreed fee, or by eminent domain), application of acoustical insulation, or acquisition of property as examples.

Preference shall be given to actions which reduce the impact of airport noise on existing communities. Land use conversion involving existing residential communities shall normally be considered the least desirable action for achieving compliance with these regulations.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. Renumbering and amendment of former Section 5011 to Section 5037 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Register 79, No. 21).

5039. Grounds for Approval.

Failure of the airport proprietor to comply with the provisions of this subchapter constitutes a ground for revocation of its airport permit.

NOTE: Authority cited: Section 21668, Public Utilities Code. Reference: Section 21668, Public Utilities Code.

HISTORY:

1. Renumbering and amendment of former Section 5064 to Section 5039 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Register 79, No. 21.

Article 4. Implementation by the Department

5040. Departmental Review.

Upon receipt of a petition for review under section 5021, the department shall conduct an investigation on, and make a determination as to, whether the county's finding is based on substantial evidence. If the department determines the county's finding to be not based on substantial evidence, it may either remand the matter to the county for reconsideration or decide the issue on the merits, either classifying the airport as having a noise problem or not. Notice of the determination and of classification as to whether a noise problem exists,

together with the record of the investigation, shall be served by mail on the county, the airport proprietor, and the petitioner. The determination shall, unless a request for hearing is filed, become final on the day after the time for demanding a hearing has lapsed.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. Renumbering and amendment of former Section 5040 to Section 5048, and new Section 5040 filed 2-20-90; operative 3-22-90 (Register 90, No. 10.) For prior history, see Register 79, No. 21.

5041. Hearing on Determination.

Upon services of a determination, the county, airport proprietor, or petitioner under section 5021, may demand a hearing by notice to the department, county, airport proprietor, petitioner, and any additional parties of interest in writing within 10 days. The department shall then arrange for the hearing in accordance with the Administrative Procedure Act (Government Code, Section 11,500 et seq.) and will give appropriate consideration to the findings and recommendations of the administrative law judge before issuing its final determination.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4 and 21669.6, Public Utilities Code.

HISTORY:

1. New section filed 2-20-90; operative 3-22-90 (Register 90, No. 10).

5042. Effective Date of Determination.

Upon a final determination that the county's finding is not based on substantial evidence, the department shall issue a decision regarding whether the airport shall be deemed a noise problem airport.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. New section filed 2-20-90; operative 3-22-90 (Register 90, No. 10).

5043. Approval of Noise Monitoring Plans.

The department will consider monitoring system plans filed by airport proprietors for approval in accordance with the requirements of these regulations.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. New section filed 2-20-90; operative 3-22-90 (Register 90, No. 10).

5044. Review of Quarterly Reports.

The department will review the data submitted quarterly by the counties for the purpose of assessing progress toward reducing the noise impact area. The department's review will include, but not be limited to, observation of any changes in noise monitor positions, and numerical values of CNEL.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. Renumbering and amendment of former Section 5065 to Section 5044, and new Section 5044 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Register 79, No. 21.

5045. Retention of Monitoring Data.

The department will maintain the quarterly reports of noise monitoring forwarded by the counties pursuant to these regulations for three years in accordance with the provisions of the California Public Records Act (Government Code, Chapter 3.5, Division 7, Title 1, Section 6250 et seq.).

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. Renumbering and amendment of former Section 5045 to Section 5070, and new Section 5045 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Register 79, No. 21.

5046. Detailed Specifications.

HISTORY:

1. Renumbering and amendment of former Section 5046 to Section 5071 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Register 79, No. 21.

5047. Deviations from Specified Measurement Locations.

Recognizing the unique geographic and land use features surrounding specific airports, the department will consider measurement plans tailored to fit any airport for which the specified CNEL monitoring locations are impractical. For example, monitors should not be located on bodies of water or at points where other noise sources might interfere with aircraft CNEL measurements, nor are measurements required in regions where land use will clearly remain compatible.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. Renumbering and amendment of former Section 5047 to Section 5072, and renumbering of former Section 5024 to Section 5047 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Register 79, No. 21.

5048. Additional Monitoring Locations.

Nothing in this subchapter precludes any airport proprietor from establishing monitors in addition to those required herein.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. Renumbering and amendment of former Section 5048 to Section 5073, and renumbering and amendment of former Section 5040 to Section 5048 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Register 79, No. 21.

5049. Alternative Measurement Systems.

The use of noise measurement systems that are more extensive or technically improved over those specified herein is encouraged, particularly at airports where a major noise problem requires more comprehensive noise monitoring, for example, to monitor noise abatement flight procedures. Airports contemplating the acquisition of such monitoring systems may apply to the department for exemptions from specific monitoring requirements set forth in this subchapter.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. Renumbering and amendment of former Section 5025 to Section 5049 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Register 79, No. 21.

Article 5. Variances

5050. Variances.

In granting variances, the department shall be guided by the underlying policy that the proprietor of each existing airport having a noise impact area be required to develop and implement programs to reduce the noise impact area of the airport to an acceptable degree in an orderly manner over a reasonable period of time.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. Repealer of former Section 5050, and renumbering and amendment of former Section 5075(a) to Section 5050 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Registers 85, No. 51 and 79, No. 21.

5051. Variance Request.

A proprietor of a noise problem airport may request variances from the requirement of Section 5012 for periods of not exceeding three years as set forth hereinafter.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. Renumbering and amendment of former Section 5075(b) to Section 5051 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Register 85, No. 51.

5052. Procedure.

(a) The airport proprietor shall apply to the department for a variance.

(b) An application for a variance shall be made upon a form which the department shall make available (DOA Form 618, dated 11-21-89).

(c) Such application shall set forth the reasons why the airport proprietor believes a variance is necessary. The application shall state the date by which the airport proprietor expects to achieve compliance with the requirement that there not be a noise impact area based upon the airport noise standard identified in Section 5012. The application shall set forth an incremental schedule of noise impact area reductions for the intervening time.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. Renumbering and amendment of former Section 5075(b)(1)–(b)(3) to Section 5052 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Register 85, No. 51.

5053. Conditions of Variance.

The department may grant a variance if to do so would be in the public interest. In weighing the public interest, the department's considerations include but are not limited to the following:

(a) The economic and technological feasibility of complying with the noise standards set by these regulations;

(b) The noise impact should the variance be granted;

(c) The value to the public of the services for which the variance is sought; and

(d) Whether the airport proprietor is taking good faith measures to the best of its ability to achieve the airport noise standards.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. Renumbering and amendment of former Section 5075(b) (4)–(b) (5) to Section 5053 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Register 85, No. 51.

5054. Reasonable Conditions.

The department in granting a variance may impose reasonable conditions to achieve the purposes of this subchapter of these regulations.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. Renumbering and amendment of former Section 5075(b) (7) to Section 5054 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Register 85, No. 51.

5055. Hearing.

On its own motion, or upon the request of any person or governmental agency residing, owning property within, or having jurisdiction over, the noise impact area, the department shall hold a public hearing under the provisions of the Administrative Procedure Act on the application for variance. Any person may obtain from the department information on pending requests for variances at any time.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. Renumbering and amendment of former Section 5075(b) (6) to Section 5055 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Registers 85, No. 51 and 79, No. 21.

5056. Burden of Proof.

The burden of proof shall be upon the applicant for the variance.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. New section filed 2-20-90; operative 3-22-90 (Register 90, No. 10).

5057. Additional Variances.

In the event a variance has been granted and it reasonably appears that the airport proprietor cannot within the term of the variance achieve compliance with the requirement that there be no noise impact area based upon the airport noise standard identified in Section 5012, an application for a further variance from such requirement must be made not less than thirty days before the termination date of the prior variance. In the event timely application is made under the provisions of this section, the prior variance shall continue in effect until the department acts on the application.

NOTE: Authority cited: Sections 21243 and 21669, Public Utilities Code. Reference: Section 21669, Public Utilities Code.

HISTORY:

1. Renumbering and amendment of former Section 5075(b) (8) to Section 5057 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Register 85, No. 51.

Article 6. (Reserved)

5060. Monitoring Requirements.

HISTORY:

1. Renumbering and amendment of former Section 5060(a) to Section 5030 and renumbering and amendment of Section 5060(b) to Section 5031 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Register 79, No. 21.

5061. Single Event Noise Limit Violations.

NOTE: Authority cited: Sections 21243 and 21669, Public Utilities Code. Reference: *Air Transport Association of America* v. *Crotti* (N.D.Cal. 1975) 389 F.Supp. 58.

HISTORY:

1. Repealer filed 5-23-79; effective thirtieth day thereafter (Register 79, No. 21). For history of former section, see Register 77, No. 10.

5062. Noise Impact Area Violations.

HISTORY:

1. Renumbering and amendment of former Section 5062 to Section 5012 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Register 79, No. 21.

5063. Submittal of Monitoring Plan.

NOTE: Authority cited: Sections 21243 and 21669, Public Utilities Code. Reference: *Air Transport Association of America* v. *Crotti* (N.D.Cal. 1975) 389 F.Supp. 58.

HISTORY:

1. Amendment filed 5-23-79; effective thirtieth day thereafter (Register 79, No. 21).
2. Renumbering and amendment of former Section 5063 to Section 5033 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Register 79, No. 21.

5064. Grounds for Approval.

HISTORY:

1. Renumbering and amendment of former Section 5064 to Section 5039 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Register 79, No. 21.

Article 11. Implementation by the Department

5065. Implementation by the Department.

HISTORY:

1. Renumbering and amendment of former Section 5065 to Section 5044 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Register 79, No. 21.

Article 7. Noise Monitoring System Requirements

5070. General Specifications.

(a) The noise monitoring system shall measure with an accuracy within plus or minus 1.5 dB on the CNEL scale and record the hourly noise level for each hour of the day, together with identification of the hour, and the CNEL for each day.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. Repealer of former Section 5070, and renumbering and amendment of former Section 5045 to Section 5070 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Register 79, No. 21.

5071. Detailed Specifications.

Noise monitoring systems shall comply with the specifications given in Sections 5080 through 5080.5 of these regulations.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. Renumbering and amendment of former Section 5046 to Section 5071 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Register 79, No. 21.

5072. Field Measurement Requirements.

Specific locations of the monitoring system shall be chosen whenever possible, such that the CNEL from sources other than aircraft in flight is equal to or less than 55dB. This objective may be satisfied by selecting locations in a residential area not immediately adjacent to a noisy industry, freeway, railroad track, et cetera. The measurement microphone shall be placed 20 feet above the ground level, or at least 10 feet above neighboring roof tops, whichever is higher and has a clear line of sight to the path of aircraft in flight.

No obstructions which significantly influence the sound field from the aircraft shall exist within a conical space above the measurement position, the cone being defined by a vertical axis and by a half angle of 75 degrees from that axis.

NOTE: Authority cited: Sections 21243 and 21669, Public Utilities Code. Reference: *Air Transport Association of America* v. *Crotti* (N.D.Cal. 1975) 389 F.Supp. 58.

HISTORY:

1. Renumbering and amendment of former Section 5047 to Section 5072 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Register 79, No. 21.

5073. Number of Measurement Systems.

The frequency of measurement specified in Section 5034 has been designed to limit the number of monitoring systems required. The minimum number of systems required per airport is one for intermittent measurements of the noise impact boundary.

For continuous monitoring systems the number of monitoring locations will increase where necessary to provide ample information to ensure the accuracy tolerance of plus or minus 1.5 dB CNEL for location of the noise impact boundary in areas where land use is incompatible. The minimum number of continuous monitoring system stations will be determined by the monitoring system layout plan for each individual airport.

NOTE: Authority cited: Sections 21243 and 21669, Public Utilities Code. Reference: *Air Transport Association of America* v. *Crotti* (N.D.Cal. 1975) 389 F.Supp. 58.

HISTORY:

1. Renumbering and amendment of former Section 5048 to Section 5073 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Register 79, No. 21.

5075. Variances.

NOTE: Authority cited: Sections 21243 and 21669, Public Utilities Code. Reference: Section 21669, Public Utilities Code.

HISTORY:

1. New subsection (b)(8) filed 5-23-79; effective thirtieth day thereafter (Register 79, No. 21).

2. Amendment of subsection (b) filed 12-16-85; effective thirtieth day thereafter (Register 85, No. 51).

3. Renumbering and amendment of former Section 5075(a) to Section 5050 and renumbering and amendment of former Section 5075(b) to Sections 5051–5055 and 5057 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Registers 85, No. 51 and 79, No. 21.

Article 8. Specification: Noise Monitoring System

5080. Purpose and Scope.

(a) Purpose. This specification establishes the minimum requirements for instrumentation to be utilized by airport proprietors required to monitor aircraft noise in accordance with this subchapter.

(b) Scope. The measurement systems defined herein shall be used to monitor noise levels at specifically designated locations in a community surrounding an airport.

(c) Design Goals. The design goals for the noise monitoring system are accuracy, reliability, and ease of maintenance. The measurement techniques set forth herein are sufficiently uncomplicated so that current state-of-the-art instrumentation equipment may be used. The monitor system specifications are not intended to be unduly restrictive in specifying individual system components. The specifications allow the utilization of equipment ranging from analog systems to automated computer systems. The exact configuration will depend upon the specific monitoring requirement and the nature of existing user instrumentation.

This is a total systems specification. It is the prerogative of the user to configure the system with components that will be most compatible with his existing equipment and personnel.

NOTE: Authority cited: Sections 21243 and 21669, Public Utilities Code. Reference: *Air Transport Association of America* v. *Crotti* (N.D.Cal. 1975) 389 F.Supp. 58.

HISTORY:

1. Amendment of subsection (b) filed 5-23-79; effective thirtieth day thereafter (Register 79, No. 21).
2. Amendment filed 2-20-90; operative 3-22-90 (Register 90, No. 10).

5080.1. Additional Definitions Applicable to Article 8.

(a) Field Instrumentation. Field instrumentation are those elements or components of a noise monitoring system that are exposed to the outdoor environment in the vicinity of the measurement microphone. This equipment functions within specification during exposure to a year-around environment adjacent to any public use airport in the state of California.

(b) Centralized Instrumentation. Centralized Instrumentation are those elements of a noise monitoring system that are contained in an environmentally-controlled room.

(c) HNL Monitoring System. The HNL monitoring system is one which measures the hourly noise level and provides identification of the hour. This system is deployed as a community monitoring system. An HNL system consists of two subsystems: a noise level subsystem and an integrator/logger subsystem.

(d) Noise Level Subsystem. Noise level subsystem is a subsystem composed of a microphone, an A-weighted filter, a squaring circuit and a lag network. This subsystem is used to derive a signal representing the mean square, A-weighted value of acoustic pressure.

(e) Integrator/Logger Subsystem. Integrator/logger subsystem is a subsystem composed of a threshold comparator, an integrator, a clock, an accumulator, a logger or printer and a logarithmic converter. This subsystem is used to transform the output from a noise level subsystem in excess of a pre-set threshold into HNL.

NOTE: Authority cited: Sections 21243 and 21669, Public Utilities Code. Reference: *Air Transport Association of America* v. *Crotti* (N.D.Cal. 1975) 389 F.Supp. 58.

HISTORY:

1. Amendment filed 5-23-79; effective thirtieth day thereafter (Register 79, No. 21).
2. Amendment filed 2-20-90; operative 3-22-90 (Register 90, No. 10).

5080.2. Examples of Possible System Configurations.

NOTE: Authority cited: Sections 21243 and 21669, Public Utilities Code. Reference: *Air Transport Association of America* v. *Crotti* (N.D.Cal. 1975) 389 F.Supp. 58.

HISTORY:

1. Amendment filed 5-23-79; effective thirtieth day thereafter (Register 79, No. 21).
2. Repealer filed 2-20-90; operative 3-22-90 (Register 90, No. 10).

5080.3. Performance Specifications.

(a) Overall Accuracy. The overall accuracy of the HNL Monitoring System shall be plus or minus 1.5 dB when measuring noise from aircraft in flight. It is the intent of the following specifications to verify this accuracy with laboratory simulation.

(b) Noise Level Subsystem.

(1) Frequency Response and Microphone Characteristics. The frequency response, and associated tolerance of the subsystem, shall be in accordance with American National Standard Specification For Sound Level Meters (ANSI S1.4-1983, as amended by ANSI S1.4A-1985) for Type 1 precision sound level meters for the A-weighting network, which is hereby incorporated by reference.

(2) Dynamic Range. The system output shall be proportional to the antilog of the noise level over a noise level range of at least 60 dB to 120 dB. For the noise level subsystem, the internal electrical noise shall not exceed an equivalent input noise level of 50 dB, and the full scale range of 120 dB shall apply to signals with a crest factor as great as 3:1.

(3) Linearity. The electrical amplitude response to sine waves in the frequency range of 22.4 Hz to 11.200 Hz shall be linear within one decibel from 30 dB below each full scale range up to 7dB above the full scale range on any given range of the instrument.

(c) Integrator/Logger Subsystem.

(1) Threshold Comparator. For HNL, the threshold level shall be adjustable over a noise level range of at least 55 to 70 dB. Threshold triggering shall be repeatable within plus or minus 0.5 dB.

(2) Clock. The clock shall be capable of being set to the time of day within an accuracy of 10 seconds and shall not drift more than 20 seconds in a 24-hour period.

(3) End-to-End Accuracy. The end-to-end accuracy of the integrator/logger subsystem is defined in terms of a unipolar, positive-going square wave input. The logged, integrated output of the system shall fall within plus or minus 1 dB of the true value predicted for the wave of a given duration at an amplitude exceeding the measurement threshold by at least 10 dB, and at all higher amplitudes within the range. The square wave shall be applied at the input to the integrator and level comparator.

(A) HNL Integrator/Logger Subsystem.

1. For each hour during which no noise event exceeds the HNL system noise level threshold, the subsystem shall output the time on the hour, and indicate that the antilog of the HNL for the preceding hour is zero.

2. The overall accuracy of a noise monitoring system pursuant to these regulations shall be determined over a range of HNL from 45 dB to 95 dB for each combination of the following conditions which gives a value in this range:

a. Square waves, as defined above, shall have repetitions of 1, 3, 10, 30 and 100 cycles.

b. Square waves shall have durations of 40, 20, 10, and 5 seconds.

c. Square waves shall have amplitudes equivalent to sound pressure levels of 70, 80, 90, 100 and 110 dB.

d. Overall System Accuracy Demonstration. The overall system accuracy shall be demonstrated for several conditions within each of the above specified ranges, utilizing a 1000 Hz sinusoidal acoustic plane wave oriented along the preferred plane wave axis of the microphone, or an equivalent signal generated in an acoustic coupler:

NOTE: Authority cited: Sections 21243 and 21669, Public Utilities Code. Reference: *Air Transport Association of America* v. *Crotti* (N.D.Cal. 1975) 389 F.Supp. 58.

HISTORY:

1. Repealer of subsection (d) (1) filed 5-23-79; effective thirtieth day thereafter (Register 79, No. 21).
2. Amendment filed 2-20-90; operative 3-22-90 (Register 90, No. 10).

5080.4. Field Calibration.

The monitoring system shall include an internal electrical means to electrically check and maintain calibration without resort to additional equipment. Provision shall also be made to enable calibration with an external acoustic coupler.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. New NOTE filed 2-20-90; operative 3-22-90 (Register 90, No. 10).

5080.5. Environmental Precautions and Requirements.

(a) The field instrumentation shall be provided with suitable protection such that the system performance specified will not be degraded while the system is operating within the range of weather conditions encountered at airports within the State of California.

(b) Humidity. The effect of changes in relative humidity on sensitivity of field instrumentation shall be less than 0.5 decibel at any frequency between 22.4 and 11,200 Hz in the range of 5 to 100 percent relative humidity.

(c) Vibration. The field instrumentation shall be designed and constructed to minimize the effects of vibration resulting from mechanical excitation. Shock mounting of the field instrumentation shall be provided as required to preclude degradation of system performance.

(d) Acoustic Noise. The field instrumentation shall be designed and constructed so as to minimize effects of vibration resulting from airborne noise, and shall operate in an environment of 125 dB SPL—broadband noise over a frequency range of 22.4 to 11,200 Hz—without degradation of system performance.

(e) Magnetic, Electrostatic and Radio Frequency Interference. The effects of magnetic, electrostatic and radio frequency interference shall be reduced to a minimum. The magnitude of such fields which would degrade the performance of the system in accordance with the specifications in Section 5080.3 shall be determined and stated.

(f) Windscreen. A windscreen suitable for use with the microphone shall be used at all times. The windscreen shall be designed so that for windspeeds of 20 miles per hour or less, the overall accuracy of the measurement system specified in Section 5080.3(a) is not compromised.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. Amendment of subsections (c) and (e) filed 2-20-90; operative 3-22-90 (Register 90, No. 10).

Article 9. Changes in Airport Ownership

5090. Changes in Airport Ownership or Control.

In the case of a change in airport ownership or control, the new airport proprietor shall be deemed to be in full compliance with these regulations until such time as the department takes final action on the new proprietor's application for a variance in accordance with Article 5, provided, however, that the new proprietor complies with the following:

(a) The new proprietor shall make application to the department for a variance within twenty (20) days after assuming ownership or control, and

(b) The new proprietor, in operating the airport, shall not permit or authorize any activity in conjunction with the airport that results in an increase of the size of the noise impact area.

NOTE: Authority cited: Section 21669, Public Utilities Code. Reference: Sections 21669–21669.4, Public Utilities Code.

HISTORY:

1. Renumbering and amendment of former Section 5015 to Section 5090 filed 2-20-90; operative 3-22-90 (Register 90, No. 10). For prior history, see Register 79, No. 21.

FIGURE 4. TYPICAL HOURLY NOISE LEVEL (HNL) SYSTEM

NOTE: Authority cited: Sections 21243 and 21669, Public Utilities Code. Reference: *Air Transport Association of America* v. *Crotti* (N.D.Cal. 1975) 389 F.Supp. 58.

HISTORY:

1. Repealer of Figure 4, and renumbering of Figure 5 to Figure 4 filed 5-23-79; effective thirtieth day thereafter (Register 79, No. 21).
2. Repealer filed 2-20-90; operative 3-22-90 (Register 90, No. 10).

(Next page is 245)

APPENDIX D

FEDERAL AVIATION REGULATIONS FAR PART 77, "OBJECTS AFFECTING NAVIGABLE AIRSPACE", as amended

U.S. Department
of Transportation
Federal Aviation
Administration

Federal Aviation Regulations

Part 77
Objects Affecting Navigable Airspace

This edition replaces the existing loose-leaf
Part 77 and its changes.

This FAA publication of the basic Part 77, effective May 1, 1965,
incorporates Amendments 77-1 through 77-11 with preambles.

Published
March 1993

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Introductory Note

Part 77 is codified under Subchapter C, Aircraft, of Title 14 of the Code of Federal Regulations.

This FAA publication of the basic Part 77, effective May 1, 1965, incorporates Amendments 73–1 through 73–11.

Bold brackets**[ ]** throughout the regulation indicate the most recent changed or added material for that particular subpart. The amendment number and effective date of new material appear in bold brackets at the end of each affected section.

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Part 77—Objects Affecting Navigable Airspace

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Adoption of Revised Part 77

Adopted: February 3, 1965

Effective: May 1, 1965

(Published in 30 F.R. 1837, February 10, 1965)

This revision of Part 77 of the Federal Aviation Regulations relaxes and simplifies the requirements for notice to the Agency of certain proposed structures, consolidates obstruction standards for use in the several Agency programs, and streamlines the Agency procedures for determining the effect of proposed structures on air navigation.

The proposed revision was published in the Federal Register (28 F.R. 7788–7795) on July 31, 1963. Extensive comments were received from aeronautical and nonaeronautical sources which endorsed generally the changes under consideration. These comments were very constructive in nature and the Agency appreciates the cooperative spirit in which they were submitted. Since the discussion here must necessarily be a limited review and explanation of the principal actions being taken, the Agency is unable to give specific recognition to each comment. However, each person who participated may be assured that full consideration was given to his recommendations.

The first noteworthy departure in this amendment from the revisions originally proposed relates to the statement in Subpart A—General on the lack of application of Subparts B, D, and E to construction work begun before July 15, 1961. This has been deleted as unnecessary and possibly misleading. The extensive amendments made by this revision to all portions of Part 77 will take effect at the effective date provided herein. Notices received after this date will be processed under the provisions of Part 77 as revised. Aeronautical studies begun prior to this effective date will be continued under the new provisions.

Public reaction to the proposed revisions of the notice requirements disclosed a need for several adjustments. The first of these involves the requirement for notice to the Agency of any proposed structure which would pierce an imaginary slope of 100 to 1 extending from the property line of an airport listed in the "Airport Directory" of the *Airman's Information Manual*. The property line was selected as a point of beginning because of its greater availability to the public. This feature appears to be an inadequate substitute for the most appropriate point of beginning, that is, the nearest point of the runway nearest to the site of the proposed structure. The use of this point also fixes the elevation of the beginning of the pertinent imaginary slope at the elevation of that nearest point. In addition, the scope of the notice requirement has been substantially reduced. The horizontal distance of the 100 to 1 slope has been restricted to 20,000 feet and will now be applied only to airports with the longest runway more than 3,200 feet in length. For airports with the longest runway 3,200 feet or shorter, a 50 to 1 slope is prescribed for a horizontal distance of 10,000 feet. The FAA "Directory" furnishes the length of the longest runway at each airport. The notice requirement for helicopters now has a horizontal slope of 25 to 1 extending for 5,000 feet.

These notice requirements are made applicable for airports which are either listed in the "Directory" or are operated by a Federal military agency. We have determined that military airports need not be included in the "Directory" in view of their listing in military publications and the fact that their presence is generally well known to people living or owning property in their vicinity. In those cases where the boundaries of a runway of an airport, including a seaplane base, are not designated, the notice requirement of section 77.13(a)(2) will, obviously, not be applicable. However, the notice requirement would apply to those airports which have large sod, or other unpaved areas designated for the takeoff and landing of aircraft. Those areas constitute the runways from which the notice slope is computed. Also, the "Directory" will not list those airports constructed after December 31, 1958, which were the subject of a determination by the Agency that their establishment was not acceptable and would have an adverse effect on the efficient use of airspace and the safety of aircraft.

While this amendment simplifies the current notice requirements, it is recognized that many construction proponents may nevertheless experience difficulty in ascertaining whether they are required to notify the Agency of their proposed structures. The Airspace Utilization Branch in each FAA regional office is staffed with technicians who are available to inform any interested person of the effect of these notice requirements on a specific construction proposal. These technicians will also describe the airspace assignments and aeronautical operations in the area of the construction site so that the proponent may make an informed decision on the feasibility of the site and the availability of other areas which may serve his purpose equally and without derogation of air safety.

The substantial number of comments on the shielding provision of section 77.15 which excuses certain construction and alteration proposals from the notice requirements indicates a further explanation would be in order. The shielding provision adopted here is more restrictive than the one previously

employed. This limitation was found necessary because of the unjustified extension of the earlier provision by certain construction proponents. As adopted, the shielding exemption is applicable only in the congested areas of cities, towns, and settlements, and then only to structures so shielded that they could not possibly derogate the safety of air navigation. It should be emphasized that this provision does not represent the Agency shielding criteria. It only relates to the exception from the notice requirements. Upon receiving the required notice, the Agency conducts an appropriate aeronautical study of the proposed structure and, in the course of that study, determines whether it would be, in fact, shielded.

The provisions describing the Agency acknowledgment of notices of construction proposals have been further simplified. The acknowledgment will advise each construction sponsor on two subjects, the possible application of the Agency marking and lighting standards, and whether the proposed structure may be a hazard to air navigation. On the first, the acknowledgment advises whether the construction proposal would be of a type included under the provisions of the FAA Manual on "Obstruction Marking and Lighting" and, if so, how the structure should be marked and lighted. On the hazard question, the acknowledgment will generally state whether the construction or alteration would exceed any of the obstruction standards of Subpart C and will either include a determination on whether the structure would be a hazard to air navigation or advise that further study is required to resolve the question. In the relatively few cases where the structure would exceed an obstruction standard and, in addition, would be located within a runway clear zone or the part of the primary surface extending beyond the end of a runway, the acknowledgment advises that the structure would be a hazard to air navigation. As indicated by this discussion, we have determined not to substitute the phrase "adverse effect on air navigation" for "hazard to air navigation." The Agency review of this portion of the proposal and the comments received with respect to it have disclosed that the "hazard" terminology is preferable.

The obstruction standards adopted here differ in many respects from those originally proposed. Upon review of the comments, the Agency has determined that the obstruction criteria most appropriate for promulgation at this time for civil airports, including joint-use airports, should be drawn more directly from the existing Technical Standard Order TSO–N18, "Criteria for Determining Obstruction to Air Navigation." In view of the substantial length of time that the TSO–N18 criteria have been employed for civil aviation purposes, the adoption of these criteria as the consolidated Agency criteria for use in the performance of the statutory functions authorized by the Federal Aviation Act and the Federal Airport Act should result in the least possible disruption of the performance of those functions.

The obstruction standards now presented in Subpart C are less stringent than those contained in the notice of Proposed Rule Making. The 200-foot limiting height of section 77.23(a) is now to be applied only within three statute miles of an airport with its longest runway more than 3,200 feet in length, rather than the proposed five statute miles. While there is an additional limiting height, beginning at 100 feet within instrument approach areas within three miles of the end of the runway and increasing to a maximum of 250 feet within ten miles from the runway end, this height is largely duplicative of other limiting heights or surfaces and does not constitute a substantial addition to the standard previously considered. We might note, in explanation of the use of the term "runway" here, that this term is now used, exclusively throughout the Part, and the term "landing strip" has been deleted to eliminate a possible ambiguity.

In sections 77.25 and 77.27, criteria are provided for all civil airports, including those constructed to "VFR Airports" standards. These standards are currently contained in the Advisory Circular 150/5300–1, "VFR Airports," and are prescribed for airports constructed to serve only aircraft operating under the Visual Flight Rules. The horizontal and conical airport imaginary surfaces provided in section 77.25 with respect to airport reference points are classified for (1) "VFR Airports," and (2) other airports in accordance with the planned length of the longest runway at each such airport.

The airport imaginary surfaces prescribed in section 77.27 based on runways, except those for "VFR Airports," have been reclassified so that their sizes depend upon whether the runway is equipped with a precision landing aid, such as an instrument Landing System. Runways having instrument approach procedures based upon such facilities as a VOR, ADF, ASR, low frequency range, or TACAN are now provided with the same type surfaces as runways used only for VFR operations, except those on "VFR Airports."

The Department of Defense has forwarded obstruction criteria which differ from those applied here for civil airports. The Department has requested that the criteria be incorporated into Part 77 for application at military airports, except heliports, controlled by components of the Department of Defense, where the longest runway exceeds 5,000 feet. The Department advises that these separate criteria are required at military airports because of the operating characteristics of certain military aircraft, the necessity for low-altitude maneuvering and formation takeoffs, the more stringent aircrew training, and the armament and ordnance-carrying requirements of the military. Accordingly, these criteria are stated herein in section

77.28. The Department is developing criteria for application at military airports with shorter runways than 5,000 feet; and until these criteria are developed, civil airport criteria will apply at such military airports. Also, pending development of these criteria, the military standards for the 2,000-foot width of primary surface will apply only to runways longer than 5,000 feet. The Agency will study the military criteria to determine their potential adaptability to civil airports and their appropriate consolidation with the civil criteria.

The presence of two sets of criteria, applicable to civil and military airports, will not result in inconsistent conclusions in the aeronautical studies on whether a proposed structure would be a hazard to air navigation. These determinations are not controlled by the extent to which such a structure may exceed a civil or military obstruction standard but, rather, upon the possible hazardous effect of the structure on air navigation. A "hazard" or "no hazard" determination is reached after a review of the VFR and IFR operations and procedures involved, both present and prospective. Each study not only includes a review to determine whether the construction proposal might be so altered in location or height that it would not exceed an obstruction standard but, also, a review to ascertain if the structure could be accommodated by adjustment of the aeronautical procedures. Thus, there may be a substantial difference between a construction proposal which would exceed an obstruction standard and one which is determined, as the result of the aeronautical study, to be a hazard to air navigation.

The airport imaginary surfaces proposed for helicopters have been substantially revised for compatibility with the current "Heliport Design Guide." The primary surfaces coincide in size and shape with the takeoff and landing area of each heliport. The designated approach clearance surfaces begin at the edge(s) of the primary surface and extend outward and upward at a slope of 8 to 1. The approach surface is a trapezoid whose inner width is coincident with' the width of the primary surface and which extends to the minimum enroute altitude where its width is 500 feet. Transitional surfaces extend outward and upward at a slope of 2 to 1 from the lateral boundaries of each primary surface and approach surface for a horizontal distance of 250 feet from the centerline of these surfaces.

One of the minor revisions of the obstruction standards made here might also be mentioned. The proposed addition of a 17-foot height to a highway prior to the application of the obstruction criteria evoked several protests. The 17-foot clearance was proposed as a compatible measure with current Federal policy for interstate highways. To avoid an unnecessary extension of this policy, the standard here has been adjusted to permit application of the current 15-foot figure to highways which will not be used by the higher vehicles. In addition, we have added a provision which removes the requirement for the addition of any figure, 15 feet or 17 feet, to a traverse way which is under the coordinated traffic control of the airport management or the air traffic control tower.

We might conclude this brief reference to some of the salient features of the obstruction standards of Subpart C by emphasizing this Subpart may be applied with respect to air navigation facilities planned for future installation or alteration and to planned uses of the navigable airspace by aircraft if that application would result in a lower limiting height or surface. This point is of particular significance in regard to an airport since it includes all runway extensions and other improvements which may be contained in the approved airport layout plan.

The revisions in the procedures for the conduct of aeronautical studies, public hearings on the effect of proposed structures on the navigable airspace, and the establishment of antenna farm areas have been adopted substantially as proposed. Section 77.37 has been broadened to make available a review by the Administrator of each decision by a Regional Director on the effect of a proposed structure on air navigation, including "no hazard" determinations made without notice to any possible interested aeronautical source. While decisions of this type are only made in cases where the available evidence clearly indicates that air safety would not be affected by the construction, this review procedure is nevertheless provided to insure against possible error. The effective period fixed in section 77.39 for a determination of no hazard has been extended in recognition of the time necessary for the processing by the Federal Communications Commission of an application for a construction permit and the issuance of that permit. Appropriate safeguards for the protection of air navigation have been attached to this extension of time.

The comments in response to the Notice of Proposed Rule Making included a number of recommendations for Agency action beyond the authority contained in the Federal Aviation Act of 1958. That Act does not contain a basis for the mandatory marking and lighting of structures to warn pilots of aircraft of those structures. Neither does it contain specific authorization for regulations which would limit the heights of structures. To date, no judicial decision has been issued on the extent to which ground structures may constitute an unlawful interference with the public right of freedom of transit through the navigable airspace recognized in Section 104 of the Act. Until authoritative guidance is received on that point or express legislative authority is conferred, the Agency measures in the field of ground hazards to air navigation will be limited to the areas presently covered in Part 77.

In consideration of the foregoing, Part 77 of Chapter I of Title 14 of the Code of Federal Regulations is revised, effective May 1, 1965, to read as hereinafter set forth.

This amendment is made under the authority of Sections 104, 307, 313, 1001, and 1101 of the Federal Aviation Act of 1958 (49 U.S.C. 1304, 1348, 1354, 1481, 1501).

Amendment 77–1 *

Miscellaneous Amendments

Adopted: May 11, 1965 **Effective: May 11, 1965**

(Published in 30 F.R. 6713, May 18, 1965)

The purpose of this amendment is to make certain minor clarifying amendments to Part 77 of the Federal Aviation Regulations, which became effective on May 1, 1965.

Section 77.19, by reference to section 77.28(b) in the last paragraph, provides for application of the dimensions of clear zones for runways at civil airports to runways at all military airports. This was not intended. As currently written, section 77.28(b)(1) states that the primary surface for military airports is "the same elevation as the centerline of the runway." The section is being revised to make it clear that the primary surface undulates with the underlying surface.

In the interest of timely correction of these discrepancies, in view of the May 1, 1965, effective date of revised Part 77, and since these amendments are clarifying in nature, I find that notice and public procedure are impracticable and contrary to the public interest and that this amendment may therefore be made effective immediately.

In consideration of the foregoing, Part 77 is amended, effective immediately, as follows.

This amendment is made under the authority of Sections 307, 313, and 1101 of the Federal Aviation Act of 1958 (49 U.S.C. 1348, 1354, and 1510), and Executive Order 10854 (24 F.R. 9565).

Amendment 77–2

Form and Time of Notice

Adopted: July 6, 1966 **Effective: July 12, 1966**

(Published in 31 F.R. 9448, July 12, 1966)

The purpose of this amendment is to establish an Agency policy applicable to proposals filed under section 77.13 of the Federal Aviation Regulations for any construction or alteration in excess of 2,000 feet aboveground. This amendment is a general statement of policy anti is procedural in nature. Therefore notice and public procedure hereon are unnecessary and the amendment may be made effective in less than 30 days after publication.

The Federal Aviation Agency has analyzed the recent trend of competitively taller television antenna towers to determine its effect on safety in air navigation. It has long been recognized by this Agency that antenna towers of adequate height are necessary to serve the public interest in a nation-wide broadcasting system. However, there has been a proliferation of antenna towers accompanied by a progressive increase in heights over 1,000 feet above the ground that now presents hazardous conditions to the safety of air navigation. The Agency is of the firm belief that the reasonable interests of the communications industry and the aviation community be accommodated concurrently. To this end, the Federal Communications Commission recently declared in Public Notice FCC 65–455 that "the public interest in broadcast service, may in some instances call for an antenna tower higher than any particular maximum imposed." However, the FCC was "nevertheless convinced that the public interest requires a specific ceiling to halt the upward trend in antenna tower heights, and that 2,000 feet above ground is both realistic and appropriate."

The Federal Aviation Agency, within the limits of its jurisdiction, has attempted to find a remedy for air safety problems inherent in the conflicting demands for a fair and reasonable sharing of airspace by tall towers and aircraft. Part 77 of the Federal Aviation Regulations established procedures for reporting

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* Included in the publication of Part 77.

to the Agency proposed construction that may constitute potential obstructions or hazards to safe air navigation as determined by the application of criteria stated therein. Under these regulations, the FAA advises the construction proponent whether his proposal would constitute a hazard to air navigation. During the time the regulation has been in effect, hundreds of proposed television and radio towers have been considered. Procedures permitting such analysis by the Agency have been of considerable value to the aviation community and to the broadcasting industry in eliminating both geographic and airspace conflicts created by their competing requirements.

In spite of steps already taken to ensure the accommodation of these competing interests, it has been determined that the cumulative effect of heights and locations of towers, both actual and proposed, have created a situation that is hazardous to safe air navigation.

On February 18–19, 1965 the Agency made the following statement to the House Committee on Interstate and Foreign Commerce concerning H.J. Res. 261, which would limit the height of certain radio and television towers:

> The FCC has allocated the TV channels of the Nation on the basis of maximum power television broadcasting at a height of 2,000 feet. Whenever a television tower exceeds this 2,000-foot limitation in most areas (it is 1,000 feet for VHF TV stations in the eastern part of the United States) the power must be reduced to compensate for the increased height.
>
> Therefore, there is no compelling need for any tower to be in excess of 2,000 feet. Although there may be a need for 2,000-foot television towers, under some conditions we would be derelict in our duty as the allocator of the airspace if we permitted all towers to be constructed to a height of 2,000 feet wherever the broadcaster desired.
>
> The 2,000-foot tower with its problems of visibility is inherently hazardous to air navigation.

The Agency therefore considers that it is necessary to take steps to minimize the construction of any antenna tower to a height of more than 2,000 feet aboveground unless it is fully justified in accordance with this Part. This action applies equally to any other structure whose height is proposed to exceed 2,000 feet aboveground, even though the most pressing current problem relates to antenna towers. It is expected that this action will encourage proponents of tower or other type construction to formulate realistic plans, thereby avoiding unnecessary and costly proceedings before the Federal Aviation Agency. In addition, the regulation will be flexible enough to accommodate a proposal for a tower or other type construction more than 2,000 feet high in the event the proponent can demonstrate that it would not be a present or reasonably foreseeable hazard to safe air navigation.

It is of course recognized that towers or other structures with heights of *less* than 2,000 feet above the ground may be hazardous to air navigation, especially where they are located near airports, Federal airways or VFR routes. However, the problems engendered by these situations are totally different from the potential hazards precipitated by the taller towers. Proposed tall towers and other type structures of less than 2,000 feet will continue to be studied carefully on an individual basis to determine whether they present any adverse effects on safe air navigation or cause an inefficient utilization of navigable airspace. The Agency is convinced that from an air safety standpoint the designation of a specific ceiling is needed to halt the upward trend in heights of various type structures. As a general policy, this Agency considered 2,000 feet above the ground to be the maximum height of structures that may be acceptable for maintaining safe navigation. Any structure proposed in excess of 2,000 feet above the ground will be considered to be, inherently, a hazard to air navigation and an inefficient utilization of the airspace. It will be incumbent upon the proponent to overcome this technical assumption by demonstrating to the Agency that such a proposal will not create an inefficient use of airspace or constitute a hazard to air navigation.

In consideration of the foregoing, Part 77 of the Federal Aviation Regulations is amended, effective July 12, 1966.

This amendment is made under the authority of Sections 307, 313, and 1101 of the Federal Aviation Act of 1958 (49 U.S.C. 1348, 1354, and 1510).

Amendment 77–3

Alteration of Discretionary Review

Adopted: May 1, 1967 Effective: June 5, 1967

(Published in 32 F.R. 6970, May 6, 1967)

The purpose of this amendment is to exclude determinations of no hazard made under § 77.19(c)(1) from the applicability of discretionary review provided in § 77.37.

The FAA published a notice of proposed rule making in the Federal Register on August 23, 1966 (31 F.R. 11155), circulated as Notice 66–34, proposing to exclude no hazard determinations relating to those structures for which a notice must be filed under § 77.13 but which would not exceed any standard of Subpart C of Part 77, and therefore would be neither an obstruction nor a hazard. Under the FAA's published criteria the proponent of a structure in this category could be given only a no hazard determination. However, under § 77.37 the proponent should wait 30 days to allow any interested party the opportunity to petition for a discretionary review that could only result in a substantiation of the no hazard determination.

Comments received in response to the notice indicated a general understanding of the unneeded delay of 30 days preceding finality of the determination and generally endorsed the proposal. Objections were received to the proposal that were directed to procedural delays encountered in disseminating information concerning the proposed structure to airspace users.

The Air Line Pilots Association objected, stating that local authority would not have an opportunity to study a proposed construction with regard to local zoning ordinances, and to assess the "effects" of the proposal on aviation in that location. A proponent must, of course, obtain any necessary approval from local government authorities prior to construction, including zoning approval if any, which would consider the effects on local property interests. Elimination of the provision for discretionary review by the FAA would have no effect on any requirement local authorities may impose on the proponent.

The Department of the Air Force objected, stating that the elimination of a 30-day delay would not permit proper treatment of aviation considerations because of the length of time involved in obtaining and assessing the effect of the proposal. Particularly, the Air Force is concerned with training flights at very low levels for which a structure of moderate height could be a hazard, and which may be erected before the Air Force representatives would be aware of its existence. Part 77 was never intended to provide protection for very low level military training operations. If every structure that may be an obstruction to flights of this nature should be called a hazard, the public would be overburdened, and a hazard determination would be meaningless. The portion of the comment relating to the delay in obtaining information is pertinent, and coincidentally is similar to a comment received from the Department of the Navy in concurring with the proposal. The FAA will review its procedures to insure appropriate coordination and timely dissemination of information to appropriate parties, including military representatives.

Some comments, conceding that a delay of 30 days may be burdensome in particular circumstances, suggested that a provision be promulgated to waive the 30-day period in circumstances of hardship, or that the 30-day period be retained when an interested party specifically requests its retention to permit time for filing a petition for review. One comment suggested eliminating acknowledgments issued under § 77.19(c)(1). Retention of the 30-day period under normal circumstances while waiving it in cases of hardship would base the decision for discretionary review upon the circumstances of the proponent rather than the effect upon aeronautical operations. If under the standards of Part 77 a structure could be neither an obstruction nor a hazard, periods of delay and additional reviews could not alter the determination. Moreover, issuing waivers would be time-consuming and administratively inefficient where the necessity of review is nonexistent.

In consideration of the foregoing, § 77.37 of the Federal Aviation Regulations is amended, effective June 5, 1967.

This amendment is made under the authority of Secs. 307, 313, and 1101 of the Federal Aviation Act of 1958 (49 U.S.C. 1348, 1354, and 1501).

Amendment 77–4

Standards for Determining Obstructions

Adopted: September 6, 1967

Effective: November 12, 1967

(Published in 32 F.R. 12997, September 13, 1967)

The purpose of this amendment is to eliminate the requirement that the FAA must find any structure exceeding the applicable obstruction standard and located within an airport runway clear zone or the portion of a primary surface extending beyond the end of a runway to be a hazard to air navigation, regardless of any mitigating factor.

The FAA published a Notice of Proposed Rule Making in the Federal Register on March 9, 1967 (32 F.R. 3887), circulated as Notice No. 67–7 proposing the elimination of the mandatory finding of hazard, thereby permitting the FAA to study all factors involved and make a finding based on the particular situation. The response to the notice indicated a general endorsement of the proposal. Due consideration was given to all comments received.

The Air Line Pilots Association withheld endorsement because the FAA had not indicated what factors it presently considers before granting an exemption to a proposal for an obstruction in a clear zone. It stated it had difficulty in visualizing any mitigating factor relative to an obstruction within a clear zone, and making it easier to allow an obstruction would undoubtedly increase the number of obstructions and decrease the safety margin.

Under the present regulation, we have granted exemptions in cases, there among other matters, the proposed construction, though in a clear zone, was shielded from aircraft flight paths; or where the structure was of a temporary nature such as construction machinery or rigs used in constructing a public water system and erected for use only during daylight hours under VFR conditions.

With the deletion of § 77.19(c)(4), the FAA could subject any construction proposal within a clear zone that exceeded the applicable obstruction standards to an aeronautical study in accordance with § 77.19(c)(3). The study, which may be reviewed by all interested persons, would determine whether the proposed construction could be a hazard. Pending such a determination the construction would be presumed to be a hazard as provided in that section.

This amendment will not reduce the protection to runway approach areas presently afforded by § 77.19(c)(4), but would retain that protection through the application of § 77.19(c)(3). It is not the intent of this amendment to make it easier for obstructions to be based in approach areas or to relax the position of the FAA with regard to such obstructions. This amendment will permit the FAA to exercise its discretionary authority in determining whether the obstruction will in fact be a hazard after reviewing all of the relevant factors. In so doing, the public will be made more aware of the proposed obstruction through circularization and notice, and will be given an opportunity to present relevant comments. Additionally, it will make unnecessary the present practice of granting exemptions from the notice requirements of Part 77 through a procedure recognized as time consuming and inefficient.

In consideration of the foregoing, Part 77 of the Federal Aviation Regulations is amended, effective November 12, 1967.

These amendments are made under the authority of §§ 307, 313, and 1101 of the Federal Aviation Act of 1958 (49 U.S.C. 1348, 1354, 1501).

Amendment 77–5

Miscellaneous Amendments

Adopted: March 25, 1968

Effective: May 2, 1968

(Published in 33 F.R. 5255, April 2, 1968)

The purpose of these amendments is to make minor substantive changes and editorial corrections to Part 77.

The FAA published a notice of proposed rule making in the Federal Register on July 14, 1967 (32 F.R. 10373), circulated as Notice No. 67–29 which proposed a number of minor substantive amendments

and editorial corrections to Part 77 that would clarify the intent or would make the part consistent with the FAA's current practice or organization.

Comments received to the notice indicated a general endorsement of the proposal. A number of comments suggested changes or improvements that have been incorporated herein. Due consideration was given to all comments received.

One comment raised a question on whether this proposal would increase the protection for airports with at least one runway of 3,200 feet. The proposed revision of § 77.13(a)(2) (i) and (ii) would make no change to the current notice requirement criteria. It would merely add the term "actual length" to clarify the intent that the runway length referred to in that section is the actual and not the "corrected" runway length. The actual runway length is selected because this is the measurement provided in the FAA Airport Directory, the Alaska and the Pacific Airman's Guides and Chart Supplements and is the length that the construction sponsor would see on the airport. The general public would have no means of readily determining a corrected runway length, as referred to in the proposed revision of § 77.23(a)(8). and which is used by the FAA in applying its standards for determining obstructions.

The notice proposed to revoke § 77.13(a)(5) which requires a notice, when requested by FAA. for any construction proposal that would be in an instrument approach area and available information indicates that it may be an obstruction to air navigation. Information from the FAA's regional offices indicates that this provision has been used in a number of cases to obtain specific data on height and location after general information on the construction became available. This provision is therefore retained but is redesignated as § 77.13(a)(4).

A new § 77.2, *Definition of terms*, is included to clarify the meaning of certain terms used in this amendment.

Several comments objected to § 77.13(a)(5)(ii) as redesignated herein, which included a planned or proposed airport within the category of airports for which the notice criteria applies, pointing out that frequently sponsors would have no way of ascertaining the sites of planned airports without an inquiry to the FAA each time, or consulting a currently maintained list of planned or proposed airports. There is merit to these comments and the amendment to that section has been revised to include only those airports under construction. Sponsors will be able to see work in progress on airports near the proposed construction and the benefits of this part will be available to those airports.

Some comments suggested that proposed § 77.15(c) should be revised to clarify the phrase "approved by the Administrator" and to list the facilities to which that paragraph applies. The amendment has been revised to reflect the intent that the types of facilities and devices that have been approved by the Administrator are the subject of the reference. "Air Navigation facility" is defined in section 101(8) of the Federal Aviation Act of 1958. Therefore, it is unnecessary to again list those facilities to which the notice requirements do not apply.

The Air Line Pilots Association objected to exempting any object or structure from the notice requirements and obstruction standards. It is recognized that some of the structures exempted from the notice requirement may be obstructions to air navigation. However, these exemptions are based on the need to provide a reasonable notice that can be applied and complied with by a construction proponent. A notice requirement similar to the obstruction criteria of Subpart C of this part would be impracticable in application. The exemption of certain structures, e.g. antenna structures of 20 feet or less in height. and airport or FAA navigational aids, has been found advantageous to both the FAA and industry. Therefore, certain necessary structures, although they may be obstructions, are exempted because of their utility or the relative absence of any hazard associated therewith.

Editorial changes have been made to § 77.17 to reflect the current procedure of sending notices of proposed construction to the appropriate area office instead of a regional office. The identity and address of the appropriate FAA area or regional office may be obtained from any FAA facility. therefore a listing of the respective jurisdictions and addresses is omitted.

Editorial changes have been made to § 77.17(d) including the redesignation of paragraph (d) as paragraph (c). because of the intervening effectiveness of another amendment subsequent to the circularization of Notice No. 67–29.

Sections § 77.11(b)(3) and § 77.19 have been amended to refer to the current designation of the FAA advisory circular on "Obstruction Marking and Lighting".

The wording of § 77.21(a) has been rearranged for readability without making any substantive change. One comment made the same objection to § 77.21(c)(2) as to the notice criteria under § 77.13(a)(5)(ii) that the public would be unable to comply with that section since it could not be aware of airports

existing only in the planning stage. This comment is not valid since the standards thereunder are applied by FAA specialists to whom this data would be available.

In consideration of the foregoing, Part 77 is amended, effective May 2, 1968, as hereinafter set forth.

(Secs 307, 313, 1101, Federal Aviation Act of 1958; 49 U.S.C. 1348, 1354, 1501)

Amendment 77–6

Objects Interfering With Air Navigation Facilities

Adopted: July 25, 1968 **Effective: August 31, 1968**

(Published in 33 F.R. 10842, July 31, 1968)

The purpose of this amendment to Part 77 of the Federal Aviation Regulations is to permit the Administrator to consider the effect a proposed construction or alteration would have upon the operation of an air navigation facility.

The substance of this amendment was published as a Notice of Proposed Rule Making in the Federal Register on December 21, 1967, (32 F.R. 20658) as NPRM 67–54. Many comments were received in response to the Notice. Generally, the comments were favorable and recommended adoption of the amendment as proposed.

Part 77 of the Federal Aviation Regulations establishes standards for determining obstructions in navigable airspace, sets forth the notice requirements of certain proposed construction or alteration, provides for aeronautical studies of obstructions to determine their effect on the safe and efficient use of airspace and provides for public hearings on the hazardous effect of proposed construction or alteration. In accordance with previous interpretations and practice, this part applies to the physical effect of an obstruction on the flight of aircraft through the navigable airspace.

The Federal Aviation Administration is encountering with increasing frequency, situations where construction or alteration has a deleterious effect on the operation of air navigation facilities without being a physical hazard in the flight path of aircraft. These situations have ranged from construction which partially blocked the view from an airport air traffic control tower of runways, taxi, and parking areas, to obstructions which blocked or reflected electromagnetic radiation in the vicinity of navigational aids like radio or radar installations. In some instances, the navigational aid could be moved to an interference-free location. In other situations, however, no interference-free locations were available, or the cost of razing and relocating facilities, because of their size or number, was exorbitant.

It appears desirable that when an aeronautical study is made, the Administrator should include in that study the effect that construction or alteration may have on the operation of air navigation facilities. It would be an unreasonable burden on the public to require a proponent to consider this effect because the public may not be aware of the existence or operational characteristics of an air navigation facility, and any effect thereon may not easily be ascertained by the proponent. Accordingly, the Administrator should have the authority of including in an aeronautical study the physical or electromagnetic effect of proposed construction on air navigation facilities. The study may enable the Administrator to recommend changes in the design, location, or construction material that would eliminate or reduce interference with the operation of the air navigation facility. A reduction or elimination of interference may permit the retention of existing approach minimums, use of existing runways or facility structures or avoid costly relocation expenses to the airport or the FAA.

All of the parties that submitted comments concurred in or endorsed the proposed amendment, except the Airport Operators Council International, the Department of Aviation, City of Atlanta, Georgia, and the Air Transport Association of America.

The Airport Operators Council International stated that it strongly opposed the proposed amendment primarily for the following reasons:

(1) The FAA already has sufficient authority to minimize critical encroachment upon airport control tower sight lines through its ability to NOTAM and therefore needs no additional authority.

(2) It is undesirable to use the proposed amendment to protect off-airport navaids from the deleterious effect on their operation by construction proposals over which the airport has no control.

Regarding the first comment, the FAA's present authority allows it to issue a Notice to Airmen to advise them concerning areas on an airport in which ground control of traffic cannot be maintained due to blocking of line-of-sight from the airport control tower. When such a condition exists, the derogation of air traffic control has already taken place and a NOTAM merely advises of that condition. The purpose of this rule is to prevent the condition from arising in the first place.

As far as the second comment is concerned, this amendment intends to include consideration of the physical or electromagnetic effect on the operation of air navigation facilities of any construction proposal for which a notice is required under Section 77.13(a), and would exceed any standard of Subpart C, regardless of whether the facilities are located on or off an airport.

The Department of Aviation, City of Atlanta, Georgia, opposed the proposed amendment primarily on the ground that it felt that this amendment would allow the location and functioning of an FAA air navigation facility to control all other airport development prospects. The Department also stated that it felt that the present Federal Aviation Regulations were adequate to handle obstructions to airport control towers and air navigation facilities.

The aeronautical study may enable the FAA to recommend changes in the design, location or construction material that may eliminate or reduce interference with the operation of the air navigation facility. These recommendations would be made to the construction sponsor and not to the airport operator unless the construction proposal was one over which the airport operator exercised control. Proposed construction or alteration subject to an aeronautical study under the proposed amendment would be limited to those proposals for which notice to the Administrator is now required under Section 77.13(a) of Part 77, FAR, and the proposal would exceed any standard of Subpart C. Proposed construction or alteration of airports that would not require notice under Section 77.13(a) would not come within the scope of the proposed amendment even though there may be a possibility that the proposed construction or alteration might adversely affect the operation of a nearby air navigation facility.

It is not the purpose of the proposed amendment to institute control over any aspect of airport development but (1) to consider the physical and electromagnetic effects of any proposed construction or alteration on air navigation facilities, during an aeronautical study; (2) to inform the construction sponsor, if necessary, of possible interference and how to avoid it; and (3) where the construction proposal would have a substantial adverse effect upon the operation of any air navigation facility to issue a determination of hazard. Current Federal Aviation Regulations do not provide the FAA with authority to study proposed construction or alteration for the purpose of determining their physical and electromagnetic effect on the operation of air navigation facilities.

The Air Transport Association (ATA) did not oppose the proposed amendment, but made several suggestions. Among them ATA commented that FAA has published few guidelines for construction facilities on or near airports and such guidelines should be published by FAA prior to amending Part 77 as proposed.

In addition, ATA felt it should be made clear that airport control towers are not air navigation facilities in the sense of the proposed rule. ATA comments are under careful consideration and the FAA at the present time is engaged in a project to develop new criteria to determine whether proposed construction would affect the operation of air navigation facilities. The intent of the amendment to Part 77, however, is not to revise or develop criteria but to provide the authority to consider possible interference with the operation of air navigation facilities during the aeronautical study of construction proposals. At such time as new criteria have been developed a determination will be made as to their adequacy and whether they should be incorporated in the regulation.

In consideration of the foregoing, Part 77 (§§ 77.31 and 77.35) of the Federal Aviation Regulations is amended effective August 31, 1968.

This amendment is made under the authority of sections 307, 313, and 1101 of the Federal Aviation Act of 1958 (49 U.S.C. 1348, 1354, 1501).

Amendment 77–7

Utility Airports

Adopted: October 25, 1968 Effective: November 30, 1968

(Published in 33 F.R. 16056, November 1, 1968)

The purpose of this amendment is to include in Part 77 of the Federal Aviation Regulations a reference to "Utility Airports," as appropriate, with each reference to "VFR Airports" standards.

Subpart C of Part 77 contains several references to airports constructed to "VFR Airports" standards. The "VFR Airports" standards and the Advisory Circular in which they were contained were canceled and replaced with Advisory Circular 150/5300–4, "Utility Airports—Design Criteria and Dimensional Standards." Since those airports built to VFR Airports standards continue in existence, Subpart C must be revised to refer to both VFR and Utility Airports.

Since this amendment merely includes in Part 77 a reference to publications and standards currently in use, I find that notice and public procedure hereon are unnecessary.

In consideration of the foregoing, Part 77 (§§ 77.25 (a)(1) and (b)(1) and 77.27 (a)(1) and (c)(2)(i)) of the Federal Aviation Regulations is amended, effective November 30, 1968.

These amendments are made under the authority of Sections 307, 313, and 1101 of the Federal Aviation Act of 1958 (49 U.S.C. 1348, 1354, and 1510).

Amendment 77–8

Revision of Notice Form

Adopted: December 11, 1968 Effective: February 1, 1969

(Published in 33 F.R. 18614, December 17, 1968)

The purpose of this amendment to Part 77 of the Federal Aviation Regulations is to revise the reference to the form on which notices of proposed construction or alteration are filed to reflect the new form number that has been adopted and to correct an editorial error.

The FAA is adopting Form 7460–1 entitled, "Notice of Proposed Construction or Alteration" to replace Form 177. This form more adequately reflects informational requirements concerning proposed construction or alteration of objects which might affect navigable airspace. Reference is made to FAA Form 117 in several places throughout Subpart B of Part 77. Therefore, an amendment is required to revise the references to this notice form.

Amendment 77–6, effective May 2, 1968, to § 77.11 erroneously identified FAA Advisory Circular AC 70/7460–1 as AC 70/7460. Therefore, this section is being changed to reflect the correct advisory circular number.

In consideration of the foregoing, Subpart B of Part 77 (§§ 77.11(b)(3) and 77.17 (a) and (d)) of the Federal Aviation Regulations is amended, effective February 1, 1969.

This amendment is made under the authority of §§ 307, 313 and 1101 of the Federal Aviation Act of 1958 (49 U.S.C. 1348, 1354, 1501), and of § 6(c) of the Department of Transportation Act (49 U.S.C. 1655(c)).

Amendment 77–9

Standards for Determining Obstructions to Air Navigation

Adopted: March 25, 1971 Effective: May 16, 1971

(Published in 36 F.R. 5968, April 1, 1971)

The purpose of these amendments to the Federal Aviation Regulations is to change the standards for determining obstructions to air navigation.

These amendments were proposed in Notice 70–11 and published in the Federal Register on March 14, 1970 (35 F.R. 4554).

Twenty-five public comments were received in response to the Notice. A substantial number of comments were directed to the application of the obstruction standards and to suggestions for improving notice requirements. Since the subjects of these comments were not part of Notice 70–11, they were not considered in the formulation of the rule. However, they will be given full consideration by the FAA in its continuing efforts to improve Part 77.

Numerous comments were received in response to the FAA's request for public comment on two possible future changes to § 77.25 which were not made part of the Notice. These two possible changes would revise § 77.25 to specify (1) that the approach surface would begin 200 feet beyond the end of the landing threshold, and (2) that the slope of the transitional surfaces extending outward and upward from the edges of the primary surface would be 4:1 instead of 7:1. The comments reflected many viewpoints pro and contra. Several commentators stated that the approach surface to a runway should be related to the end of the runway, or to the displaced threshold if the landing threshold had been relocated, without applying the current 200-foot buffer zone between the landing threshold and the beginning of the approach surface. Others felt that the beginning of the approach surface should not be moved to relate to a displaced threshold unless the displacement was the result of some irrevocably fixed obstruction. Some opposition was expressed to changing the slope of the primary surface related transitional surfaces from 7:1 to 4:1. It was felt that no factual data or rationale had been presented to justify such a change. Further, it was suggested that such a change would result in unsafe structures near runways and might also affect CAT II missed approach requirements. On the other hand, some commentators suggested that the relaxation of the transitional surface slope would have certain advantages for locating airport parking gates for large airplanes; would be practical and desirable; and would be more realistic in view of current land use concepts. All of these comments will be given careful consideration by the FAA in determining its future action in this area.

While some revision of the proposal was effected in the light of the comments received, the amendment as adopted follows the general form of the Notice.

Several commentators proposed modifications for the definitions of the several categories of runways. Concern was expressed as to the use of the phrase "or any other FAA or military planning document" in the proposed definition of a visual runway; that an airport operator might be obligated or under control of a document to which he does not have access. In response. to these comments, the definition of a visual runway has been changed to clarify reference to a military approved airport layout plan as a plan for military airports only, and to amend the phrase referring to "any other FAA or military planning document" to specify any planning document submitted to the FAA by competent authority. This will include an airport layout plan or planning document submitted to the FAA by or through a state or local government.

Consideration was given to suggestions by commentators to include a variety of other definitions in § 77.2. However, since the suggested terms have common dictionary definitions or are otherwise defined in the Federal Aviation Regulations, it was determined not to include these terms in § 77.2. However, minor changes in the language of the proposed definitions in § 77.2 have been made to state more clearly their purpose and use.

One comment concerning the proposed change to § 77.13(a)(3) suggested that the railroad height adjustment should be modified so that the "highest possible or intended" object is considered, and that this should include all roads so that plans would not be based upon heights that are impractical. The FAA considers that the height adjustments prescribed are needed for guidance when applying the notice requirement criteria, and should have limited flexibility. It should be noted that 23 feet is the highest tunnel clearance required for railroads in the United States, and this height would be in consonance with the requirements of the various states.

Several commentators objected to the proposed changes in § 77.15(c) that would exclude from the notice requirement of § 77.13 any air navigation facility, airport visual approach or landing aid, aircraft arresting device, or meteorological device, the location and height of which is fixed by its functional purpose, if a type approved by "an appropriate military service." After careful consideration of the objections, the FAA decided that type approval of devices and equipment on civil airports should remain with the Administrator. Therefore, the change to § 77.15(c) as proposed, has been modified to exclude from the notice requirement of § 77.13 any air navigation facility, airport visual approach or landing aid, aircraft arresting device, or meteorological device given type approval by an appropriate military service only when such facilities, aids, or devices would be located on a military airport.

Several isolated comments directed attention to the intention of the FAA to use the applicable MOCA instead of the established MEA as the basis for determining obstructions within an en route obstacle clearance area of a Federal airway or approved off-on airway route.

Even though some individuals or groups may consider this concept to be a new one, it is based on the rationale that through use of the MOCA alone and selectively applying the terms obstacle and obstruction to it, the application of the standards of Part 77 will be simplified and will result in bringing the entire system into conformity with international standards. In simplified terms, a MOCA is that minimum safe altitude that will permit an aircraft to traverse a designated area of airspace clear of obstacles below. Generally, the height of the highest or controlling obstacle in that airspace segment provides the imaginary obstacle reference line. The appropriate FAA personnel, applying established and specified standards then supply an additional amount of airspace above the obstacle reference line that forms the MOCA altitude level for that segment of flight.

In applying the standards of Part 77 to this airspace formulation, any proposed structure that does not exceed the obstacle reference line will be classified as an obstacle. However, if the proposed structure would penetrate this airspace above the obstacle reference line, it would be classified as an obstruction. Once a proposal is classified as an obstruction, under the procedures provided for in Part 77, it will be studied to determine whether it will or will not constitute a hazard to air navigation.

Accordingly, new § 77.23(a)(4) establishes that the MOCA instead of the MEA will be the basis for determining whether any object within any en route obstacle clearance area, including turn and termination areas, of any Federal airway or approved off-airway route will be classified as an obstruction to air navigation.

One comment was received concerning the proposed new § 77.21(b). The new paragraph was added to ensure proper application of the imaginary surfaces outlined in § 77.25 at airports that have defined landing and takeoff strips, or pathways that are designated as runways but do not have specially prepared hard surfaces, or have a defined landing and takeoff area with no defined landing and takeoff strips or pathways designated as runways. For the purpose of Part 77, any clearly defined strip, pathway or lane designated by appropriate authority for the landing and takeoff of aircraft is considered to be a runway, even though its surface consists of water, turf, dirt or similar unprepared surface.

The application of new § 77.21(b) is based upon the philosophy that, at the thousands of airports having runways of various lateral dimensions without specially prepared hard surfaces, a factor common to each runway and its related primary surface is the centerline. This common factor permits application of the primary surface and the related transitional surfaces because the primary surface is longitudinally centered on the runway and the transitional surfaces extend outward and upward from the sides of the primary surface. Since the width of any primary surface is prescribed in § 77.25(c), the width of that portion of any runway over which its primary surface is superimposed is limited by the width of the related primary surface, regardless of the runway width; the length of the primary surface, however, in this case, is the same as the length of the runway. In applying § 77.21(b) to those airports, excluding seaplane bases, where the defined landing and takeoff area does not have any defined runways for the landing and takeoff of aircraft, the agency would, applying the standards of the regulation, make a determination as to which portions of the area were being regularly used by aircraft as runways for landing and take off. The appropriate primary surface prescribed in § 77.25(c) will then be centered on each portion of the landing and takeoff area determined to be used as a runway, with each end of the primary surface coinciding with the corresponding end of the determined runway.

Many commentators objected to the proposed amendment of § 77.23(a)(2). After careful consideration of all objections to the proposed change, the FAA is convinced that with one exception the proposed revision should not be made. That exception is, that nautical miles will be used in lieu of statute miles in § 77.23(a)(2) to conform to the units of horizontal measurement currently used in en route and terminal airspace configurations, and instrument procedures both nationally and internationally. Further study will be given to the need for relating the height of objects to the airport elevation where the terrain on which those objects are located exceeds the surfaces prescribed in § 77.25 or the heights prescribed in § 77.23(a)(2).

The Notice proposed new § 77.23(a) (3) and (4) to replace § 77.23(a) (4), (5), (6), and (7). Comments on this proposal were generally favorable. Two commentators requested clarification of an en route obstacle clearance area and suggested that definitions of en route and terminal obstacle clearance be included in the regulation. Since we have already discussed in some detail the en route obstacle clearance area that falls within the scope of § 77.23(a)(4), it only remains necessary to provide a brief explanation as to how obstacles and obstructions will relate to the terminal obstacle clearance area portion of the regulation provided for in § 77.23(a)(3) of this amendment.

All approved procedures for instrument approach and departure of aircraft to and from airports that are conducted within specified terminal obstacle clearance and departure areas are established in conformity to the applicable criteria set forth either in the United States Standard for Terminal Instrument Procedures (TERPS) or the FAA Handbook 8260.19, Flight Procedures and Airspace. In the establishment of these instrument approach and departure criteria, the involvement of existing obstacles on the type of instrument procedure proposed for adoption, is one of the primary considerations. Accordingly, the standards of Part 77 applicable in any terminal instrument procedure area must also be based on the same obstacle concept that was used to formulate the applicable criteria of TERPS and FAA Handbook 8260.19. A brief explanation of the interrelationship of obstacles and obstructions to this concept should aid materially in understanding the provisions of § 77.23(a)(3).

In the development of all types of instrument approach procedures under TERPS and departure procedures under FAA Handbook 8260.19, the method of establishing each such procedure is basically the same. The existing obstacles, including objects that are manmade, the terrain features, and the navigational facilities involving a particular approach or departure area are carefully analyzed, after which a prescribed plane, which is commonly referred to as an obstacle clearance plane, is established for that particular phase of flight. In order to insure maximum safety to all aircraft operators who may use that particular terminal instrument procedure, applicable FAA criteria is then applied to provide an additional layer of airspace above the prescribed obstacle clearance plane.

In applying the standards of Part 77 to this type of airspace structure, any object that does not exceed the obstacle clearance plane will be classified as an obstacle; but any object that penetrates the prescribed obstacle clearance plane will be classified as an obstruction, and subject to aeronautical study to determine whether or not it is a hazard to air transportation or air commerce.

Stated in another but in a more sophisticated way, any object that is located within an obstacle clearance area, including an initial approach segment, a circling approach area, or a departure area, is an obstruction to air navigation under the standards of Part 77, if it is of such height that the vertical distance between any point on it and any minimum instrument flight altitude established for any authorized instrument procedure within that area, is less than the obstacle clearance specified for that instrument procedure.

Several commentators addressed the proposed revision of § 77.23. One commentator suggested that runways on air carrier airports be categorized as "air carrier" and provided with equal protection at both ends. The FAA feels that the rationale for the new categorization of runways has been explained adequately previously, therefore, this suggestion was not adopted.

Concern was expressed by some commentators as to the availability of information regarding the category of each approach to each end of each runway of any airport under consideration. The FAA agrees that the success of this concept is dependent upon definite information concerning the category of each approach to each runway end being available to the agency and to the public. This information will be available from FAA regional area offices, and from agency computer readouts.

In response to the suggestion of one commentator, § 77.25(c) will be changed to include the words "or planned hard surface" after the words "has specially prepared hard surface." The FAA believes that this addition helps to clarify the intent of the section and does not modify the meaning.

Other minor changes of an editorial and technically clarifying nature have been made to the amendment. A minor change to the addresses under § 77.17 has been included.

Interested persons have been afforded an opportunity to participate in the making of these amendments. Due consideration has been given to all matter presented. In other respects, for the reasons stated in the preamble to the notice, the rule is adopted as prescribed herein.

In consideration of the foregoing, Part 77 of the Federal Aviation Regulations is amended, effective May 16, 1971.

Sections 307, 313 and 1101 of the Federal Aviation Act of 1958 (49 U.S.C. 1348, 1354, and 1501), and Section 6(c) of the Department of Transportation Act (49 U.S.C. 1655(c)).

Amendment 77-10

Miscellaneous Amendments

Adopted: February 28, 1972

Effective: March 4, 1972

(Published in 37 F.R. 4705, March 4, 1972)

The purpose of this amendment is to make certain minor editorial changes to Part 77 of the Federal Aviation Regulations.

Section 77.11(b) contains a reference to the sale of Advisory Circular 70/7460-1 entitled "Obstruction Marking and Lighting." Effective January 1, 1972, a revised edition of this Advisory Circular has become available free of charge from the Department of Transportation. Section 77.11(b) is revised to reflect this change.

Throughout Subpart B of Part 77 there are several references to FAA area offices and personnel. Since all area offices were eliminated April 2, 1971, and reference to them is deleted and replaced with reference to the appropriate regional office or personnel.

Section 77.73 provides for the establishment of antenna farm areas under the procedural requirements of Section 4 of the Administrative Procedure Act. This citation is no longer accurate since the recodification of the Act, and appropriate language is substituted therefor.

Since these amendments are minor and editorial in nature and no substantive change is effected, notice and public procedure thereon are not necessary and good cause exists for making them effective on less than 30 days notice.

In consideration of the foregoing, Part 77 of the Federal Aviation Regulations is amended, effective March 4, 1972.

This amendment is issued under the authority of sections 313 and 1101 of the Federal Aviation Act of 1958 (49 U.S.C. 1354, 1501), and section 6(c) of the Department of Transportation Act (49 U.S.C. 1655(c)).

Amendment 77-11

Organizational Changes and Delegations of Authority

Adopted: September 15, 1989

Effective: October 25, 1989

(Published in 54 F.R. 39288, September 25, 1989)

SUMMARY: This amendment adopts changes to office titles and certain terminology in the regulations that were affected by a recent agencywide reorganization. These changes are being made to reflect delegations of authority that were changed, as well as offices that were renamed or abolished and replaced with new office designations. These changes are necessary to make the regulations consistent with the current agency structure.

FOR FURTHER INFORMATION CONTACT: Jean Casciano, Office of Rulemaking (ARM-1), Federal Aviation Administration, 800 Independence Ave., SW., Washington, DC 20591; Telephone (202) 267-9683.

SUPPLEMENTARY INFORMATION

Background

On July 1, 1988, the FAA underwent a far-reaching reorganization that affected both headquarters and regional offices. The most significant change is that certain Regional Divisions and Offices, which formerly reported to the Regional Director, are now under "straight line" authority, meaning that these units within each Regional Office report to the appropriate Associate Administrator (or Chief Counsel) in charge of the function performed by that unit.

Within Part 11 of the Federal Aviation Regulations (FAR), various elements of the FAA have been delegated rulemaking authority by the Administrator. These delegations need to be updated. In addition,

throughout the Federal Aviation Regulations references are made to offices that have been renamed or are no longer in existence as a result of reorganization.

Title 14 of the Code of Federal Regulations must therefore be amended to reflect the reorganizations and changes that have taken place.

Paperwork Reduction Act

The paperwork requirements in sections being amended by this document have already been approved. There will be no increase or decrease in paperwork requirements as a result of these amendments, since the changes are completely editorial in nature.

Good Cause Justification for Immediate Adoption

This amendment is needed to avoid possible confusion about the FAA reorganization and to hasten the effective implementation of the reorganization. In view of the need to expedite these changes, and because the amendment is editorial in nature and would impose no additional burden on the public, I find that notice and opportunity for public comment before adopting this amendment is unnecessary.

Federalism Implications

The regulations adopted herein will not have substantial direct effects on the states, on the relationship between the National government and the states, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this final rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

Conclusion

The FAA has determined that this document involves an amendment that imposes no additional burden on any person. Accordingly, it has been determined that: 'The action does not involve a major rule under Executive Order 12291; it is not significant under DOT Regulatory Policies and Procedures

(44 FR 11034; February 26, 1979); and because it is of editorial nature, no impact is expected to result and a full regulatory evaluation is not required. In addition, the FAA certifies that this amendment will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

The Rule

In consideration of the foregoing, the Federal Aviation Administration amends the Federal Aviation Regulations (14 CFR Chapter I) effective October 25, 1989.

The authority citation for Part 77 is revised to read as follows:

Authority: 49 U.S.C. 1304, 1348, 1354, 1421 through 1430. 1431, 1501, 49 U.S.C. 106(g) (Revised Pub. L. 97–449, January 12, 1983), (Revised Pub. L. 100–223, December 30, 1987).

PART 77—OBJECTS AFFECTING NAVIGABLE AIRSPACE
Subpart A—General

Source: Docket No. 1882 (30 FR 1839, 2/10/65) effective 5/1/65, for each subpart, unless otherwise noted.

§ 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.

(Amdt. 77–5, Eff. 5/2/68); (Amdt. 77–9, Eff. 5/16/71)

§ 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.

(Amdt. 77–9, Eff. 5/16/71)

§ 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) 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, DC 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.

(Amdt. 77–8, Eff. 2/1/69); (Amdt. 77–10, Eff. 3/4/72)

§ 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 paragraph (a)(5) of this section 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 paragraph (a)(5) of this section 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 paragraph (a)(5) of this section.

(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 paragraph (a) (1) or (2) of this section.

(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 region 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.

(Amdt. 77–5, Eff. 5/2/68); (Amdt. 77–9, Eff. 5/16/71); (Amdt. 77–10, Eff. 3/4/72)

§ 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.

(Amdt. 77–5, Eff. 5/2/68); (Amdt. 77–9, Eff. 5/16/71)

§ 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 Manager, 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 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 this part 77 proposing a structure in excess of 2,000 feet above ground, 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 5 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 § 77.13, or both, shall send an executed copy of FAA Form 117–1, Notice of Progress of Construction or Alteration, to the Manager, Air Traffic Division, FAA Regional Office having jurisdiction over the area involved.

(Amdt. 77–2, Eff. 7/12/66); (Amdt. 77–5, Eff. 5/2/68); (Amdt. 77–8, Eff. 2/1/69); (Amdt. 77–9, Eff. 5/16/71); (Amdt. 77–10, Eff. 3/4/72); (Amdt. 77–11, Eff. 10/25/89)

§ 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 manual.

(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.

(Amdt. 77–1, Eff. 5/11/65); (Amdt. 77–4, Eff. 11/12/67); (Amdt. 77–5, Eff. 5/2/68)

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.

(b) At those airports having defined runways with specially prepared hard surfaces, the primary surface for each such runway extends 200 feet beyond each end of the runway. At those airports having defined strips or pathways that are used regularly for the taking off and landing of aircraft and have been designated by appropriate authority as runways, but do not have specially prepared hard surfaces, each end of the primary surface for each such runway shall coincide with the corresponding end of the runway. At those airports, excluding seaplane bases, having a defined landing and takeoff area with no defined pathways for the landing and taking off of aircraft, a determination shall be made as to which portions of the landing and takeoff area are regularly used as landing and takeoff pathways. Those pathways so determined shall be considered runways and an appropriate primary surface as defined in § 77.25(c) will be considered as being longitudinally centered on each runway so determined, and each end of that primary surface shall coincide with the corresponding end of that runway.

(c) The standards in this subpart apply to the effect of construction or alteration proposals upon an airport if, at the time of filing of the notice required by § 77.13(a), that airport is—

(1) 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; or

(2) A planned or proposed airport or 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; or,

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

(Amdt. 77–5, Eff. 5/2/68); (Amdt. 77–9, Eff. 5/16/71)

§ 77.23 Standards for determining obstructions.

(a) An existing object, including a mobile object, is, and a future object would be, an obstruction to air navigation if it is of greater height than any of the following heights or surfaces:

(1) A height of 500 feet above ground level at the site of the object.

(2) A height that is 200 feet above ground level or above the established airport elevation, whichever is higher, within 3 nautical miles of the established reference point of an airport, excluding heliports, with its longest runway more than 3,200 feet in actual length, and that height increases in the proportion of 100 feet for each additional nautical mile of distance from the airport up to a maximum of 500 feet.

(3) A height within a terminal obstacle clearance area, including an initial approach segment, a departure area, and a circling approach area, which would result in the vertical distance between any point on the object and an established minimum instrument flight altitude within that area or segment to be less than the required obstacle clearance.

(4) A height within an en route obstacle clearance area, including turn and termination areas, of a Federal airway or approved off-airway route, that would increase the minimum obstacle clearance altitude.

(5) The surface of a takeoff and landing area of an airport or any imaginary surface established under § 77.25, § 77.28, or § 77.29. However, no

part of the take-off or landing area itself will be considered an obstruction.

(b) Except for traverse ways on or near an airport with an operative ground traffic control service, furnished by an air traffic control tower or by the airport management and coordinated with the air traffic control service, the standards of paragraph (a) of this section apply to traverse ways used or to be used for the passage of mobile objects only after the heights of these traverse ways are increased by:

(1) Seventeen 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.

(2) Fifteen feet for any other public roadway.

(3) Ten feet or the height of the highest mobile object that would normally traverse the road, whichever is greater, for a private road.

(4) Twenty-three feet for a railroad, and,

(5) 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.

(Amdt. 77–5, Eff. 5/2/68); (Amdt. 77–9, Eff. 5/16/71)

§ 77.25 Civil airport imaginary surfaces.

The following civil airport imaginary surfaces are established with relation to the airport and to each runway. The size of each such imaginary surface is based on the category of each runway according to the type of approach available or planned for that runway. The slope and dimensions of the approach surface applied to each end of a runway are determined by the most precise approach existing or planned for that runway end.

(a) *Horizontal surface.* 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 end of the primary surface of each runway of each airport and connecting the adjacent arcs by lines tangent to those arcs. The radius of each arc is:

(1) 5,000 feet for all runways designated as utility or visual;

(2) 10,000 feet for all other runways. The radius of the arc specified for each end of a runway will have the same arithmetical value. That value will be the highest determined for either end of the runway. When a 5,000-foot arc is encompassed by tangents connecting two adjacent 10,000-foot arcs, the 5,000-foot arc shall be disregarded on the construction of the perimeter of the horizontal surface.

(b) *Conical surface.* A surface extending outward and upward from the periphery of the horizontal surface at a slope of 20 to 1 for a horizontal distance of 4,000 feet.

(c) *Primary surface.* A surface longitudinally centered on a runway. When the runway has a specially prepared hard surface, the primary surface extends 200 feet beyond each end of 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. The elevation of any point on the primary surface is the same as the elevation of the nearest point on the runway centerline. The width of a primary surface is:

(1) 250 feet for utility runways having only visual approaches.

(2) 500 feet for utility runways having nonprecision instrument approaches.

(3) For other than utility runways the width is:

(i) 500 feet for visual runways having only visual approaches.

(ii) 500 feet for nonprecision instrument runways having visibility minimums greater than three-fourths statute mile.

(iii) 1,000 feet for a nonprecision instrument runway having a nonprecision instrument approach with visibility minimums as low as three-fourths of a statute mile, and for precision instrument runways.

The width of the primary surface of a runway will be that width prescribed in this section for the most precise approach existing or planned for either end of that runway.

(d) *Approach surface.* A surface longitudinally centered on the extended runway centerline and extending outward and upward from each end of the primary surface. An approach surface is applied to each end of each runway based upon the type of approach available or planned for that runway end.

(1) The inner edge of the approach surface is the same width as the primary surface and it expands uniformly to a width of:

(i) 1,250 feet for that end of a utility runway with only visual approaches;

(ii) 1,500 feet for that end of a runway other than a utility runway with only visual approaches;

(iii) 2,000 feet for that end of a utility runway with a nonprecision instrument approach;

(iv) 3,500 feet for that end of a nonprecision instrument runway other than utility, having visibility minimums greater than three-fourths of a statute mile;

(v) 4,000 feet for that end of a nonprecision instrument runway, other than utility, having a nonprecision instrument approach with visibility minimums as low as three-fourths statute mile; and

(vi) 16,000 feet for precision instrument runways.

(2) The approach surface extends for a horizontal distance of:

(i) 5,000 feet at a slope of 20 to 1 for all utility and visual runways;

(ii) 10,000 feet at a slope of 34 to 1 for all nonprecision instrument runways other than utility; and,

(iii) 10,000 feet at a slope of 50 to 1 with an additional 40,000 feet at a slope of 40 to 1 for all precision instrument runways.

(3) The outer width of an approach surface to an end of a runway will be that width prescribed in this subsection for the most precise approach existing or planned for that runway end.

(e) *Transitional surface.* These 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. Transitional surfaces for those portions of the precision approach surface which project through and beyond the limits of the conical surface, extend a distance of 5,000 feet measured horizontally from the edge of the approach surface and at right angles to the runway centerline.

(Amdt. 77–7, Eff. 11/30/68); (Amdt. 77–9, Eff. 5/16/71)

§ 77.27 [Reserved]

(Amdt. 77–5, Eff. 5/2/68); (Amdt. 77–7, Eff. 11/30/68); (Amdt. 77–9, Eff. 5/16/71)

§ 77.28 Military airport imaginary surfaces.

(a) *Related to airport reference points.* These surfaces apply to all military airports. For the purposes of this section a military airport is any airport operated by an armed force of the United States.

(1) *Inner horizontal surface.* A plane is oval in shape at a height of 150 feet above the established airfield elevation. The plane is constructed by scribing an arc with a radius of 7,500 feet about the centerline at the end of each runway and interconnecting these arcs with tangents.

(2) *Conical surface.* A surface extending from the periphery of the inner horizontal surface outward and upward at a slope of 20 to 1 for a horizontal distance of 7,000 feet to a height of 500 feet above the established airfield elevation.

(3) *Outer horizontal surface.* A plane, located 500 feet above the established airfield elevation, extending outward from the outer periphery of the conical surface for a horizontal distance of 30,000 feet.

(b) *Related to runways.* These surfaces apply to all military airports.

(1) *Primary surface.* A surface located on the ground or water longitudinally centered on each runway with the same length as the runway. The width of the primary surface for runways is 2,000 feet. However, at established bases where substantial construction has taken place in accordance with a previous lateral clearance criteria, the 2,000-foot width may be reduced to the former criteria.

(2) *Clear zone surface.* A surface located on the ground or water at each end of the primary surface, with a length of 1,000 feet and the same width as the primary surface.

(3) *Approach clearance surface.* An inclined plane, symmetrical about the runway centerline extended, beginning 200 feet beyond each end of the primary surface at the centerline elevation of the runway end and extending for 50,000 feet. The slope of the approach clearance surface is 50 to 1 along the runway centerline extended until it reaches an elevation of 500 feet above the established airport elevation. It then continues horizontally at this elevation to a point 50,000 feet from the point of beginning. The width of this surface at the runway end is the same as the primary surface, it flares uniformly, and the width at 50,000 is 16,000 feet.

(4) *Transitional surfaces.* These surfaces connect the primary surfaces, the first 200 feet of the clear zone surfaces, and the approach clearance surfaces to the inner horizontal surface, conical surface, outer horizontal surface or other transitional surfaces. The slope of the transitional surface is 7 to 1 outward and upward at right angles to the runway centerline.

(Amdt. 77–1, Eff. 5/11/65); (Amdt. 77–9, Eff. 5/16/71)

§ 77.29 Airport imaginary surfaces for heliports.

(a) *Heliport primary surface.* The area of the primary surface coincides in size and shape with the designated take-off and landing area of a heliport. This surface is a horizontal plane at the elevation of the established heliport elevation.

(b) *Heliport approach surface.* The approach surface begins at each end of the heliport primary surface with the same width as the primary surface, and extends outward and upward for a horizontal distance of 4,000 feet where its width is 500 feet. The slope of the approach surface is 8 to 1 for civil heliports and 10 to 1 for military heliports.

(c) *Heliport transitional surfaces.* These surfaces extend outward and upward from the lateral boundaries of the heliport primary surface and from the approach surfaces at a slope of 2 to 1 for a distance of 250 feet measured horizontally from the centerline of the primary and approach surfaces.

(Amdt. 77–9, Eff. 5/16/71)

Subpart D—Aeronautical Studies of Effect of Proposed Construction on Navigable Airspace

§ 77.31 Scope.

(a) This subpart applies to the conduct of aeronautical studies of the effect of proposed construction or alteration on the use of air navigation facilities or navigable airspace by aircraft. In the aeronautical studies, present and future IFR and VFR aeronautical operations and procedures are reviewed and any possible changes in those operations and procedures and in the construction proposal that would eliminate or alleviate the conflicting demands are ascertained.

(b) The conclusion of a study made under this subpart is normally a determination as to whether the specific proposal studied would be a hazard to air navigation.

(Amdt. 77–6, Eff. 8/31/68)

§ 77.33 Initiation of studies.

(a) An aeronautical study is conducted by the FAA:

(1) Upon the request of the sponsor or any construction or alteration for which a notice is submitted under subpart B of this part, unless that construction or alteration would be located within an antenna farm area established under subpart F of this part; or

(2) Whenever the FAA determines it appropriate.

(Amdt. 77–4, Eff. 11/12/67)

§ 77.35 Aeronautical studies.

(a) The Regional Manager, Air Traffic Division of the region in which the proposed construction or alteration would be located, or his designee, conducts the aeronautical study of the effect of the proposal upon the operation of air navigation facilities and the safe and efficient utilization of the navigable airspace. This study may include the physical and electromagnetic radiation effect the proposal may have on the operation of an air navigation facility.

(b) To the extent considered necessary, the Regional Manager, Air Traffic Division or his designee:

(1) Solicits comments from all interested persons;

(2) Explores objections to the proposal and attempts to develop recommendations for adjustment of aviation requirements that would accommodate the proposed construction or alteration;

(3) Examines possible revisions of the proposal that would eliminate the exceeding of the standards in subpart C of this part; and

(4) Convenes a meeting with all interested persons for the purpose of gathering all facts relevant to the effect of the proposed construction or alteration on the safe and efficient utilization of the navigable airspace.

(c) The Regional Manager, Air Traffic Division or his designee issues a determination as to whether the proposed construction or alteration would be a hazard to air navigation and sends copies to all known interested persons. This determination is final unless a petition for review is granted under § 77.37.

(d) If the sponsor revises his proposal to eliminate exceeding of the standards of subpart C of this part, or withdraws it, the Regional Manager, Air Traffic Division, or his designee, terminates the study and notifies all known interested persons.

(Amdt. 77–6, Eff. 8/31/68); (Amdt. 77–11, Eff. 10/25/89)

§ 77.37 Discretionary review.

(a) The sponsor of any proposed construction or alteration or any person who stated a substantial aeronautical objection to it in an aeronautical study, or any person who has a substantial aeronautical objection to it but was not given an opportunity to state it, may petition the Administrator, within 30 days after issuance of the determination under § 77.19 or § 77.35 or revision or extension of the determination under § 77.39(c), for a review of the determination, revision, or extension. This para-

graph does not apply to any acknowledgment issued under § 77.19(c)(1).

(b) The petition must be in triplicate and contain a full statement of the basis upon which it is made.

(c) The Administrator examines each petition and decides whether a review will be made and, if so, whether it will be:

(1) A review on the basis of written materials, including study of a report by the Regional Manager, Air Traffic Division of the aeronautical study, briefs, and related submissions by any interested party, and other relevant facts, with the Administrator affirming, revising, or reversing the determination issued under § 77.19, § 77.35 or § 77.39(c); or

(2) A review on the basis of a public hearing, conducted in accordance with the procedures prescribed in subpart E of this part.

(Amdt. 77–3, Eff. 6/5/67); (Amdt. 77–11, Eff. 10/25/89)

§ 77.39 Effective period of determination of no hazard.

(a) Unless it is otherwise extended, revised, or terminated, each final determination of no hazard made under this subpart or subpart B or E of this part expires 18 months after its effective date, regardless of whether the proposed construction or alteration has been started, or on the date the proposed construction or alteration is abandoned, whichever is earlier.

(b) In any case, including a determination to which paragraph (d) of this section applies, where the proposed construction or alteration has not been started during the applicable period by actual structural work, such as the laying of a foundation, but not including excavation, any interested person may, at least 15 days before the date the final determination expires, petition the FAA official who issued the determination to:

(1) Revise the determination based on new facts that change the basis on which it was made; or

(2) Extend its effective period.

(c) The FAA official who issued the determination reviews each petition presented under paragraph (b) of this section, and revises, extends, or affirms the determination as indicated by his findings.

(d) In any case in which a final determination made under this subpart or subpart B or E of this part relates to proposed construction or alteration that may not be started unless the Federal Communications Commission issues an appropriate construction permit, the effective period of each final determination includes—

(1) The time required to apply to the Commission for a construction permit, but not more than 6 months after the effective date of the determination; and

(2) The time necessary for the Commission to process the application except in a case where the Administrator determines a shorter effective period is required by the circumstances.

(e) If the Commission issues a construction permit, the final determination is effective until the date prescribed for completion of the construction. If the Commission refuses to issue a construction permit, the final determination expires on the date of its refusal.

(Amdt. 77–5, Eff. 5/2/68)

Subpart E—Rules of Practice for Hearings Under Subpart D

§ 77.41 Scope.

This subpart applies to hearings held by the FAA under titles I, III, and X of the Federal Aviation Act of 1958 (49 U.S.C. subchapters I, III, and X), on proposed construction or alteration that affects the use of navigable airspace.

§ 77.43 Nature of hearing.

Sections 4, 5, 7, and 8 of the Administrative Procedure Act (5 U.S.C. 1003, 1004, 1006, and 1007) do not apply to hearings held on proposed construction or alteration to determine its effect on the safety of aircraft and the efficient use of navigable airspace because those hearings are factfinding in nature. As a factfinding procedure, each hearing is nonadversary and there are no formal pleadings or adverse parties.

§ 77.45 Presiding officer.

(a) If, under § 79.37, the Administrator grants a public hearing on any proposed construction or alteration covered by this part, the Director, Air Traffic Operations Service designates an FAA employee to be the presiding officer at the hearing.

(b) The presiding officer may:

(1) Give notice of the date and location of the hearing and any prehearing conference that may be held;

(2) Administer oaths and affirmations;

(3) Examine witnesses;

(4) Issue subpoenas and take depositions or have them taken;

(5) Obtain, in the form of a public record, all pertinent and relevant facts relating to the subject matter of the hearing;

(6) Rule, with the assistance of the legal officer, upon the admissibility of evidence;

(7) Regulate the course and conduct of the hearing; and

(8) Designate parties to the hearing and revoke those designations.

(Amdt. 77–11, Eff. 10/25/89)

§ 77.47 Legal officer.

The Chief Counsel designates a member of his staff to serve as legal officer at each hearing under this subpart. The legal officer may examine witnesses and assist and advise the presiding officer on questions of evidence or other legal questions arising during the hearing.

§ 77.49 Notice of hearing.

In designating a time and place for a hearing under this subpart the presiding officer considers the needs of the FAA and the convenience of the parties and witnesses. The time and place of each hearing is published in the "Notices" section of the FEDERAL REGISTER before the date of the hearing, unless the notice is impractical or unnecessary.

§ 77.51 Parties to the hearing.

The presiding officer designates the following as parties to the hearing—

(a) The proponent of the proposed construction or alteration.

(b) Those persons whose activities would be substantially affected by the proposed construction or alteration.

§ 77.53 Prehearing conference.

(a) The presiding officer may, in his discretion, hold a prehearing conference with the parties to the hearing and the legal officer before the hearing.

(b) At the direction of the presiding officer, each party to a prehearing conference shall submit a brief written statement of the evidence he intends to provide through his witnesses and by questioning other witnesses at the hearing, and shall provide enough copies of the statement so that the presiding officer may keep three for the FAA and give one to each other party.

(c) At the prehearing conference, the presiding officer reduces and simplifies the subject matter of the hearing so far as possible and advises the parties of the probable order of presenting the evidence.

§ 77.55 Examination of witnesses.

(a) Each witness at a hearing under this subpart shall, after being sworn by the presiding officer, give his testimony under oath.

(b) The party for whom a witness, other than an employee of the FAA, is testifying shall examine that witness. After that examination, other parties to the hearing may examine the witness, in the order fixed by the presiding officer. The presiding officer and the legal officer may then examine the witness. The presiding officer may grant any party an additional opportunity to examine any witness, if that party adequately justifies the additional examination.

(c) The legal officer examines each FAA employee who is a witness, before the other parties examine him. After that examination, the order prescribed in paragraph (b) of this section applies. An FAA employee may testify only as to facts within his personal knowledge and the application of FAA regulations, standards, and policies.

§ 77.57 Evidence.

(a) The presiding officer receives all testimony and exhibits that are relevant to the issues of the hearing. So far as possible, each party shall submit enough copies of his exhibits that the presiding officer may keep three copies for the FAA and give one to each other party.

(b) The presiding officer excludes any testimony that is irrelevant, unduly repetitious, or consists of statements made during an aeronautical study in an effort to reconcile or compromise aviation or construction or alteration requirements. A party to the hearing may object to the admission of evidence only on the ground that it is irrelevant.

§ 77.59 Subpoenas of witnesses and exhibits.

(a) The presiding officer of a hearing may issue subpoenas for any witness or exhibit that he determines may be material and relevant to the issues of the hearing. So far as possible, each party to the hearing shall provide the witnesses and exhibits that he intends to present at the hearing.

(b) If any party to the hearing is unable to provide his necessary witnesses and exhibits, he shall advise the presiding officer far enough in advance that the presiding officer can determine whether he should issue subpoenas for the desired witnesses or exhibits.

§ 77.61 Revision of construction or alteration proposal.

(a) The sponsor of any proposed construction or alteration covered by this part may revise his proposal at any time before or during the hearing. If he revises it, the presiding officer decides whether the revision affects the proposal to the extent that he should send it to the Administrator for a redetermination of the need for a hearing.

(b) If the presiding officer decides that it does not need to be resubmitted to the Administrator, he advises the parties of the revised proposal and takes the action necessary to allow all parties to effectively participate in the hearing on the revised proposal. Without limiting his discretion, the presiding officer may recess and reconvene the hearing, or hold another prehearing conference.

§ 77.63 Record of hearing.

(a) Each hearing is recorded verbatim by an official reporter under an FAA contract. The transcript, and all exhibits, become a part of the record of the hearing.

(b) Any person may buy a copy of the transcript of the hearing from the reporter at the price fixed for it.

(c) The presiding officer may allow any party to withdraw an original document if he submits authenticated copies of it.

(d) Any person may buy, from the FAA, photostatic copies of any exhibit by paying the copying costs.

(e) A change in the official transcript of a hearing may be made only if it involves an error of substance. Any recommendation to correct the transcript must be filed with the presiding officer within 5 days after the hearing closes. The presiding officer reviews each request for a correction to the extent he considers appropriate and shall make any revisions that he finds appropriate as a result of that review.

§ 77.65 Recommendations by parties.

Within 20 days after the mailing of the record of hearing by the official reporter, or as otherwise directed by the presiding officer, each party may submit to the presiding officer five copies of his recommendations for a final decision to be made by the Administrator.

§ 77.67 Final decision of the Administrator.

After reviewing the evidence relevant to the questions of fact in a hearing, including the official transcript and the exhibits, The Administrator resolves all these questions, based on the weight of evidence, and makes his determination, stating the basis and reasons for it. He then issues an appropriate order to be served on each of the parties.

§ 77.69 Limitations on appearance and representation.

(a) A former officer or employee of the FAA may not appear on behalf of, or represent, any party before the FAA in connection with any matter to which this part applies, if he considered or passed on that matter while he was an officer or employee of the FAA.

(b) A person appearing before the FAA on any matter to which this part applies may not, in connection with that appearance, knowingly accept assistance from, or share fees with, any person who is prohibited by paragraph (a) of this section, from appearing himself on that matter.

(c) A former official or employee of the FAA may not, within 6 months after he ceases to be such an officer or employee, appear before the FAA on behalf of, or represent, any party in connection with any proceeding that was pending under this part while he was an officer or employee of the FAA, unless he obtains written consent from an appropriate officer of the FAA, based on a verified showing that he did not personally consider the matter concerned or gain particular knowledge of it while he was an officer or employee of the FAA.

Subpart F—Establishment of Antenna Farm Areas

§ 77.71 Scope.

(a) This subpart establishes antenna farm areas in which antenna structures may be grouped to localize their effect on the use of navigable airspace.

(b) It is the policy of the FAA to encourage the use of antenna farms and the single structure-multiple antenna concept for radio and television towers whenever possible. In considering proposals for establishing antenna farm areas, it considers as far as possible the revision of aeronautical procedures and operations to accommodate antenna structures that will fulfill broadcasting requirements.

§ 77.73 General provisions.

(a) An antenna farm area consists of a specified geographical location with established dimensions of area and height, where antenna towers with a common impact on aviation may be grouped. Each such area is established by appropriate rule making action.

(b) Each proposal for an antenna farm area is evaluated on the basis of its effect on the use of navigable airspace. The views of the Federal Communications Commission are requested on the effect that each establishment of an antenna farm area would have on its statutory responsibilities. Any views submitted by it are fully considered before the antenna farm concerned is established. If the Commission advises that the establishment of any proposed antenna farm area would interfere with its statutory responsibility, the proposed area is not established.

(c) The establishment of an antenna farm area is considered whenever it is proposed by:

(1) The FAA;

(2) The Federal Communications Commission;

(3) The sponsor of a proposed antenna tower; or

(4) Any other person having a substantial interest in a proposed antenna tower.

(Amdt. 77–10, Eff. 3/4/72)

§ 77.75 Establishment of antenna farm areas.

The airspace areas described in the following sections of this subpart are established as antenna farm areas.

Note: Sections 77.77 through 77.1100 reserved for descriptions of antenna farm areas.

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APPENDIX E

EXAMPLES OF COUNTY OF SAN MATEO AVIGATION EASEMENT DOCUMENTS

1. Noise Easement Document

2. Noise and Obstruction Easement Document

3. Obstruction Easement Document

COUNTY OF SAN MATEO AVIGATION EASEMENT

NOISE

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NOISE

When recorded return to:
County of San Mateo
Department of Public Works
Attn: County Airport Manager
10 Twin Dolphin Dr., Suite 200
Redwood City, CA 94065

COUNTY OF SAN MATEO
AVIGATION EASEMENT

This easement is made this ____day of _____, by and between _____, hereinafter referred to as "GRANTOR", and the County of San Mateo, a political subdivision of the State of California, hereinafter referred to as "COUNTY" or "GRANTEE"

R E C I T A L S

A. COUNTY is the owner of certain real property, commonly known as the _____ Airport, situated in the County of San Mateo, State of California, as more particularly described in Exhibit A attached hereto, and incorporated herein by reference. The County of San Mateo operates the _____ Airport as a Category 1 General Aviation Airport, as defined in Federal Aviation Regulations, part 77. For purposes of this easement the _____ Airport property is the dominant tenement.

B. GRANTOR is the owner in fee of certain real property situated in the County of San Mateo, State of California, as more particularly described in Exhibit B attached hereto, and incorporated herein by reference (the "Grantor Property"). For purposes of this easement, the Grantor Property is the servient tenement.

C. GRANTOR has applied to the _____ for a land

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use policy action, as described in the Comprehensive Airport Land Use Plan (e.g., a general plan amendment or zoning action related to a land use change), which would change the character of the existing use of the Grantor Property. One condition of approval is that GRANTOR convey to the COUNTY an avigation easement covering the Grantor Property.

D. GRANTOR and GRANTEE wish to establish the terms and conditions of the required avigation easement so that the aircraft which use _____ Airport will have the right to use the airspace over and above GRANTOR's property.

NOW, THEREFORE, in consideration of the land use approval given to GRANTOR with respect to the Grantor Property, and in fulfillment of a condition of such approval, the parties hereto agree as follows:

1. GRANT OF EASEMENT.

GRANTOR grants to COUNTY, its successors and assigns a perpetual easement over the Grantor Property, as described in Exhibit B hereto, on the terms and conditions stated herein. The easement is an easement appurtenant to the _____ Airport, and an easement in gross as to members of the public using _____ Airport. The easement granted herein shall continue in effect only until the _____ Airport shall be permanently abandoned and shall cease to be used for public airport purposes.

2. PURPOSE OF EASEMENT.

The purposes of this easement are (1) to allow for the free and unobstructed passage and flight of aircraft using _____ Airport, in, through, over, and across the

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airspace of the Grantor Property, and (2) to provide notice to GRANTOR and any future owners of the GRANTOR property that the PROPERTY is located in the vicinity of _____ Airport and may be subject to impacts of aircraft operations at such airport.

3. RIGHTS GRANTED BY EASEMENT.

Except as otherwise provided in this Agreement, this easement grants to the COUNTY and members of the public who use _____ Airport, the right to fly aircraft in the airspace above the Grantor Property, together with the following rights:

(a) The right to cause such noise, vibration, fumes, exhaust, dust, and fuel particles which result from the legal and proper operation of such aircraft.

(b) The right to cause radio, television, and other electromagnetic interference associated with the legal and proper operation of such aircraft.

(c) The right to cause such other effects which are inherent in the legal and proper operation of such aircraft.

4. COUNTY's OBLIGATION UNDER GRANT OF EASEMENT.

COUNTY shall exercise its best efforts to control and prohibit such aircraft operations at _____ Airport which:

(a) are in violation of Federal noise abatement regulations or operational and noise abatement flight procedures set forth in Volume 14 of the Code of Federal Regulations and Federal Aviation Administration (FAA) orders and advisory circulars applicable to operationally compatible aircraft, or

(b) cause noise impacts in violation of Title 21, Subchapter

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6 of the California Code of regulations; or

(c) are in violation of the noise impact provisions contained in the San Mateo County Comprehensive Airport Land Use Plan for _____ Airport.

A violation or violations of the noise criteria set forth in this paragraph shall not operate to invalidate this easement or any provisions of this easement or relieve GRANTOR from complying with the provisions of this easement.

5. WAIVER AND RELEASE OF CLAIMS.

GRANTOR hereby waives, releases, and discharges, for itself and on behalf of GRANTOR's heirs, assigns and successors in interest to all or any part of the Grantor Property, any and all claims or causes of action it may have now or in the future against COUNTY arising out of any of the activities authorized under this easement to include, but not limited to, activities which cause noise, vibrations, fumes, exhaust, dust, fuel particles, radio and television interference, and other effects which may be caused by the legal and proper operation of aircraft landing at or taking off from, or operating at _____ Airport.

6. ACKNOWLEDGEMENT OF EFFECTS OF AIRCRAFT OPERATION.

The Grantor Property is located within the boundary of the Avigation Easement Review Area (AERA) for _____ Airport, as shown in the San Mateo County Comprehensive Airport Land Use Plan, and within the Community Noise Equivalent Level (CNEL) airport noise contour as shown on the Airport Noise Contour Map set forth in the County of San Mateo Airport Land Use Plan for _____ Airport. GRANTOR acknowledges and understands that, because the GRANTOR's private property is in close proximity

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to _____ Airport, operation of the airport and aircraft utilizing the airport may affect such property.

7. LIMITATIONS ON NOISE.

This grant of easement shall not extend to permit an aircraft noise level over the Grantor Property which exceeds 60dB CNEL.

8. RESERVATION OF RIGHTS AGAINST UNLAWFUL OPERATION.

(a) This grant of easement shall not operate to deprive the GRANTOR, and GRANTOR's successors or assigns, of any rights that it may have against any individual or private operator of aircraft for negligent or unlawful operation of aircraft as such operation may effect the Grantor property.

(b) This grant of easement does not waive any claim by GRANTOR or GRANTOR's successors or assigns, or by any person lawfully on the Grantor Property, for damages for personal injury or damage to personal or real property sustained as a result of an aircraft crash or from objects falling from aircraft flying over the Grantor Property.

9. COVENANT RUNS WITH THE LAND.

The covenants and agreements described herein shall run with the land and are binding upon the heirs, administrators, executors, successors and assigns of the GRANTOR, and GRANTEE. The easement benefits and burdens the Grantor Property and the _____ Airport Property.

10. INTERPRETATION AND ENFORCEMENT.

This easement may be interpreted on behalf of the County of San Mateo and members of the public using _____ Airport, solely by County. County shall have the sole right and authority to enforce this easement on behalf of itself and members of the

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public using _____ Airport.

11. APPLICABLE LAW.

Provisions of this easement shall be interpreted, applied and enforced in accordance with the provisions of State and Federal laws recited herein as they exist as of the effective date of this easement, except to the extent such provisions are preempted by any future amendment or amendments to such State or Federal laws, in which case the amended provisions of State or Federal law shall apply.

12. TERMINATION.

This grant of easement, and the covenants and agreements contained therein, shall continue in effect until _____ Airport shall be permanently abandoned and shall cease to be used for public airport purposes.

Dated:_____

_____
GRANTOR

Dated:_____

COUNTY OF SAN MATEO

BY_____, President
San Mateo County Board of Supervisors

ATTEST:

_____
Clerk of the Board of Supervisors

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CERTIFICATE OF ACCEPTANCE OF AVIGATION EASEMENT
(Pursuant to Government Code Section 27281)

This is to certify that the interest in real property conveyed by the deed or grant dated _____ from _____ to the County of San Mateo, a political subdivision of the State of California, is hereby accepted by order of the San Mateo County on _____ and the grantee consents to recordation thereof by its duly authorized officer.

Dated: _____ By: _____
, President
San Mateo County Board of Supervisors

ATTEST:

_____
Clerk of the Board of Supervisors

30/avenoise
August 16, 1994

COUNTY OF SAN MATEO AVIGATION EASEMENT

NOISE AND OBSTRUCTION

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NOISE AND OBSTRUCTION

When recorded return to:
County of San Mateo
Department of Public Works
Attn: County Airport Manager
10 Twin Dolphin Dr., Suite 200
Redwood City, CA 94065

COUNTY OF SAN MATEO
AVIGATION EASEMENT

This easement is made this ____day of _____, by and between _____, hereinafter referred to as "GRANTOR", and the County of San Mateo, a political subdivision of the State of California, hereinafter referred to as "COUNTY" or "GRANTEE"

R E C I T A L S

A. COUNTY is the owner of certain real property, commonly known as the _____ Airport, situated in the County of San Mateo, State of California, as more particularly described in Exhibit A attached hereto, and incorporated herein by reference. The County of San Mateo operates the _____ Airport as a Category 1 General Aviation Airport, as defined in Federal Aviation Regulations, part 77. For purposes of this easement the _____ Airport property is the dominant tenement.

B. GRANTOR is the owner in fee of certain real property situated in the County of San Mateo, State of California, as more particularly described in Exhibit B attached hereto, and

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incorporated herein by reference (the "Grantor Property"). For purposes of this easement, the Grantor Property is the servient tenement.

C. GRANTOR has applied to the _____ for a land use policy action, as described in the Comprehensive Land Use Plan (e.g., general plan amendment or zoning amendment related to a land use change) which would change the character of the existing use of the Grantor Property. One condition of approval is that GRANTOR convey to the COUNTY an avigation easement covering the Grantor Property.

D. GRANTOR and GRANTEE wish to establish the terms and conditions of the required avigation easement so that the aircraft which use _____ Airport will have the right to use the airspace over and above GRANTOR's property.

NOW, THEREFORE, in consideration of the land use approval given to GRANTOR with respect to the Grantor Property, and in fulfillment of a condition of such approval, the parties hereto agree as follows:

1. <u>GRANT OF EASEMENT</u>.

GRANTOR grants to COUNTY, its successors and assigns a perpetual easement over the Grantor Property, as described in Exhibit B hereto, on the terms and conditions stated herein. The easement is an easement appurtenant to the _____ Airport, and an easement in gross as to members of the public using

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_____ Airport. The easement granted herein shall continue in effect only until the _____ Airport shall be permanently abandoned and shall cease to be used for public airport purposes.

2. PURPOSE OF EASEMENT.

The purposes of this easement are (1) to allow for the free and unobstructed passage and flight of operationally compatible aircraft using _____ Airport, in, through, over, and across the airspace of the Grantor Property, and (2) to provide notice to GRANTOR and any future owners of the GRANTOR property that the PROPERTY is located in the vicinity of _____ Airport and may be subject to impacts of aircraft operations at such airport.

3. RIGHTS GRANTED BY EASEMENT.

Subject to the limitations in paragraph 4, below, this easement grants to the COUNTY and members of the public who use _____ Airport, the right to fly aircraft in the airspace above the Grantor Property, together with the following rights:

(a) The right to cause such noise, vibration, fumes, exhaust, dust, and fuel particles which result from the legal and proper operation of such aircraft.

(b) The right to cause radio, television, and other electromagnetic interference associated with the legal and proper operation of such aircraft.

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(c) The right to cause such other effects which are inherent in the legal and proper operation of such aircraft.

4. GRANTOR's OBLIGATIONS.

GRANTOR shall not construct, nor permit the construction of, nor permit the growth of, any structure, tree or other natural or man made object, that (a) penetrates the designated transitional, horizontal or approach surface, as shown in Exhibit C, attached hereto and incorporated herein by reference (hereafter "Prohibited Zone") such as to constitute an obstruction or hazard to air navigation as defined in 14 CFR Part 77, "Objects Affecting Navigable Airspace", or (b) obstructs or interferes with the use of the flight easement and right of way granted herein, or (c) creates electrical interference with radio communication between any installation located at _____ Airport and any aircraft, or (d) impairs visibility to an extent that it interferes with the safe operation of aircraft at _____ Airport, by determined by the FAA.

5. COUNTY's OBLIGATION UNDER GRANT OF EASEMENT.

COUNTY shall exercise its best efforts to control and prohibit such aircraft operations at _____ Airport which:

(a) are in violation of Federal noise abatement regulations or operational and noise abatement flight procedures set forth in Volume 14 of the Code of federal Regulations and Federal Aviation Administration (FAA) orders and advisory circulars applicable to operationally compatible aircraft, or

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(b) cause noise impacts in violation of Title 21, Subchapter 6 of the California Code of Regulations; or

(c) are in violation of the noise impact provisions contained in the San Mateo County Comprehensive Airport Land Use Plan for _____ Airport.

A violation or violations of the noise criteria set forth in this paragraph shall not operate to invalidate this easement or any provision of this easement or relieve GRANTOR from complying with the provisions of this easement.

6. WAIVER AND RELEASE OF CLAIMS.

GRANTOR hereby waives, releases, and discharges, for itself and on behalf of GRANTOR's heirs, assigns and successors in interest to all or any part of the Grantor Property, any and all claims or causes of action it may have now or in the future against COUNTY arising out of any of the activities authorized under this easement to include, but not limited to, activities which cause noise, vibrations, fumes, exhaust, dust, fuel particles, radio and television interference, and other effects which may be caused by the legal and proper operation of aircraft landing at or taking off from, or operating at _____ Airport.

7. ACKNOWLEDGEMENT OF EFFECTS OF AIRCRAFT OPERATION.

The Grantor Property is located within the boundary of the Avigation Easement Review Area (AERA) for _____ Airport, as shown in the San Mateo County Comprehensive Airport Land Use Plan, and within the _____ Community Noise Equivalent Level

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(CNEL) airport noise contour as shown on the Airport Noise Contour Map set forth in the County of San Mateo Airport Land Use Plan for _____ Airport. GRANTOR acknowledges and understands that, because the GRANTOR's private property is in close proximity to _____ Airport, operation of the airport and aircraft utilizing the airport may affect such property.

8. LIMITATIONS ON NOISE.

This grant of easement shall not extend to permit an aircraft noise level over the Grantor Property which exceeds 60dB CNEL.

9. RESERVATION OF RIGHTS AGAINST UNLAWFUL OPERATION.

(a) This grant of easement shall not operate to deprive the GRANTOR, and GRANTOR's successors or assigns, of any rights that it may have against any individual or private operator of aircraft for negligent or unlawful operation of aircraft as such operation may effect the Grantor property.

(b) This grant of easement does not waive any claim by GRANTOR or GRANTOR's successors or assigns, or by any person lawfully on the Grantor Property, for damages for personal injury or damage to personal or real property sustained as a result of an aircraft crash or from objects falling from aircraft flying over the Grantor Property.

10. INTERPRETATION AND ENFORCEMENT.

(a) This easement may be interpreted on behalf of the County of San Mateo and members of the public using _____ Airport, solely by County. County shall have the sole right and authority to enforce this easement on behalf of itself and members

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of the public using _____ Airport.

(b) COUNTY may bring any action in court necessary to enforce the terms of this easement including, but not limited to, injunction to terminate a breaching activity, or an action to enforce the terms and provisions hereof by specific performance. The enforcement proceedings specified in this paragraph are not exclusive. Any forbearance on the part of the COUNTY to enforce the terms and conditions hereof shall not be deemed a waiver of COUNTY's rights regarding any subsequent breach.

11. COVENANT RUNS WITH THE LAND.

The covenants and agreements described herein shall run with the land and are binding upon the heirs, administrators, executors, successors and assigns of the GRANTOR and GRANTEE. The easement benefits and burdens the Grantor Property and the _____ Airport property.

12. APPLICABLE LAW.

Provisions of this easement shall be interpreted, applied and enforced in accordance with the provisions of State and Federal Laws recited herein as they exist as of the effective date of this easement, except to the extent such provisions are preempted by any future amendment or amendments to such State or Federal laws, in which case the amended provisions of State or Federal law shall apply.

13. TERMINATION.

This grant of easement, and the covenants and agreements contained therein, shall continue in effect until

DRAFT

_____ Airport shall be permanently abandoned and shall cease to be used for public airport purposes.

Dated:_____

_____
GRANTOR

Dated:_____

COUNTY OF SAN MATEO

BY_____, President
San Mateo County Board of Supervisors

ATTEST:

_____
Clerk of the Board of Supervisors

CERTIFICATE OF ACCEPTANCE OF AVIGATION EASEMENT
(Pursuant to Government Code Section 27281)

ıis is to certify that the interest in real property conveyed by the deed · grant dated _____ from _____ to the ›unty of San Mateo, a political subdivision of the State of California, ; hereby accepted by order of the San Mateo County on _____ and the grantee consents to recordation thereof by :s duly authorized officer.

ıted:_____ By:_____, President
San Mateo County Board of Supervisors

ITEST:

_____
lerk of the Board of Supervisors

/avcasmnt
gust 16, 1994

COUNTY OF SAN MATEO AVIGATION EASEMENT

OBSTRUCTION

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OBSTRUCTION

When recorded return to:
County of San Mateo
Department of Public Works
Attn: County Airport Manager
10 Twin Dolphin Dr., Suite 200
Redwood City, CA 94065

COUNTY OF SAN MATEO
AVIGATION EASEMENT

This easement is made this ____day of _____, by and between _____, hereinafter referred to as "GRANTOR", and the County of San Mateo, a political subdivision of the State of California, hereinafter referred to as "COUNTY" or "GRANTEE"

R E C I T A L S

A. COUNTY is the owner of certain real property, commonly known as the _____ Airport, situated in the County of San Mateo, State of California, as more particularly described in Exhibit A attached hereto, and incorporated herein by reference. The County of San Mateo operates the _____ Airport as a Category 1 General Aviation Airport, as defined in Federal Aviation Regulations, part 77. For purposes of this easement the _____ Airport property is the dominant tenement.

B. GRANTOR is the owner in fee of certain real property situated in the County of San Mateo, State of California, as more particularly described in Exhibit B attached hereto, and incorporated herein by reference (the "Grantor Property"). For purposes of this easement, the Grantor Property is the servient tenement.

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C. GRANTOR has applied to the _____ for a land use policy action, as described in the Comprehensive Airport Land Use Plan (e.g., general plan amendment or zoning action related to a land use change) which would change the character of the existing use of the Grantor Property. One condition of approval is that GRANTOR convey to the COUNTY an avigation easement covering the Grantor Property.

D. GRANTOR and GRANTEE wish to establish the terms and conditions of the required avigation easement so that the aircraft which use _____ Airport will have the right to use the airspace over and above GRANTOR's property.

NOW, THEREFORE, in consideration of the land use approval given to GRANTOR with respect to the Grantor Property, and in fulfillment of a condition of such approval, the parties hereto agree as follows:

1. GRANT OF EASEMENT.

GRANTOR grants to COUNTY, its successors and assigns a perpetual easement over the Grantor Property, as described in Exhibit B hereto, on the terms and conditions stated herein. The easement is an easement appurtenant to the _____ Airport, and an easement in gross as to members of the public using _____ Airport. The easement granted herein shall continue in effect only until the _____ Airport shall be permanently abandoned and shall cease to be used for airport purposes.

2. PURPOSE OF EASEMENT.

The purposes of this easement are (1) to allow for the free and unobstructed passage and flight of aircraft using

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_____ Airport, in, through, over, and across the airspace of the Grantor Property, and (2) to provide notice to GRANTOR and any future owners of the GRANTOR property that the PROPERTY is located in the vicinity of _____ Airport and may be subject to impacts of aircraft operations at such airport.

3. RIGHTS GRANTED BY EASEMENT.

Except as otherwise provided in this Agreement, this easement grants to the COUNTY and members of the public who use _____ Airport, the right to fly aircraft in the airspace above the Grantor Property, together with the following rights:

(a) The right to cause such noise, vibration, fumes, exhaust, dust, and fuel particles which result from the legal and proper operation of such aircraft.

(b) The right to cause radio, television, and other electromagnetic interference associated with the legal and proper operation of such aircraft.

(c) The right to cause such other effects which are inherent in the legal and proper operation of such aircraft.

4. GRANTOR's OBLIGATIONS.

GRANTOR shall not construct, nor permit the construction of, nor permit the growth of, any structure, tree or other natural or man made object, that (a) penetrates the designated transitional, horizontal or approach surface, as shown in Exhibit C, attached hereto and incorporated herein by reference (hereafter "Prohibited Zone"), such as to constitute an obstruction or hazard to air navigation as defined in 14 CFR Part 77, "Objects Affecting

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Navigable Airspace", or (b) creates electrical interference with radio communication between any installation located at _____ Airport and any aircraft, as determined by the FAA, or (c) makes it difficult for pilots to distinguish between airport lights and other lights, as determined by the FAA, or (d) impairs visibility to an extent that it interferes with the safe operation of aircraft at _____ Airport, as determined by the FAA.

5. WAIVER AND RELEASE OF CLAIMS.

GRANTOR hereby waives, releases, and discharges, for itself and on behalf of GRANTOR's heirs, assigns and successors in interest to all or any part of the Grantor Property, any and all claims or causes of action it may have now or in the future against COUNTY arising out of any of the activities authorized under this easement to include, but not limited to, activities which cause noise, vibrations, fumes, exhaust, dust, fuel particles, radio and television interference, and other effects which may be caused by the legal and proper operation of aircraft landing at or taking off from, or operating at _____ Airport.

6. LIMITATIONS ON NOISE.

This grant of easement shall not extend to permit an aircraft noise level over the GRANTOR property which exceeds 55db CNEL.

7. RESERVATION OF RIGHTS AGAINST UNLAWFUL OPERATION.

(a) This grant of easement shall not operate to deprive the GRANTOR, and GRANTOR's successors or assigns, of any rights that it may have against any individual or private operator of aircraft for negligent or unlawful operation of aircraft as such operation may effect the Grantor property.

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(b) This grant of easement does not waive any claim by GRANTOR or GRANTOR's successors or assigns, or by any person lawfully on the Grantor Property, for damages for personal injury or damage to personal or real property sustained as a result of an aircraft crash or from objects falling from aircraft flying over the Grantor Property.

8. INTERPRETATION AND ENFORCEMENT.

(a) This easement may be interpreted on behalf of the County of San Mateo and members of the public using _____ Airport, solely by County. County shall have the sole right and authority to enforce this easement on behalf of itself and members of the public using _____ Airport.

(b) COUNTY may bring any action in court necessary to enforce the terms of this easement including, but not limited to, injunction to terminate a breaching activity, or an action to enforce the terms and provisions hereof by specific performance. The enforcement proceedings specified in this paragraph are not exclusive. Any forbearance on the part of the COUNTY to enforce the terms and conditions hereof shall not be deemed a waiver of COUNTY's rights regarding any subsequent breach.

9. COVENANT RUNS WITH THE LAND.

The covenants and agreements described herein shall run with the land and are binding upon the heirs, administrators, executors, successors and assigns of the GRANTOR and GRANTEE. The easement benefits and burdens the Grantor Property, and the _____ Airport Property.

10. APPLICABLE LAW.

Provisions of this easement shall be interpreted, applied and

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enforced in accordance with the provisions of State and Federal laws recited herein as they exist as of the effective date of this easement, except to the extent such provisions are preempted by any future amendment or amendments to such State or Federal Laws, in which case the amended provisions of State or Federal law shall apply.

11. TERMINATION.

This grant of easement, and the covenants and agreements contained therein, shall continue in effect until _____ Airport shall be permanently abandoned and shall cease to be used for public airport purposes.

Dated:_____

_____
GRANTOR

Dated:_____

COUNTY OF SAN MATEO

BY_____
, President
San Mateo County Board of Supervisors

ATTEST:

_____
Clerk of the Board of Supervisors

DRAFT

CERTIFICATE OF ACCEPTANCE OF AVIGATION EASEMENT
(Pursuant to Government Code Section 27281)

This is to certify that the interest in real property conveyed by the deed or grant dated _____ from _____ to the County of San Mateo, a political subdivision of the State of California, is hereby accepted by order of the San Mateo County on _____ and the grantee consents to recordation thereof by its duly authorized officer.

Dated: _____ By: _____
, President
San Mateo County Board of Supervisors

ATTEST:

_____
Clerk of the Board of Supervisors

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...st 16, 1994

APPENDIX F

SAN FRANCISCO INTERNATIONAL AIRPORT NOISE ABATEMENT REGULATION, as amended

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Patrick A. Murphy
President

J. Stanley Mattison
Vice President

L. Andrew Jeanpierre

Marie K. Brooks

Michael S. Strunsky

LOUIS A. TURPEN
Director of Airports

San Francisco International Airport

GATEWAY TO THE PACIFIC

December 14, 1993

TO: All Interested Parties

On December 7, 1993, the Airports Commission of the City and County of San Francisco repealed certain provisions of the 1988 SFIA Noise Abatement Regulation Resolution No. 88-0016, as previously amended by Resolution Nos. 91-0099 and 92-0202.

Airports Commission Resolution No. 93-0248 repealed the requirement that at least the same percentage of an operator's operations at SFIA in a calendar quarter must be performed using Stage 3 aircraft as in the same calendar quarter of the previous year; and repealed the requirement that an operator must provide the Director of Airports with 90 days notice of any proposed scheduled operation between the hours of 23:00 to 07:00 additional to those already scheduled by the operator within these times. The requirement that the Commission consider by December 31, 1993 whether to reduce the maximum permitted Sideline noise level below the FAA certificated 103 EPNdB, was deferred until December 31, 1994.

A copy of SFIA Noise Abatement Regulation Resolution No. 88-0016, as amended by Resolution Nos. 91-0099, 92-0202, and 93-0248, replacing the superseded regulation is enclosed for your records and guidance.

Louis A. Turpen
Director of Airports

Enclosure

SAN FRANCISCO INTERNATIONAL AIRPORT · SAN FRANCISCO CALIFORNIA 94128 · TELEPHONE (415) 761-0800 · FAX (415) 876-7875

SAN FRANCISCO INTERNATIONAL AIRPORT
NOISE ABATEMENT REGULATION
RESOLUTION NO. 88-0016 AS AMENDED EFFECTIVE
JULY 16, 1991 BY RESOLUTION NO. 91-0099,
JULY 7, 1992 BY RESOLUTION NO. 92-0202,
AND
DECEMBER 7, 1993 BY RESOLUTION NO. 93-0248

§ 1 PURPOSE

The Airports Commission of the City and County of San Francisco ("Commission") promulgates this regulation to provide for a continual reduction of cumulative noise resulting from aircraft operations at San Francisco International Airport ("SFIA") in accordance with the Commission's authority as proprietor of SFIA, the Charter of the City and County of San Francisco, and the provisions of Title 21, Sub-chapter 6 of the California Administrative Code, while allowing SFIA to continue its historic function as the leading gateway to the Pacific, as a vital contributor to a strong and growing economy, and as a major source of employment for the Bay Area.

§ 2 EFFECTIVE DATE

This regulation shall become effective upon its adoption by resolution of the Commission, pursuant to the powers and duties vested in the Commission by Section 3.691 of the Charter of the City and County of San Francisco, and shall remain in effect until amended or repealed.

§ 3 DEFINITIONS

(A) aircraft — all subsonic transport category large airplanes, subsonic turbojet powered airplanes and supersonic transport category airplanes, which were ever certificated or

recertificated at a maximum gross takeoff weight in excess of 75,000 lbs., whether certificated or recertificated by the United States or by a foreign country.

(B) operation — an aircraft landing or takeoff.

(C) operator — an entity that exercises operational control over an aircraft. Operational control includes, among other matters, control over scheduling, routes, or choices of aircraft.

(D) preferential runway use program — written procedures concerning the performance of operations at SFIA to minimize the noise impact of such operations, applicable when air safety, air traffic, and meteorological conditions permit.

(E) quarterly period — successive three-month periods occurring at regular intervals four times a year, the first quarter of any given year beginning on the first day of January, the last quarter ending on the thirty-first of December.

(F) Stage 2 aircraft — an aircraft that is certificated by the FAA as complying with the noise levels prescribed in 14 C.F.R. Part 36, Appendix C, Section 36.5(a)(2), or is certificated in accordance with Chapter 2 of Annex 16 to Article 37 of the International Civil Aviation Organization Convention.

(G) Stage 3 aircraft — an aircraft that is certificated by the FAA as complying with the noise levels prescribed in 14 C.F.R. Part 36, Appendix C, Section 36.5(a)(3), or is

certificated in accordance with Chapter 3 of Annex 16 to Article 37 of the International Civil Aviation Organization Convention.

§ 4 REGULATION

(A) Stage 2 or Stage 3 Requirement for Aircraft.

Upon the effective date of this regulation, an aircraft will be permitted to commence or continue operation at SFIA only if it is a Stage 3 aircraft or a Stage 2 aircraft.

(B) Percentage Stage 3 Operations Requirement

(1) An operator (except for operators exempted under Sections 4(B)(2) or 4(G)(4)) shall perform operations (except for operations exempted pursuant to Section 4(F)(1)) at SFIA after January 1, 1989 in compliance with the following schedule:

(a) Beginning Jan. 1, 1989, at least 25% of the operator's operations at SFIA in each quarterly period must be performed using Stage 3 aircraft.

(b) Beginning Jan. 1, 1994, at least 50% of the operator's operations at SFIA in each quarterly period must be performed using Stage 3 aircraft.

(c) Beginning Jan. 1, 1999, at least 75% of the operator's operations at SFIA in each quarterly period must be performed using Stage 3 aircraft.

(d) Beginning Jan. 1, 2000, 100% of the operator's operations at SFIA must be performed using Stage 3 aircraft.

(2) Prior to Jan. 1, 1999, if an operator performs no more than two regularly scheduled flights (for a total of four operations) per day at SFIA, computed on a monthly basis, and those flights have a designated point of origination or termination outside the United States and its territories, then the operator is not required to comply with the schedule set forth in Section 4(B)(1) if the operations are performed by Stage 2 aircraft.

(C) Limitation on Nighttime Stage 2 Operations

Stage 2 aircraft shall be permitted to operate at SFIA after January 1, 1989 only in compliance with the following schedule:

(1) Effective Jan. 1, 1989, Stage 2 aircraft may operate at SFIA only from 0600 until 0100 hours.

(2) Effective Jan. 1, 1990, Stage 2 aircraft may operate at SFIA only from 0600 until 2400 hours.

(3) Effective Jan. 1, 1991, Stage 2 aircraft may operate at SFIA only from 0700 until 2330 hours.

(4) Effective Jan. 1, 1993, Stage 2 aircraft may operate at SFIA only from 0700 until 2300 hours.

(5) (a) Notwithstanding any other provision of Section 4(C), effective January 1, 1991, an operator may operate a Stage 2 aircraft between 0600 and 0700 hours if it agrees in writing on a form to be provided by the Director of Airports to adhere to SFIA's preferential runway use program.

(b) Effective Jan. 1, 1993, an operator must agree in writing on a form to be provided by the Director of

Airports to adhere to SFIA's preferential runway use program in order to operate an aircraft between 2300 and 0700.

(D) Maximum Nighttime Noise Limits

After January 1, 1993, an aircraft shall be permitted to depart SFIA during nighttime hours (2300-0700) only if the aircraft's effective perceived noise level at takeoff, as measured along the 450-meter sideline in accordance with the procedures in 14 C.F.R. Part 36 during the aircraft's certification, does not exceed 103 EPNdB. In 1994 the Commission will consider whether the maximum level shall be reduced below 103 EPNdB after December 31, 1994.

(E) Variances

(1) Upon the effective date of this regulation, requests by operators for a variance from any provision of this regulation must be made in writing to the Director of Airports at least 60 days prior to the date the variance, if granted, would become effective. Every request for a variance shall be reviewed by the Director of Airports to determine whether all information necessary to evaluate the request has been included and, when complete, shall be transmitted to the Commission. Every request for a variance shall be heard by the Commission or by an official designated by the Commission, at which time the operator requesting the variance, the Commission staff, and interested members of the public shall be entitled to present information relevant to whether or not the granting of a variance is in the public interest. The burden in all variance applications shall be on the

applicant. Variance application proceedings shall be adjudicatory in nature, and the Commission or designated official shall issue findings on the record of the proceeding.

(2) A variance pursuant to Section 4(E)(1) may be granted only if the Commission finds, in the exercise of its discretion, that the granting of a variance is in the public interest. In determining the public interest the Commission shall consider, among any other factors it believes to be relevant, the following:

(a) the noise impact upon SFIA and the affected surrounding community should the variance be granted;

(b) the fairness to other aircraft operators, which are in compliance with this regulation, of granting a variance;

(c) the economic and technological feasibility, considered on an industry-wide basis, of complying with this regulation in the absence of a variance;

(d) the effect upon compliance by SFIA with California noise law, regulations, and standards should the variance be granted;

(e) the value to the public of the aircraft operations for which the variance is sought;

(f) whether the aircraft operator is taking bona fide measures, to the best of the operator's ability, to comply with this regulation;

(g) whether the aircraft operator will agree in writing on a form to be provided by the Director of Airports to adhere to SFIA's preferential runway use program;

(h) a statement, signed by the Secretary of State or by the Deputy Secretary of State, stating the official position of the United States that the granting of a variance is in the foreign policy or national security interests of the United States.

The Commission may grant a variance in part, or for limited duration, or may impose such conditions on the granting of a variance which it finds appropriate to accomplish the purposes of this regulation. The presence or absence of one or more of the above factors shall not require award of a variance from this regulation and the decision to grant or deny a variance in any particular case shall be based upon the Commission's overall public interest determination.

(F) Exemption For Maintenance Operations

(1) Upon written application, the Director of Airports may grant a maintenance exemption to an operator which operates maintenance facilities at SFIA for operations in revenue and non-revenue service upon the following conditions:

(a) the maintenance exemption shall apply only to operations performed for the specific purpose of positioning aircraft to receive periodic or regular maintenance at SFIA;

(b) under the maintenance exemption, no more than two (2) percent of the operator's daily revenue operations, not to exceed five (5) daily revenue operations, averaged on a quarterly basis, may be exempted from the requirement of Section 4(C) and may be excluded as operations from Section 4(B), but must comply with all other provisions of this regulation;

(c) under the maintenance exemption, all non-revenue operations may be exempted from the requirements of Section 4(C) and may be excluded as operations under Section 4(B), but must comply with all other provisions of this regulation;

(d) the operator must agree in writing on a form to be provided by the Director of Airports to adhere to SFIA's preferential runway use program in connection with operations pursuant to a maintenance exemption;

(e) the term of the exemption shall not exceed six years and may be renewed by the Director of Airports at three year intervals;

(f) all operations pursuant to a maintenance exemption must be reported to the Director of Airports on a monthly basis by the fifteenth day following the end of the month identifying each operation by type of

aircraft, type of engine, date and time of exempt operation, aircraft registration number, and whether the aircraft was in revenue or non-revenue service; and

(g) the operator must agree to comply with such other terms as are established by the Director of Airports.

(2) The arrival of an aircraft in non-revenue service for emergency maintenance shall not be counted as an operation under Section 4(B) and shall be exempt from the requirements of Sections 4(C) and 4(D) if the operator obtains an emergency maintenance exemption. To obtain an emergency maintenance exemption for the arrival and departure of the aircraft, the operator must make a verbal request to the Director of Airports prior to the operation and, within seven days after the operation, submit a written explanation of the circumstances which necessitated the granting of the exemption to the Director of Airports.

(G) Other Exemptions

(1) An operation at SFIA by an aircraft which does not comply with the requirements of Sections 4(A), 4(C) or 4(D) shall be exempted from the requirements of those sections and shall not be counted as an operation under Section 4(B), if the operator of the aircraft demonstrates to the satisfaction of the Director of Airports that:

(a) the noncomplying aircraft was operating in the place of a complying aircraft which was unable to perform a scheduled operation at SFIA because of extreme circumstances; or

(b) the operation was necessitated by an in-flight emergency.

(2) An operation by an aircraft which does not comply with the requirements of Section 4(C) or 4(D) shall be exempt from the requirements of those sections if the operation is otherwise permitted under this regulation at the published, scheduled time of the operation and the operator of the aircraft demonstrates to the Director of Airports that the actual time of operation is delayed because of unforeseen or emergency circumstances.

(3) To obtain an exemption under Sections 4(G)(1) and (2), an operator must make a verbal request to the Director of Airports prior to the operation and, within seven days after the operation occurs, submit a written explanation to the Director of Airports of the circumstances necessitating the request for exemption.

(4) When acting as operators, the United States of America, the State of California, or a federal, state or local agency conducting law enforcement, fire prevention, or rescue services shall be exempted from all requirements of this regulation.

(H) Reporting Requirement

(1) Each operator shall, on a quarterly basis, file a report listing for each of the operator's aircraft operating at SFIA: the type of aircraft, the type of engine, the aircraft registration number, and whether the aircraft is a Stage 2 or Stage 3 aircraft. The operator shall also report the percentage of total operations performed by Stage 3 aircraft during the quarterly period.

(2) An intentional misrepresentation of any fact contained in a report required by Section 4(H)(1) shall be considered a violation of this regulation.

(I) Sanctions

Violations of any provision of this regulation shall be punishable in the following manner:

(1)	1st violation in a twelve-month period	Letter of admonishment from the Director of Airports
(2)	2nd violation in a twelve-month period	Suspension of the permit or license governing the operation which violated this regulation for not more than thirty days, the duration of any suspension to be determined by the Director of Airports. In lieu of the execution of any suspension of the permit or license, the operator may elect to pay a fee, in an amount to be determined by the Director of Airports, but not in excess of five (5) times the landing fee for the violating operation (if the violating operation is a take-off, five times its corresponding landing fee).
(3)	3rd violation in a twelve-month period	Suspension of the permit or license governing the operation which violated this regulation for not more than sixty days, the duration of any suspension to be determined by the Director of Airports. In lieu of the execution of any suspension of the permit or license, the operator may elect to pay a fee, in an amount to be determined by the Director of Airports, but not in excess of ten (10) times the landing fee for the violating operation (if the

		violating operation is a take-off, ten times its corresponding landing fee).
(4)	Additional violations in a twelve-month period	At the discretion of the Director of Airports, the Director may either require the operator to pay a fee in the amount of ten times the landing fee for the violating operation (if the violating operation is a take-off, ten times its corresponding landing fee) or initiate proceedings to revoke the permit or license governing the operation which violated this regulation. The Director of Airports initiates the revocation proceeding by issuing a Notice of Impending Revocation to the operator. The operator is then entitled to a hearing before the Commission concerning the revocation. The Commission may suspend, but not revoke, a license or permit prior to the hearing.

(J) Nighttime Noise Clearance Center

The Director of Airports shall establish a Nighttime Noise Clearance Center operated in the nighttime hours by a duty officer whose responsibilities will include, but will not be limited to, monitoring compliance with SFIA's preferential runway use program, responding to requests for exemptions pursuant to Sections 4(F)(2) and 4(G)(1), and responding to noise-related complaints.

§ 5 CONSTRUCTION OF THE REGULATION

References in this regulation to Federal Aviation Regulations, 14 C.F.R. Part 36, are not intended to incorporate into this regulation the construction, regulatory purpose or specific application given by the Federal Aviation Administration or any court to those provisions. This regulation is

designed to accomplish distinct regulatory goals dictated by the peculiar local conditions existing at SFIA. The Commission shall be the final authority on the interpretation, regulatory purpose, and application of all aspects of this regulation to all aircraft seeking permission to commence operation or to continue operation at SFIA.

§ 6 SEVERABILITY

If any portion of this regulation or if any application of this regulation is held unconstitutional or otherwise unlawful, the remainder of this regulation and the remaining applications of this regulation shall not be affected thereby.

§ 7 REPEAL

Commission Resolution 78-0131 and all Airport Operations Bulletins issued thereunder are repealed as of the effective date of this regulation.

APPENDIX G

SAN FRANCISCO INTERNATIONAL AIRPORT
VARIANCE FROM THE STATE OF CALIFORNIA NOISE STANDARDS
NOTICE OF DECISION BY THE
CALIFORNIA DEPARTMENT OF TRANSPORTATION
DIVISION OF AERONAUTICS

dated May 20, 1994; effective June 19, 1994

FILED

DATE May 20, 1994

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

by Ann Blažina
Administrative Hearings Clerk

BEFORE THE DEPARTMENT OF TRANSPORTATION

OF THE STATE OF CALIFORNIA

In the matter of the Application for a Variance to Noise Standards, (CCR Title 21, Section 5012) filed by: AIRPORTS COMMISSION OF THE CITY AND COUNTY OF SAN FRANCISCO, PROPRIETOR, SAN FRANCISCO INTERNATIONAL AIRPORT Respondent.	)

DECISION

OF THE

DEPARTMENT OF TRANSPORTATION

The California Department of Transportation makes the following findings of fact and determination of the issues and renders its decision with respect to the above-entitled matter as follows:

FINDINGS OF FACT

I

The Airports Commission of the City and County of San Francisco, the proprietor of San Francisco International Airport, (hereinafter called "the Respondent") filed its application for a variance to Section 5062 of the Noise Standards (California Code of Regulations, Title 21, Chapter 2.5, Subchapter 6, Sections 5000 through 5090) requesting a variance from regulations administered by the Department by cover letter dated October 19, 1989, received by the California Department of Transportation (hereinafter called "the Department") on October 19, 1989 via telefax. The application was timely with respect to Section 5057 of the Noise Standards.

II

San Francisco International Airport is the second largest airport in California, and the fifth largest airport in the United States in terms of number of passengers served. Approximately 32 million passengers used the airport in 1991, and air cargo shipments totaled approximately 550,000 tons. The services provided at this airport are a major part of the national and international transportation systems as well as that of northern California. However, there are undesirable effects associated with this level of activity by the public.

One of the undesirable effects is the number of people subjected to levels of noise that exceed the acceptable level to a reasonable person residing in the vicinity of an urban airport as established in the Noise Standards. The acceptable level of noise is a Community Noise Equivalent Level (CNEL) of 65 decibels (dB). As of December 31, 1992, there were approximately 5,166 dwelling units (12,915 people) included in the Noise Impact Area (NIA). The NIA is the total area occupied by noise sensitive incompatible land uses (such as residential) that lie inside a line surrounding the airport that depicts the CNEL of 65 decibels (called the Noise Impact Boundary (NIB)) that is related solely to aircraft noise.

III

The Noise Impact Boundary for San Francisco International Airport (SFIA) is determined through the combined use of a sophisticated noise monitoring system having 27 continuously operating microphone stations strategically located in the vicinity of the airport and a computerized calculation procedure that uses the noise monitoring data to establish the 65 dB CNEL Noise Impact Boundary. The Noise Impact Boundary enclosed approximately 0.97 square statute miles (621 acres) of incompatible land uses (residences, schools, hospitals, etc.) as of December 31, 1992.

IV

A request for a variance to requirements in the Noise Standards was the proper course of action for the Respondent. Respondent's application requested a variance from Section

5062 of the Noise Standards, which read as follows at the time of the application:

> Section 5062. **Noise impact area violations.** "No airport proprietor shall operate his airport with a noise impact area of other than zero unless said operator has a variance as prescribed in Article 13 of this Subchapter of these regulations."

However, this requirement was moved to Section 5012 of the Noise Standards during a regulation amendment process in 1990. The requirement is essentially the same, but has been made more specific. It now reads as follows:

> Section 5012. **Airport Noise Standard.** "The standard for the acceptable level of aircraft noise for persons living in the vicinity of airports is hereby established to be a community noise equivalent level of 65 decibels. This standard forms the basis for the following limitation.
>
> No airport proprietor of a noise problem airport shall operate an airport with a noise impact area based on the standard of 65 dB CNEL unless the operator has applied for or received a variance as prescribed in Article 5 of this subchapter."

All future references to the requirement that a variance be attained by the Respondent will be made to new Section 5012. Each new variance supersedes all conditions contained in previous variances.

V

In considering a variance application to the requirement in the Noise Standards that the Noise Impact Area be zero, there are several Federal laws, State laws, and State Regulations that provide insight and direction. Appropriate excerpts are listed below.

<u>Federal Law: Federal Aviation Act of 1958, Sec 105 (a)(1)</u>

Preemption

".....no State or political subdivision thereof and no interstate agency or other political agency of two or more States shall enact or enforce any law, rule, regulation, standard, or other provision having the force and effect of law relating to rates, routes, or services of any air carrier having authority under title IV of this Act to provide air transportation."

<u>Federal Law: Federal Aviation Act of 1958, Sec 1108 (a)</u>

Sovereignty Of Airspace

"The United States of America is hereby declared to possess and exercise complete and exclusive national sovereignty in the airspace of the United States...."

Federal Law: Federal Aviation Act of 1958, Sec 307 (a)

Use Of Airspace

"The Administrator is authorized and directed to develop plans for and formulate policy with respect to the use of the navigable airspace under such terms, conditions, and limitations as he may deem necessary in order to insure the safety of aircraft and the efficient utilization of such airspace. He may modify or revoke such assignment when required in the public interest."

Federal Law: Federal Aviation Act of 1958, Sec 307 (c)

Air Traffic Rules

"The Administrator is further authorized and directed to prescribe air traffic rules and regulations governing the flight of aircraft, for the navigation, protection, and identification of aircraft, for the protection of persons and property on the ground, and for the efficient utilization of the navigable airspace, including rules as to safe altitudes of flight and rules for the prevention of collision between aircraft, between aircraft and land or water vehicles, and between aircraft and airborne objects."

State Law: Public Utilities Code, Sec 21669

Adopt Noise Standards

"The department shall adopt noise standards governing the operation of aircraft and aircraft engines for airports operating under a valid permit issued by the department

to an extent not prohibited by federal law." (Emphasis added).

State Law: Public Utilities Code, Sec 21669.2 (a)

Guidelines For Writing Noise Standards

".....and the maximum amount of local control and enforcement shall be permitted."

State Regulation: CCR Title 21, Sec 5010, Noise Standards

Purpose Of Noise Standards

"The purpose of these regulations is to provide a positive basis to accomplish resolution of existing noise problems in communities surrounding airports and to prevent the development of new noise problems. To accomplish this purpose, these regulations establish a quantitative framework within which the various interested parties (i.e., airport proprietors, aircraft operators, local communities, counties and the state) can work together cooperatively to reduce and prevent airport noise problems." (Emphasis added)

State Regulation: CCR Title 21, Sec 5050, Noise Standards

Variances

"In granting variances, the department shall be guided by the underlying policy that the proprietor of each existing airport having a noise impact area be required to develop and implement programs to reduce the noise

impact area of the airport to an acceptable degree in an orderly manner over a reasonable period of time."

State Regulation: CCR Title 21, Sec 5053, Noise Standards

Conditions Of Variance

"The department may grant a variance if to do so would be in the public interest. In weighing the public interest, the department's considerations include but are not limited to the following:

(a) The economic and technological feasibility of complying with the noise standards set by these regulations;

(b) The noise impact should the variance be granted;

(c) The value to the public of the services for which the variance is sought; and

(d) Whether the airport proprietor is taking good faith measures to the best of its ability to achieve the airport noise standards."

State Regulation: CCR Title 21, Sec 5056, Noise Standards

Burden of Proof

"The burden of proof shall be upon the applicant for the variance."

VI

Additional insight is available through a review of two court cases involving the Department of Transportation related

to its implementation of the Noise Standards. The first of these cases is called Air Transport Association of America (ATA) versus Joseph R. Crotti, the Director of the Department of Aeronautics in 1972, when the suit was filed. This case (ATA vs CROTTI) resulted in a permanent injunction against any attempt by the department, any county or any airport proprietor to enforce the single event limits that were originally contained in the Noise Standards that applied to individual aircraft operations. The Single Event Noise Equivalent Level (SENEL) method of regulation was judged preempted by federal law by the U. S. District Court, Northern District of California. The specific language in its opinion of February 10, 1975, is noteworthy:

> "We are satisfied and conclude that the SENEL provisions and regulations of noise levels which occur when an aircraft is in direct flight, and for the levying of criminal fines for violation, are a per se unlawful exercise of police power into the exclusive federal domain of control over aircraft flight and operation, and air space management and utilization in interstate and foreign commerce."

The second landmark decision occurred in the case SAN DIEGO UNIFIED PORT DISTRICT versus GIANTURCO. In this situation, the Department attempted to extend the hours of an existing mandatory curfew for San Diego Lindbergh Field against the will of the airport proprietor, the San Diego

Unified Port District. In its analysis of the pertinent state and federal regulations, the U. S. District Court for Southern California (affirmed by the U. S. Court of Appeals, Ninth Circuit) concluded that the extended curfew directed in the variance condition

> "impinges on airspace management by directing when planes may fly in the San Diego area, and on federal control of aircraft noise at its source by restricting the permissible flight times of planes solely on the basis of their noise emissions. The state has attempted to act in an area preempted by the federal government and its actions are void."

The Department also asserted that, since the Port District of San Diego was a state agency, the state was in fact the owner-operator of the airport, and the Department's decrees entitled to the status of an airport owner. The court examined this argument and found that, although the Port was a state agency, its ownership was separate and independent of state government, since it had separately been given the authority to run its own affairs, acquire air easements, and could sue and be sued in its own right. It also found that the State of California had no liability for excessive aircraft noise, and for that reason, (and several others not mentioned here) it could not avail itself of the argument that it is a proprietor. The U. S. Court of Appeals upheld the

District Court's decision declaring the State's action preempted.

The CROTTI and GIANTURCO cases indicate that the Department has no authority over the flight of aircraft.

VIII

The economic, social and political importance of the San Francisco International Airport to northern California, and particularly the communities surrounding the airport has been well established in prior variance proceedings. In granting the three previous variances, the Department recognized the regional, national and international importance of SFIA. No facts or serious arguments have been presented or expressed by any member of the public that would indicate that this basic relationship is any different today than during the consideration of previous variances. Suffice is to say that the public recognizes the importance of the services and other related social and economic benefits that result from the operation of the airport.

IX

Improved technology (primarily in new aircraft) that reduces aircraft noise at the source is being implemented at San Francisco International Airport through conversion of the air carrier fleet to aircraft that meet the noise certification requirements of Federal Aviation Regulation (FAR) Part 36, Stage 3. This conversion is being accomplished for a variety of reasons, but most notable are the Respondent's Noise Abatement Regulation which requires that specified percentages of the operations by aircraft operators

meet the requirements of FAR Part 36, Stage 3 by specified dates, and the enactment of the Airport Noise and Capacity Act of 1990 (ANCA) by Congress together with the associated regulations adopted by the Federal Aviation Administration (FAA) September 19, 1991, to implement the ANCA. Both these actions require conversion of the air carrier fleet to meet the noise certification limits of FAR Part 36, Stage 3. Respondent's Noise Abatement Regulation was adopted prior to the FAA regulations. It does not provide an exemption for the small percentage of Stage 2 aircraft that the Federal regulations will allow to continue operating between January 1, 2000, and December 31, 2003.

X

The conversion of the air carrier fleet to new aircraft that meet the requirements of FAR Part 36, Stage 3 will not reduce the noise impact area to zero by itself. However, it is the most rapid method of reducing the noise impact area at most airports. Acoustic treatment programs are planned to transform the remaining incompatible land uses surrounding the San Francisco International Airport to compatible.

XI

The Respondent has adopted a Noise Abatement Regulation that addresses the attainment of a 100% FAR Part 36, Stage 3 fleet. It also places restrictions on the hours that Stage 2 aircraft may be operated, establishes maximum nighttime noise limits that apply after January 1, 1993, establishes rules for the exemption of maintenance flights, and requires extensive

reporting by the air carriers to document their activities under the regulation.

Respondent has also published a series of Airport Operations Bulletins (AOB) that establish and inform aeronautical tenants of additional restrictions not included in the Noise Abatement Regulation mentioned above. The Airport Operations Bulletins cover the areas of: Prohibitions to Engine Runups between the hours of 2200-0700, Procedures for Obtaining a Maintenance Exemption from the Respondent, Procedures for Requesting a Variance to the Noise Abatement Regulation, Preferential Runway Use Program (for noise mitigation), Procedures for Reporting Requirements of the Noise Regulation, Late Night Stage 2 Operations, Prohibition of Use of Auxiliary Power Units with exceptions, Operation of Stage 2 Aircraft between 2330 and 0700 hours, and New Scheduled Operations between 2300 and 0700 hours.

A sound entrapment structure (hush-house) requirement for engine maintenance runup is not included in the Noise Abatement Regulation or the Airport Operating Bulletins. However, a previous variance required a study be accomplished by the Respondent to determine whether a sound entrapment structure would be worthwhile. The study determined that jet engine power runups have outdoor sound levels so low as to be only intermittently and barely discernible from other nighttime, ambient, outdoor sound, in the selected residential areas closest to SFIA. The study (Acoustical Assessment of Ground Run Engines, by Earth Metrics, July, 1987) concluded that additional mitigation was not warranted given the (then)

current level of jet engine runups for ground based maintenance.

XII

In the early 1980s, the Airport/Community Roundtable was created to provide a forum for discussion and implementation of the noise reduction and mitigation measures identified in the recently completed Joint Land Use Study. Each of the signatories to the original Memorandum of Understanding that established the "Roundtable" agreed to work cooperatively toward achievement of the Joint Land Use Study objectives. The original members of the Roundtable were the City and County of San Francisco, the Airports Commission, the County of San Mateo, the Airport Land Use Committee, the City of Brisbane, the City of Burlingame, the City of Colma, the City of Daly City, the City of Foster City, the Town of Hillsborough, the City of Millbrae, the City of Pacifica, the City of San Bruno, and the City of South San Francisco. In addition, the Airline Pilots' Association, the Air Transport Association of America, and the Federal Aviation Administration were made ex-officio members of the Roundtable due to their value to the organization. The City of Colma has since dropped out of the Roundtable.

The Roundtable has continued to meet regularly since its origin. Each of the member cities and counties is represented by an elected official or a representative thereof. The Roundtable has retained consultant services and has the benefit of monthly reports of airport noise events at each of its meetings. Interested members of the communities impacted

by noise attend these meetings and are allowed to comment regarding pertinent issues. Some of the members of the Roundtable have served on that forum since its origin, and took part in the Joint Land Use Study prior to that. This level of experience is helpful to understanding the technical and legal issues involved. It should be noted that the representation on the Roundtable and its purpose are very similar to the purpose and intent of the State Noise Standards.

XIII

Shortly after SFIA applied for the variance now being considered, the Roundtable discussed the issue and determined it should have an active role in the variance process, and that its recommendations should include consideration of the new Master Plan and the associated Environmental Impact Report being prepared at that time (early 1990). The Roundtable continued to work on possible conditions for a variance from the State Noise Standards, but, in a letter dated September 13, 1990, Mr. Roger Chinn, Chairman of the Roundtable, requested that the Department of Transportation withhold any action on the SFIA variance application until the Roundtable had an opportunity to review the results of the master plan work. Mr. Chinn expressed that the information being produced in the masterplan and associated environmental impact report would be essential to the development of variance conditions. The Department of Transportation concurred and agreed to withhold action.

XIV

Several of the political jurisdictions surrounding SFIA whose boundaries enclose part of the Noise Impact Area (as defined in the Noise Standards) have implemented acoustic insulation programs using Federal funds with the proprietor of SFIA paying the local government share. It is generally considered wise policy to allow local affected political subdivisions to determine for themselves what the pace for converting incompatible land uses to compatible uses (through acoustic treatment for example) should be.

XV

Noise abatement flight procedures are used by the air carriers at SFIA primarily due to the efforts of the airport proprietor and the FAA. In general, such operating procedures have been implemented cautiously because they could negatively affect aviation safety. For example, departures from Runways 1L and 1R have been used for noise abatement and airport capacity reasons for more than 20 years. Doing so has significantly reduced aircraft noise in the most heavily noise impacted areas beneath the extended centerlines of Runways 28L and 28R in the cities of South San Francisco and San Bruno. However, the use of this procedure is limited by safety considerations to days when wind velocities do not exceed the maximum crosswind or tailwind components for the aircraft involved. It should also be noted that departures from Runways 1L and 1R have been cause for complaints about low frequency noise in areas behind the runways that otherwise have relatively low background noise levels.

Another of the procedures adopted for noise abatement purposes has been popularly called the shoreline departure turn. This procedure is designed for use by aircraft that must use Runway 28L or 28R, but have ample climb performance to turn to the right prior to overflying incompatible land uses. This procedure also helps reduce noise in the highest noise impacted areas of San Bruno and South San Francisco.

The International Federation of Airline Pilot's Associations (IFALPA) has proclaimed the relatively new Localizer Type Directional Aid (LDA) approach for SFIA to be critically deficient because it does not meet ALPA's stated safety standards. This landing procedure was in part designed and implemented for noise abatement reasons. The procedure is carefully monitored by the FAA, the agency that controls the use of the airspace. Although these flight procedures are outside the purview of the State Noise Standards, the fact that the Respondent, the Air Carriers, and the FAA continue to test and implement such procedures demonstrates willingness to help reduce noise problems.

Unfortunately, procedures of this nature and the rules for implementing them are not well understood by the general public. Safety has always been given an overriding priority in implementing any of the airport noise rules involving aircraft in flight. On some occasions flight events occur that appear to be contrary to published noise control rules. Such events draw criticism from members of the public because they believe the rules are not being "enforced." In fact, the rules are commonly requests of the FAA for certain procedures

that are not within the authority of the Respondent. Safety of flight is given priority when safe operating rules and noise control rules conflict.

XVI

Over a period of several months, the Roundtable developed a new Memorandum Of Understanding (MOU) that includes an Aircraft Noise Insulation Program that provides the mechanism for insulating homes in the Noise Impact Area. Agreement was reached among the affected parties, including SFIA, as to how the "Program" is to be funded and implemented. That program is recorded within Exhibit 1 in the new MOU (see Attachment A). The MOU was subsequently adopted by the City/County Association of Governments of San Mateo County (C/CAG) and was approved by the Airports Commission of the City and County of San Francisco November 3, 1992. The insulation program is designed to make acoustic insulation available for all dwellings in the 65 dB CNEL contour adopted in the 1983 FAR Part 150 Study. The current 65 dB CNEL line (defined in the Noise Standards to be the Noise Impact Boundary) as validated by measurement lies well inside the 1983 65 dB CNEL line. The program provides eligibility rules, implementation rules, and the funding to accomplish what is truly a major task. This Department accepts the Airports Commission's agreement to fund this program as a showing that it is economically and technologically feasible within the context of the Noise Standards.

XVII

The Respondent has continued to improve the performance of its noise monitoring system. The system is designed to acquire and record flight track and aircraft identification information that is not required in the Noise Standards. It is considerably more extensive and sophisticated than the minimum required system.

DETERMINATION OF ISSUES

Pursuant to the foregoing Findings Of Fact, the Department makes the following Determination of Issues:

I

The Noise Standards establish the authority for the Department to issue variances, the guidelines to be used in considering them, and the provision that reasonable conditions may be imposed. The information presented by the Respondent together with information from the Airport/Community Roundtable and previous variances has established that the public interest would be served by granting the variance requested to Section 5012 (formerly Section 5062) of the Noise Standards (California Code of Regulations, Title 21, Chapter 2.5, Subchapter 6).

II

In weighing the public interest regarding this application for a variance, consideration has been given to the economic and technologic feasibility of complying with the noise standards set by these regulations, the noise impact should the variance be granted, the value to the public of the

services for which the variance is sought, and whether the airport proprietor is taking good faith measures to the best of its ability to achieve the airport Noise Standards. Consideration has also been given to the fact that the noise impact area will not change instantly due to the granting of the requested variance, and neither will there be detrimental effects to the local economy or the employment situation in the airport service area.

III

The immediate reduction of the Noise Impact Area to zero is not feasible economically or technologically. Granting the requested variance is consistent with the underlying policy for implementing the Noise Standards and doing so does not conflict with Federal Law.

IV

Consideration has been given to the past efforts of the Respondent to minimize the effects of noise on people who live near San Francisco International Airport, and to the fact that the Noise Impact Area continues to exist. The Respondent has developed and implemented programs that significantly reduce noise where people live and the size of the Noise Impact Area. However, some members of the public that live in the Noise Impact Area believe that the noise control rules are not being fully or correctly implemented.

V

A lack of understanding regarding portions of the Respondent's existing noise control programs and how they are implemented have been a cause for frustration for some members

of the public. This situation is being improved by providing information (through the Roundtable for example) to interested persons regarding the various noise control programs, how they are implemented, and their effectiveness.

VI

The Respondent has the difficult task of balancing its obligation to the general public to develop, maintain, and operate an airport that provides an adequate level of efficient high quality services in a manner that fosters the safest possible local, national, and international air transportation while reducing the size of the noise impact area as rapidly as is reasonable.

VII

The Noise Insulation Program contained in the new Memorandum of Understanding is a major undertaking that requires the continued cooperation of each of the communities involved as well as SFIA. The costs of this program are high, potentially as much as $120,000,000. There is no certainty that ample federal funding will be available to accomplish the entire program before the year 2000.

VIII

The underlying policy of the Department in granting variances is to influence proprietors of airports having a noise impact area to develop and implement programs to reduce the noise impact area to an acceptable degree in an orderly manner over a reasonable period of time. The combined effect of the conditions in this decision have the reasonable

likelihood of fostering and promoting a reduction in the Noise Impact Area without interfering with Federal law.

WHEREFORE, THE FOLLOWING ORDER is made:

The variance requested in the application from the Airports Commission of the City and County of San Francisco to the requirements of Section 5012 of the Noise Standards (California Code of Regulations, Title 21, Chapter 2.5, Subchapter 6) is hereby granted subject to the following terms and conditions:

1. The variance granted herein shall be for a period of three years from the effective date of this order.

2. Respondent shall continue to meet with the Airport/Community Roundtable for the purpose of providing information and discussing new concepts and information that may be developed through that organization for the purpose of reducing the effects of aircraft noise on the communities surrounding SFIA.

3. Respondent shall assist the Airport/Community Roundtable in the development of a work program for its noise abatement effort for each calendar year during the term of this variance, including the provision of funds for Roundtable operations in accordance with the Memorandum Of Understanding (MOU) approved by the Airports Commission of the City and County of San

Francisco November 3, 1992 regarding airport noise issues. The program narrative is expected to include a description of the tasks to be undertaken and a schedule for their accomplishment.

4. Within six calendar months from the effective date of this decision, Respondent shall develop, submit to the Department and the members of the Roundtable, and commence implementation of a Noise Mitigation Plan (NMP) for the area containing incompatible land use as defined in the Noise Standards inside the Noise Impact Boundary (65 dB CNEL contour line) for SFIA as shown in the latest available Quarterly Report of Noise Monitoring developed in accordance with the procedures in the Noise Standards by the County of San Mateo.

5. The NMP shall identify (by map and tabular data) the location and type of incompatible land uses involved, including, but not limited to, the number of dwelling units involved, and the land use compatibility strategy (reduction in noise, property acquisition, sound insulation, acquisition of an avigation easement, or combinations of these methods) determined by the Respondent in cooperation with local governments to be appropriate. The NMP shall also provide an estimate of the cost of implementing the land use compatibility strategy, consideration of the use of Federal funds, and a schedule for work to convert the affected properties to

a compatible land use. The target date for completion of the conversion of the affected properties to compatible land use shall be no later than the end of the year 2000, or as soon thereafter as is feasible. The NMP shall include all mitigation actions necessary to achieve the zero noise impact area.

6. Respondent shall base its plan (NMP) on the principles of (a) converting incompatible land uses to compatible land uses on the basis of severity of the noise problem -- remedy incompatible land uses having highest noise levels first and lowest noise levels last and (b) causing the airport proprietor and local governments to work together to diminish noise problems.

7. Respondent shall update its NMP annually making adjustments necessary to take into account any changes in the location of the Noise Impact Boundary and to complete the noise mitigation projects identified in the NMP by the end of the year 2000 in accordance with the schedule for completion previously established to the extent feasible. Nothing in this variance shall affect agreements among the Respondent and other parties established in the MOU. Respondent shall maintain a written record of any refusal by property owners of offers made for acoustic treatment or other method of changing incompatible land use to compatible. Respondent shall make its updated plans and work schedules available

to this Department and to the affected local jurisdictions.

8. Respondent is requested to continue to implement its Noise Abatement Regulation and other noise control programs that are implemented through its Airport Operations Bulletins, that are based upon its authority as proprietor, and the cooperative agreements that it has made with the aircraft operators at SFIA and the FAA.

9. Respondent is requested to continue, in cooperation with the Airport/Community Roundtable, to apply, enforce, administer, and manage existing noise abatement programs, rules, regulations, and procedures that have evolved from past variance conditions that have not been completed or become obsolete.

10. Respondent shall continue its policy of not shifting noise from one community to another.

11. Respondent shall include a brief report regarding the implementation of each of the conditions to this variance with the noise monitoring information forwarded each quarter to the County of San Mateo for inclusion in its Quarterly Report of Noise Monitoring at SFIA.

12. The variance granted herein excuses the Respondent from compliance with Section 5012 in accordance with

Respondent's application. However, in the event that Respondent violates any of the above terms or conditions, such conduct shall constitute a cause for termination or further conditioning of this variance.

This decision shall become effective JUNE 19, 1994.

IT IS SO ORDERED this 20th day of MAY, 1994.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

By: Marlin Beckwith
MARLIN BECKWITH, Chief
Division of Aeronautics

ATTACHMENT A

This attachment is a copy of Exhibit 1 from the Memorandum of Understanding dated October 23, 1992, which has been signed by the majority of the cities that compose the Airport/Community Roundtable, and which was approved by the San Francisco Airports Commission November 3, 1992.

EXHIBIT 1

AIRCRAFT NOISE INSULATION PROGRAM

The Airports Commission (Commission) and signatory cities in the vicinity of San Francisco International Airport (SFIA) shall administer and implement an aircraft noise insulation program, based on the following terms:

FUNDING

1. The Commission shall guarantee to spend up to $120 million for aircraft noise insulation in the signatory cities in the vicinity of SFIA.

2. The $120 million may be derived from any source deemed appropriate by the Commission, including grants-in-aid from the federal government disbursed directly to the cities or through SFIA to the cities, and other funds available to or through the Commission.

3. The funds shall be available to each signatory city on a pro rata basis, based on each city's total number of eligible noise-impacted dwelling units.

4. Each signatory city shall present the actual number of eligible noise-impacted dwelling units within its jurisdiction, with validating data to the Commission.

5. The Commission shall provide the pro rata share of funds to each signatory city upon the receipt of the required data, based on the city's total number of eligible noise-impacted dwelling units.

6. In addition to providing the Commission with the required data, re: eligible number of dwelling units, each city shall identify and submit prior to January 15 of any year, the anticipated number of dwelling units it intends to insulate, accompanied by an aircraft noise easement for each dwelling unit to be insulated. The Commission shall provide the actual necessary funds no later than the subsequent July 1, to each city to insulate the identified number of dwelling units.

7. Provided each signatory city satisfies the terms of this Exhibit, the Commission shall not withhold funds from that city.

8. In the event the funds established under this program are not spent by the year 2000, the Commission shall continue to provide any unspent or unencumbered funds for use by signatory cities to insulate the remaining dwelling units in their jurisdictions. When all funds described herein have been spent by the signatory cities, the Commission shall continue to participate in the noise insulation program, under the FAA 80%/20% matching ratio, to insulate any remaining dwelling units and other noise-sensitive land uses.

ELIGIBILITY

1. All aircraft noise-impacted dwelling units in San Mateo County, as defined herein, within the 65 dB CNEL noise contour, as shown on the FAR Part 150 Noise Exposure Map (NEM) for SFIA (1980 Baseline) approved by the FAA in 1983, are eligible to be insulated against aircraft noise under this program.

2. Eligible noise-impacted dwelling units, as identified in the existing noise insulation program, are defined as follows:

   a. single-family detached dwelling units (owner-occupied and rentals).

   b. single-family attached dwelling units (owner-occupied and rentals, e.g. duplexes, townhouses, row houses, etc.).

   c. multi-family dwelling units (owner-occupied and rentals, e.g. apartments, etc.).

3. Any city that contains eligible aircraft noise-impacted dwelling units, as defined herein, is eligible to participate in this program.

IMPLEMENTATION

1. Each signatory city shall administer its own program consistent with this Exhibit and any other terms to which the parties may mutually agree.

2. Each signatory city shall design and administer its own program in a manner that will assure that all eligible noise-impacted dwelling units, as defined herein, are insulated by the year 2000, exclusive of those dwelling units of which the owners decline to participate in the program.

3. Each eligible noise-impacted dwelling unit, of which the owner participates in this program, shall receive sufficient noise insulation improvements to achieve at least an interior noise level of 45 dB CNEL or less, as measured for aircraft noise.

4. All existing criteria and requirements in the current noise insulation program shall remain in effect, including the provision for grant of easement (aircraft noise easement).

IMPLEMENTATION - continued

5. To become eligible for its pro rata share of funds, (1) each signatory city shall file a pre-application with the FAA to receive federal matching funds for its total noise insulation program, to insulate all eligible dwelling units within the 65 dB CNEL noise contour, as shown on the FAR Part 150 Noise Exposure Map (NEM) for SFIA (1980 Baseline), approved by the FAA in 1983; (2) Each city shall submit a copy of the pre-application to the Commission with the number of dwelling units estimated to be insulated each year; (3) Each city shall also submit subsequent applications for federal funds, as required by the FAA.

6. If the FAA approves a new Noise Exposure Map (NEM), as part of the Commission's FAR Part 150 Noise Compatibility Program, the Noise Exposure Map (NEM) approved by the FAA in 1983 for SFIA (1980 Baseline) shall continue to be used for the Commission's funding commitment for this program, unless C/CAG and the Commission agree otherwise in writing.

7. The insulation of dwelling units, as described herein, shall not affect the criteria for determining the need for a variance under state or federal law.

8. SFIA staff shall cooperate fully to provide technical assistance to all cities participating in this program.

APPENDIX H.

1986 COUNTY OF SAN MATEO GENERAL PLAN
CHAPTER 16 MAN-MADE HAZARDS
AIRPORT NOISE AND SAFETY RELATED POLICIES

MAN-MADE HAZARDS POLICIES

NOISE POLICIES

The County will:

GOALS AND OBJECTIVES

16.1 Strive Toward a Livable Noise Environment

Strive toward an environment for all residents of San Mateo County which is free from unnecessary, annoying, and injurious noise.

16.2 Reduce Noise Impacts Through Noise/Land Use Compatibility and Noise Mitigation

Reduce noise impacts within San Mateo County through measures which promote noise/land use compatibility and noise mitigation.

16.3 Promote Protection of Noise Sensitive Land Uses and Noise Reduction in Quiet Areas and Noise Impact Areas

Promote measures which: (1) protect noise sensitive land uses, (2) preserve and protect existing quiet areas, especially those which contain noise sensitive land uses, and (3) promote noise compatibility in Noise Impact Areas.

16.4 Noise Reduction Priority

Give priority to reducing noise at the source rather than at the receiver, recognizing that it is less expensive and more equitable to build noise mitigation into the source than providing for it along the path and at the receiver.

16.5 Noise Reduction Along the Path and at the Receiver

Promote noise reduction along the path and at the receiver through techniques which can be incorporated into the design and construction of new and existing development, including, but not limited to, site planning, noise barriers, architectural design, and construction techniques.

DEFINITIONS

16.6 Definition of Noise

Define noise as annoying, harmful or unwanted sound.

16.7 Definition of Noise Sensitive Land Uses

Define noise sensitive land uses as uses most sensitive to noise intrusion including, but not limited to, residential and the following institutional uses: hospitals, schools and libraries.

16.8 Definition of Quiet Areas

Define quiet areas as areas with perceived low ambient noise levels.

16.9 Definition of Noise Impact Areas

Define Noise Impact Areas as those areas experiencing noise levels of 60 CNEL or greater.

DESIGNATIONS

16.10 Designation of Noise Impact Areas

Designate Noise Impact Areas as including, but not limited to, those areas shown as Noise Impact Areas on the Community Noise Map.

REGULATION OF DEVELOPMENT

16.11 Regulate Distribution of Land Uses

Regulate the distribution of land uses to attain noise compatibility. Measures may include preference toward locating: (1) noise sensitive land uses within quiet areas, removed from Noise Impact Areas, and (2) noise generating land uses separate from noise sensitive land uses.

16.12 Regulate Noise Levels

Regulate noise levels emanating from noise generating land uses through measures which establish maximum land use compatibility and nuisance thresholds.

16.13 Site Planning Noise Control

Incorporate acoustic site planning into the design of new development, particularly large scale, master planned development, through measures which may include: (1) separation of noise sensitive buildings from noise generating sources and (2) use of natural topography and intervening structures to shield noise sensitive land uses.

16.14 Noise Barriers Noise Control

Promote measures which incorporate use of noise barriers into the design of new development, particularly within Noise Impact Areas. Noise barriers may include earth berms, walls, fencing, or landscaping.

16.15 Architectural Design Noise Control

Promote measures which incorporate architectural techniques into the design of new buildings, particularly buildings within Noise Impact Areas. Architectural design techniques may include: (1) grouping noise sensitive rooms together separated from noise sources,

(2) placing windows, vents and other openings away from noise sources, and (3) avoidance of structural features which direct noise toward interior spaces.

16.16 Construction Techniques Noise Control

Promote measures which incorporate noise control into the construction of existing and new buildings, including, but not limited to, use of dense noise insulating building materials.

TRANSPORTATION NOISE REDUCTION

16.17 Promote Transportation Related Noise Reduction

Promote measures which reduce transportation related noise, particularly aircraft and vehicle noise, to enhance the quality of life within San Mateo County.

16.18 Encourage Public Transportation Noise Control

Encourage public transportation carriers to make every feasible effort to reduce noise emissions, including, but not limited to, consideration of noise when purchasing equipment, and routing and scheduling operations.

16.19 Promote County Roadway Noise Control

Promote measures which incorporate noise control into the design of County roadway projects. Roadway noise abatement may include smooth road surface, and noise barriers.

16.20 Encourage Development of an Off-Road Vehicle Facility

Encourage and support: (1) development of an off-road vehicle facility to reduce noise and other environmental impacts from illegal off-road vehicle use, and (2) adequate enforcement against illegal off-road vehicle use.

PROGRAM RESPONSIBILITIES

Role of the County

16.21 Adopt 1995 Noise Exposure Contours

Adopt 1995 Noise Exposure Contours as a guide to land use compatibility decisions within unincorporated San Mateo County.

16.22 Develop and Adopt Noise/Land Use Compatibility Regulations

Develop and adopt regulations which establish noise/land use compatibility standards for use as a basis for land use planning decisions. The regulations shall consider both exterior and interior exposures absorbed by or generated from a proposed land use. Efforts should be coordinated with the Office of Environmental Health.

16.23 Develop and Adopt Noise Insulation Requirements

Develop and adopt regulations which require acoustical analysis of noise sensitive land uses within Noise Impact Areas, including all new residential development. Acoustical analysis shall include recommended design and construction measures necessary to reduce noise exposure to acceptable levels.

16.24 Update Noise Section

Update this noise section when necessary to reflect new data, significant changes in the community noise environment, and newly accepted principles and standards.

16.25 Continue Existing Noise Control Review Procedures

Continue existing efforts which analyze noise impacts and integrate noise mitigation into the development review process.

16.26 Resolution of Noise Problem at San Francisco International Airport

Recognize that resolution of the noise problem from operations at San Francisco International Airport: (1) involves multiple jurisdictions, beyond the scope of this General Plan, and (2) is most appropriately achieved through the activities of regional forums, including the Airport-Community Roundtable and Airport Land Use Commission (ALUC).

16.27 Airport Land Use Commission (ALUC) Noise Planning Efforts

Encourage and support the Airport Land Use Commission to continue existing efforts toward promoting noise compatible development surrounding the County's airports.

16.28 Airport Noise Control Efforts

Encourage and support, to the maximum extent feasible, County participation in continuing efforts toward reducing aircraft noise impacts resulting from San Francisco International Airport.

16.29 County Health Department Noise Control Efforts

Encourage and support the County Health Department to continue existing efforts toward nuisance noise control through development and enforcement of regulatory measures, utilizing the most specialized and sophisticated equipment available to protect against unusually loud and uncommon neighborhood noise.

Role of Other Agencies

16.30 Federal Aviation Administration Noise Reduction Efforts

Encourage the Federal Aviation Administration to reduce noise from aircraft operations, including continued active participation through the Airport Commmunity Roundtable for operations at San Francisco International Airport, consistent with safety.

16.31 Department of Transportation (CalTrans) Railway Noise Abatement Measures

Encourage the Department of Transportation (CalTrans) to continue existing efforts which incorporate noise control into the Peninsula commuter rail operation.

16.32 San Francisco Airports Commission Noise Reduction Efforts

Encourage San Francisco Airports Commission to continue existing efforts toward reducing noise from operations at San Francisco International Airport. In addition, encourage expanded placement of noise monitoring equipment within San Mateo County to better represent community noise exposure.

16.33 Prevent Illegal Low Overflight

Encourage appropriate regulatory agencies to assure adequate enforcement against illegal low overflight of aircraft and resultant noise problems.

16.34 Support Noise Reduction Efforts of Other Agencies

Recognize, encourage, and cooperate with the noise reduction efforts of public agencies and private groups which are consistent with the goals, objectives, and policies of this chapter.

AIRPORT SAFETY POLICIES

The County will:

GOALS AND OBJECTIVES

16.35 Minimize Risks Surrounding Airports

Minimize health and safety risks from hazards related to aircraft operations for persons living and working in areas surrounding San Mateo County airports.

16.36 Promote Safe Flight Operations

Promote and encourage safe aircraft operations at all airports within San Mateo County.

16.37 Promote Orderly Development At and Surrounding Airports

Promote orderly development of airports and surrounding areas to ensure a safe environment for local citizens and aircraft operations.

DEFINITIONS

16.38 Definition of Clear Zone

Define clear zone as the area of high accident potential located at the ends of airport runway as defined by the Federal Aviation Administration (FAA).

16.39 Definition of Approach Zone

Define approach zone as the area of high accident potential located at the ends of County general aviation airport runway as defined by the Airport Land Use Commission (ALUC).

16.40 Definition of Approach Surface

Define approach surface as the flat plane, sloping upward and outward from airport runways, representative of flight paths, as defined by the Federal Aviation Administration (FAA) and Airport Land Use Commission (ALUC).

REGULATION OF DEVELOPMENT

16.41 Regulate Land Uses to Assure Airport Safety

Regulate land uses surrounding airports to assure airport safety. Measures may include restrictions on permitted land uses and development review height criteria.

16.42 Limit Land Uses at Ends of Runways

Limit land uses in approach zones, clear zones and other areas of high accident potential at ends of airport runways to low intensity, non-structural uses, including, but not limited to, agriculture, open space, and storage.

16.43 Regulate Location and Height of Development Surrounding Airports

Regulate development location and height in areas surrounding airport activities to protect air navigation requirements. Measures may include height criteria based upon an approach surface or other representative aircraft flight path.

PROGRAM RESPONSIBILITIES

Role of the County

16.44 Airport Safety Land Use Protections

Encourage efforts which provide for safety at the end of airport runways, including measures which restrict land use and building height.

16.45 Airport Land Use Commission (ALUC) Airport Safety Efforts

Encourage and support the Airport Land Use Commission (ALUC) to continue existing efforts toward protecting the public from aviation hazards and promoting safe compatible development surrounding the County's airports through measures which regulate: (1) land uses at the end of runways, and (2) structural height within flight paths.

Role of Other Agencies

16.46 Federal Aviation Administration (FAA) Airport Safety Efforts

Encourage and support the Federal Aviation Administration (FAA) to continue existing efforts to ensure safe aircraft operations and navigable airspace.

APPENDIX I.

1994 COUNTY OF SAN MATEO ZONING REGULATIONS, as amended
CHAPTER 18.6 AIRPORT OVERLAY (A-O) DISTRICT

CHAPTER 18.6. AIRPORT OVERLAY ("A-O") DISTRICT

SECTIONS:

6288.0. APPLICABILITY OF A-O DISTRICT
6288.1. INTENT
6288.2. USES PERMITTED
6288.3. DEVELOPMENT STANDARDS
6288.4. PERFORMANCE STANDARDS
6288.5. NOISE INSULATION REQUIREMENTS

SECTION 6288.0. APPLICABILITY OF A-O DISTRICT. In any district which is combined with the Airport Overlay (A-O) District, the regulations specified in this chapter shall apply.

SECTION 6288.1. INTENT. The intent of the Airport Overlay (A-O) District is to provide a margin of safety at the ends of airport runways by limiting the concentration of people where hazards from aircraft are considered to be greatest.

SECTION 6288.2. USES PERMITTED. All uses permitted by the underlying district shall be permitted in the A-O District except residential or uses with more than three (3) persons occupying the site at any one time. Permitted uses shall be subject to a use permit.

SECTION 6288.3. DEVELOPMENT STANDARDS. All new development shall be subject to the development standards of the underlying zoning district.

SECTION 6288.4. PERFORMANCE STANDARDS. All new uses must meet the performance standards of the underlying zoning district.

SECTION 6288.5. NOISE INSULATION REQUIREMENTS. All new development shall be subject to the following requirements"

a. Submit an acoustical analysis, prepared by a qualified acoustical consultant, demonstrating that new construction has been designed to comply with the following standard:

> Interior community noise equivalent levels (CNEL) with windows closed, attributable to exterior sources shall not exceed an annual CNEL of 55 dB.

b. Construct building in accordance with recommendation of acoustical analysis.

(Chapter 18.6 - Added by Ordinance No. 2660 - July 8, 1980)
(Chapter 18.6 - Amended by Ordinance No. 3297 - March 12, 1991)

RG:cdn - RXGC0359.ACR
(2/18/92)

APPENDIX J.

NOTICE OF PROPOSED CONSTRUCTION OR ALTERATION OF OBJECTS THAT MAY AFFECT THE NAVIGABLE AIRSPACE

(FAA Advisory Circular AC No. 70/7460-2I)

U.S. Department of Transportation

Federal Aviation Administration

Advisory Circular

Subject: PROPOSED CONSTRUCTION OR ALTERATION OF OBJECTS THAT MAY AFFECT THE NAVIGABLE AIRSPACE

Date: 11/03/88
Initiated by: ATO-210

AC No.: 70/7460-2I

1. PURPOSE. This Advisory Circular provides information to persons proposing to erect or alter an object that may affect the navigable airspace. It explains the need to notify the Federal Aviation Administration (FAA) before construction begins and FAA's response to these notices as required by Federal Aviation Regulations (FAR) Part 77, Objects Affecting Navigable Airspace

2. CANCELLATION. This cancels AC 70/7460-2H, dated November 15, 1985.

3. BACKGROUND. The Federal Aviation Act of 1958, as amended, grants the FAA authority to "...require all persons to give adequate public notice, in the form and manner prescribed by the Secretary, of the construction or alteration, or of the proposed construction or alteration of any structure where notice will promote safety in air commerce as well as the efficient use and preservation of the navigable airspace and of airport traffic capacity at public-use airports." To this end, Part 77 of the FAR's was issued prescribing notice to the Administrator of certain proposed construction or alteration.

4. WHY THIS NOTICE IS REQUIRED. In administering FAR Part 77, the prime objective of the FAA is to ensure the safety of aircraft and the efficient use of navigable airspace by aircraft. The FAA recognizes that there are varied demands for the use of airspace, both by aviation and nonaviation interests. When conflicts arise out of construction proposals, the FAA emphasizes the need for conserving the navigable airspace. Therefore, early notice of proposed construction or alteration provides the FAA the opportunity to:

a. Recognize potential aeronautical hazards to discourage, prevent or minimize the adverse effects to aviation.

b. Revise published data or issue Notices to Airmen (NOTAM's) to assure that pilots are alerted to airspace changes made as a result of the structure.

c. Recommend appropriate marking and lighting to make such objects visible to pilots.

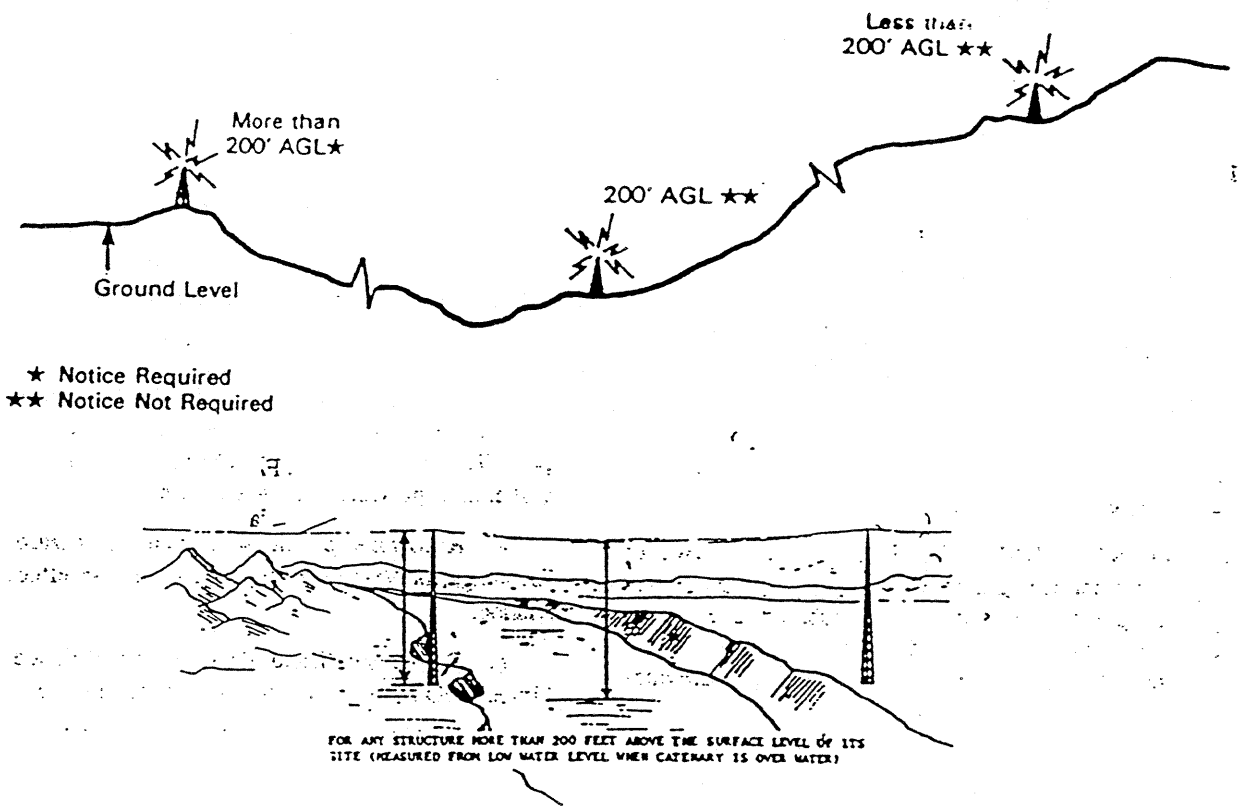
d. Depict obstructions on aeronautical charts for pilotage and safety.

5. WHO MUST FILE NOTICE. Any person or their agent who intends to sponsor construction is required to submit notice to the Administrator if the proposed construction or alteration falls within any of the following categories:

a. Greater than 200 feet in height. The proposed object would be more than 200 feet above ground level (AGL) at its location

NOTE.—(See Figure 1).

Figure 1



b. Near a Public Use Airport, Heliport, Seaplane Base, or Military Airport. A public use airport, heliport, or a visually marked seaplane base that is listed in the current Airport /Facility Directory, the Alaska Supplement or the Pacific Chart Supplement, or near an airport operated by an armed force of the United States.

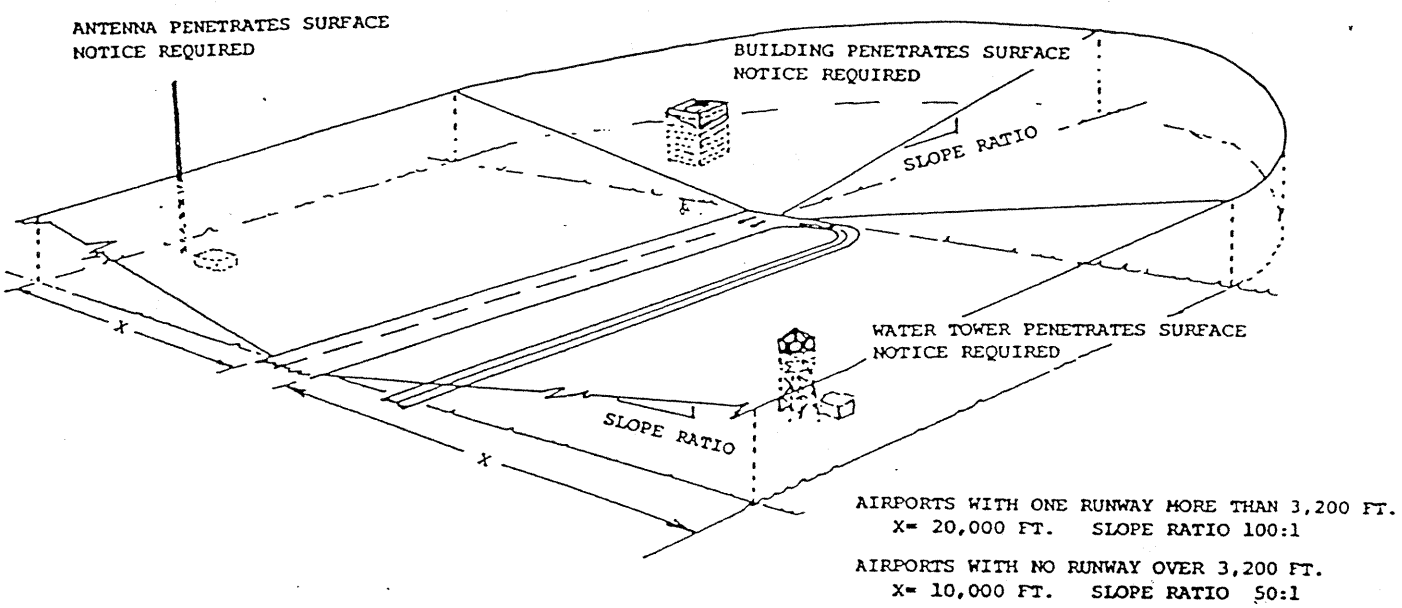
(1) Airport or Seaplane Base. The proposed object or alteration would be within:

(a) 20,000 feet of an airport or seaplane base with at least one runway more than 3,200 feet in length and the object would exceed a slope of 100:1 horizontally (100 feet horizontally for each 1 foot vertically) from the nearest point of the nearest runway.

(b) 10,000 feet of an airport or seaplane base having *no* runway more than 3,200 feet in length and the object would exceed a 50:1 horizontal slope (50 feet horizontally for each 1 foot vertically) from the nearest point of the nearest runway.

NOTE.—(See Figure 2)

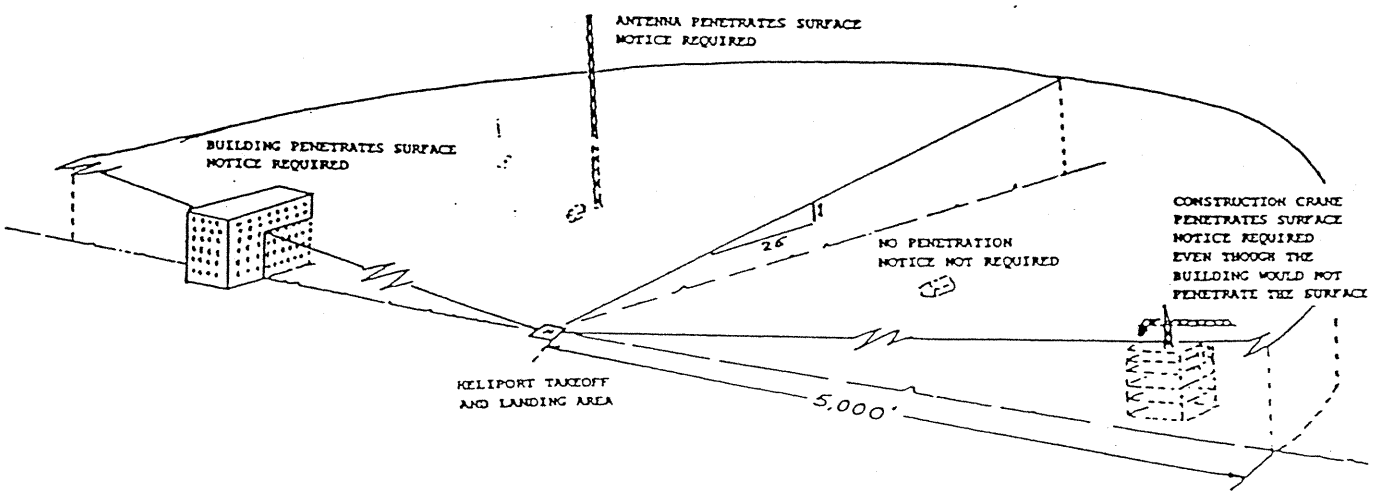
Figure 2



(2) **Heliport.** The proposed object would be within 5,000 feet of a heliport and would exceed a 25:1 horizontal slope (25 feet horizontally for each 1 foot vertically) from the nearest landing and takeoff area of that heliport.

NOTE.—(See Figure 3)

Figure 3



c. Highways and Railroads. The proposed object is a traverse way which would exceed one or more of the standards listed in Subparagraphs a and b above, after the height of the object is adjusted upward as follows:

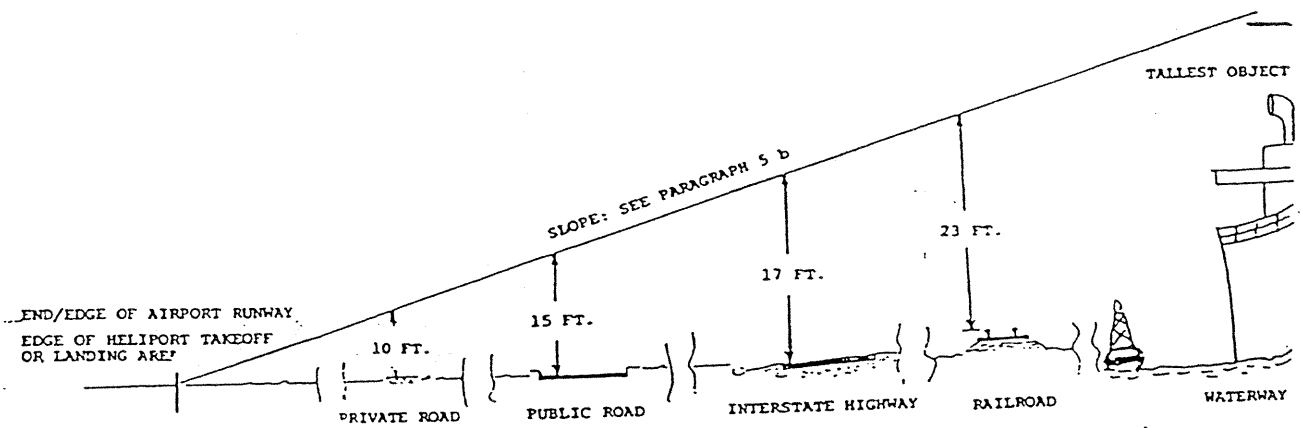
(1) Interstate Highways: 17 feet.

(2) Other public roadways: 15 feet.

(3) Private road: 10 feet or the height of the highest mobile object that would traverse the roadway.

(4) Waterway, railroad or any other thoroughfare not previously mentioned: 23 feet or an amount equal to the highest mobile object that would traverse the waterway, railroad or thoroughfare.

Figure 4



d. Objects on a Public Use Airport or Heliport. The proposed construction or alteration would be on an airport or heliport, regardless of height or location, or an airport operated by an armed force of the United States.

e. When Requested by FAA. The FAA may request a notice if available information indicates the proposal may exceed an obstruction standard or it is suspected the proposal may cause interference to aircraft or air navigational aids or affect instrument procedures.

6. KIND OF OBJECTS. The following are examples of structures requiring notice to the FAA.

a. Proposed construction or alteration of structures such as:

(1) Buildings.

(2) Towers.

(3) Roadways.

(4) Overhead communications and transmissions lines as well as the height of the supporting structures.

(5) Water towers and the supporting structure.

b. Construction equipment or other temporary structures such as:

(1) Cranes.

(2) Derricks.

(3) Stockpiles of equipment.

(4) Earth moving equipment.

7. WHEN NOTICE MUST BE FILED. Notice must be submitted:

a. At least 30 days before the earlier of the following:

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

(2) The date the application for a construction permit will be filed.

b. On or before the date the application for construction is filed with the Federal Communications Commission (FCC), if the proposed structure is subject to FCC licensing requirements.

c. Immediately by telephone or other expeditious means, with written notification submitted within 5 days thereafter, if immediate construction or alteration is required as in cases involving public services, health or safety.

d. As early as possible in the planning stage but not less than 30 days before construction will begin. Notice is to be given when the construction or alteration will be located or may have effects that:

(1) Will be on an airport or heliport.

(2) Will be near air navigation facilities (See paragraph 5.e.).

(3) May affect air traffic control operations.

(4) May obstruct air traffic controllers line of sight capability.

(5) May affect air traffic control radar.

(6) May cause electromagnetic interference particularly construction associated with an AM, FM, or TV station including a change in authorized frequency or transmitting power.

(7) May cause transmitted signals to be reflected upon ground-based or airborne air navigation/communications equipment.

8. PENALTY FOR FAILING TO PROVIDE NOTICE. Persons failing to comply with the provisions of FAR Part 77 may be subject to a criminal penalty under Section 902 of the Federal Aviation Act of 1958, as amended.

9. HOW AND WHERE TO FILE NOTICE. Notification should be made on FAA Form 7460-1, Notice of Proposed Construction or Alteration. *Additional information such as charts and/or drawings which accurately depict the proposed construction or alteration should be included to facilitate the FAA's analysis of the project. (See Appendix 1).* The completed form should be mailed to the Manager, Air Traffic Division, at the regional office having jurisdiction over the area within which the construction or alteration will occur. The geographic area of jurisdiction, appropriate mailing address and telephone number is listed on FAA Form 7460-1 and below.

Alaskan Region

(AK)

Alaskan Region Headquarters
Air Traffic Division AAL-530
701 "C" Street, Box 14
Anchorage, AK 99513-0087
Tel. 907-271-5892

Central Region

(NE, IA, MO, KS)

Central Region Headquarters
Air Traffic Division ACE-540
601 East 12th Street
Kansas City, MO 64106
Tel. 816-426-3408

Eastern Region

(NY, PA, WV, VA, DC, MD, DE, NJ)

Eastern Region Headquarters
Air Traffic Division AEA-530
JFK International Airport
Fitzgerald Federal Building
Jamaica, NY 11430
Tel 718-917-1228

Great Lakes Region

(ND, WI, MI, SD, IL, OH, MN, IN)

Great Lakes Region Headquarters
Air Traffic Division AGL-530
2300 East Devon Avenue
Des Plaines, IL 60018
Tel. 312-694-7458

New England Region

(MA, NH, VT, RI, CT, ME)

New England Region Headquarters
Air Traffic Division ANE-530
12 New England Executive Park
Burlington, MA 01803
Tel. 617-273-7152

Northwest Mountain Region

(WA, OR, MT, ID, WY, UT, CO)

Northwest Mountain Region Headquarters
Air Traffic Division ANM-530
17900 Pacific Hwy. South
C-68966
Seattle, WA 98168
Tel. 206-431-2530

Southern Region

(KY, TN, NC, SC, GA, AL, MS, FL, PR)

Southern Region Headquarters
Air Traffic Division ASO-530
3400 Norman Berry Drive
East Point, GA 30344
Mail Address:
P.O. Box 20636
Atlanta GA 30320
Tel. 404-763-7646

Southwest Region

(NM, TX, OK, AR, LA)

Southwest Region Headquarters
Air Traffic Division ASW-530
4400 Blue Mound Road
Fort Worth, TX 76106
Mail Address:
Department of Transportation
Federal Aviation Administration
Fort Worth, TX 76193-0530
Tel. 817-624-5534

Western-Pacific Region

(HI, CA, NV, AZ, Pacific Islands)

Western-Pacific Region Headquarters
Air Traffic Division AWP-530
15000 Aviation Boulevard
Hawthorne, CA 90260
Mail Address:
P.O. Box 92007
Worldway Postal Center
Los Angeles, CA 90009
Tel. 213-297-1182

10. WHAT THE FAA DOES WITH THE NOTICE.

a. The FAA will acknowledge receipt of the notice by one of the following methods:

(1) A copy of the FAA Form is returned annotated to reflect that the proposal "is not identified as an obstruction...and would not be a hazard to air navigation."

(2) FAA Form 7460-7, Acknowledgment of Notice of Proposed Construction or Alteration, may be issued to indicate:

(a) The proposal is not identified as an obstruction and would not be a hazard to air navigation, or

(b) The proposal is presumed to be a hazard to air navigation pending further study. When this is indicated the acknowledgment will either specify that the FAA has initiated further study, or the proponent may request further study, in which event, the FAA will begin the study when the proponent so advises (See paragraph 10.b.).

b. The FAA acknowledges each notice after initial screening. The outcome of this screening may result in an acknowledgment that the structure would be an obstruction and if the proponent would lower to a specified height it would not be an obstruction. The acknowledgment may also offer the proponent the opportunity to request within 30 days further aeronautical study. If further aeronautical study is initiated, circular notices on FAA Form 7460-8 may be prepared and distributed for comments to those agencies, organizations, or individuals with known aeronautical interests to determine if the proposal would be a hazard to air navigation. State and local aviation authorities as well as various military organizations of the Department of

Defense are also offered the opportunity to comment on the aeronautical effects of the proposal.

c. All responses received by the end of the specified comment period are analyzed by the FAA regional specialists for valid aeronautical comments and objections.

d. The office conducting the study may decide to conduct an informal airspace meeting with interested parties to discuss the effects of the proposal and to gather additional facts or information relevant to the study.

e. The FAA specialists may negotiate with the proponent during the study process to resolve any adverse effect(s) on aeronautical operations. Many times, a minor reduction in height and/or relocation of a proposed structure will eliminate or sufficiently minimize adverse aeronautical effects that would permit the early issuance of a Determination of No Hazard to Air Navigation.

f. After the aeronautical study is completed, the regional office will normally issue a:

(1) Determination of Hazard to Air Navigation, or

(2) Determination of No Hazard to Air Navigation.

11. ASSISTANCE TO CONSTRUCTION PROPONENTS.

a. Airspace specialists are available in each regional office for assistance. Proponents are encouraged to call in advance for appointments. Limited resources often prevent the specialist from responding spontaneously without advanced planning or preparation.

b. Airspace specialists also recommend that, for timely determinations, construction proponents should submit complete and accurate data. United States Geological Survey quadrangle maps are available at nominal costs to aid in determining the geographical coordinates (latitude/longitude) and site elevation above mean sea level from:

U. S. Geological Survey
Reston, Virginia 22092

U. S. Geological Survey
District Branch
P.O. Box 25286, Bldg #41
Denver, Colorado 80225

c. Airport planners are available for assistance with construction proposals on federally obligated airports.

d. Proposals for electronic transmitting devices should include frequency, effective radiated power (ERP), radiation center height (RCAMSL), and antenna characteristics such as number of bays, beam tilt, and null fill.

12. ASSOCIATED PUBLICATIONS. The following publications contain obstruction criteria, marking and lighting standards and specifications for lighting and paint.

a. Federal Aviation Regulations (FAR) Part 77, Objects Affecting Navigable Airspace. This regulation sets forth the requirements for notice to the FAA of proposed construction or alteration and provides standards for determining obstructions to navigable airspace. FAR Part 77 (Stock No. 050-007-00276-9) may be ordered from:

Superintendent of Documents
U. S. Government Printing Office
Washington, DC 20402

b. Advisory Circulars. FAA Advisory Circulars are available free of charge from:

Department of Transportation
Subsequent Publication Section, M-494.3
400 7th Street, SW
Washington, DC 20590

(1) AC 70/7460-1, Obstruction Marking and lighting, describes the standards for marking and lighting structures such as buildings, chimneys, antenna towers, cooling towers, storage tanks, supporting structures of overhead wires, etc.

(2) AC 150/5190-4, A Model Zoning Ordinance to Limit Height of Objects Around Airports, provides a model zoning ordinance to be used as a guide to control the height of objects around airports.

(3) AC 150/5300-2D, Airport Design Standards - Site Requirements for Terminal Navigational Facilities, contains planning information on electronic and visual navigational aids and air traffic control facility siting and clearance requirements that influence the physical layout of airports.

(4) AC 150/5345-1, Approved Airport Lighting Equipment, lists equipment model numbers demonstrated to be in compliance with item (3), and the manufacturers names and addresses.

(5) AC 150/5345-43, Specification for Obstruction Lighting Equipment, contains specifications for equipment used in obstruction lighting systems.

c. Marking Specifications and Standards. Aviation colors and paint should conform with the following standards and specifications which are available free of charge from:

Business Service Center
General Services Administration
Washington, DC 20405

(1) Federal Standard Number 595, Color Guide, Ready Mixed Paint.

(a) Orange Number 12197
(b) White Number 17875
(c) Yellow Number 13538

(2) Federal Specification TI-P-59, Aviation Surface Paint, Ready Mixed, International Orange.

(3) Federal Specification TI-102, Aviation Surface Paint, Oil Titanium Lead-Zinc and Oil, Exterior, Ready Mixed, White and Light Tints.

d. FAA Forms. FAA forms are available free of charge from all FAA regional offices and headquarters.

(1) FAA Form 7460-1, Notice of Proposed Construction or Alteration, is used to notify the FAA of proposed construction or alteration of an object that may interfere with the navigable airspace.

(2) FAA Form 7460-2, Notice of Actual Construction or Alteration, is used to notify the FAA of progress or abandonment, as requested on the form. The FAA regional office routinely includes this form with a determination when such information will be required. The information is used for charting purposes, to change affected aeronautical procedures and to notify pilots of the location of the structure.

13. HOW TO PETITION THE ADMINISTRATOR FOR DISCRETIONARY REVIEW.

a. When a determination is issued under FAR Part 77.19 or Part 77.35 [illegible]en a revision or extension is issued under P[illegible] [illegible]9(c), you may petition the FAA Administrator for a review if you:

(1) Are the sponsor of the proposed construction or alteration, or

(2) Stated a substantial aeronautical objection to the proposal during an aeronautical study, or

(3) Have a substantial aeronautical objection but were not given an opportunity to state it.

b. The petition must be submitted within 30 days after the issue date of the aeronautical study and must contain a full statement of the basis upon which it is made. Submit an original and three copies .

14. MISCELLANEOUS.

a. An FAA determination is a conclusion based on the study of a structure's projected impact on the safe and efficient use of the navigable airspace by aircraft. It should not be construed as an approval or disapproval of the project since only aviation issues are considered.

b. A notice filed with the FAA does not relieve the proponent of compliance with laws, ordinances or regulations of any other Federal, state or local governmental body.

John R. Ryan
Director, Air Traffic Operations Service

Form Approved OMB No 2120-0001

DO NOT REMOVE CARBONS

U.S. Department of Transportation
Federal Aviation Administration

NOTICE OF PROPOSED CONSTRUCTION OR ALTERATION

Aeronautical Study Number

1. Nature of Proposal

A. Type
- [x] New Construction
- [ ] Alteration

B. Class
- [x] Permanent
- [ ] Temporary (Duration _____ months)

C. Work Schedule Dates
Beginning 12/21/85
End 06/22/86

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

FM Antenna Tower
ERP - 3,000 Watts
Frequency - 105.5 MHz

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

3A. Name and address of individual, company, corporation, etc. proposing the construction or alteration. (Number, Street, City, State and Zip Code)

(202) 426-8777
area code Telephone Number

Eleanor J. Williams
D/B/A E. J. Enterprises
P. O. Box 23150
Washington, DC 20026

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

N/A

4. Location of Structure

A. Coordinates (To nearest second)
Latitude 34° 47' 30"
Longitude 86° 38' 49"

B. Nearest City or Town, and State: Huntsville, Alabama
(1) Distance to 4B: 1 Miles
(2) Direction to 4B: East

C. Name of nearest airport, heliport, flightpark, or seaplane base: Huntsville North Arpt.
(1) Distance from structure to nearest point of nearest runway: 6.2NM
(2) Direction from structure to airport: Northeast

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

A. Elevation of site above mean sea level	1130
B. Height of Structure including all appurtenances and lighting (if any) above ground, or water if so situated	201
C. Overall height above mean sea level (A + B)	1331

D. 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.)

Structure to be built on top of Drake Mountain. (See attached copy of quadrangle map and copy of Atlanta Sectional).

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: 10/22/85

Typed Name/Title of Person Filing Notice: Eleanor J. Williams, Owner

Signature: Eleanor J. Williams

FAA will either return this form or issue a separate acknowledgement

FOR FAA USE ONLY

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 cases 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.

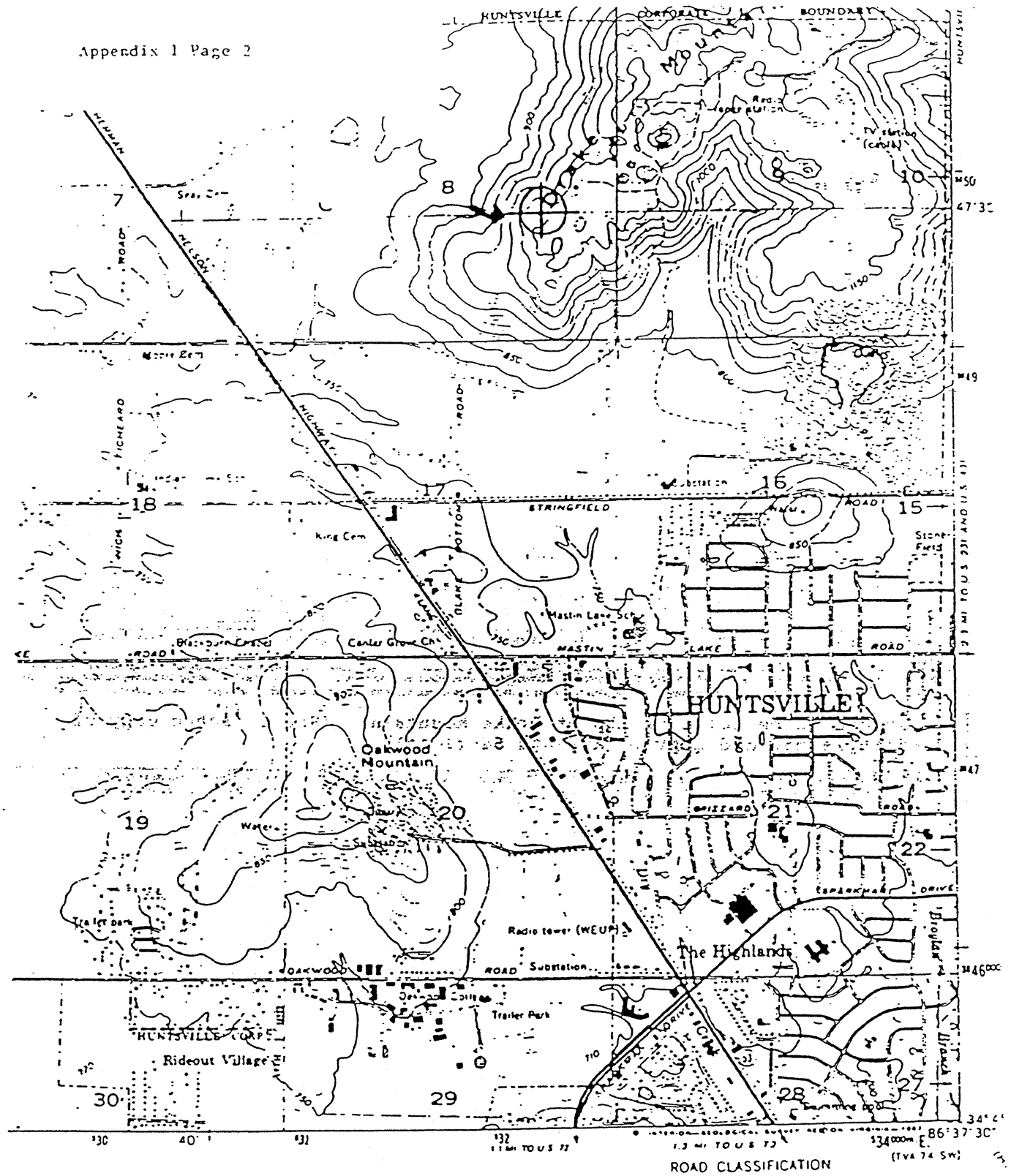
Remarks:

Issued by | Signature | Date

DO NOT REMOVE CARBON

FAA Form 7460-1 (8-85)

Appendix 1 Page 2



ROAD CLASSIFICATION

Primary highway, all weather, hard surface

Secondary highway, all weather, hard surface

Light-duty road, all weather, improved surface

Unimproved road, fair or dry weather

Interstate Route

U. S. Route

State Route

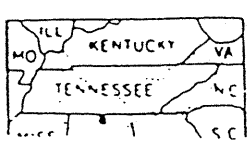
JEFF. ALA.

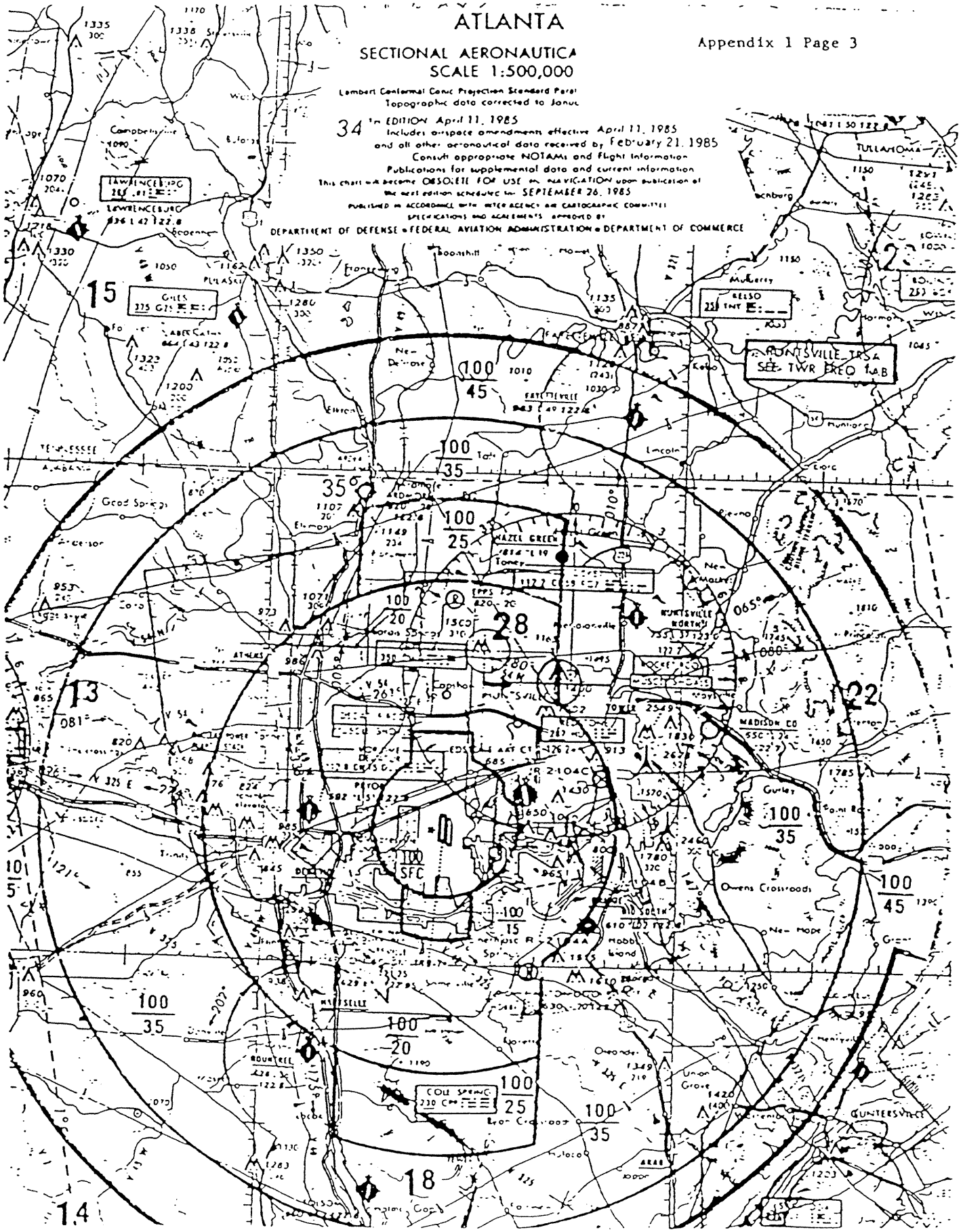
N3445—W8637.5/7.5

1967

PHOTOREVISED 1982

DMA 3653 I SW-SERIES V844




ATLANTA
SECTIONAL AERONAUTICA
SCALE 1:500,000
Lambert Conformal Conic Projection Standard Parallel
Topographic data corrected to January
34th EDITION April 11, 1985
Includes airspace amendments effective April 11, 1985
and all other aeronautical data received by February 21, 1985
Consult appropriate NOTAMs and Flight Information
Publications for supplemental data and current information
This chart will become OBSOLETE FOR USE IN NAVIGATION upon publication of
the next edition scheduled for SEPTEMBER 26, 1985
PUBLISHED IN ACCORDANCE WITH INTER-AGENCY AIR CARTOGRAPHIC COMMITTEE
SPECIFICATIONS AND AGREEMENTS APPROVED BY
DEPARTMENT OF DEFENSE • FEDERAL AVIATION ADMINISTRATION • DEPARTMENT OF COMMERCE
HUNTSVILLE TRSA
SEE TWR FREQ 1AB
HAZEL GREEN
HUNTSVILLE NORTH
COLE SPRING
MADISON CO
Owens Crossroads
Good Springs
Lawrenceburg
Pulaski
Fayetteville
Athens
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Decatur
Hartselle
Moulton
Guntersville
Tullahoma
Tennessee
Alabama
100/45
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14

SAN MATEO COUNTY COMPREHENSIVE AIRPORT LAND USE PLAN

APPENDIX K.

STATE OF CALIFORNIA AIRPORT APPROACHES ZONING CALIFORNIA GOVERNMENT CODE, CHAPTER 2, ARTICLE 6.5, as amended

APPENDIX K.

STATE OF CALIFORNIA AIRPORT APPROACHES ZONING
CALIFORNIA GOVERNMENT CODE, CHAPTER 2, ARTICLE 6.5, as amended

AIRPORT APPROACHES ZONING

(Excerpts from the Government Code)

Chapter 2. Public Property

Article 6.5. Airport Approaches Zoning Law

Title

50485. This article shall be known and may be cited as the "Airport Approaches Zoning Law."
(Added by Stats. 1953, Ch. 1741.)

Definitions

50485.1. As used in this article, unless the context otherwise requires:

"Airport" means any area of land or water designed and set aside for the landing and taking off of aircraft and utilized or to be utilized in the interest of the public for such purposes.

"Airport hazard" means any structure or tree or use of land which obstructs the airspace required for the flight of aircraft in landing or taking off at an airport or is otherwise hazardous to such landing or taking off of aircraft.

"Airport hazard area" means any area of land or water upon which an airport hazard might be established if not prevented as provided in this article.

"City or county" means any city, county, or city and county.

"Person" means any individual, firm, copartnership, corporation, company, association, joint stock association, city or county, or district, and includes any trustee, receiver, or assignee.

"Structure" means any object constructed or installed by man, including, but without limitation, buildings, towers, smokestacks, and overhead lines.

"Tree" means any object of natural growth.
(Added by Stats. 1953, Ch. 1741.)

Airport hazards

50485.2. It is hereby found that an airport hazard endangers the lives and property of users of the airport and of occupants of land in its vicinity and also, if of the obstruction type, in effect reduces the size of the area available for the landing, taking off and maneuvering of the aircraft, thus tending to destroy or impair the

Nonconforming uses

Permits for repairs, alterations, etc.

50485.10. Any airport zoning regulations shall provide that before any nonconforming structure or tree may be replaced, substantially altered or repaired, rebuilt, allowed to grow higher, or replanted, a permit must be secured from the administrative agency authorized to administer and enforce the regulations, authorizing such replacement, change or repair. No permit shall be granted that would allow the establishment or creation of an airport hazard or permit a nonconforming structure or tree or nonconforming use to be made or become higher or become a greater hazard to air navigation than it was when the applicable regulation was adopted or than it is when the application for a permit is made. Except as provided herein, all applications for permits shall be granted. No such permit shall be required to make maintenance repairs to or to replace parts of existing structures which do not enlarge or increase the height of the existing structure.

Variances

Any person desiring to erect any structure, or increase the height of any structure, or permit the growth of any tree, or otherwise use his property in violation of airport zoning regulations adopted under this article, may apply to the administrative agency for a variance from the zoning regulations in question. Such variances shall be allowed where a literal application or enforcement of the regulations would result in practical difficulty or unnecessary hardship and the relief granted would not be contrary to the public interest but do substantial justice and be in accordance with the spirit of the regulations and this article; provided, that any variance may be allowed subject to any reasonable conditions that the administrative agency may deem necessary to effectuate the purpose of this article.

In granting any permit or variance under this section, the administrative agency may, if it deems such action advisable to effectuate the purposes of this article and reasonable in the circumstances, so condition such permit or variance as to require the owner of the structure or tree in question to permit the city and county, at its own expense, to install, operate, and maintain thereon such markers and lights as may be necessary to indicate to flyers the presence of an airport hazard.

(Added by Stats. 1953, Ch. 1741.)

50485.11. Any person aggrieved or taxpayer affected by any decision of the administrative agency or of any governing body of a city or county, may petition a court for a review of the matter in accordance with law.

The court shall have exclusive jurisdiction to affirm, modify, or set aside the decision brought up for review, in whole or in part, and if need be, to order further proceedings by the administrative agency. The findings of fact of the administrative agency, if supported by substantial evidence, shall be accepted by the court as conclusive, and no objection to a decision of the administrative agency shall be considered by the court unless such objection shall have been urged before the administrative agency, or, if it was not so urged, unless there were reasonable grounds for failure to do so.

In any case in which airport zoning regulations adopted under this article, although generally reasonable, are held by a court to interfere with the use or enjoyment of a particular structure or parcel of land to such an extent, or to be so onerous in their application to such a structure or parcel of land, as to constitute a taking or deprivation of that property in violation of the Constitution of this State or the Constitution of the United States, such holding shall not affect the application of such regulations to other structures and parcels of land.

(Added by Stats. 1953, Ch. 1741.)

Violations

50485.12. Each violation of this article or of any regulations, orders, or rulings promulgated or made pursuant to this article, shall constitute a misdemeanor. In addition, the city or county adopting zoning regulations under this article may institute in any court of competent jurisdiction an action to prevent, restrain, correct or abate any violation of this article, or of airport zoning regulations adopted under this article, or of any order or ruling made in connection with their administration or enforcement, and the court shall adjudge to the plaintiff such relief, by way of injunction (which may be mandatory) or otherwise, as may be proper under all the facts and circumstances of the case, in order fully to effectuate the purpose of this article and of the regulations adopted and orders and rulings made pursuant thereto.

(Added by Stats. 1953, Ch. 1741.)

50485.13. *Repealed by Stats. 1975, Ch. 1240, Operative July 1, 1976.*

Effect on general zoning powers

50485.14. Neither this article nor anything expressed in it is intended to be or is to be construed as a denial of the power of local governing bodies and agencies to provide for zoning regulations pursuant to Article XI, Section 11, of the Constitution.

(Added by Stats. 1953, Ch. 1741.)

utility of the airport and the public investment therein. Accordingly, it is hereby declared: (a) that the creation or establishment of an airport hazard is a public nuisance and an injury to the community served by the airport in question; and (b) that it is therefore necessary in the interest of the public health, public safety, and general welfare that the creation or establishment of airport hazards be prevented by appropriate exercise of the police power or the authority conferred by Article 2.6 (commencing with Section 21652) of Part 1 of Division 9 of the Public Utilities Code. It is further declared that both the prevention of the creation or establishment of airport hazards and the elimination, removal, alteration, mitigation, or marking and lighting of existing airport hazards are public purposes for which a city or county may raise and expend public funds and acquire land or property interests therein.

Nuisance

Police power

Public purpose

(Added by Stats. 1953, Ch. 1741; Amended by Stats. 1975, Ch. 1240, operative July 1, 1976.)

Adoption of regulations

50485.3 In order to prevent the creation or establishment of airport hazards, every city or county having an airport hazard area within its territorial limits may adopt, administer, and enforce, under the police power and in the manner and upon the conditions hereinafter prescribed, airport zoning regulations for such airport hazard area, which regulations may divide such area into zones, and, within such zones, specify the land uses permitted and regulate and restrict the height to which structures and trees may be erected or allowed to grow.

(Added by Stats. 1953, Ch. 1741.)

Airport zoning regulations and comprehensive zoning ordinance

50485.4. In the event that a city or county has adopted, or hereafter adopts, a comprehensive zoning ordinance regulating, among other things, the height of buildings, any airport zoning regulations applicable to the same area or portion thereof may be incorporated in and made a part of such comprehensive zoning regulations, and be administered and enforced in connection therewith.

In the event of conflict between any airport zoning regulations adopted under this article and any other regulations applicable to the same area whether the conflict be with respect to the height of structures or trees, the use of land, or any other matter, and whether such other regulations were adopted by the city or county which adopted the airport zoning regulations or by some other city or county, the more stringent limitation or requirement shall govern and prevail.

(Added by Stats. 1953, Ch. 1741.)

Hearing

Notice

50485.5. No airport zoning regulations shall be adopted, amended or changed under this article except by action of the legislative body of the city or county in question after a public hearing in relation thereto, at which parties in interest and citizens shall have an opportunity to be heard. Notice of the hearing shall be published pursuant to Section 6066 in an official paper, or a paper of general circulation, in the city or county in which is located the airport hazard area to be zoned.

(Added by Stats. 1953, Ch. 1741; Amended by Stats. 1957, Ch. 357.)

Airport zoning commission

50485.6. Prior to the initial zoning of any airport hazard area under this article, the city or county which is to adopt the regulations shall appoint a commission, to be known as the airport zoning commission, to recommend the boundaries of the various zones to be established and the regulations to be adopted therefor. Such commission shall make a preliminary report and hold public hearings thereon before submitting its final report, and the legislative body of the city or county shall not hold its public hearings or take other action until it has received the final report of such commission. Where a city or county planning commission already exists, it shall be appointed as the airport zoning commission.

(Added by Stats. 1953, Ch. 1741.)

Reasonable regulations; considerations

50485.7. All airport zoning regulations adopted under this article shall be reasonable and none shall impose any requirement or restriction which is not reasonably necessary to effectuate the purposes of this article. In determining what regulations it may adopt, each city or county shall consider, among other things, the character of the flying operations expected to be conducted at the airport, the nature of the terrain within the airport hazard area, the character of the neighborhood, and the uses to which the property to be zoned is put and adaptable.

(Added by Stats. 1953, Ch. 1741.)

Nonconforming uses

50485.8. No airport zoning regulations adopted under this article shall require the removal, lowering, or other change or alteration of any structure or tree not conforming to the regulations when adopted or amended, or otherwise interfere with the continuance of any nonconforming use, except as provided in Section 50485.10.

(Added by Stats. 1953, Ch. 1741.)

Administration and enforcement

50485.9. All airport zoning regulations adopted under this article shall provide for the administration and enforcement of such regulations by an administrative agency which may be an agency created by such regulations or any official, board, or other existing agency of the city or county adopting the regulations, if satisfactory to that city or county. The duties of any administrative agency designated pursuant to this article shall include that of hearing and deciding all applications for permits and variances under Section 50485.10.

(Added by Stats. 1953, Ch. 1741.)

APPENDIX L.

1994 COUNTY OF SAN MATEO ZONING REGULATIONS, as amended
CHAPTER 32. HEIGHT OF STRUCTURES AND USE OF AIRSPACE NEAR HALF MOON BAY AIRPORT

CHAPTER 32. HEIGHT OF STRUCTURES AND USE OF AIRSPACE NEAR HALF MOON BAY AIRPORT

SECTION 6600. PURPOSE. Pursuant to the authority conferred by the Airport Approaches Zoning Law of the State of California and in conformity with Sections 50485 to 50485.13 of the Government Code, the Board of Supervisors of the County of San Mateo, State of California, deem it necessary to regulate the use of airspace for the purposes of promoting the health, safety and general welfare of the inhabitants of the County of San Mateo, by preventing the creation or establishment of airport hazards, thereby protecting the lives and property of the users of the Half Moon Bay Airport and of the occupants of the land in its vicinity and preventing destruction and impairment of the utility of the airport and the public investment therein.

SECTION 6601. DEFINITIONS. As used in this Ordinance, unless the context otherwise requires:

ᴉRPORT - The Half Moon Bay Airport.

.RPORT ELEVATION - The highest point of an airport's usable landing area easured in feet from mean sea level.

AIRPORT HAZARD - Any structure or object of natural growth located on or in the vicinity of a public airport, or any use of land near such airport, which obstructs the airspace required for the flight of aircraft in landing or takeoff at such airport or is otherwise hazardous to such landing or takeoff of aircraft.

) STRUCTURE - An object constructed or installed by man, including but without limitation, buildings, towers, smokestacks, earth formation, and overhead transmission lines.

(e) TREE - Any object of natural growth.

(f) NON-CONFORMING USE - Any pre-existing structure, object of natural growth, or use of land which is inconsistent with the provisions of this Ordinance or an amendment thereto.

(g) HEIGHT - For the purpose of determining the height limits in all zones set forth in this Ordinance and shown on the zoning map, the datum shall be mean sea level elevation unless otherwise specified.

(h) PERSON - An individual, firm, partnership, corporation, company, association, joint stock association, or governmental entity. It includes a trustee, receiver, assignee, or similar representative of any of them.

(i) RUNWAY - A defined area on an airport prepared for landing and takeoff of aircraft along its length.

(j) VISUAL RUNWAY - A runway intended solely for the operation of aircraft using visual approach procedures with no straight-in instrument approach procedure and no instrument designation indicated on an FAA approved airport layout plan, a military service's approved military airport layout plan, or by any planning document submitted to the FAA by competent authority.

(k) UTILITY RUNWAY - A runway that is constructed for and intended to be used by aircraft of 12,500 pounds maximum gross weight and less.

(l) NON-PRECISION INSTRUMENT RUNWAY - A runway having an existing instrument approach procedure utilizing air navigation facilities with only horizontal guidance, or area type navigation equipment, for which a straight-in non-precision instrument approach procedure has been approved or planned, and for which no precision approach facilities are planned or indicated on an FAA planning document or military service's military airport planning document.

(m) PRECISION INSTRUMENT RUNWAY - 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 on an FAA approved airport layout plan; a military service's approved military airport layout plan; any other FAA planning document, or military service's military airport planning document.

(n) PRIMARY SURFACE - A surface longitudinally centered on a runway. When the runway has a specially prepared hard surface, the primary surface extends 200 feet beyond each end of 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. The width of the primary surface of a runway will be that width prescribed in Part 77 of the Federal Aviation Regulations (FAR) for the most precise approach existing or planned for either end of that runway. The elevation of any point on the primary surface is the same as the elevation of the nearest point on the runway centerline.

(o) HELIPORT PRIMARY SURFACE - The area of the primary surface coincides in size and shape with the designated landing and takeoff area of a heliport (runway). This surface is a horizontal plane at the elevation of the established heliport elevation.

(p) APPROACH, TRANSITIONAL, HORIZONTAL, AND CONICAL ZONES - These zones apply to the area under the approach, transitional, horizontal, and conical surfaces defined in FAR Part 77.

<u>SECTION 6602. AIRPORT ZONES</u>. In order to carry out the provisions of this Ordinance, there are hereby created and established certain zones which include all of the land lying within the approach zones, transitional zones, horizontal zones, and conical zones as they apply to a particular airport. Such zones are shown on Half Moon Bay Airport Hazard Zoning Map consisting of one sheet, prepared by Department of Public Works and dated April, 1977, which is attached to this Ordinance and made a part hereof. An area located in more than one (1) of the following zones is considered to be only in the zone with

the more restrictive height limitation. The various zones are hereby established and defined as follows:

(a) Runway Larger Than Utility With a Visibility Minimum Greater Than 3/4 Mile Non-Precision Instrument Approach Zone - The inner edge of this approach zone coincides with the width of the primary surface and is five hundred (500) feet wide. The approach zone expands outward uniformly to a width of 3,500 feet at a horizontal distance of 10,000 feet from the primary surface. Its centerline being the continuation of the centerline of the runway.

(b) Transitional Zones - These zones are hereby established as the area beneath the transitional surfaces. These surfaces extend outward and upward at 90 degree angles to the runway centerline and the runway centerline extended at a slope of seven (7) feet horizontally for each foot vertically from the sides of the primary and approach surfaces to where they intersect the horizontal and conical surfaces. Transitional zones for those portions of the precision approach zones which project through and beyond the limits of the conical surface, extend a distance of 5,000 feet measured horizontally from the edge of the approach zones and at 90 degree angles to the extended runway centerline.

(c) Horizontal Zone - The horizontal zone is hereby established by swinging arcs of 10,000 feet radii from the center of each end of the primary surface of each runway, and connecting the adjacent arcs by drawing lines tangent to those arcs. The horizontal zone does not include the approach and transitional zones.

(d) Conical Zone - The conical zone is hereby established as the area that commences at the periphery of the horizontal zone and extends outward therefrom a horizontal distance of 4,000 feet.

SECTION 6603. AIRPORT ZONE HEIGHT LIMITATIONS. Except as otherwise provided in this Ordinance, no structure or tree shall be erected, altered, allowed to grow, or be maintained in any zone created by this Ordinance to a height in

excess of the applicable height limit herein established of such zone. Such applicable height limitations are hereby established for each of the zones in question as follows:

(a) Runway Larger Than Utility With A Visibility Minimum Greater Than 3/4 Mile Non-Precision Instrument Approach Zone - Slopes upward thirty-four (34) feet horizontally for each foot vertically beginning at the end of and at the same elevation as the primary surface and extending to a horizontal distance of 10,000 feet along the extended runway centerline.

(b) Transitional Zones - Slopes upward and outward seven (7) feet horizontally for each foot vertically beginning at the sides of and at the same elevation as the primary surface and the approach zones, and extending to a height of 150 feet above the airport elevation which is 64 feet above mean sea level. In addition to the foregoing, there are established height limits sloping upward and outward seven (7) feet horizontally for each foot vertically beginning at the sides of and at the same elevation as the approach zones, extending to where they intersect the conical surface.

(c) Horizontal Zone - One hundred and fifty (150) feet above the airport elevation or a height of 214 feet above mean sea level.

(d) Conical Zone - Slopes upward and outward twenty (20) feet horizontally for each foot vertically beginning at the periphery of the horizontal zone and at one hundred and fifty (150) feet above the airport elevation and extending to a height of 350 feet above the airport elevation.

(e) Excepted Height Limitations - Nothing in this Ordinance shall be construed as prohibiting the construction or maintenance of any structure or growth of any tree to a height up to 30 feet above the surface of land.

Where an area is covered by more than one (1) height limitation, the more restrictive limitation shall prevail.

SECTION 6604. USE RESTRICTIONS. Notwithstanding any other provisions of the Ordinance, no use may be made of land or water within any zone established by this Ordinance in such a manner as to create electrical interference with navigational signals or radio communication between the airport and aircraft, make it difficult for pilots to distinguish between airport lights and others, result in glare in the eyes of pilots using the airport, impair visibility in the vicinity of the airport or otherwise in any way create a hazard or endanger the landing, takeoff, or maneuvering of aircraft intending to use the airport.

SECTION 6605. NON-CONFORMING USES.

(a) Regulations not Retroactive - The regulations prescribed by this Ordinance shall not be construed to require the removal, lowering, or other changes or alteration of any structure or tree not conforming to the regulations as of the effective date of this Ordinance, or otherwise interfere with the continuance of a non-conforming use. Nothing contained herein shall require any change in the construction, alteration, or intended use of any structure, the construction or alteration of which was begun prior to the effective date of this Ordinance, and is diligently prosecuted.

(b) Marking and Lighting - Notwithstanding the preceding provision of the section, the owner of any existing non-conforming structure or tree is hereby required to permit the installation, operation, and maintenance thereon of such markers and lights as shall be deemed necessary by the Director of Public Works, San Mateo County, to indicate to the operators of aircraft in the vicinity of the airport, the presence of such airport hazards. Such markers and lights shall be installed, operated, and maintained at the expense of San Mateo County.

SECTION 6606. PERMITS.

(a) Future Uses - No material change shall be made in the use of land and no structure or tree shall be erected, altered, planted, or otherwise

established in any zone hereby created unless a permit therefor shall have been applied for and granted.

(1) However, a permit for a tree or structure of less than 75 feet of vertical height above the ground shall not be required in the horizontal and conical zones or in any approach and transitional zones beyond a horizontal distance of 4,200 feet from each end of the runway except when such tree or structure, because of terrain, land contour, or topographic features, would extend above the height limit prescribed for the respective zone.

(2) Each application for a permit shall indicate the purpose for which the permit is desired with sufficient particulars to determine whether the resulting use, structure, or tree would conform to the regulations herein prescribed. If such determination is in the affirmative, the permit shall be granted.

(b) Existing Uses - No permit shall be granted that would allow the establishment or creation of an airport hazard or permit a non-conforming use, structure, or tree to become a greater hazard to air navigation than it was on the effective date of this Ordinance or any amendments thereto or than it is when the application for a permit is made.

Except as indicated, all applications for such a permit shall be granted.

(c) Non-Conforming Uses Abandoned or Destroyed - Whenever the Planning Director determines that a non-conforming tree or structure has been abandoned or more than 80 percent torn down, physically deteriorated, or decayed, no permit shall be granted that would allow such structure or tree to exceed the applicable height limit or otherwise deviate from the zoning regulations.

(d) Variances - Any person desiring to erect or increase the height of any structure, or permit the growth of any tree, or use his property not in

accordance with the regulations prescribed in this Ordinance, may apply to the Planning Director for a variance from such regulations. Such variances shall be allowed where it is duly found that a literal application or enforcement of the regulations would result in practical difficulty or unnecessary hardship and relief granted would not be contrary to the public interest but will do substantial justice and be in accordance with the spirit of this Ordinance.

(e) Hazard Marking and Lighting - Any permit or variance granted may, if such action is deemed advisable to effectuate the purpose of this Ordinance and is reasonable in the circumstances, be so conditioned as to require the owner of the structure or tree in question, at his own expense, to install, operate, and maintain thereon such markers and lights as may be necessary to indicate to pilots the presence of an airport hazard.

SECTION 6607. ENFORCEMENT. It shall be the duty of the Planning Director to administer and enforce the regulations prescribed herein. Applications for permits and variances shall be made to the Planning Director upon a form furnished by him. Applications required by this Ordinance to be submitted to the Planning Director shall be promptly considered and granted or denied by him. Application for action by the Planning Commission shall be forthwith transmitted by the Planning Director.

SECTION 6608. APPEALS.

(a) Any person aggrieved or any taxpayer affected, by any decision of the Planning Director made in his administration of this Ordinance, may appeal to the Planning Commission.

(b) All appeals hereunder must be taken within a reasonable time as provided by the rules of the Planning Commission, by filing with the Planning Director a notice of appeal specifying the grounds thereof. The Planning Director shall forthwith transmit to the Planning Commission

all the papers constituting the record upon which the action appealed from was taken.

(c) The Planning Commission may, in conformity with the provision of this Ordinance, reverse or affirm, in whole or in part, or modify the order, requirement, decision, or determination appealed from and may make such order, requirement, decision, or determination, as may be appropriate under the circumstances.

SECTION 6609. REVIEW BY BOARD OF SUPERVISORS. Any person aggrieved, or any taxpayer affected, by any decision of the Planning Commission, may appeal to the Board of Supervisors by filing a written notice of such appeal with the Planning Commission within ten (10) days of the final action of the Planning Commission.

SECTION 6610. VIOLATIONS. In the event any person should erect, construct, move, alter or attempt to erect, construct, move or alter any structure or allow any tree to exceed a height, in violation of the provisions of this Ordinance, the same is hereby declared a public nuisance, and it shall be the duty of the District Attorney of the County of San Mateo to bring and prosecute an action in any Court of competent jurisdiction to enjoin such person from continuing such erection, construction, moving, alteration or growth, or if such erection, construction, moving, alteration or growth, is being or has been accomplished, the District Attorney shall bring and prosecute an action to enjoin such person for maintaining same.

SECTION 6611. CONFLICTING REGULATIONS. Where there exists a conflict between any of the regulations or limitations prescribed in this Ordinance and any other regulations applicable to the same area, whether the conflict be with respect to the height of structures or trees, the use of land, or any other matter, the more stringent limitation or requirement shall govern and prevail.

SECTION 6612. SEVERABILITY. If any of the provisions of this Ordinance or the application thereof to any person or circumstances is held invalid, such invalidity shall not affect other provisions of application of the Ordinance

which can be given effect without the invalid provision or application, and to this end, the provisions of this Ordinance are declared to be severable.

(Chapter 32 - Repealed by Ordinance No. 2662 - July 8, 1980)
(Chapter 32, Sections 6600 through 6612 - Added by Ordinance No. 2662 - July 8, 1980)

APPENDIX M.

1994 COUNTY OF SAN MATEO ZONING REGULATIONS, as amended
CHAPTER 33. HEIGHT OF STRUCTURES AND USE OF AIRSPACE NEAR SAN CARLOS AIRPORT

CHAPTER 33. HEIGHT OF STRUCTURES AND USE OF AIRSPACE NEAR SAN CARLOS AIRPORT

SECTION 6620. PURPOSE. Pursuant to the authority conferred by the Airport Approaches Zoning Law of the State of California and in conformity with Sections 50485 to 50485.13 of the Government Code, the Board of Supervisors of the County of San Mateo, State of California, deem it necessary to regulate the use of airspace for the purposes of promoting the health, safety and general welfare of the inhabitants of the County of San Mateo, by preventing the creation or establishment of airport hazards, thereby protecting the lives and property of the users of the San Carlos Airport and of the occupants of the land in its vicinity and preventing destruction and impairment of the utility of the airport and the public investment therein.

SECTION 6621. DEFINITIONS. As used in this Ordinance, unless the context otherwise requires:

(a) AIRPORT - The San Carlos Airport.

(b) AIRPORT ELEVATION - The highest point of an airport's usable landing area measured in feet from mean sea level.

(c) AIRPORT HAZARD - Any structure or object of natural growth located on or in the vicinity of a public airport, or any use of land near such airport, which obstructs the airspace required for the flight of aircraft in landing or takeoff at such airport or is otherwise hazardous to such landing or takeoff of aircraft.

(d) STRUCTURE - An object constructed or installed by man, including but without limitation, buildings, towers, smokestacks, earth formation, and overhead transmission lines.

(e) TREE - Any object of natural growth.

(f) NON-CONFORMING USE - Any pre-existing structure, object of natural growth, or use of land which is inconsistent with the provisions of this Ordinance or an amendment thereto.

(g) HEIGHT - For the purpose of determining the height limits in all zones set forth in this Ordinance and shown on the zoning map, the datum shall be mean sea level elevation unless otherwise specified.

(h) PERSON - An individual, firm, partnership, corporation, company, association, joint stock association or governmental entity. It includes a trustee, receiver, assignee, or similar representative of any of them.

(i) RUNWAY - A defined area on an airport prepared for landing and takeoff of aircraft along its length.

(j) VISUAL RUNWAY - A runway intended solely for the operation of aircraft using visual approach procedures with no straight-in instrument approach procedure and no instrument designation indicated on an FAA approved airport layout plan, a military service's approved military airport layout plan, or by any planning document submitted to the FAA by competent authority.

(k) UTILITY RUNWAY - A runway that is constructed for and intended to be used by aircraft of 12,500 pounds maximum gross weight and less.

(l) NON-PRECISION INSTRUMENT RUNWAY - A runway having an existing instrument approach procedure utilizing air navigation facilities with only horizontal guidance, or area type navigation equipment, for which a straight-in non-precision instrument approach procedure has been approved or planned, and for which no precision approach facilities are planned or indicated on an FAA planning document or military service's military airport planning document.

(m) PRECISION INSTRUMENT RUNWAY - 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 on an FAA approved airport layout plan; a military service's approved military airport layout plan; any other FAA planning document, or military service's military airport planning document.

(n) PRIMARY SURFACE - A surface longitudinally centered on a runway. When the runway has a specially prepared hard surface, the primary surface extends 200 feet beyond each end of 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. The width of the primary surface of a runway will be that width prescribed in Part 77 of the Federal Aviation Regulations (FAR) for the most precise approach existing or planned for either end of that runway. The elevation of any point on the primary surface is the same as the elevation of the nearest point on the runway centerline.

(o) HELIPORT PRIMARY SURFACE - The area of the primary surface coincides in size and shape with the designated landing and takeoff area of a heliport (runway). This surface is a horizontal plane at the elevation of the established heliport elevation.

(p) APPROACH, TRANSITIONAL, HORIZONTAL, AND CONICAL ZONES - These zones apply to the area under the approach, transitional, horizontal, and conical surfaces defined in FAR Part 77.

<u>SECTION 6622. AIRPORT ZONES</u>. In order to carry out the provisions of this Ordinance, there are hereby created and established certain zones which include all of the land lying within the approach zones, transitional zones, horizontal zones, and conical zones as they apply to a particular airport. Such zones are shown on San Carlos Airport Hazard Zoning Map consisting of one sheet, prepared by the Department of Public Works, and dated April, 1977, which is attached to this Ordinance and made a part hereof. An area located in more than one (1) of the following zones is considered to be only in the

zone with the more restrictive height limitation. The various zones are hereby established and defined as follows:

(a) Utility Runway Visual Approach Zone (Runway 12) - The inner edge of this approach zone coincides with the width of the primary surface and is two hundred fifty feet (250) wide. The approach zone expands outward uniformly to a width of 1,250 feet at a horizontal distance of 5,000 feet from the primary surface. Its centerline being the continuation of the centerline of the runway.

(b) Utility Runway Visual Approach Zone (Runway 30) - The inner edge of this approach zone coincides with the width of the primary surface and is two hundred fifty feet (250) wide. The approach zone expands outward uniformly to a width of 2,630 feet at a horizontal distance of 11,900 feet from the primary surface. Its centerline being the continuation of the centerline of the runway.

(c) Transitional Zones - These zones are hereby established as the area beneath the transitional surfaces. These surfaces extend outward and upward at 90 degree angles to the runway centerline and the runway centerline extended at a slope of seven (7) feet horizontally for each foot vertically from the sides of the primary and approach surfaces to where they intersect the horizontal and conical surfaces. Transitional zones for those portions of the precision approach zones which project through and beyond the limits of the conical surface, extend a distance of 5,000 feet measured horizontally from the edge of the approach zones and at 90 degree angles to the extended runway centerline.

(d) Horizontal Zone - The horizontal zone is hereby established by swinging arcs of 5,000 feet radii from the center of each end of the primary surface of each runway, and connecting the adjacent arcs by drawing lines tangent to those arcs. The horizontal zone does not include the approach and transitional zones.

(e) Conical Zone - The conical zone is hereby established as the area that commences at the periphery of the horizontal zone and extends outward therefrom a horizontal distance of 4,000 feet.

SECTION 6623. AIRPORT ZONE HEIGHT LIMITATIONS. Except as otherwise provided in this Ordinance, no structure or tree shall be erected, altered, allowed to grow, or be maintained in any zone created by this Ordinance to a height in excess of the applicable height limit herein established of such zone. Such applicable height limitations are hereby established for each of the zones in question as follows:

(a) Utility Runway Visual Approach Zone (Runway 12) - Slopes upward twenty (20) feet horizontally for each foot vertically, beginning at the end of and at the same elevation as the primary surface and extending to a horizontal distance of 5,000 feet along the extended runway centerline.

(b) Utility Runway Visual Approach Zone (Runway 30) - Slopes upward thirty-four (34) feet horizontally for each foot vertically beginning at the end of and at the same elevation as the primary surface and extending to a horizontal distance of 11,900 feet along the extended runway centerline.

(c) Transitional Zones - Slopes upward and outward seven (7) feet horizontally for each foot vertically beginning at the sides of and at the same elevation as the primary surface and the approach zones, and extending to a height of 150 feet above the airport elevation which is nine (9) feet above mean sea level. In addition to the foregoing, there are established height limits sloping upward and outward seven (7) feet horizontally for each foot vertically beginning at the sides of and at the same elevation as the approach zones, and extending to where they intersect the conical surface.

(d) Horizontal Zone - One hundred and fifty (150) feet above the airport elevation or a height of 159 feet above mean sea level.

(e) Conical Zone - Slopes upward and outward twenty (20) feet horizontally for each foot vertically beginning at the periphery of the horizontal zone and at one hundred and fifty (150) feet above the airport elevation and extending to a height of 350 feet above the airport elevation.

(f) Excepted Height Limitation - Nothing in this Ordinance shall be construed as prohibiting the construction or maintenance of any structure or growth of any tree to a height up to 30 feet above the surface of the land.

Where an area is covered by more than one (1) height limitation, the more restrictive limitation shall prevail.

SECTION 6624. USE RESTRICTIONS. Notwithstanding any other provisions of the Ordinance, no use may be made of land or water within any zone established by this Ordinance in such a manner as to create electrical interference with navigational signals or radio communication between the airport and aircraft, make it difficult for pilots to distinguish between airport lights and others, result in glare in the eyes of pilots using the airport, impair visibility in the vicinity of the airport or otherwise in any way create a hazard or endanger the landing, takeoff, or maneuvering of aircraft intending to use the airport.

SECTION 6625. NON-CONFORMING USES.

(a) Regulations Not Retroactive - The regulations prescribed by this Ordinance shall not be construed to require the removal, lowering, or other changes or alteration of any structure or tree not conforming to the regulations as of the effective date of this Ordinance, or otherwise interfere with the continuance of a non-conforming use. Nothing contained herein shall require any change in the construction, alteration, or intended use of any structure, the construction or alteration of which was begun prior to the effective date of this Ordinance, and is diligently prosecuted.

(b) Marking and Lighting - Notwithstanding the preceding provision of the section, the owner of any existing non-conforming structure or tree is hereby required to permit the installation, operation and maintenance thereon of such markers and lights as shall be deemed necessary by the Director of Public Works, San Mateo County, to indicate to the operators of aircraft in the vicinity of the airport, the presence of such airport hazards. Such markers and lights shall be installed, operated, and maintained at the expense of San Mateo County.

SECTION 6626. PERMITS.

(a) Future Uses - No material change shall be made in the use of land and no structure or tree shall be erected, altered, planted, or otherwise established in any zone hereby created unless a permit therefor shall have been applied for and granted.

(1) However, a permit for a tree or structure of less than 75 feet of vertical height above the ground shall not be required in the horizontal and conical zones or in any approach and transitional zones beyond a horizontal distance of 4,200 feet from each end of the runway except when such tree or structure, because of terrain, land contour, or topographic features, would extend above the height limit prescribed for the respective zone.

(2) Each application for a permit shall indicate the purpose for which the permit is desired with sufficient particulars to determine whether the resulting use, structure, or tree would conform to the regulations herein prescribed. If such determination is in the affirmative, the permit shall be granted.

(b) Existing Uses - No permit shall be granted that would allow the establishment or creation of an airport hazard or permit a non-conforming use, structure, or tree to become a greater hazard to air navigation than it was on the effective date of this Ordinance or any amendments

thereto or than it is when the application for a permit is made. Except as indicated, all applications for such a permit shall be granted.

(c) Non-Conforming Uses Abandoned or Destroyed - Whenever the Planning Director determines that a non-conforming tree or structure has been abandoned or more than 80 percent torn down, physically deteriorated, or decayed, no permit shall be granted that would allow such structure or tree to exceed the applicable height limit or otherwise deviate from the zoning regulations.

(d) Variances - Any person desiring to erect or increase the height of any structure, or permit the growth of any tree, or use his property not in accordance with the regulations prescribed in this Ordinance, may apply to the Planning Director for a variance from such regulations. Such variances shall be allowed where it is duly found that a literal application or enforcement of the regulations would result in practical difficulty or unnecessary hardship and relief granted would not be contrary to the public interest but will do substantial justice and be in accordance with the spirit of this Ordinance.

(e) Hazard Marking and Lighting - Any permit or variance granted may, if such action is deemed advisable to effectuate the purpose of this Ordinance and is reasonable in the circumstances, be so conditioned as to require the owner of the structure or tree in question, at his own expense, to install, operate, and maintain thereon such markers and lights as may be necessary to indicate to pilots the presence of any airport hazard.

SECTION 6627. ENFORCEMENT. It shall be the duty of the Planning Director to administer and enforce the regulations prescribed herein. Applications for permits and variances shall be made to the Planning Director upon a form furnished by him. Applications required by this Ordinance to be submitted to the Planning Director shall be promptly considered and granted or denied by him. Application for action by the Planning Commission shall be forthwith transmitted by the Planning Director.

SECTION 6628. APPEALS.

(a) Any person aggrieved or any taxpayer affected, by any decision of the Planning Director made in his administration of this Ordinance, may appeal to the Planning Commission.

(b) All appeals hereunder must be taken within a reasonable time as provided by the rules of the Planning Commission by filing with the Planning Director a notice of appeal specifying the grounds thereof. The Planning Director shall forthwith transmit to the Planning Commission all the papers constituting the record upon which the action appealed from was taken.

(c) The Planning Commission may, in conformity with the provision of this Ordinance, reverse or affirm, in whole or in part, or modify the order, requirement, decision, or determination appealed from and may make such order, requirement, decision, or determination, as may be appropriate under the circumstances.

SECTION 6629. REVIEW BY BOARD OF SUPERVISORS. Any person aggrieved, or any taxpayer affected, by any decision of the Planning Commission, may appeal to the Board of Supervisors by filing a written notice of such appeal with the Planning Commission within ten (10) days of the final action of the Planning Commission.

SECTION 6630. VIOLATIONS. In the event any person should erect, construct, move, alter or attempt to erect, construct move or alter any structure or allow any tree to exceed a height, in violation of the provisions of this Ordinance, the same is hereby declared a public nuisance, and it shall be the duty of the District Attorney of the County of San Mateo to bring and prosecute an action in any Court of competent jurisdiction to enjoin such person from continuing such erection, construction, moving, alteration or growth, is being or has been accomplished, the District Attorney shall bring and prosecute an action to enjoin such person for maintaining the same.

SECTION 6631. CONFLICTING REGULATIONS. Where there exists a conflict between any of the regulations or limitations prescribed in this Ordinance and any other regulations applicable to the same area, whether the conflict be with respect to the height of structures or trees, the use of land, or any other matter, the more stringent limitation or requirement shall govern and prevail.

SECTION 6632. SEVERABILITY. If any of the provisions of this Ordinance or the application thereof to any person or circumstances is held invalid, such invalidity shall not affect other provisions of applications of the Ordinance which can be given effect without the invalid provision or application, and to this end, the provisions of this Ordinance are declared to be severable.

(Chapter 33 - Repealed by Ordinance No. 2663 - July 8, 1980)
(Chapter 33, Sections 6620 through 6632 - Added by Ordinance No. 2663 - July 8, 1980)