

NAPA COUNTY

NAPA VALLEY BUSINESS PARK SPECIFIC PLAN AND EIR

ADOPTED JULY 29, 1986

(as amended thru 10/22/13)

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PREFACE

What Is a Specific Plan? State law authorizes cities and counties with complete general plans to prepare and adopt specific plans. Specific plans are meant to provide a bridge between the local general plan and individual development master plans. A specific plan combines planning policies, detailed development standards, capital improvement requirements, and other regulatory schemes into one document which can be tailored to meet the needs of a specific area.

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**NAPA COUNTY NAPA VALLEY BUSINESS PARK
SPECIFIC PLAN AND EIR**

Adopted July 29, 1986 by Napa County Board of Supervisors (Resolution 86-60)

Recommended by Napa County Conservation, Development and Planning Commission/Napa County Airport Land Use Commission (Resolution 86-3)

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AMENDED BY THE NAPA COUNTY BOARD OF SUPERVISORS

10/11/88 (Resolution 88-120)
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07/24/04 (Resolution 04-110)
05/06/08 (Resolution 08-67)
01/10/12 (Resolution 2012-02)
10/22/13 (Resolution 2013-134)

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NAPA COUNTY AIRPORT

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PLAN SUMMARY

Table 1
SUMMARY DATA

PLANNING AREA	Along State Route 29 immediately south of the Napa city limits and approximately 2.75 miles north of the Solano County line and the City of Vallejo.		
PLANNING AREA SIZE	Approximately 2,945 acres.		
PARCELIZATION AND OWNERSHIP	162 recorded parcels ranging in size from 0.1 to 622.4 acres; held by approximately 100 owners.		
GOVERNMENTAL AND SERVICE JURISDICTIONS	Fifth Supervisorial District.		
	<i>Fire:</i> Napa County Fire Department and the American Canyon Fire Protection District.		
	<i>Police:</i> Napa County Sheriff's Department.		
	<i>Sewer:</i> City of American Canyon and the Napa Sanitation District.		
	<i>Water:</i> Napa City Water Department and City of American Canyon.		
EXISTING AND PLANNED LAND USE (ACRES)		Existing (1984)	Planned (Buildout) (amended 2013)
	General Industrial	219	569
	Business/Industrial Park	29	1,379
	Institutional (Airport)	747	824.65
	Agriculture and Open Space	1,780	36

I. PLAN SUMMARY

A. OVERVIEW

The overall objective of the Napa Valley Business Park Specific Plan and EIR is to guide and facilitate development of the designated 2,945-acre Napa Valley Business Park. The plan recognizes the economic importance to the County and region of the airport area and responds to the area's identification in the Napa County General Plan as the principal unincorporated location for industrial development. The specific plan has been prepared in a manner consistent with the requirements of the State Planning and Conservation Law, Title VII, Article 8, Section 65450. The plan includes:

A set of detailed land use and circulation standards for development of the area;

A set of associated capital improvement requirements and sequences;

A description of suggested cost responsibilities and financing approaches; and

A description of potential environmental impacts and mitigation needs associated with development under the plan (a summary of these impact and mitigation findings follows page 137 of this document).

Specific plan summary data are provided in Table 1. The plan designates an estimated 50-year inventory of industrial land, and concentrates on identifying standards and actions for development in the more foreseeable first 30 years of planning area absorption.

The plan is intended to provide the Napa County Planning Commission, Airport Land Use Commission, and Board of Supervisors with an explicit policy base for decision making with respect to private and public development in the planning area. The plan's policies should not be viewed as unalterable, but rather as statements of what is considered to be in the best interest of the County at this point in time. The plan should be reviewed every 24 months and periodic modifications should be made as warranted to reflect changes in conditions and attitudes.

The plan will ultimately accommodate 1,948 acres of industrial development, including 1,379 acres of Business/Industrial Park and 569 acres of General Industrial. The plan sets forth a set of development standards for its industrial areas which will assure investors of a long-term, harmonious industrial environment with minimal conflict between business/industrial park, general industrial, and airport activities. The plan also proposes a regional road improvement program which will substantially increase planning area competitiveness with other industrial areas in the region.

Planning area employment is expected to reach 6,000 jobs by the year 2000, and approximately 13,000 jobs by the year 2015. The plan provides an implementation methodology to ensure that a logical relationship is maintained between job creation and the County's residential Growth Management System.

The sequence of road, sewer, water, and other public service improvements necessary to implement the plan is described. Associated capital improvement cost responsibilities and funding methods to avoid adverse fiscal impacts on the County are also identified.

The plan includes a set of roadside landscaping measures, sign controls, and development standards which will improve and protect the visual quality of the important State Route 29 corridor through this part of the County.

The land use element also includes policies to ensure a logical relationship between the employment impacts of the specific plan and anticipated regional housing growth. The policies include controls on employment intensity through floor area ratio and parking-ratio requirements, and the establishment of a periodic monitoring procedure to determine whether employment growth is occurring at a rate consistent with ABAG housing growth allocations within a reasonable commute distance from the planning area.

The plan also urges the establishment of State Route 29 and Kelly Road as the edge of the planning area and the logical separator between airport area industrial uses and scenic rural landscape to the east. The plan recommends a change in the current General Plan designations for those vacant lands east of this edge from industrial to permanent open space in order to achieve a clear separator effect and to increase the viability of the planning area as the County's principal industrial zone. The plan also recommends that General Plan and Zoning Ordinance designations for lands adjacent to and south of Green Island Road be changed from Industrial to General Industrial, in order to ensure that the same development standards apply on both sides of road.

The plan document includes the following chapters: (1) this **Summary**, (2) a **Purpose and Background** description, (3) a **Planning Area** description, (4) a listing of basic **Plan Goals**, (5) a **Land Use Element**, (6) a **Circulation Element**, (7) a **Public Facilities Element**, (8) an **Implementation Element**, (9) a description of **Specific Plan Relationships to Local Plan Goals and Policies** now in effect, and (10) an **Environmental Impact Report**. A separate plan and EIR supplement includes **Responses to Comments** on the Environmental Impact Report, plus the plan and EIR **Appendices**.

A Brief synopsis of the major aspects of the plan follows, including a summary map illustrating the major land use and circulation features of the plan.

B. PLANNING AREA ASSETS AND OPPORTUNITIES

Based upon the analysis of planning area characteristics described in the EIR (Section X), a summary is provided below with respect to planning area assets and opportunities for industrial development:

1. The large planning area inventory of predominantly vacant, relatively flat, developable land provides an opportunity for coordinated industrial development.
2. The surrounding rural landscape provides an attractive setting for planning area industrial development.
3. The area is convenient to road, rail, and air access and to indirect access by water (the Napa River).

4. The area's location at the junction of the County's major north-south and east-west transportation routes provides excellent local access and the potential for good regional access.
5. The area's location adjacent to the Napa County Airport provides an attraction factor for aviation-oriented businesses and an opportunity to develop airport-related industry.
6. The area's location in the southern County provides the possibility of a major employment center for County residents which can also draw upon the available workforce in nearby Solano And Sonoma Counties.
7. Much of the planning area is served or is readily serviceable by common sewer and water systems.
8. The development of the Napa Valley Corporate Park to the north of the area establishes a high standard for industrial development which will be an important marketing factor for attracting new industry to the area.
9. As a non-through road, Green Island Road provides a good location for development of general industrial uses due to its isolated nature and low visibility from major thoroughfares or developments.
10. Natural features to the north (Soscol Ridge and the Southern Crossing), east (agricultural lands), and west (Napa River and related wetlands) help define the area and buffer nearby areas from possible land use conflicts.

C. PLAN OBJECTIVES

Goals and objectives which are the foundation of the plan are summarized below:

1. Provide a specific plan which recognizes the economic importance to the County and region of the Napa Valley Business Park and responds to the area's identification in the Napa County General Plan as the principal County location for industrial development.
2. Provide for a mix of industrial development which is responsive to County desires, anticipated market demands, and landowner intentions.
3. Implement a program of regional road access improvements which will substantially increase planning area competitiveness with other industrial areas in the region.
4. Maintain compatibility between planning area land uses and Napa County Airport activities.
5. Encourage new business development in the planning area through provisions of adequate land area and development standards for modern, non-nuisance business/industrial park development.

6. Sustain current economic activities in the planning area by providing adequate land area and development standards for expansion of general industrial development.
7. To maintain healthy market conditions, set aside acreage for industrial development in excess of anticipated demand.
8. Establish reasonable development standards which will assure planning area investors of a long-term, harmonious industrial environment with minimal conflict between business/industrial park, general industrial, and airport activities.
9. Provide varying levels of development regulation and design control tailored to the range of industrial activities desired.
10. Establish land use policies and development guidelines which will protect and enhance the visual character of the industrial area, particularly as viewed from S.R. 29.
11. Maintain a logical relationship between planning area job creation and the residential growth limitations of the County's residential Growth Management System.
12. Establish a planning area roadway system of primary and secondary routes which will adequately serve traffic demands as they develop, with sufficient ultimate improvement capacity to accommodate the 30-year level of development.
13. Add plan-designated internal road segments as associated development occurs.
14. Condition industrial development approvals upon applicant provision of related capital improvement requirements as prescribed by the plan (roads, sewer, water, storm drainage, etc.).
15. Provide a system of common capital improvements (road, sewer, water, and storm drainage facilities) which can be constructed in sequences to meet the immediate needs of individual development actions, and can ultimately combine with other similar components to form an integrated, overall capital improvement network.
16. In light of their interregional, regional, and local benefits, plan-specified regional access improvements should be jointly funded by CalTrans, the County (through future Countywide development fees), and planning area landowners (through special assessments).
17. The County should also assist in funding plan-specified Airport Road improvements, in light of County airport entranceway benefits.
18. Each benefitting landowner should contribute a share in proportion to the benefit received towards the cost of common planning area improvement requirements, through such financial mechanisms as assessment districts, developer refunding agreements, development fees, and service charges.

19. A coordinated system of landscaping, signage, street lighting, and other design features should be established for reasonable application to visually enhance and distinguish the Napa Valley Business Park.

D. LAND USE POLICIES

Plan land use allocations are diagrammed on Figure S-1. The purpose and objectives of the six land use designations area summarized below:

Airport. (797 acres) This designation includes the publicly owned Napa County Airport property. The airport is currently a general aviation facility serving privately owned propeller and business jet aircraft, and providing quarters for various flying services, a large pilot training program, and a popular restaurant. Annual aircraft activity is expected to reach 375,000 operations by the year 2000.

Business/Industrial Park. (1379 acres) This designation is intended to provide exclusively for modern, well-planned, non-nuisance light industrial and business park uses which are compatible with each other, the airport, the S.R. 29 corridor, and surrounding open space areas. Land uses in these areas are subject to special development standards established in the plan to ensure a harmonious, optimal environment for industrial occupants. Allowable uses include research and development, light manufacturing, light assembly, warehousing and distribution, development, administrative headquarters, and other professional and administrative facilities. Development in these areas is subject to special requirements for site and building design, landscaping, roads, signage, off-street parking, noise control, and outdoor storage that together will enhance the market attractiveness of the entire planning area. Design review is required.

General Industrial. (569 acres) This designation is intended to accommodate expansion of general manufacturing, agricultural processing, indoor and outdoor storage facilities, salvage yards, construction materials operations, and other activities which may require extensive land areas, relatively low land costs, and good access, but are not adaptable to higher quality development standards. The designation has been confined to areas which are visually contained and where land use impacts can be minimized. Plan-prescribed development standards for these areas are less stringent than for business/industrial park areas, with emphasis on special treatments along site boundaries (especially those which are contiguous to business/industrial park and other nuisance-vulnerable uses).

Agriculture and Permanent Open Space (36 acres) Areas designated for agriculture and permanent open space are those airport approach Clear Zone lands which are not currently owned by the airport. Clear Zones are designated at all four ends of the two airport runways. To provide permanent protection against incompatible land uses, the plan calls for a prohibition on all urban development within these Clear Zones.

Primary and Secondary Approach Zones. Primary Approach Zones are designated at the ends of the airport's primary north-south runway in a manner consistent with Federal Aviation Administration standards. A Secondary Approach Zone is designated at the end of the airport's east-west oriented secondary runway. New urban uses within these zones are subject to special land use controls on building coverage, building height, employment density, and other hazard factors to mitigate potential safety conflicts between aircraft landing and taking-off patterns and urban development. Land uses

here must also comply with Napa County Airport Safety Code regulations for Primary and Secondary Approach Zones.

Stream and Water Quality Protection. Development guidelines have been incorporated into this specific plan to minimize surface runoff impacts, water pollutant loading from urban surfaces, and stream channel degradation. The guidelines require dedication of open space easements along Suscol and Fagan Creeks. In addition, the Land Use Element includes specific erosion and sedimentation control requirements to ensure that sediment loads do not increase in excess of 10 percent of background levels. Runoff control, spill containment, and cleanup measures are also included to reduce the potential for stream pollution by toxic chemicals.

E. CIRCULATION POLICIES

The principal objectives of the plan's Circulation Element are to substantially improve regional access to the planning area, organize the regional and local roadway system into a logical and integrated network, design roadways to adequately meet future cumulative traffic demands, and provide adequate vehicular access to each parcel. Major components of the plan-designated road system and their intent are described below:

Highways. S.R. 29 is designated as a controlled-access highway for interregional traffic movement. The plan indicates that widening of S.R. 29 to six lanes between S.R. 221 and American Canyon Road will be warranted when peak traffic volumes exceed 3,600 vehicles per hour. The EIR anticipates that this volume will be reached near the year 2000, with widening warranted soon after that time. In anticipation of this widening, the plan calls for limiting full S.R. 29 access from the planning area to the following intersections:

- Soscol Ferry Road/S.R. 221
- Airport Road/Jameson Canyon Road (S.R. 12)
- Green Island Road

In addition, the plan calls for limiting S.R. 29 access at the north and south ends of Kelly Road to right turns only. The plan and EIR also indicate that direct Tower Road access to S.R. 29 should initially be limited to right turns (southbound) only, and should eventually be disconnected when S.R. 29 is widened to six lanes.

The plan recommends construction of a frontage road parallel to southbound S.R. 29 between Tower Road and Green Island Road to provide local access to parcels now fronting on the west side of the highway. The frontage road should be 32 feet wide from curb to curb with no on street parking.

Arterials. Arterial roads are designated in the plan as major local routes to expedite the flow of higher speed, through traffic, and to provide efficient planning area access to the regional highway network. The plan calls for restrictions on direct access from these routes to abutting properties.

Airport Road is designated for widening to full 5-lane arterial standards (two through lanes in each direction, a continuous raised median, and median left-turn lanes at intersections) between S.R. 29 and the airport, with no direct access from the route to abutting properties. Bases on buildout rate projections in the EIR, the widening will be warranted between 1985 and 2000.

Collector Roads. The plan calls for two systems of 2-, 3-, and 4-lane collector roads to serve internal planning area traffic movements, and to connect with the major highway system. A north-south extension of Devlin Road will provide a collector system for the areas west of S.R. 29; and Kelly Road will provide a collector system for the east side.

Completion of the Devlin Road extension is expected to be warranted sometime after the year 2000 (year 15 to 20). Until then segments should be constructed by individual developers as needed.

The completed Devlin Road extension will provide a north-south connection between the Soscol Ferry Road undercrossing and Green Island Road. The northern section between Soscol Ferry and Airport Roads will ultimately require four lanes since it will connect both the northern planning area and the Napa Valley Corporate Park to Jameson Canyon Road. The section between Airport Road and the northern SPTC track will operate adequately at three lanes (two travel and a continuous left-turn center lane). The last section between the tracks and Green Island Road will operate adequately at two lanes, if left-turn lanes are provided at all minor access points.

The plan and EIR indicate that Kelly Road will also operate adequately at two lanes if left-turn lanes are provided at all minor access points.

All other designated collector routes will operate at adequate service levels at either three or two lanes, depending on projected traffic volumes. The plan Circulation Element indicates which road segments are four, three, and two lanes.

Minor Roads. A system of minor roads will be needed to provide access to abutting lands. All minor roads will operate adequately at two lanes.

Intersections

S.R. 29/S.R. 12 (Jameson Canyon Road/Airport Road Intersection). The plan calls for immediate widening of the southbound S.R. 29 and eastbound S.R. 12 approaches to this intersection to accommodate two left-turn lanes. By the year 2000, construction of a diamond-type grade-separated intersection is expected to become necessary.

S.R. 29/S.R. 221 (Soscol Avenue) Intersection. Construction of a grade-separated intersection is expected to become necessary prior to the year 2000.

Signalization. The signalization of major internal intersections is expected to become necessary sometime after the year 2000 (between year 2000 and 2005).

F. PUBLIC FACILITIES POLICIES

Sanitary Sewer Service

Sewer Layout. A schematic layout for planning area sewage collection is suggested in the plan. The layout is limited to common trunk lines necessary to provide adequate gravity collection to all parcels designated for industrial use. For areas north of Fagan Creek, the existing trunk line system is expected to be adequate to provide for most collection needs anticipated under plan land use policies.

Additional 10- and 8-inch collection lines will be needed to serve areas north of Sheehy Creek, the Airport Road area, and the north Kelly Road area.

For areas south of Fagan Creek, no existing trunk lines extend into the area. A new system of 10- and 8-inch collection lines would have to be installed to serve industrial expansion in these areas. A schematic layout of such a system is suggested in the plan.

Sewage Treatment. Based on buildout rate assumptions described in the EIR, the planning area can be expected to require roughly 0.2 mgd of treatment capacity by the year 2000, and 0.6 mgd by the year 2015. A maturing sewer fund generated by current and future assessments would finance treatment improvement needs made necessary by the planning area and cumulative development.

Sewer Construction Policies. To ensure adequate sewer service, all future development in the planning area is subject to a number of policies and requirements prescribed in the Public Facilities Element of the plan. The plan calls for preparation of a **sewer facilities master plan** by the LAFCO-designated sewer service agencies which will establish an integrated sewer system of each service area, adequately sized to accommodate full buildout under the provisions of the plan, and designed for construction in sequences to meet the immediate needs of separate, near-future development actions.

All development approvals will be contingent upon applicant and sewer agency provisions of the sewer improvement needs and requirements set forth in the sewer facilities master plan.

Water Service

Water System Layout. Installation of a common planning area water system will be necessary to meet the needs of plan industrial designations. The system will require certain common improvements, including an internal transmission main or grid system with adequate delivery capacity to provide for peak, reserve, and emergency fire flow needs. A water main layout is suggested in the plan.

Water Supply. Sources of planning area water supply are expected to be existing mains which currently extend into the area from two water service agencies, the Napa Municipal Water District and the American Canyon County Water District. The service area boundary between these two water service agencies should continue to be Suscol Creek.

Water Service Policies. To ensure adequate and safe water service, all development in the planning area is subject to a number of plan-prescribed policies and conditions. the plan calls for preparation of a **water facilities master plan** by each of the two water service agencies, which establishes an integrated water delivery system adequate to meet the water requirements of manufacturing processes, fire protection, and other needs associated with the plan's industrial designations.

All development approvals will be contingent upon applicant provision of the connection and flow requirements set forth in these two water facilities master plans.

Storm Drainage

The plan also calls for immediate preparation of a **storm drainage system master plan** under the auspices of the Napa County Department of Public Works (Napa County Flood Control and Water Conservation Agency) and funded by the planning area zone of benefit, which establishes an integrated drainage system adequate to accommodate full buildout under the plan. The storm drainage system will be constructed in sequences (i.e., with road construction) to meet the needs of separate development actions as they occur.

Fire Protection

The plan recommends acquisition of a site near or within the planning area for construction of a new fire station facility to serve the planning area and South County. The new station will be warranted sometime between 1985 and the year 2000 to improve response times to urbanized areas in the South County.

Law Enforcement

Industrial expansion under the plan's policies is expected to result in a doubling of the number of calls from the planning area to the Napa County Sheriff's Office by the year 2000. Based on planning area absorption rate projections in the EIR, an estimated two additional deputies would be needed by the year 2010.

G. GROWTH MANAGEMENT POLICIES

As a result of a 1980 ballot initiative, the board of Supervisors adopted a residential Growth Management System (GMS). The system applies to the **unincorporated** areas of Napa County only, allocating a fixed number of new residential building permits per year. The GMS has been included as an element of the County's General Plan.

An important goal of the specific plan is to establish a development program for the Napa Valley Business Park which is consistent with the County's General Plan. To meet that goal, the plan includes the following measures to ensure that a reasonable balance is maintained between the employment impacts of this specific plan, and the housing availability implications of the County's GMS:

1. Employment intensity per acre is limited by floor area ratio (F.A.R.) standards. The maximum allowable F.A.R. for most industrial uses is 0.35 square feet of building floor area per acre of net lot area (warehousing can go as high as 0.50).
2. Employment intensity is also limited by minimum and maximum parking requirements. The plan's parking ratio minimums discourage employment intensities in excess of rates normally anticipated for the designated industrial uses. Parking ratio maximums also discourage future conversion of existing buildings to higher employment intensity uses.
3. The plan calls for establishment of a periodic jobs-housing monitoring process. **Every 24 months**, the PC shall report on the rate and character of planning area development and

whether related housing impact estimates are consistent with ABAG housing growth allocations for areas within a reasonable commute distance. Data on the following three housing-jobs balance factors will be updated at the end of each 24-month period: (a) the estimated planning area employment total, (b) ABAG forecasts of housing growth for all statistical areas within a reasonable commute distance from the planning area, and (c) any changes in County GMS allocations which are not accounted for in the ABAG figures. Based on this statistical update, a determination will be made whether or not the rate and character of planning area employment growth, in combination with the County's GMS, are resulting in a significant adverse regional housing impact.

H. PLAN IMPLEMENTATION POLICIES

All planning area development approvals shall be contingent upon a County finding of substantial compliance with this specific plan.

The plan recommends that two new zoning districts, Business/Industrial Park (BP) and General Industrial (GI), be added to the Napa County code to fully clarify the County's intent and add substantial strength to its regulatory ability to implement the specific plan. The plan also recommends that a new County Airport Combining District (CAC) be included in the Code for application to all Clear Zone and Primary and Secondary Approach Zone lands not owned by the County Airport. The CAC District would establish requirements as set forth in this plan (in addition to those of the underlying land use districts) with respect to building heights, building coverage, employment intensity, and other aviation hazards and nuisances.

The plan also suggest the following capital improvement sequence for various road, sewer, water, storm drainage, and fire improvements:

SUGGESTED CAPITAL IMPROVEMENT SEQUENCES

PHASE 1--1985 TO YR. 2000

Roads

- Preparation of a rights-of-way landscaping master plan.
- S.R. 29/S.R. 12 (Jameson Canyon Road)/Airport Road grade-separated diamond interchange.
- S.R. 29/S.R. 221 (Soscol Avenue) grade-separated diamond interchange.
- S.R. 29 widening from 4 to 6 lanes between S.R. 221 and American Canyon Road.
- S.R. 29 related frontage roads and right-turn-only restrictions on Kelly and Tower Roads.
- S.R. 12 (Jameson Canyon road) widening from 2 to 4 lanes between S.R. 29 and I-80.
- Airport Road improvement to 5-lane arterial status.
- Internal collector and minor streets necessary to serve new development as it occurs.

Sewer

- Preparation of sewer master plan.
- Initial trunk line extensions as warranted to serve new development subareas.
- Secondary lines and laterals to serve individual developments as they occur in proximity to the initial trunk line extensions.

Water

- Preparation of water master plan.
- Initial water main extensions to serve subareas in SCA #3 and along the first leg of Green Island Road as warranted to serve new development subareas.
- Secondary lines and laterals to serve individual developments as they occur in proximity to the initial water main extensions.

Storm Drainage

- Preparation of a storm drainage master plan.
- Initial common facilities determined to be necessary in the storm drainage master plan (detention basins, tide gates, culverts, bypasses, parallels, etc.) to serve areas tributary to initial phases of road, sewer, and water extension.
- Secondary storm drains as necessary to serve new development subareas (incorporated wherever possible in road extension designs).

Fire

- Acquisition of new site near or within planning area.
- Construction of new fire station facility.
- Purchase of additional equipment.
- Provision of associated additional personnel needs.

PHASES II--2000 TO 2015

Roads

- Completion of north-south extension of Devlin Road between Soscol Ferry Road and Green Island Road.
- Addition of S.R. 29 northbound and S.R. 12 eastbound loop offramps to the S.R. 29/S.R. 12 (Jameson Canyon Road) diamond interchange.
- Signalization of major internal intersections.
- Conversion of Tower Road from direct connection to S.R. 29 to cul-de-sac.
- Internal collector and minor streets necessary to serve new development as it occurs.

Sewer

- Additional trunk line extensions necessary to serve additional development subareas.
- Secondary lines and laterals to serve individual developments as they occur in proximity to trunk line extensions.

Water

- Additional water main extensions to serve additional development subareas.
- Secondary lines and laterals to serve individual Phase II developments as they occur in proximity to water main extensions.

Storm Drainage

- Additional common facilities as called for in storm drainage master plan (detention basins, tide gates, culverts, bypasses, parallels, etc.) to serve areas tributary to Phase II extensions of roads, sewer, and water.
- Secondary storm drains necessary to serve additional development subareas (incorporated wherever possible in associated road extension designs).

Fire

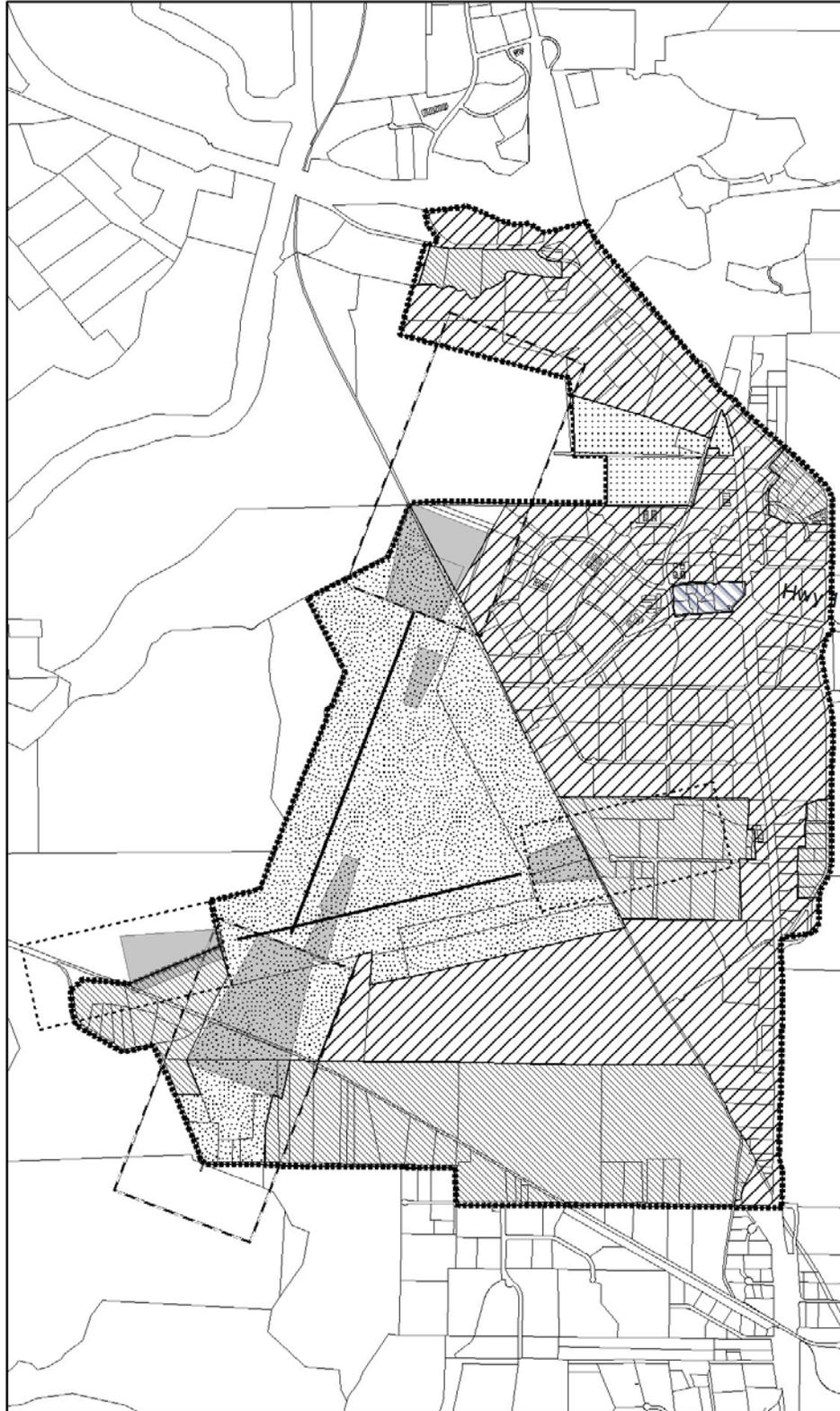
- Purchase of additional equipment necessary to protect added cumulative development in South County service area.
- Provision of associated additional personnel needs.

The plan also prescribes capital improvement cost responsibilities based upon associated benefits, and suggests related financing approaches as follows:

Category	Items	Financing Approaches
Improvements benefitting all planning area landowners, plus other landowners in the vicinity and the County as a whole	Widening of S.R.29, including frontage road	Allocate non-state responsibilities to new development through development fees set on a Countywide fair share basis
	S.R.29 landscaping	
	Grade-separated interchanges	
	Fire station	
	Sewage treatment improvements	
Improvements benefitting all planning area industrial landowners	Devlin Rd. extension and signalization	Planning area assessment district (all industrial areas) and/or refunding agreements
Improvements benefitting all planning area industrial landowners	Initial, non-continuous segments of the Devlin Rd. extension nec. to serve individual projects	Subarea assessment districts, refunding agreements, or direct developer responsibility
	Road, sewer, water line, and storm drainage extensions to serve separate subareas, plus related landscaping, signage, etc.	
Improvements benefitting individual landowners	Segments of arterial, collector, and minor streets, and related landscaping and signage	Private financing with County assistance available through an Industrial Revenue Bond program
	Sewer and water laterals	

FIGURE S1

Plan Summary



Legend

NVBP 1986 Boundary

NVBP_Summary

Summary Areas

- Ag & Perm. Open Space
- Airport
- Bus/Industrial Park
- Devlin Resort Dvlp
- General Industrial
- Gateway Bus/Cmrc

Approach_Zones

TYPE

- Primary
- Secondary
- Airport Clear Zone
- Parcels



Horizontal Datum: NAD 83,
CA State Plane Coordinates,
Zone II, feet

County of Napa

P. B. E. S.

1986 NVBP
Plan Summary

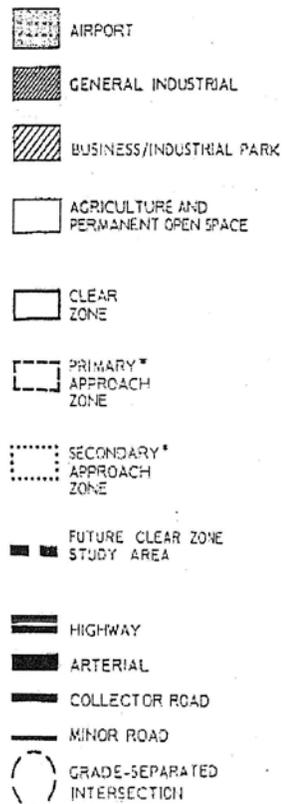
Revised Date: 02/05/2014

Disclaimer: This map was prepared for informational purpose only. No liability is assumed for the accuracy of the data delineated hereon.



Created Date: 01/03/2004

FIGURE S1
PLAN SUMMARY



*Boundaries shown as established in the
Yuba County Airport Master Plan (June 1976)

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II. PLAN PURPOSE AND BACKGROUND

A. PURPOSE

This document includes a specific plan and master environmental assessment for the future use of the 2,945-acre Napa Valley Business Park located along State Route 29 at the southern end of Napa County (see Figures 1 and 2). The plan sets forth detailed land use and circulation standards, capital improvement requirements, associated financing and improvement sequencing measures, as well as necessary supporting policies and regulatory procedures to implement the plan. The plan also incorporated necessary environmental impact documentation.

In the 1983 General Plan, the County identified the preparation, review, and approval of a specific plan and master EIR for the Napa Valley Business Park as a priority. On June 19, 1984, authorization was given by the Board of Supervisors to hire a consultant to prepare a specific plan and EIR to guide and facilitate development of industrial lands in the vicinity of the Napa County Airport.

The Napa County General Plan provides the primary policy foundation for this program. This specific plan is essentially a detailed formulation of the general goals and policies stated in the General Plan and as such is consistent with it. In order to accommodate specific plan particulars however, certain aspects of the General Plan might need to be amended.

This Napa Valley Business Park Specific Plan has been prepared in a manner consistent with the requirements of State Planning and Conservation Law, Title VII, Article 8, Section 65450. By law, specific plans are expected to implement the general plan, providing an intermediate level of detail between the general plan and individual development master plans.

The environmental impact report and response to comments supplement have been prepared pursuant to all relevant provisions of the California Environmental Quality Act. The environmental analysis is general in scope, discussing cumulative impacts expected to result from buildout of the planning area under these specific plan policies. Portions of the EIR are integrated into the specific plan.

All land in the specific plan area is currently zoned for industrial development, with the exception of those areas in the Airport (AV) District designation. Over the years industrial and heavy commercial development has occurred in the area in a scattered fashion with roads and services being extended into the area on a piecemeal basis as needed by individual property owners. At present, it appears that a number of property owners are considering more substantial development plans that will require the extension of additional infrastructure to large portions of the planning area.

This Napa Valley Business Park Specific Plan and EIR has been initiated by the Board of Supervisors to provide a number of benefits to planning area landowners and the County as a whole, including:

1. Documentation of an explicit policy base for use by the Napa County Planning Commission, Airport Land Use Commission, and Board of Supervisors in decision making with respect to both public and private development and investment decisions related to the area;

II. PLAN PURPOSE AND BACKGROUND

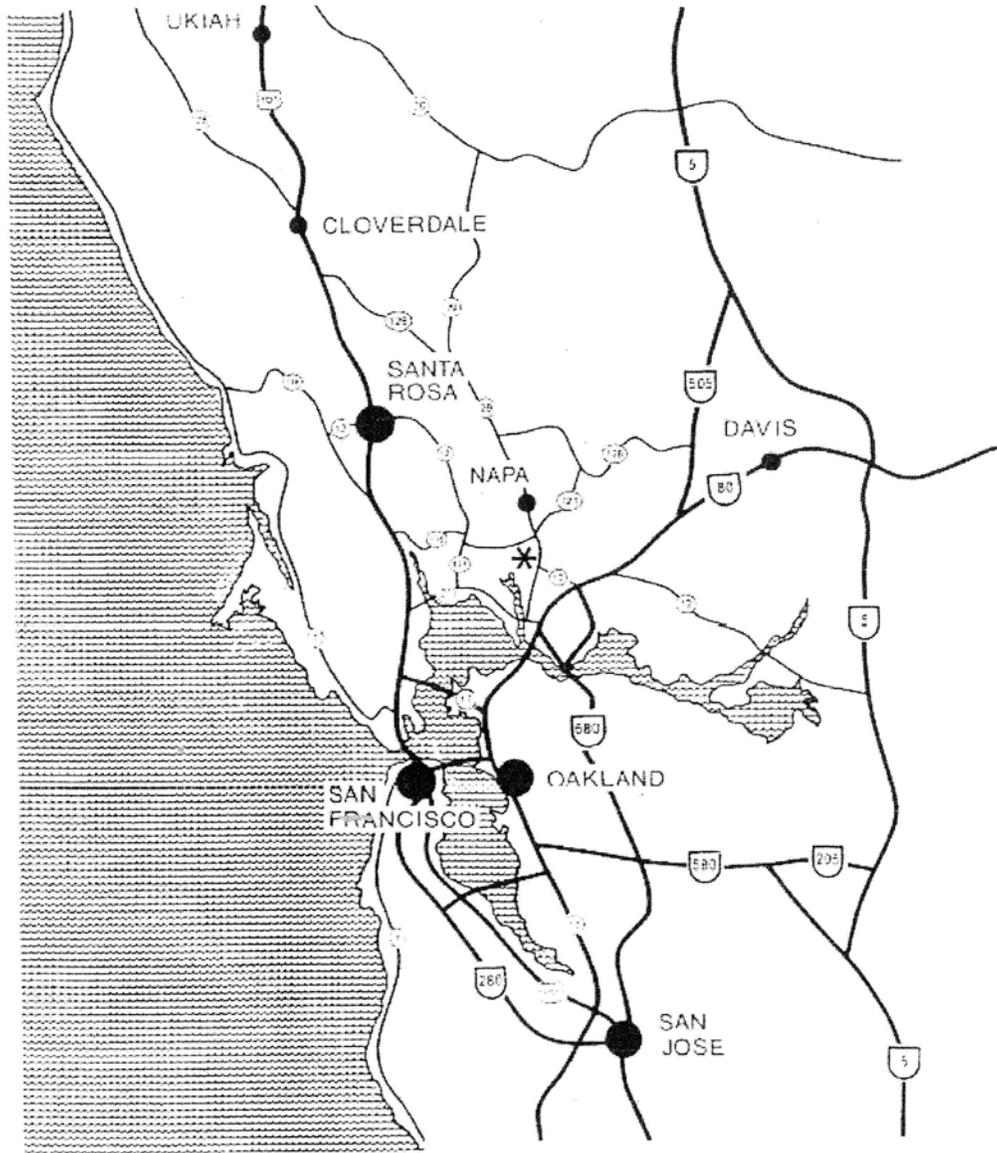
2. Recommended mechanisms to provide and finance necessary public service improvements in the area;
3. Adequate environmental documentation so that a reduced scope of environmental review will be sufficient for individual project applications which are consistent with the plan; and
4. A clear basis for development review so that individual applications which are consistent with the plan can be "fast-tracked", i.e., processed more quickly.

In addition, the plan is designed to respond to a number of specific County objectives, including desires to: (a) enhance State Route 29 as a principal ground approach to the County; (b) ensure that industrial development in the area takes place in an orderly, well-conceived manner as the necessary public services are provided; (c) improve the County's economic and tax base; and (d) ensure that industrial growth in the County will be consistent with regional housing opportunities.

B. HISTORY

Prior to World War II, the planning area was almost exclusively agricultural, consisting primarily of grazing and forage crops. The airport was constructed in 1942 on land purchased by Napa County with the Federal Government furnishing funds to construct the runways to establish an air base for national defense purposes. The airport reverted back to County control for civilian use in November 1945. Operations at the airport have grown steadily over the years, from three based aircraft in 1946 to approximately 245 based aircraft and 230,000 operations annually in 1984.

Dating from the first Napa County General Plan and Zoning Ordinance in 1955, industrial development has been suggested in the State Route 29/County airport vicinity. Over the years, however, other counties have been more competitive and the County has not experienced a high rate of industrial development. Except for scattered development along S.R. 29 and Green Island Road, the area has remained primarily as agricultural open space. Through the '70s and the first half of the '80s, County planning actions have sought to provide sufficient industrially zoned property in the unincorporated airport area while also providing the airport itself with adequate protection from future urban encroachment. These actions have included the rezoning of residential districts to avoid housing near the airport (1970), the adoption of an Airport Master Plan to accommodate future airport facility expansion needs (1976), and the designation of additional industrial areas north of the airport (1981). As a result of these actions, industrially zoned lands in the south County now total approximately 3,200 acres and the development emphasis which once concentrated along the S.R. 29 corridor has expanded into internal areas closer to the airport.



* PLANNING AREA LOCATION

FIGURE 1
REGIONAL LOCATION



II. PLAN PURPOSE AND BACKGROUND

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III. PLANNING AREA DESCRIPTION

A. REGIONAL LOCATION

As illustrated in Figure 1, the planning area is located in the southern end of the County just South of the Napa City limits and approximately 2.75 miles north of the Solano County line and the City of Vallejo. San Francisco is approximately 42 miles to the south. Regional access is provided by State Route 29, which is the primary north-south arterial in the Napa Valley, and runs through the eastern portion of the planning area. East-west access, connecting the area to U.S. 101 to the west and Interstate 80 to the east, is provided by State Route 37, approximately 4 miles south of the area, and State Route 12 (Jameson Canyon Road), which enters from the east and then skirts the north edge of the planning area.

Rail freight transportation to the area is provided by the Southern Pacific Transportation Company (SPTC). At Napa Junction, a major rail switching point which divides into three lines, two of which traverse the planning area. A main line serving the County connects with the airport and then follows S.R. 29 north to St. Helena. A second line crosses the corner of the planning area just south of the airport and runs west into Sonoma County where it connects with the Northwestern Pacific Railroad. The third line runs east into Solano County.

Air access is provided by the County Airport, which is included in the planning area. This is a general aviation facility for privately owned aircraft and serves as base for a large pilot training program. The Napa River, which lies east of the planning area, is a navigable waterway used by barges carrying freight from County industries south to Mare Island and the Pacific Ocean.

B. LOCAL SETTING

The planning area consists of approximately 2,945 acres of land, including the Napa County Airport and properties to the north, south, and east of the airport. Figure 3, the aerial photograph, shows the limits of the planning area and its relationship to the surrounding environs. S.R. 29 and Kelly Road form the eastern boundary of the area; Green Island Road forms the southern boundary. The airport roughly defines the western edge, and S.R. Route 12/29 is the approximate northern extent. Properties immediately surrounding the planning area consist of mostly vacant, undeveloped land. Properties to the west include salt and sewer evaporation ponds, sanitation spray fields, and open marsh land. To the east of the area is open grazing land; to the south is predominantly vacant land with some scattered industrial development.

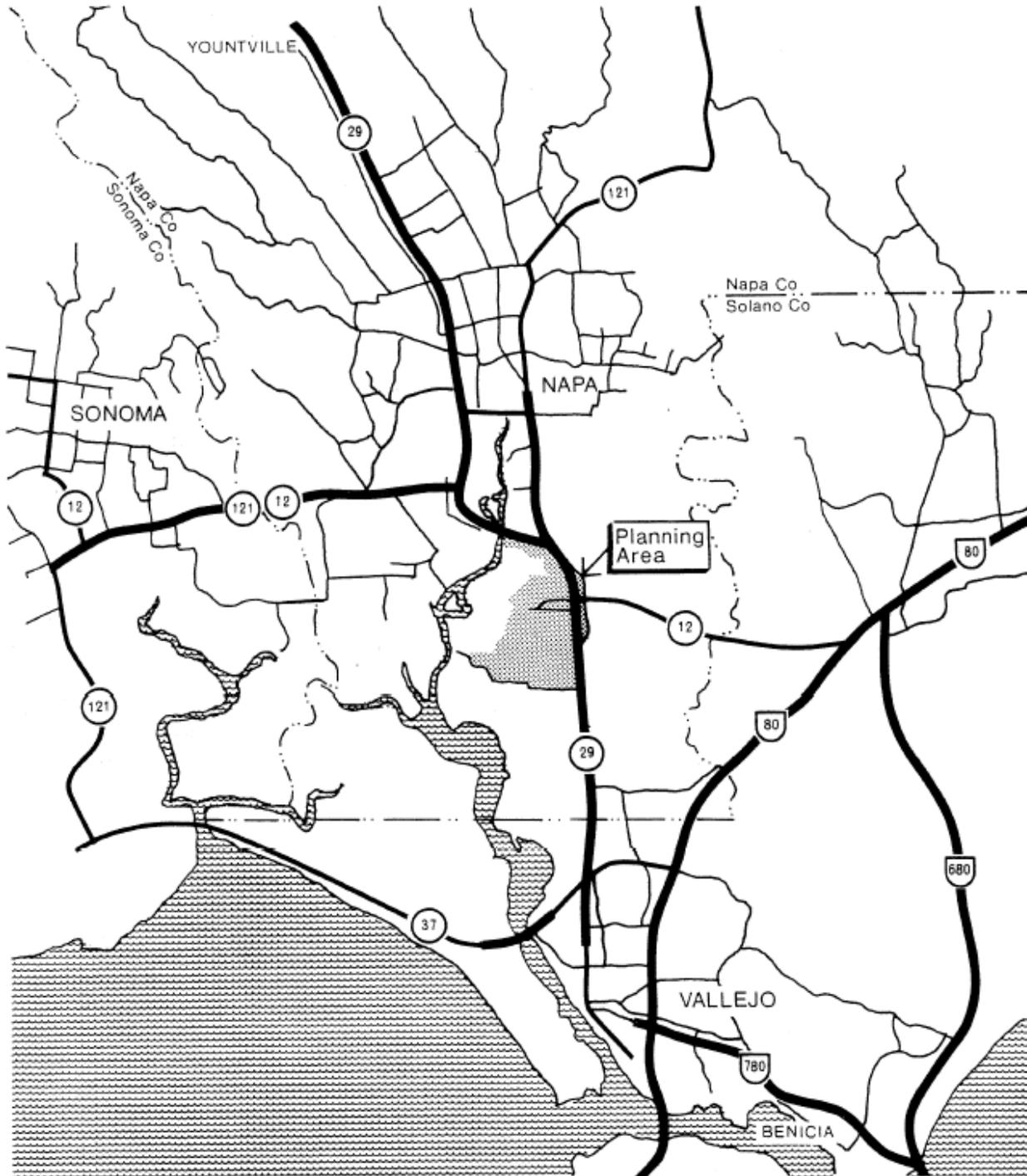


FIGURE 2
PLANNING AREA VICINITY



To the north, beyond the Southern Crossing, the 245-acre Napa Valley Corporate Park (the Bedford project) is currently in the first phase of construction, as can be seen in the aerial photograph. The residential community of American Canyon (population: 6,900^{*}) lies 3 miles south of the planning area.

As shown on Figures 2 and 4, primary local access to the planning area is provided by S.R. 29 and S.R. 12. Important secondary access routes include: Old Soscol Ferry Road; Kelly Road; Airport Road, connecting S.R. 12 and 29 to the airport; Devlin Road, which acts as a frontage road to State Route 12/29 in the northern portion of the planning area; Tower Road, a private drive which provides access to one of the larger concentrations of existing industrial development; and Green Island Road.

C. GENERAL SITE CHARACTERISTICS

The majority of the planning area is relatively flat, with a gradual slope from east to west. The highest elevation, approximately 107 feet, is located along Kelly Road, just north of Fagan Road. Elevations of 5 feet and less occur at several points along the western edge of the planning area.

The property is comprised primarily of open grasslands with few trees. Exceptions are riparian areas along Suscol Creek and Fagan Creek where major stands of vegetation occur, and a small area of oak woodland east of S.R. 29 near Fagan Road.

In addition to Suscol and Fagan Creeks, two other streams--Sheehy Creek and an unnamed creek--cross the planning area in an east/west direction. All four streams flow intermittently and drain into the Napa River.

The majority of the planning area consists of open agricultural land used primarily for grazing and forage crops. Most existing urban development in the area is located along

S.R. 29, and to a lesser degree along Green Island Road. Existing urban development includes primarily industrial and heavy commercial land uses. Approximately 32 rural residences are scattered throughout the area.

D. PARCELIZATION AND OWNERSHIP

1. Parcelization

Planning area parcelization is mapped on Figure 4. There are 162 recorded parcels.^{**} Consecutive numbers have been assigned to each on Figure 4 for identification purposes. Parcel owners' names, parcel sizes, and assessor's parcel numbers are listed in Appendix C. Excluding the airport, parcel sizes range from one-tenth of an acre to 300 acres, with the average being

^{*} ABAG Projections '83 figure for 1985.

^{**} Five of these parcels have had subdivision maps approved (Lots Nos. 3, 11, 12, 48 and 72), but not recorded as of March 1985.

III. PLANNING AREA DESCRIPTION

roughly 17 acres. Approximately 85 percent of all existing parcels (137) are less than 20 acres in size. Roughly 27 percent of the planning area is under public ownership (Napa County and the State of California).

The majority of the existing parcels (approximately 100) have frontage on either S.R. 29 (42), Green Island Road (36), or Kelly Road (24). Twenty properties appear to have no direct public road access, and the remaining fifty-two parcels are served by either public or private internal roads.

2. Ownership

Planning area ownership is listed in Appendix C (keyed to Figure 4 by lot numbers). The 162 planning area parcels are held by 100 owners. Table 2 lists those ownerships that include more than 20 acres. The table indicated that nine landowners (including the County) hold over 75 percent of the planning area.

Table 2
PLANNING AREA OWNERSHIPS OF 20 ACRES OR MORE

Approximate Total Acres	Owner	Map Key (Figure 4)
746.9	Napa County	12, 14, 138, 140, 143, 144, 145, 146
388.7	Gunn	17, 19, 20, 21
373.1	Napa Airport Properties	28, 29
216.9	Giovannoni	32, 78, 79, 80, 85, 95
168.3	DM Group	24, 25, 26, 27
39.2	Novato Construction Company	10 (portion), 31
70.8	Schlies Family Trust	4, 5, 6, 8, 16
45.6	Mai	18
37.1	Napa Valley Developers	22
28.1	Anntoniadis	123
27.6	Carpenter	127
27.4	Brown Brothers Plastering	52, 56, 57, 58, 62
25.4	Borge	13
22.7	Lyall	11
22.4	Giles Kimball Griggs	125
21.8	Vogel	9
20.4	Epstein	68

SOURCE: Wagstaff and Brady, May 1986.



FIGURE 3
AERIAL
PHOTOGRAPH



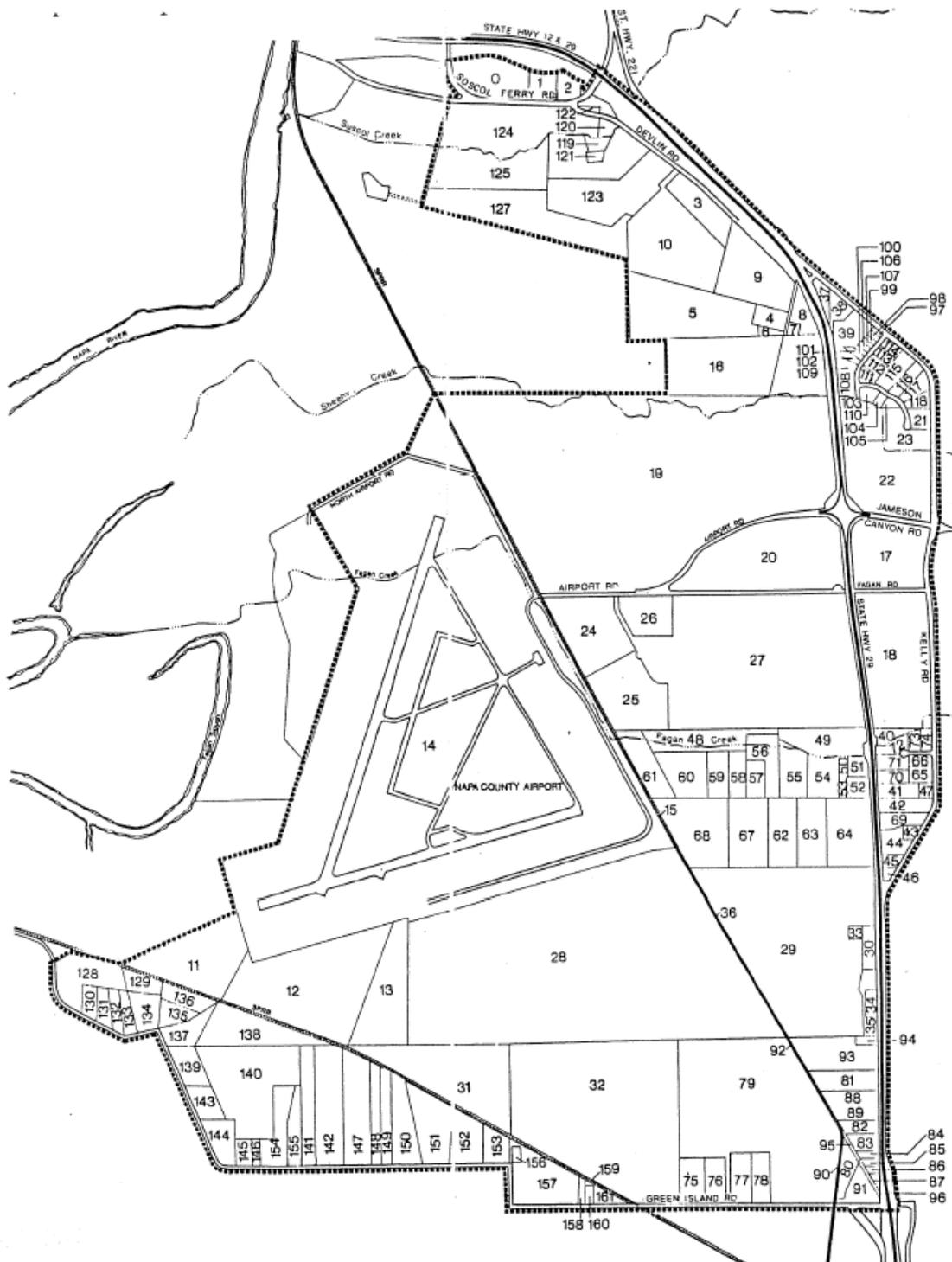


Figure 4 - Planning Area Ownership and Parcelization

FIGURE 4
**PLANNING AREA
OWNERSHIP AND
PARCELIZATION**

LEGEND

- PLANNING AREA BOUNDARY
- 55 NUMBERS CORRESPOND TO LIST IN APPENDIX C

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IV. PLAN GOALS

The list of planning goals and objectives outlined below provides the framework for development of the specific land use, circulation, capital improvement, and financing recommendations set forth in this plan. The list is based upon: (a) Napa County General Plan policies related to the planning area; (b) input from the Napa County Planning Commission and Airport Land Use Commission; (c) the site capability, industrial market, capital improvement, and financing factors identified in the early stages of the planning process (documented in Memorandum 1, Preliminary Analysis Findings, August 1984); and (d) related input from planning area landowners and County staff.

A. GENERAL GOALS

1. Provide a specific plan which recognizes the economic importance to the County and region of the Napa Valley Business Park, and responds to the area's identification in the Napa County General Plan as the principal County location for meeting short-term and long-term requirements for industrial development.
2. Provide a specific plan which facilitates the orderly development of lands within the planning area in a manner which:
 - a. Is consistent with the land use, circulation, conservation, open space, public safety, air quality, noise, seismic safety, and growth management elements of the Napa County General Plan; and
 - b. Mitigates significant environmental and community impacts.
3. Provide a specific plan which is compatible with operations, plans and development policies of the Napa County Airport.
4. Establish a program for industrial development of the planning area which is consistent with the County's Growth Management System, and includes a logical relationship between job creation and the availability of housing within reasonable commute distances.
5. Provide for expanded employment opportunities for County residents in order to achieve regional (ABAG) and County (General Plan) goals for a more balanced distribution between jobs and people, and reduced out-of-County commuting.
6. Provide a specific plan which sets forth land development and related capital improvement actions in a manner which avoids adverse fiscal impacts on the County as a whole.
7. Accommodate growth in the planning area in accordance with the ability of public agencies to provide adequate services.

8. Provide for the timing of planning area absorption to be primarily dependent upon private market conditions, but also to be consistent with the ability of the County to provide adequate access and housing.
9. Provide a system of planning area land use and transportation components which are each designed to both:
 - a. Meet the immediate needs associated with separate near-future development actions, and
 - b. Can ultimately combine with other planned components to comprise a coordinated, harmonious overall land use and capital improvement network.

B. ECONOMIC GOALS

1. Treat the planning area as a priority location for meeting both near-future and long-term requirements for industrial development in the County.
2. Sustain current levels of economic activity in the planning area and encourage new business development by:
 - a. Providing adequate areas, infrastructure, and development standards for modern, non-nuisance business/industrial park development; and
 - b. Providing subareas, infrastructure, and development standards which foster the continuation and expansion of those existing general industrial land uses in the planning area which are consistent with related County General Plan goals.
3. Attract new industries to the planning area in order to increase local employment opportunities.
4. Assist those new industries attempting to locate in the planning area whose plans are consistent with the specific plan.
5. Establish land use and circulation policies for the planning area which will enhance the potential of the Napa County Airport.

C. LAND USE GOALS

1. Reserve sufficient property in the planning area to satisfy future demands for orderly industrial growth.
2. Maintain compatibility between planning area land uses and Napa County Airport activities. Ensure that planning area development actions are consistent with the safety policies and land use/noise compatibility criteria of the Airport Land Use Commission, and the height limitation formulas of the Federal Aviation Administration.

3. To the extent allowed by Growth Management System consistency goals, accommodate landowner interests and identified market demands for business/industrial park, general industrial, and related service-commercial land uses within the planning area in order to maximize the pace of County economic development.
4. Minimize conflicts between planning area land use activities and natural constraints.
5. Organize the planning area into various land use components distinguished by the following factors or differences:
 - a. Ownership and parcel configurations,
 - b. Existing land uses,
 - c. Near-future and longer term landowner intentions,
 - d. Near-future and longer term market trends,
 - e. Access characteristics,
 - f. Visual prominence, and
 - g. Proximity to existing planning area features including: (1) S.R. 29, (2) general industrial concentrations both in and adjacent to planning area, (3) business/industrial park uses in the adjacent Napa Valley Business Park, (4) the intersection of S.R. 29 and 12, (5) the airport, (6) Green Island Road, and (7) the railroad.
6. Provide a set of land use policies and development guidelines which will enhance and protect the visual character of State Route 29 as a principal County access route and major planning area image feature.
7. To maintain healthy market conditions, set aside acreage for industrial development in excess of the land supply likely to be needed in the foreseeable future.
8. Provide adequate land area to accommodate supportive or secondary land uses which may be required to support the operations of primary industrial uses (supporting commercial, maintenance, and other ancillary types of operations).
9. Provide for a diversity of industrial size and activity demands.
10. Provide a set of development standard in the plan which will ensure a compatible blending of different industrial land use types.
11. Limit commercial activities in the planning area to those ancillary retail, finance, and service businesses which are directly related to needs generated by planning area industrial development and the County Airport, in the interest of:

- Avoiding proliferation of scattered commercial uses in the planning area,
 - Maintaining the viability and image intended for the planning area as an industrial center,
 - Maintaining land use compatibility within the planning area, and
 - Minimizing planning area traffic impacts.
12. Where warranted, establish special noise abatement criteria for planning area lands that fall within the projected 55 dB (CNEL) noise contour of the airport.
 13. Provide a plan framework under which individual landowners can develop their lands independently, but in a manner which is harmonious with a comprehensive land use plan for the area.
 14. Retain planning area lands adjacent and convenient to the Napa County Airport and the Southern Pacific Transportation Company railroad tracks for air and rail transport related industrial activities.
 15. Anticipate the need for further controls on planning area industrial land use in the future, should the intensity of development approach identified housing, circulation, other infrastructure capacities, or significant environmental impact thresholds.

D. CIRCULATION GOALS

1. General

- a. In future planning area and Countywide capital improvement programming, place a high priority on the improvement of **regional access** to the planning area.
- b. Incorporate and implement those circulation policies from the circulation Element of the Napa County General Plan (GP) which apply to the planning area and its vicinity.
- c. Accommodate industrial and other land uses permitted in the planning area with a logical integrated transportation system incorporating vehicular, rail, air, pedestrian, and bicycle facilities.
- d. Provide a road system in the planning area vicinity which will continue to operate at Level of Service D or better.
- e. Require that landscaping be an integral part of the overall roadway improvement program.
- f. In order to avoid adverse traffic impacts, schedule industrial development to correspond to the implementation of warranted roadway improvements.

2. Regional Access

In order to improve access to the planning area from subregions to the east and south, establish a financing program, including planning area contribution, to implement all of the following offsite transportation improvements which are already established as County circulation improvement policy in the Circulation Element of the Napa County General Plan:

- a. Future construction of a new north-south connector between Jameson Canyon and I-80.
- b. Immediate construction of a grade-separated interchange of State Route 29 and State Route 12 (Jameson Canyon Road).
- c. Widening (when warranted) of Jameson Canyon Road (S.R. 12) to four lanes from S.R. 29 to I-80 to increase year 2000 peak-hour capacity from 1,900 vph (existing two-way) to 3,200 vph (peak direction).
- d. Construction (when warranted) of a grade-separated interchange of S.R. 29 and S.R. 221 (Soscol Avenue).
- e. Widening of S.R. 29 from four to six lanes between American Canyon Road and the southern end of the Southern Crossing to increase year 2000 peak-hour capacity from 3,400 vph to approximately 5,100 vph (peak direction).
- f. Widening (when warranted) of American Canyon Road to four lanes from S.R. 29 to Interstate 80 to improve year 2000 peak hour capacity from 900 vph (existing two-way) to 3,000 vph (peak direction).
- g. Extension (when warranted) of the four-lane section of Flosden Road to American Canyon Road to increase its year 2000 peak-hour capacity from 1,900 vph (existing two-way) to 3,200 vph (peak direction).
- h. Construction (when warranted) of a grade-separated interchange of S.R. 29 and American Canyon Road.
- i. Reducing points of direct access from the planning area onto S.R. 29 and S.R. 12 (planning area access to these routes should be provided by arterial and collector streets only).
- j. Construction of frontage roads along S.R. 29 to minimize traffic impacts.
- k. Avoidance of so-called "strip commercial" development in the planning area along the S.R. 29 corridor.

3. Internal Improvements

- a. Establish a planning area roadway system of primary and secondary routes to adequately serve traffic demands as they develop, with sufficient ultimate

- improvement capacity to accommodate the 30-year level of development permitted by the plan.
- b. Prioritize and sequence planning area road improvements in a manner which responds to the circulation needs of near-future industrial development, and minimizes costs assigned to longer term development areas.
 - c. Route interior planning area roadways in a manner which maximizes access in and out of all designated development areas, avoids fragmentation of industrial lands into inadequately sized or shaped parcels, and minimizes disruption of natural values.
 - d. Improve existing internal roads which are retained in the circulation plan as necessary to meet County standards.
 - e. Add plan-designated additional internal road segment as associated development occurs.
 - f. Optimize the use of already improved intersections, without overloading them, rather than creating new, minor intersections which could potentially reduce the capacity of a roadway segment.
 - g. Provide a circulation system configuration in the airport vicinity which will accommodate landowner desires for safe and convenient taxi-way links to the airport.
 - h. Avoid lengthy cul-de-sacs in order to disperse traffic impacts as much as possible. Encourage loop or curvilinear internal roadways.
 - i. Wherever possible, maintain intersection separations of at least 1,000 feet along arterials and primary collectors to allow future signalization for smooth 35 mph to 45 mph traffic flows in both directions.
 - j. Minimize the number of at-grade intersections between railroad and vehicular routes to provide for high levels of safe traffic flow within the planning area.
 - k. Provide adequate safety provisions wherever rail lines and vehicular roadways intersect for motorist safety and to minimize risks associated with hazardous materials transfer.
 - l. Encourage the development of local and regional transit services that effectively meet the needs of planning area industrial development and the airport.
 - m. Provide for future service to the planning area by fixed route transit, airport shuttle buses, and van pools.
 - n. Encourage planning area developers to participate in transit improvements.

- o. Require the development, maintenance, and improvement of planning area bicycle lanes to comply with standards established in Sections 2375 and 2376 of the Streets and Highway code.
- p. Encourage planning area developers to provide bicycle storage and locking facilities.
- q. Provide adequate and safe pedestrian access to future transit stop locations and between principal activity areas.
- r. Expressly authorized the Planning Commission and the Board of Supervisors to permit, when approving use permits, subdivision maps or other discretionary land use permits, deviation from County standards and any additional standards provided herein pertaining to roads, sidewalks, bicycle lanes or other circulation elements or associated roadside landscaping standards for minor roads where such deviation has been determined by the approving agency to be necessary to preserve existing trees within the area of oak woodland east of State Route 29 near Fagan Road described in Chapter III subchapter (C) herein, so long as the deviating design will not, in the opinion of the approving agency, endanger the public health, safety or welfare.

4. Aviation

- a. Require that land uses surrounding the airport be compatible with airport activity and the Napa County Airport Land Use Compatibility Plan.
- b. Place a total prohibition on urban development in designated airport approach Clear Zones.
- c. In the Airport Influence area, as designated by the Napa County Airport Land Use Compatibility Plan, place special restrictions on development height, employment intensity, land coverage, light, glare, smoke emissions, electronic interference, and other factors to reduce safety and noise conflicts between aviation activity and industrial development.
- d. Provide for future private construction of aircraft taxi-ways between the airport and adjacent industrial sites, in response to expressed landowner interest in airport-oriented business park development.

5. Rail

- a. To maximize opportunities for rail freight service, situate industrial development which could be served by rail on sites accessible to the railroad.

6. River

- a. The County should support and encourage the use of the Napa River for transport of industrial goods and products. The County should support projects to improve

clearance and water depths in navigable reaches of the river which could serve the planning area.

E. CAPITAL IMPROVEMENT GOALS

1. Condition land use modifications and expansions in the planning area upon developer provision of road access, sewage collection, water supply, storm drainage, landscaping, and other capital improvement requirements set forth in this plan.
2. Provide a system of road, sewage collection, water supply, and storm drainage facilities in the planning area which:
 - a. Can be constructed in components or sequences to meet the needs of development as it occurs,
 - b. Can meet the immediate needs of separate, near-future development actions,
 - c. Promotes efficient land development patterns and discourages "leap-frogging" industrialization, and
 - d. Can ultimately combine with other similar components to form an integrated overall capital improvement network.
3. Provide a water supply system which:
 - a. Will be adequate to meet the industrial operations and fire flow needs of the planning area;
 - b. Will minimize related cost burdens on the public and on planning area landowners; and
 - c. Will make efficient use of water delivery facilities which now exist in the planning area.
4. Provide a sewer collection system which:
 - a. Will be adequate to meet the sewage discharge and treatment demands of the planning area;
 - b. Will minimize related cost burdens on the public and landowners; and
 - c. Makes efficient use of sewage collection facilities which now exist in the planning area.
5. Wherever practical, consolidate road, water, sewer, electrical, and gas utilities in common utility corridors.

F. FINANCING GOALS

1. In light of local, interregional, and regional benefits associated with plan-specified regional access improvement priorities, these improvements should be jointly funded by the State Department of Transportation, by the County through future development fees (Countywide), and by planning area landowners through special assessments.
2. In light of the County Airport entranceway benefits associated with plan-specified improvements to Airport Road, the County should assist in the funding of related capital improvements.
3. Require each benefitting landowner to contribute a fair share towards the cost of common planning area improvement requirements established in this plan, including major road and fire protection facilities.
4. Require site-specific infrastructure requirements to be funded entirely by each benefitting developer.
5. Encourage use of industrial development bonds in the planning area to provide an attractive and necessary financing option for individual landowners and developers.

G. VISUAL AND NATURAL RESOURCE PRESERVATION GOALS

1. Establish a coordinated system of landscaping, signage, street lighting, and other design features for reasonable application throughout the planning area in order to identify, visually enhance, and integrate the Napa Valley Business Park.
2. Provide varying levels of development regulation and design control tailored to the range of industrial activities desired in the planning area. For example:
 - a. Development standards for designated business/industrial park areas should emphasize high quality design treatments that will enhance the market attractiveness of the entire planning area.
 - b. Development standards for application in designated general industrial areas should be less stringent and should emphasize special treatments along site boundaries, especially boundaries which are contiguous to business/industrial park and other nuisance-vulnerable uses.
3. Protect and visually enhance planning area segments of S.R. 29 and Airport Road to provide an attractive entranceway image for the planning area, the County Airport, and County areas to the north (Napa Valley) and south (American Canyon).
4. Provide effective visual buffering between planning area general industrial designations and S.R. 29.
5. Include roadside and median strip landscaping treatments along principal planning area arterials and primary collectors which: (a) indicate status of these routes as principal

components of an important County development area, (b) incorporate low maintenance, native plant species, and (c) feature high quality and coordinated signage and lighting techniques.

6. Establish contract-maintenance procedures for the long-term care of common landscaping.
7. Preserve and protect significant vegetative and wildlife values in the planning area.
8. Minimize alterations of, or damage to, identified natural values in the planning area, including creeks and specimen trees.

V. LAND USE ELEMENT

This chapter translates the framework goals established in Chapter IV into a set of specific land use and open space policies for the planning area. To develop these policies, certain tradeoffs have been necessary between the framework economic, land use, circulation, visual, natural resource, and capital improvement goals set forth in the previous chapter of this plan (Chapter IV).

Factors considered in developing the specific land use policies set forth in the following section include existing Napa County General Plan policies, County Airport activities and the Airport Master Plan, parcelization and ownership configurations, existing land uses, private landowner intentions, market trends, access characteristics, physical and environmental constraints, visual prominence, and public service conditions (especially, sewer and water). (These determinants are fully described in Chapters III, IX, X, and XI of this specific plan.)

A. GENERAL LAND USE AND CONSERVATION CONCEPT

1. The County will establish a joint study committee for the Napa Valley Business Park, comprised of the County of Napa and the Cities of Napa and American Canyon, should those jurisdictions choose to participate. This committee has been referred to in this document as the “Napa Valley Business Park Subcommittee.” The committee will have equal voting representation for the member jurisdictions, and will review and make recommendations to the County decision-making body should the following matters be proposed:
 1. Comprehensive update of the specific plan.
 2. Any specific plan amendment or zoning change.
 3. The County will refer all new use permits, site plan approvals and major modification applications to the member agencies for comment prior to taking action on any such application. Member agencies will be given 30 days to comment on proposals and/or request that the proposal be considered by the Napa Valley Business Park Subcommittee. The Subcommittee shall have 60 days from the time a proposal is referred to member agencies to make a recommendation to the County decision-making body. Failure of the Subcommittee to act within this time shall be deemed a recommendation for approval.
 4. Other land use decisions specifically subject to review as noted in Section B.2.

Until such time that the committee is formally created, the County shall refer all of the above project types to the Cities of Napa and American Canyon for comment. In the event that the Napa Valley Business Park Subcommittee is replaced by another recommending body or commensurate group, project types identified above shall be subject to review by that future body. Should the Napa Valley Business Park Subcommittee be abolished and not replaced by any commensurate body, projects identified above shall not be subject to these requirements, except that proposals shall then be referred to the Cities of Napa and American Canyon for comment.

2. **The land use and conservation pattern established for the planning area by this specific plan is mapped on Figure 5.** The map designates land uses, major transportation corridors, and principal open space areas. Table 3 provides a summary of the proposed land use allocations

diagrammed on Figure 5. The land use plan has been designed to provide a mixture of Business/Industrial Park and General Industrial development which reflects County desires, landowner intentions, and economic forecasts.

One plan intent is to provide adequate areas and standards for the orderly development of viable Business/Industrial Park uses. A second intent is to retain existing General Industrial land uses wherever possible, and to provide a substantial amount of additional land for General Industrial expansion in response to identified near-future market demands (as described in Appendix A).

Most lands along the S.R. 29 corridor, along Airport Road, and adjacent to the airport are reserved in the plan for Business/Industrial Park development. Due to the high visibility of these areas from the major roadways, their predominantly undeveloped status, their extensive relatively flat terrain, and their potentials for concurrent highway and airport access, this portion of the planning area provides excellent opportunities for harmonious business/industrial park development. In addition, the Business/Industrial Park land use designation of these areas will provide for the higher quality land use and visual environment desired along S.R. 29 and Airport Road, as well as insulating the internalized General Industrial areas from the public view.

The General Industrial expansion areas are consolidated at locations away from State Route 29 and Airport Road. This will permit the visual character of these corridors to be maintained and upgraded to benefit the airport and the County as a whole, and will help attract industrial park development to the planning area.

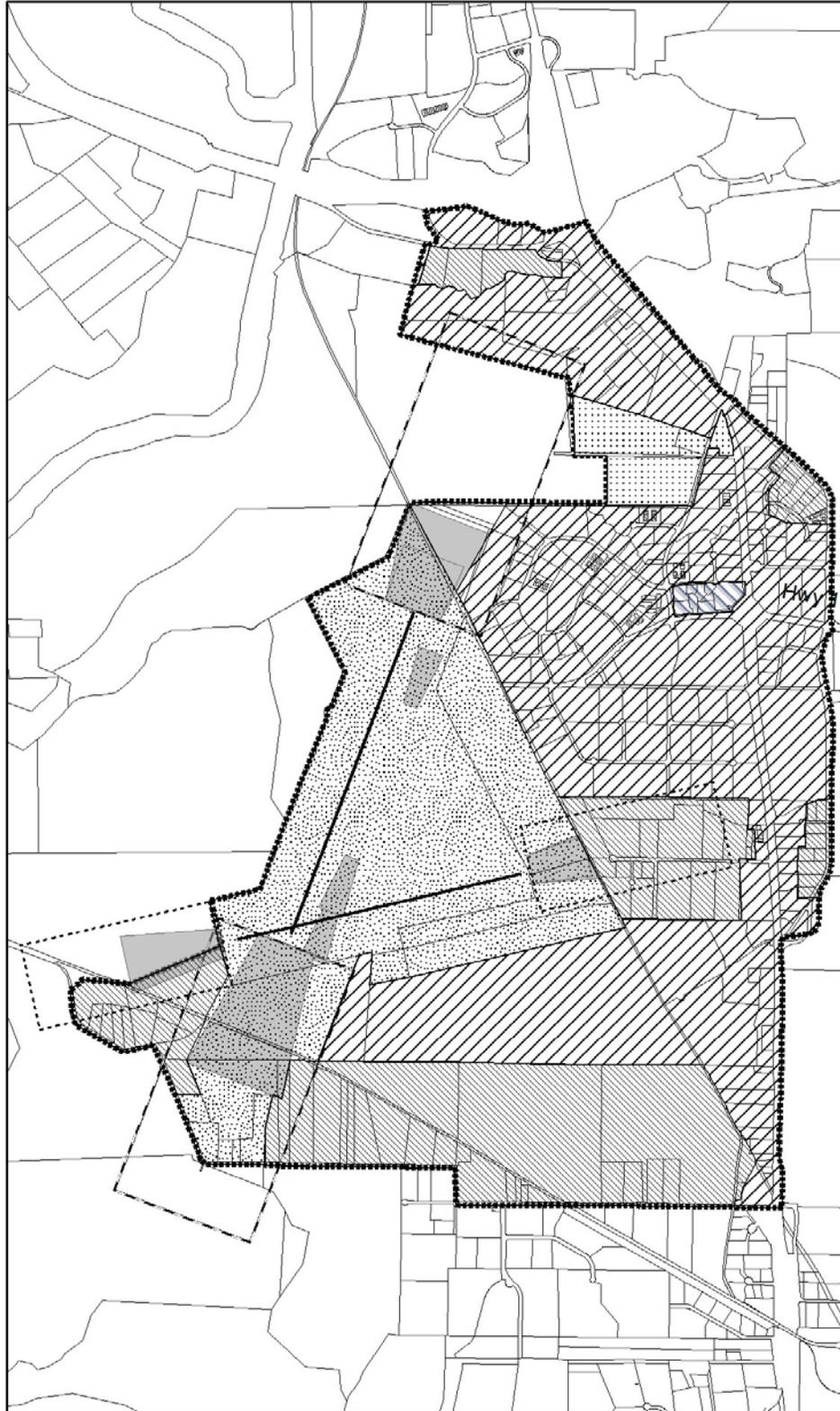
Table 3
SUMMARY OF SPECIFIC PLAN LAND USE ALLOCATIONS (amended 2013)

<u>Total Percentage</u>		
	Gross of Total	
<u>Designated Land Use</u>	<u>Acres</u>	<u>Planning Area</u>
Industrial		
General Industrial	569	19.3
Business/Industrial Park	1,379	46.80
Subtotal	1,948	66.1
County Airport	824.65	0
Agriculture and Open Space	*36	1.2
SUBTOTAL	2,808.65	67.3
Public Rights-of-Way		
Roads	135	4.6
Railroad	29	1.0
TOTAL	2,972.65	72.9
*Privately owned lands within designated Airport Clear Zones		

Source: Wagstaff and Brady, recalculated by the Napa County Conservation, Development and Planning Department in 1989 to correct typographical error in the acreage designated for Business/Industrial Park and to add 14 acres to, and subtract 14 acres from General Industrial and Agriculture and Open Space, respectively. Also recalculated in 2013 to correct typographical error in acreage designated Business/Industrial Park with corresponding reduction in acreage of 25.4 designated County Airport.

FIGURE 5

Plan Summary



Legend

NVBP 1986 Boundary

NVBP_Summary

Summary Areas

- Ag & Perm. Open Space
- Airport
- Bus/Industrial Park
- Devlin Resort Dvlp
- General Industrial
- Gateway Bus/Cmrc

Approach_Zones

TYPE

- Primary
- Secondary
- Airport Clear Zone
- Parcels



Horizontal Datum: NAD 83,
CA State Plane Coordinates,
Zone II, feet

County of Napa

P. B. E. S.

1986 NVBP
Plan Summary

Revised Date: 02/05/2014

Disclaimer: This map was prepared for informational purpose only. No liability is assumed for the accuracy of the data delineated hereon.



Created Date: 01/03/2004

FIGURE 5
SPECIFIC PLAN
LAND USE MAP

-  AIRPORT
-  BUSINESS/INDUSTRIAL PARK
-  GENERAL INDUSTRIAL
-  AGRICULTURE AND
PERMANENT OPEN SPACE

-  CLEAR
ZONE
-  PRIMARY *
APPROACH
ZONE
-  SECONDARY *
APPROACH
ZONE

-  FUTURE CLEAR ZONE
STUDY AREA

*Boundaries shown as established in the
Napa County Airport Master Plan (June 1976)

B. LIGHT INDUSTRIAL/BUSINESS PARK AREAS

1. Purpose and Objectives

The Business/Industrial Park land use designation is intended to provide areas exclusively for modern, non-nuisance light industrial and office uses which are compatible both with each other and with adjoining non-industrial areas, including the Napa County Airport, the S.R. 29 corridor, and surrounding agricultural and open space areas. Land uses in these areas are subject to special performance standards to ensure harmonious development. In addition, vacant parcels over 20 acres in size are subject to lot size restrictions to ensure that opportunities for large-site industrial park developments in the planning area will not be lost through premature subdivision into small parcels.

The Business/Industrial Park land use designation is intended to attract development of a higher standard with respect to construction characteristics, on-site amenities, standards of acceptable use, and off-site improvement requirements. The designation is intended to accommodate light industrial uses such as research and development, light manufacturing, light assembly, warehousing and distribution, large administrative headquarters, and other professional and administrative uses. This designation allows the implementation of special requirements for common improvements, site and building design, landscaping, signage, offstreet parking, noise control, and outdoor storage. Design review is required for the implementation of these special requirements.

2. Allowable Uses

All uses in designated Business/Industrial Park areas shall require issuance of a Use Permit. Possible uses in Business/Industrial Park areas, subject to compliance with the standards set forth in this plan, include but are not limited to the following list:

- a. Professional, administrative, and general business offices.
- b. Research, development, and testing laboratories and facilities.
- c. Manufacturing and assembling of electrical, electronic, or electromechanical products.
- d. Manufacturing, assembling, fabrication, warehousing, and distributing of goods, wares, merchandise, articles, substances, or compounds, which are not flammable, explosive, or otherwise offensive or dangerous to surrounding property.
- e. Cooperage, bottling plants, and wine warehousing and distributing.
- f. Machine shops and other light-metal working shops.
- g. Manufacturing, compounding, processing, packing, treating, or storing of products such as food stuffs, pharmaceuticals, and toiletries.
- h. Painting, lithography, cartography, and book binding.

- i. Ancillary retail, banking, and other professional or personal service commercial uses which are minor business park components, provided that:
 1. Such commercial development takes place in a manner which: (1) is consistent with the overall goals of this industrial area specific plan, (2) contributes to and complements the viability and intended image of the planning area as an industrial center, and (3) is compatible with adjacent industrial park uses; and
 2. Such retail, banking, and other professional or personal service commercial uses shall be located in the following areas:
 - A. Within the Gateway Commercial Node, consisting of 12 acres located at the northwest corner of State Routes 12 and 29, and Airport Boulevard, and as shown on the Figure 5, provided that such commercial development and uses complies with the following standards:
 1. All retail/service and restaurant commercial uses shall be business park serving and shall not be tourist, community or region serving. An initial aggregate gross floor area of 35,000 sq. ft. of business park serving uses (in addition to the business park serving hotel, office uses and financial institutions such as banks) is allowed. Further, business park serving uses in excess of 35,000 sq. ft., but in no case exceeding 75,000 sq. ft. (exclusive of hotel, offices and financial institutions) aggregate gross floor area, shall be allowed subject to review by the Napa Valley Business Park Subcommittee and recommendation to the Planning Director. Planning Director approval of uses in excess of 35,000 sq. ft. shall not be withheld when it is demonstrated that all existing and proposed commercial uses within the node are business park serving.
 2. No individual commercial tenant exceeds a size of 10,000 square feet;
 3. Restaurant uses shall not exceed 25 seats and 3,000 sq. ft. in area, except that one restaurant is allowed with a maximum of 150 seats and 6,500 sq. ft. in area, and one restaurant is allowed with a maximum of 60 seats and 3,000 sq. ft. in area;
 4. One service station and one convenience market are permitted, and may be either combine as a single use or as separate uses;
 5. Commercial tenant occupancies shall be located on the first floor;
 6. No highway-oriented retail/service or restaurant signage is permitted. Building mounted retail and restaurant signage shall not be illuminated, and shall have a maximum letter height of 12 inches.
 - B. Except as provided for in Sections i.2.C., i.2.D and i.2.E below, commercial uses located outside of the Gateway Commercial Node are not permitted except for uses legally established prior to July 1, 2004.
 - C. Retail sales as an accessory use to other allowed uses, such as contractor's showrooms, sales of products produced at wineries or food processing

plants, may be allowed on a case-by-case basis through the project use permit on any Light Industrial/Business Park Area land. Food manufacturing or food processing plants located in Airport Land Use Compatibility Zone D may sell products produced on-site and may also establish a restaurant as an accessory use to the manufacturing or processing facility, provided food items sold at the restaurant include products manufactured or processed on site. Any restaurant established under this provision is required to cease operation if the primary food manufacturing or processing facility ceases such food manufacturing or processing operations.

- E. One service station with a drive through window for a coffee shop, one convenience market, and one carwash are permitted on the southeast corner of Airport Boulevard and Devlin Road. A fast food restaurant shall not be permitted.
 - D. Sports clubs serving the businesses within the NVBPSP are permitted with a use permit on any property within the Light Industrial/Business Park Area, except within the Devlin Resort Commercial Node, and provided that such facilities are consistent with the requirements of Section i.1. Within the Gateway Commercial Node sport club uses shall be included within the maximum allowed commercial development.
3. Business park serving retail/service and restaurant commercial uses are uses oriented to predominately providing goods and services to persons conducting business within the Napa Valley Business Park Specific Plan boundaries that are either: 1) identified in Appendix K or 2) are a similar use to those included in Appendix K and have been reviewed by the Napa Valley Business Park Subcommittee. It is recognized that such uses will have a small proportion of customers who are not associated with the business park.
4. The following uses are prohibited anywhere within Napa Valley Business Park:
- A. Outlet stores, or any other regional or tourist-serving commercial uses as determined by the Planning Director are prohibited.
 - B. Automobile sales.
- j. Hotels and motels, provided that:
- 1. One business-serving hotel is allowed only within the Gateway Commercial Node and shall meet the following design standards:
 - A. Maximum of 160 rooms.
 - B. Maximum of 3,000 sq. ft. of aggregate meeting space.
 - C. Maximum of 2,000 sq. ft. of spa/workout facilities.
 - 2. One resort hotel is allowed within the Devlin Resort Development Node, consisting of a 72 acre site located on west side of Devlin Road approximately 2,000 ft. north

of Airport Boulevard, and as shown on Figure 5, provided that such development complies with the following standards:

- A. Maximum of 380 rooms.
 - B. Maximum of 420,000 sq. ft.
 - C. Maximum conference and meeting space of 53,000 sq. ft.
 - D. Aggregate restaurant and bar seating intended to serve the general public shall not exceed 450 seats.
 - E. Ancillary retail uses shall be as permitted by the use permit described in Subsection F below. Restrictions on ancillary retail in Section B.2.i above shall not apply.
 - F. A use permit for the project has been approved and shall be used, as defined by Napa County Code Section 18.124.080 or as set forth within the project use permit, prior to expiration of such permit. In the event that the project use permit expires without being used, then resort development within the node shall not occur. All other uses listed in Sections V.B.2 shall remain allowable.
3. No other hotels or motels are permitted anywhere within the NVBPSP.
- k. Totally enclosed rifle and pistol ranges designed and constructed to meet the intent of, and all design criteria associated with, this land use classification.
 - l. Daycare facilities as an ancillary use to serve the needs of parents employed in the planning area. Ancillary daycare is allowed as follows: 1) As a secondary use to an otherwise allowed use (primary use), wherein the parent and/or guardian of every child present at the daycare is an employee of the primary use or the ancillary daycare center, and the daycare does not exceed 15 children; or 2) As a stand alone business or in association with another allowed use, wherein the parent and/or guardian is not employed at the business location, in which case the size and location of the facility shall be subject to a consistency determination by the Napa County Airport Land Use Commission prior to use permit approval.
 - m. Utility service centers combining both administrative and equipment yard functions in one facility, provided that special site design, architectural, and landscaping measures are incorporated in the facility design to maximize its compatibility with adjacent land uses and with the intent of the Light Industrial/Business Park designation. Such design measures should include:
 - Use of office and other smaller scale architectural components to screen equipment yard activities from the street and, to the extent possible, from adjacent uses.
 - Provision of a 20-foot landscaped setback from side and rear property lines, with a dense landscape screen, where the equipment yard component of the facility is adjacent to a Business/Industrial Park designation.

- Construction of an effective masonry or other high-mass noise barrier at the setback between the equipment yard component of the facility (including access drives) and adjacent Light Industrial/Business Park designations.
- n. Transitional Uses, which by approval of a Use Permit allows for the continued, expanded, and/or modified operation of open air markets and accessory uses that were in existence prior to the adoption of this Specific Plan. The approving authority shall have the right to authorize reasonable restrictions upon any proposed expansion or modification as deemed necessary to protect the health, safety and welfare of persons residing and or working within the vicinity of the transitional use.
- o. Other uses, which in the opinion of the PBES Director, are non-nuisance-causing and similar in character to the above list of uses.

3. Site Development Standards

All Business/Industrial Park uses will be subject to corresponding zoning regulations and other requirements currently in effect relating to public safety and welfare. In addition to these requirements, the following standards have been established to provide development guidelines for project design and review purposes. They are intended to create a harmonious high standard development characteristic within Business/Industrial Park areas, while allowing enough design flexibility to encourage innovative building and site design. Where appropriate, these guidelines may be modified pursuant to the Site Development Standards Implementation Procedure provided in Section V(H).

- a. Lot Size and Coverage. All Business/Industrial Park development shall be subject to the following lot size and coverage requirements:
 - 1. Lot Area: The lot area limitations set forth below are intended to encourage unified, cohesive industrial development patterns in the planning area:
 - Existing parcels of 5 acres or less in size: subdivision should not be allowed.
 - Existing parcels more than 5 acres in size: five (5) acre minimum lot size.

Under special circumstances, such as a comprehensive development plan with highly unified site, architectural, landscape, and signage design approaches, discretionary exceptions (smaller lot size) can be considered by the PC.
 - 2. Lot Width--125 feet minimum.
 - 3. {Reserved}
 - 4. Floor Area Ratio--maximum of 0.35 square feet of floor area per one (1) square foot of net lot area. Warehousing uses may go as high as 0.50 square feet of floor area per one (1) square foot of net lot area.

5. Ancillary commercial and hotel/motel uses are allowable in development plans for industrial parks of 30 acres or more in area, provided that they comprise no more than 20 percent of the land area and meet other criteria set forth under 2.i and 2.j on pages 57 and 58.
- b. Yards. The following yard requirements shall apply:
1. **Front Yards:** For any application, a 55-foot average, 35-foot minimum building setback shall be required from street right-of-way lines along planning area arterials. The 35 feet nearest the property line adjacent to the street shall be reserved as a landscape area. A 40-foot average, 25-foot minimum building setback shall be required from street right-of-way lines along collector streets and minor streets. The 25 feet nearest the property line adjacent to these streets shall be reserved as a landscape area, as illustrated in Figure 6. Front yard standards apply to all street frontages.
 2. **Side Yards:** A minimum landscaped building setback of 10 feet or as required by the Uniform Building Code (whichever is greater) shall be required from interior property lines. Subject to the approval of the Planning, Building and Environmental Services Department (PBES), contiguous parcels under the same ownership may utilize structures coincident with the property line, provided that a 10 foot landscaping strip is maintained on the opposite property line. IN lieu of the above setbacks, an aggregate landscaped setback of 20 feet with a minimum of 5 feet may be approved by the PBES based upon site-specific design considerations, provided that at least 10 feet of landscaping is provided between structures.
 3. **Rear Yards:** A minimum building setback of 10 feet shall be required from rear property lines. Landscaping shall be required within the setback unless a specific exception is approved by the PBES.
 4. **Landscape Setback:** Parking, drive aisles, loading areas and other improvements may be permitted in required front, side, and rear yard setbacks provided that the following landscaped separations are maintained from lot lines:
 - a. Front yard: 25 feet from front lot line.
 - b. Side and rear: 10 feet. The requirement may be decreased to a minimum of 5 feet with approval from PC.
 5. **Special Yard Requirements (see Figure 6):**
 - a. Where any side of a lot in a Business/Industrial Park use adjoins a General Industrial use, the minimum required building setback shall be 55 feet. The 20 feet nearest the property line shall be a landscape setback and shall be planted with a dense landscape screen, as diagrammed in Figure 6.
 - b. Properties that border the railroad tracks shall have a 35-foot minimum building setback from the railroad right-of-way. Parking may be permitted

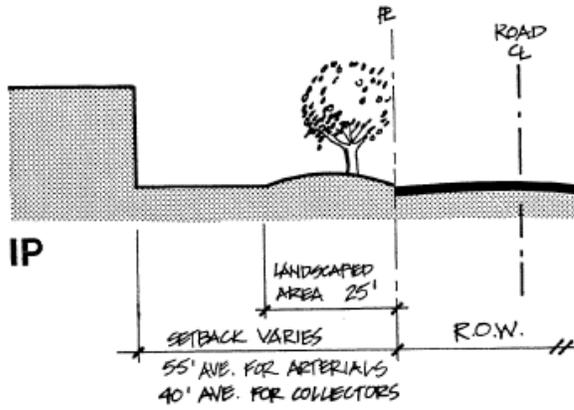
within the building setback provided that a 10-foot planting strip is provided between paved parking lots and the walls of structures.

- c. Properties that border S.R. 29 shall have a 55-foot average, 45-foot minimum building setback from the highway right-of-way line. The 45 feet nearest the right-of-way shall be reserved as a landscaped area. Landscaping details shall be formulated as set forth in Section VI.F.7 of the specific plan.

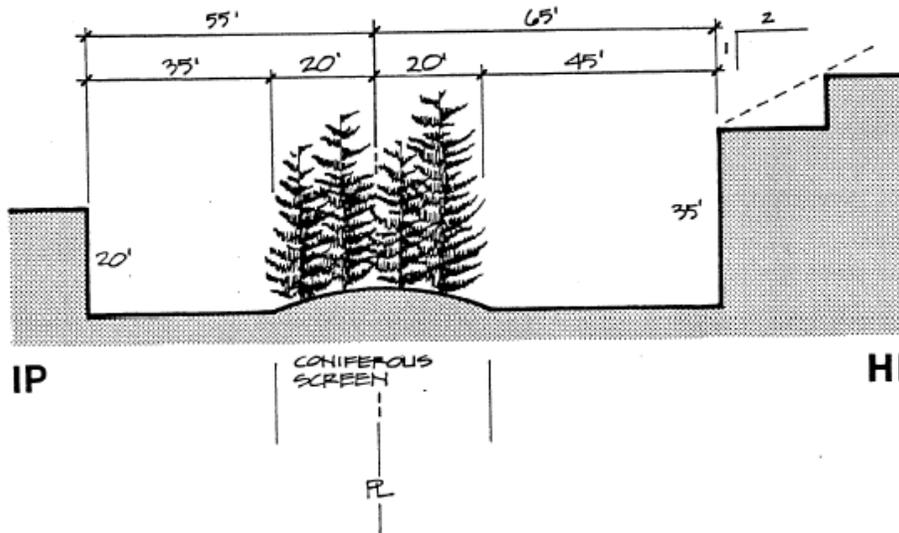
6. Special Landscaping Exceptions:

The landscaping standards required herein may be waived by the approving authority for land division applications under the following circumstances:

- a. The entire property has been previously improved pursuant to a development plan approved by the County which has been found to comply in full with the standards of this subsection, and
- b. Such division would not require additional improvements inconsistent with this subsection.



FRONT YARD REQUIREMENTS - INDUSTRIAL PARK



SPECIAL YARD REQUIREMENTS - INDUSTRIAL PARK / HEAVY INDUSTRIAL

FIGURE 6

SPECIAL YARD REQUIREMENTS

Figure 1 - Special Yard Requirements

c. Building Design. The following criteria shall be applied to building design in all Business/Industrial Park areas:

1. All structures shall be designed to be harmonious with the local setting and with neighboring developments. All facilities shall reflect a high standard of architectural design, and be subject to careful architectural review. Buildings shall be of either reinforced concrete and steel, masonry, or wood frame construction. Prefabricated metal buildings shall not be permitted unless an exception is made by the PC based on meritorious design.
2. Height of Structures: Maximum height of structures shall not exceed 35 feet as set forth in Section 18.104.120 of the Napa County Code or as provided in Airport Safety Ordinance #416, whichever is least. Heating, cooling, and other roof equipment shall be included in the building height restrictions. Additional height may be permitted under stringent Special Use Permit procedures as provided for in the Airport Safety Ordinance #416.
3. All rooftop or outdoor mechanical equipment shall be fully screened from ground view in a manner which is architecturally integrated with the structure.

d. Signs. All development shall be subject to the following sign requirements:

1. Signs to identify industrial parks or subdivisions:

Temporary and permanent industrial park and/or subdivision identification signs located at the entrance to each industrial park or subdivision in the planning area shall meet all applicable standards set forth in Chapter 18.116 of the Napa County Code.

2. Detached business identification signs (Monument Signs):
 - a. One detached sign shall be permitted on each development site for the purpose of identifying the occupant(s) of the site. The information displayed on these signs shall be limited to the name and symbol of the business or businesses occupying the site or the name of the building occupying the site and the street and street number. No advertising shall be permitted on these signs.
 - b. Signs shall be low-profile, wall-type signs less than 4 feet in height with a maximum message area of 32 square feet.
 - c. Wood, concrete, stone, enameled or anodized metal, brick or slumpstone are acceptable building materials for these signs. The choice of materials should match major building materials. Signs shall be externally illuminated.
 - d. Industrial park and subdivision identifications signs shall not be combined with business identification signs.

3. Building mounted business identification signs:
 - a. One mounted sign shall be permitted on each structure for the purpose of identifying the occupant of the building. The information displayed on this sign shall be limited to the name and symbol of the building's occupant or occupants and the address.
 - b. Mounted signs attached to vertical surfaces of a building or building-associated wall shall be allowed, with the provision that such signs appear as an integral part of the overall architectural and site design concept. Sign materials shall complement those of the structure to which they are attached. Such signs shall be externally illuminated. Occupant signs shall be scaled proportionately to the amount of overall space within the building. The attached sign area shall not exceed three percent (3%) of the total area of the walls on any face of the building to which they are attached.
 - c. Fascia and roof signs are not permitted.
4. Permanent informational signs pertaining to street directions, business locations, etc., shall be a maximum of 6 square feet in area and 12 feet in height and shall be coordinated and complementary to any overall sign program. Such signs shall be designed to direct on site traffic as opposed to being visible from public right-of-ways.
5. Alternative signage consistent with the objectives of this Specific Plan and Chapter 18.116 of the Napa County Code may be approved on a case-by-case basis by the PC as part of a Comprehensive Sign Program.

e. Lighting. Exterior site lighting shall be provided in accordance with Section 18.40.210 of the Napa County Code.

f. Parking and Loading Requirements:

1. On-street parking shall not be permitted on any public streets. All uses shall provide offstreet parking and loading facilities in accordance with the following minimum schedule:
 - a. One parking space per one thousand (1,000) square feet of the first 20,000 square feet of gross building floor area which is to be used for warehousing or storage space. One parking space per 2,000 square feet of gross floor area above 20,000 square feet.
 - b. One parking space per two hundred and fifty (250) square feet of gross building floor area which is to be used for office uses.
 - c. One parking space per five hundred (500) square feet of gross building floor area which is to be used for manufacturing, processing, packaging, research, service, or other permitted uses.

- d. One parking space shall be provided for each company-owned or -leased truck, passenger car, or other vehicle located or principally based on the premises.
 - e. Other allowed uses not identified above in subsections a through c: required parking shall be established by the PC through the use permit, and shall be in conformance with the provisions of Chapter 18.110 of the Napa County Code.
2. Street level views of all parking areas from public streets shall be screened by a combination of berming and landscaping.
 3. All parking areas shall provide interior landscaping for shade and visual enhancement. Parking lots shall be landscaped at a minimum ratio of one tree per six parking spaces for double-loaded stalls, one per three spaces for single-loaded stalls.
 4. Off-street loading space requirements:
 - a. Loading spaces shall not be located in the required front yard and shall not be placed so as to face any public street.
 - b. Buildings of 10,000 square feet of gross floor area shall have one off-street loading space, plus one additional space for each 40,000 square feet of gross floor area.
 - c. Loading space shall have minimum dimensions of twelve (12) feet by forty (40) feet with fourteen (14) feet of clearance height.
 - d. Where buildings are used entirely for office uses, or other uses which in the determination of the PC do not result in off-street loading, no loading space is required.

g. Landscaping and Outdoor Storage:

1. For development plans of 30 acres or less in size, a minimum of 20 percent of the site shall be landscaped. For development plans more than 30 acres in size, a minimum of 15 percent of the site shall be landscaped. All landscape designs shall relate to building structures, master landscape plans, and natural site features. Plans shall reflect a high standard of landscape design and are subject to the review and approval of the PBES prior to issuance of a Building Permit.
2. **Landscape and sidewalk master plans** shall be developed for the 25-foot street frontage for each subdivision prior to final map approval and/or for subareas with multiple ownerships, to ensure a continuity of landscape treatments. Such plans shall establish recommended lists of plant materials, placements of street trees, locations of walkways, guidelines for grading and drainage, approaches to visual screening, and fence treatments.
3. All development sites shall reserve a 25-foot setback from the adjoining street curb line to be used exclusively for landscaping. The owner, lessee, or occupant shall be responsible for landscaping and maintaining this area.

4. A minimum of 50 percent of the area between the curb line and the minimum setback line shall be mounded and bermed and planted in lawn, or in a suitable substitute established in a landscape master plan approved by the PC.
5. All unused portions of each occupied parcel shall be maintained as landscaped area. For phased developments, landscaping shall be installed along the entire street frontage during the first phase. Undeveloped areas are to be mowed for grass/fire control, not used for any kind of storage, and kept in a clean and orderly fashion at all times.
6. All landscaped areas shall have an automated irrigation system to ensure that plantings are adequately watered.
7. A standard 4-foot wide, meandering concrete walk/bike path shall be installed by the developer within 90 days of completion or occupancy of the building. The walk shall be constructed within the landscape setback along street frontages as shown on figures 14 and 16 and as detailed in master landscape plans, and shall connect with those of neighboring lots to form a continuous pedestrian circulation system at buildout.
8. Landscaping approved by the County shall be installed prior to issuance of an Occupancy Permit.
9. In the interest of public safety, trees shall be planted not less than 25 feet from the beginning of curb returns at intersections, and 10 feet from street lights, utility poles, fire hydrants and driveways. Trees shall be planted a minimum of 2.5 feet behind a curb, and lower branches of established trees should be trimmed up to a minimum of 6 feet above the road surface in order to ensure safe stopping sightlines.
10. Preservation of existing stands of mature native and naturalized vegetation shall be a primary goal in site plan development and site preparation. Special techniques, such as fencing, shall be used to protect trees from grading equipment.
11. Outdoor storage shall be allowed provided that: a) the outdoor storage is ancillary to the primary use of the site; b) all minimum landscape setbacks are maintained; c) the storage area is not visible from any public right-of-way; d) a combination of dense landscaping and solid fencing and/or walls are provided to screen views of the storage areas from adjacent properties; e) that all items stored do not exceed the height of the screen fence and/or wall; and f) shall be in accordance with Section 18.40.240 of the Napa County Code.

h. Architectural and Site Plan Approval. Development plans for all parcels shall be subject to design review by the PC. PC design review should be based upon the site design, building design, signage, lighting, parking, loading, landscaping, outdoor storage, and performance standards set forth in this chapter of the plan.

i. Performance Standards. The following performance standards shall apply to all Business/Industrial Park uses in the planning area:

1. Vibration, Heat, and Glare: No use shall be permitted which creates vibration, heat, or glare detectable by the human senses without the aid of instruments beyond the boundaries of the site.
2. Smoke, Dust, Fumes, and Contaminants: No use shall emit smoke, dust, fumes, or particulate matter contaminants which are detectable by human senses without the aid of instruments. Specific performance standards and enforcement are the responsibility of the Bay Area Air Quality Management District.
3. Odor: No use shall create odors which are offensive beyond the boundaries of the site or are detectable by the human senses without the aid of instruments beyond the boundaries of the site.
4. Sound: All noise shall be muffled so as not to be objectionable due to intensity or periodicity. Maximum peak sound pressure levels when measured on the "A" scale at the lot line of the property on which the sound is generated shall not exceed a curve drawn through a plot of the following points:

Maximum Sound Pressure Levels in Decibels re: 0.0002 dyne/cm ²	
Octave Band Center Frequency in HZ	Noise Sources within 200 ft. of All Industrial Park Parcels
31.5	75
63.0	72
125.0	67
250.0	59
500.0	52
1,000.0	46
2,000.0	40
4,000.0	34
8,000.0	32
16,000.0	30

The sound pressure level shall be measured with a sound level meter and associated octave band analyzer conforming to standards prescribed by the American National Standards Institute.

5. Radioactivity, Electrical Disturbance, or Electromagnetic Interference: No use shall be permitted which emits dangerous levels of radioactivity, or electrical disturbance, or electromagnetic interference which adversely affects the operation of any aircraft or equipment in the vicinity or at the Napa County Airport.
6. Solid and Liquid Wastes: No solid or liquid wastes shall be discharged into a public or private sewage disposal system or stream, or into the ground except in compliance with the regulations of the authority having jurisdiction over the sewerage system and the San Francisco Bay Regional Water Quality Control Board.
7. Fire and Explosion: all activities and all storage of flammable and explosive materials shall be provided with adequate safety devices against fire, explosion, and other hazards and fire fighting and fire suppression equipment adequate to meet industrial standards and the requirements of the applicable fire district.
8. Hazardous Wastes: All current local, state, and federal regulations regarding hazardous wastes shall be complied with as a condition of building permit approval.

C. GENERAL INDUSTRIAL AREAS

1. Purpose and Objectives

The General Industrial land use designation mapped on Figure 5 is intended to accommodate and encourage additional general industrial development in the County by providing land area exclusively for such activity. The designation is intended to accommodate operations which may require relatively low land costs and reasonably good accessibility, and are not adaptable to the more stringent development criteria associated with Business/Industrial Park areas. The designation is intended to provide for such activities in areas which are visually contained and where land use and environmental impacts can be minimized.

On-site and common improvement requirements in this area are generally less stringent than in industrial park areas, e.g., metal buildings, open storage, and visible product manufacturing, such as batch plants and lumber yards, are allowable.

The designation is considered important for meeting short-range future economic and market demands in the County for expansion of general industrial businesses.

2. Allowable Uses

Possible uses in General Industrial areas, subject to their compliance with the standards set forth in this plan, include, but are not limited to, the following:

- a. Manufacturing or commercial processing of asphalt and asphalt products, building materials, cement, concrete, sand and rock, or similar products or materials.
- b. Bakeries, creameries, laundries, and cleaning and dyeing plants.
- c. Cabinet shops; electrical, plumbing, and heating shops; welding, sheet metal, and machine shops; lumber yards.
- d. Contractor's equipment storage or rental yards; truck terminals including major repair.
- e. Motor vehicle wrecking and salvage yards.
- f. Manufacturing, compounding, fabricating, processing, packaging, refining or treating of goods, materials or products which are caustic, flammable, highly combustible, noxious, or poisonous.
- g. Agricultural processing plants and facilities, including wineries, dehydrators, fruit and vegetable packing plants, canneries, and similar agricultural uses.
- h. Other heavy manufacturing and assembly uses, outdoor storage and warehousing uses, and nuisance-related refining and processing uses.

- i. Other uses which in the opinion of the Director of PBES are similar in character to the uses listed in subsections a through h, except that any such use shall be subject to use permit review and approval by the PC.
- j. Transitional Uses, which by approval of a Use Permit allows for the continued, expanded, and/or modified operation of open air markets and accessory uses that were in existence prior to the adoption of this Specific Plan. The approving authority shall have the right to authorize reasonable restrictions upon any proposed expansion or modification as deemed necessary to protect the health, safety and welfare of persons residing and or working within the vicinity of the transitional use.

3. Site Development Standards. All General Industrial uses will be subject to the corresponding zoning regulations and other requirements then currently in effect relating to public safety and welfare. In addition to these requirements, the following standards have been established to provide guidelines for project design and review purposes. Where appropriate, these guidelines may be modified pursuant to the Site Development Standards Implementation Procedures provided in Section V(H).

a. Lot Size and Coverage. All General Industrial development should be subject to the following lot size and coverage requirements:

1. Lot Area:
 - Parcels of 20 acres or less in size--20,000 square feet minimum.
 - Parcels of 20 acres or more in size--25 percent of the total site area should be limited to 5-acre minimum lot sizes to accommodate large-site users. The remaining 75 percent should be subject to 20,000 square feet minimums.
2. Lot Width--100 feet minimum--all lots shall have public street frontage.
3. Lot Coverage--The maximum permitted percentage of lot coverage by buildings or structures shall be 50%, provided all setback, public improvements, landscaping and parking requirements are accommodated.

b. Yards. The following yard requirements shall apply:

1. Front Yard: 20 feet minimum building setback shall be required from all street right-of-way lines.
2. Side Yard: none (with the exception of corner lots where front yard standards shall apply to all street frontages).
3. Rear Yard: none.

4. Special Yard Requirements:

- a. Where a lot in a General Industrial area adjoins a Business/Industrial Park area, a minimum building setback of 65 feet shall be required. The 20 feet nearest the property line shall be planted with a dense landscape screen. (See Figure 6.) In lieu of the above requirement, a 30-foot landscape setback planted with a dense landscape screen may be approved by the PBES based on site-specific design considerations.
- b. Where a lot in a General Industrial Area adjoins a street, on the other side of which is a business/industrial park use, a fifty foot (50') minimum building setback shall be required.
- c. In those areas where a General Industrial area adjoins or is across the street from a Business/Industrial Park area, the mix of General Industrial uses with Business/Industrial Park uses can result in noise conflicts. General Industrial developers along this sensitive boundary shall be responsible for controlling their noise emission so that levels measured at the property line shall not exceed 70 dBA for more than 30 minutes in any hour.
- d. Properties that border S.R. 29 shall have a 55-foot average, 45-foot minimum building setback from the highway right-of-way line. The 45 feet nearest the right-of-way shall be reserved as a landscaped area. Landscaping details shall be formulated as set forth in Section VI.F.7 of this plan.

c. Height of Structures. Maximum height of structures shall be limited to 35 feet as set forth in Section 18.104.120 of the Napa County Code, or as provided for in the Airport Safety Ordinance #416, whichever is least. Heating, cooling, and other roof equipment shall be included in the building height restrictions. Additional height may be permitted under stringent Special Use Permit procedures as provided for in the Airport Safety Ordinance #416.

d. Parking and Loading Requirements:

1. On-street parking shall not be permitted on any public streets within a General Industrial district. All uses shall provide off-street parking and loading facilities in accordance with the following schedule:
 - a. One parking space per one thousand (1,000) square feet of the first 20,000 square feet of gross building floor area which is to be used for warehousing or storage space. One parking space per 2,000 square feet of gross floor area above 20,000 square feet.
 - b. One parking space per two hundred and fifty (250) square feet of gross building floor area which is to be used for office uses.
 - c. One parking space per five hundred (500) square feet of gross building floor area which is to be used for manufacturing, processing, packaging, research, service, or other permitted uses.

- d. One parking space shall be provided for each company-owned or -leased truck, passenger car, or other vehicle located or principally based on the premises.
 - e. Other allowed uses not identified above in subsections a through d: required parking shall be established by the PC through the use permit, and shall be in conformance with the provisions of Chapter 18.110 of the Napa County Code.
2. All parking shall be screened from street level view from public streets by a combination of landscaping and berming acceptable to the Department.
 3. Off-street Loading Space Requirements:
 - a. Buildings of 10,000 square feet of gross floor area shall have one off-street loading space, plus one additional space for each 40,000 square feet of gross floor area.
 - b. Loading space shall have minimum dimensions of twelve (12) feet by forty (40) feet with fourteen (14) feet of clearance height.
 - c. Other uses which in the determination of the PC do not result in off-street loading, shall not be required to provide loading spaces.

e. Landscaping:

1. Landscape plans, when required, must be approved by the Planning, Building and Environmental Services Director or his designee prior to issuance of a Building Permit. In all such cases, the following standards are applicable:
 - a. The owner, lessee or occupant shall be responsible for maintaining all required landscaping and any unpaved areas between the street curb line and the front yard setback or to the walls of the building or yard enclosure.
 - b. All development plans shall provide a 20-foot landscape setback from the street curb line to be used exclusively for landscaping. Parking lots located between the street and structures shall be landscaped at the ratio of one tree per six parking spaces for double-loaded stalls, one tree per three spaces for single loaded.
 - c. Where the use is adjacent to an industrial park area, a minimum of 50 percent of the area between the property line and the landscape setback line shall be mounded and bermed and planted in lawn or a suitable substitute established in a landscape master plan and approved by the Planning, Building and Environmental Services Director or his designee; outdoor storage or open manufacturing uses shall be screened.
 - d. All landscaped areas shall have an automated irrigation system to ensure that plantings are adequately watered.

- e. Landscaping approved by the County shall be installed prior to issuance of an Occupancy Permit.
- f. In the interest of public safety, trees should be planted not less than 25 feet from the beginning of curb returns at intersections, and 10 feet from street lights, utility poles, fire hydrants and driveways. Trees should be planted a minimum of 6'0" feet behind a curb, and lower branches of established trees should be trimmed up to a minimum of 13 feet above the road surface to ensure safe stopping sightlines.
- g. Existing vegetation, especially mature trees and shrubs, shall be preserved whenever practical.

f. Site Plan Approval. All uses in general industrial districts will require site plan review and approval, or use permit approval as specified herein and in Chapter 18.40 of the Napa County Code.

g. Performance Standards. The County may adopt performance standards for the heavy industrial districts, based on modern measurement techniques, in order to provide uniform and exact methods of measuring performance to determine the suitability of a proposed use. Such standards shall be consistent with the purposes of this plan and shall be designed to exclude from the district uses and conditions which would be detrimental to the health, safety, and general welfare of persons residing or working in the vicinity of any proposed use or be detrimental or injurious to property or improvements in the vicinity. All uses shall be subject to compliance with standards in the following categories:

1. Vibration, heat, and glare
2. Smoke, dust, fumes, and contaminants
3. Odor
4. Sound
5. Radioactivity, electrical disturbance, or electromagnetic interference
6. Solid and liquid wastes
7. Hazardous wastes
8. Fire and explosion

h. Signs. Signs in heavy industrial areas shall be in accordance with the standards stated in Article 7 of the Napa County Zoning Ordinance, with particular attention given to the compatibility of proposed signs with surrounding development standards. Signs on heavy industrial lots adjacent to or across the street from industrial park areas shall conform to the more restrictive sign standards of the industrial park area.

i. Lighting. Exterior site lighting shall be adequate to meet safety and security needs while recognizing the need for energy conservation. Lights shall be directed so as not to cause off-site glare. The airport proximity of the area also requires that all outdoor lighting be designed to minimize aviation hazards.

D. AIRPORT APPROACH ZONES

Special additional land use controls are established in this section for airport approach zones to mitigate potential safety conflicts between aircraft landing and takeoff patterns and urban development. All policies established herein are consistent with approach zone goals and objectives set forth in the Napa County Airport Land Use Compatibility Plan, and the Airport Master Plan.

Traditionally there are three major types of impacts associated with airport approach zone activity: noise, safety, and nuisance. Comparison of noise contours for the airport area with noise compatibility guidelines in the Noise Element of the County's General Plan indicates that projected noise levels generated by airport aviation activity will be compatible with the General Industrial and Business/Industrial Park land use designations set forth in this plan. Nuisance impacts, a rather nebulous form of impacts related to the psychological effects of frequent overflights (due partly to noise and partly to concern for safety), are also not expected to be a major concern due to the nature of the uses allowed in the underlying industrial land use categories. The safety issue involves both hazards which aircraft landing and takeoff activities present for underlying urban development, as well as the hazards which certain land use activities can pose for the aircraft.

The Napa County Airport Master Plan designates "Clear Zones" and "Approach Zones" at each end of the airport's two main runways. The Clear Zones and Approach Zones are centered on these runways and are configured to meet Federal Aviation Administration regulations.

Runway 18R/36L, which is oriented in a general north-south direction, is the airport's primary runway and handles both precision and non-precision instrument landings and takeoffs. The tapered Clear Zones for this runway begin 200 feet from the ends of the runway (at which point they are 1,000 feet wide) and extend 2,500 feet beyond that point (at which point they are 1,700 feet wide). The rectangular Primary Approach Zones, which also begin 200 feet from the end of the runway, are 2,500 feet in width and 5,000 feet in length.

Runway 06/24, the airport's secondary runway, has a general east-west orientation and handles non-precision instrument aircraft operations. The Clear Zones for this runway begin 200 feet from the end of the runway and extend eastward to the railroad tracks. The width of this Clear Zone is 500 feet at the point nearest the runway, widening to 850 feet at the farthest extent, as measured along the railroad tracks. The area is described graphically in figures S1 and 5. The Secondary Approach Zones for runway 06/24 are 1,500 feet wide by 3,500 feet long.

In the event of a significant increase in the number and nature of flights using runway 06/24 in the future, especially an increase in jet traffic, it may become necessary, based upon FAA safety requirements and recommendations, to extend the Clear Zone for this runway to the east of the railroad tracks for an eventual total length of 1,700 feet and 1,010 feet. For this reason, the area lying to the east of the railroad tracks within this possible future Clear Zone is designated as a

"Future Clear Zone Study Area" and is show as such on Figure S1 and Figure 5. The designation of this area as a Future Clear Zone Study Area does not itself restrict the otherwise permissible uses of the land so designated, and the land shall be designated General Industrial for conformity with the General Plan Industrial designation of this area and the Specific Plan General Industrial designation of the lands in the immediate vicinity of this area along Tower Road.

1. Clear Zone Land Use Standards

All property within the four Clear Zones must comply with those restrictions specified in Airport Safety Ordinance #416. All urban development shall be prohibited within the designated Clear Zones. For purposes of this section, urban development includes any structure or object constructed or installed by man, including, but not limited to buildings, towers, smokestacks, overhead transmission lines and trees, but shall not include temporary parking facilities for the convenience of employees, suppliers or customers of a business located on a parcel partly within the clear zones, access roads, or agriculture, providing such uses are found as a part of the use permit process to be consistent with the intent and purpose of the Clear Zone and further providing that such uses do not involve the construction of buildings or the cultivation of trees or similar large plants, regardless of height.

All uses within the Clear Zone shall require the issuance of a Use Permit, issued pursuant to Chapter 18.80 of the Napa County Code and shall be subject to height limitation and land use restrictions specified in Airport Safety Ordinance #416. No Variances shall be permitted in the Clear Zone.

- b. Where feasible, the County should seek to purchase those lands within these Clear Zones which are now under private ownership, perhaps through use of FAA grants established for this purpose.

2. Airport Land Use Compatibility Zones

The entire Napa Valley Business Park Specific Plan lies within the boundaries of the Napa County Airport Influence Area as set forth in the Napa County Airport Land Use Compatibility Plan (ALUCP). All properties are required to be consistent with the requirements of the ALUCP and shall be subject to the following requirements and considerations:

- a. The County has adopted an Airport Compatibility (:AC) Combination Zoning District which includes development standards that are consistent with the ALUCP and the County's Airport Safety Ordinance #416. Regulations applicable to this district include limitation on height, building coverage, employment density, and other hazards and nuisances described under provisions b, c, d and e which follow.
- b. Use of property in these areas must comply with related land use restriction specified in the County's Airport Safety Ordinance #416.
- c. The granting to the County of an avigation easement shall be a condition of approval of any discretionary action for all properties which are not presently subject to such easements. The avigation easement should run with the land and be binding upon owners and subsequent owners of the property. The avigation easement should clearly convey the

following four property rights to the County for all portions of the property with a Primary or Secondary Approach Zone:

1. Right-of-flight at any altitude above an easement surface elevation, established based on either Part 77 of the Federal Aviation Regulations or FAA Terminal Instrument Procedures Standards (TERPS), whichever is controlling (glide slope in approach is the controlling factor).
 2. Right to cause noise, vibration, fumes, dust, and fuel particle emissions.
 3. Right to prevent erection or growth of all objects above the easement surface.
 4. Right to prohibit creation of electrical interference, unusual light sources, and other hazards to aircraft flight.
- d. Developers shall take into consideration airport activities and approach zone safety wherever possible in the specific layouts of site plans.
- e. Development shall be restricted with regard to **building coverage, building height and employment density** as follows:
1. Building Coverage--To minimize potential hazards or obstacles within the approach zones and to provide a maximum amount of open land (free of poles, trees, development, etc.) on which emergency aircraft landings can occur without major property damage or serious injury, building coverage shall comply with the standards of Table 3-2 of the Napa County ALUCP and the County's Airport Safety Ordinance #416.
 2. Height Limitations--All structures and trees shall be restricted in height to 35 feet as set forth in Section 18.104.120 of the Napa County Code, or as set forth in the Airport Safety Ordinance #416, whichever is less.
 3. Employment Density--To minimize potential injury or loss of life due to an aircraft accident, anticipated employment densities shall comply with the standards of Table 3-2 of the Napa County ALUCP and the County's Airport Safety Ordinance #416.
- f. The above regulations shall not be construed to require the removal, lowering, or other changes or alterations of any existing structure or tree not conforming to the regulations as of the adoption of this plan or otherwise interfere with the continuance of any nonconforming use.
- g. No existing use, structure, or tree within the Primary Approach Zones shall be replaced, substantially altered or repaired, rebuilt, allowed to grow higher, moved to another location, or replanted without applying for and being granted a Use Permit. No permit shall be granted that would allow the establishment or creation of a flight hazard, or allow an existing flight hazard to continue.

E. NATURAL AND CULTURAL RESOURCES

1. Purpose and Objectives

Natural and cultural resource protection policies are established in this specific plan for the following reasons:

- a. To protect planning area native streams from water quality degradation and from alterations or obstructions which might create flood hazards;
- b. To protect planning area riparian values;
- c. To protect existing stands of mature, native and naturalized vegetation in the planning area; and
- d. To protect any significant historical and archaeological resources in the planning area.

2. Watercourses

The Flood Control and Water Conservation Section of the Napa County Department of Public Works is responsible for regulating the use of all waterways in the County and protecting them from alteration and obstruction which might create potential flood hazards and/or disturb riparian vegetation. The department reviews development proposals, issues permits, and enforces standards and regulations set forth in the Napa County Flood Plain Management Ordinance (#627 as amended). This ordinance requires review of all development proposals that are within the 100-year flood zone boundary derived by the U.S. Army Corps of Engineers in conjunction with the National Flood Insurance Program. Figure 38 in the EIR shows the extent of these flood-prone areas.

The ordinance also identifies those streams that are subject to review due to their potential for disturbance to riparian vegetation or obstruction of stream flows. Any development proposals within 50 feet of the top bank of Suscol, Sheehy, or Fagan creeks requires review and permits by the department. (The unnamed stream to the south of the airport is not subject to this portion of the ordinance.)

In addition to County review, all development proposals that would substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of one of the four "primary creeks" mapped on Figure 38 must be submitted to the Department of Fish and Game pursuant to Fish and Game Code Section 1603. No work can be initiated on such proposals until a stream bed alteration agreement has been executed.

The following specific plan standards, subject to Section V(H) of this specific plan, shall apply to the primary creeks mapped on Figure 38:

- a. All wetland and stream habitats shall be protected in their natural state, except that encroachment into setback corridors listed below in subsection b may be permitted through the variation procedure set forth in Section V(H) and in the Napa County Code. Approval of any encroachment into stream corridor setbacks shall be based on provision on-site

wetland and/or stream restoration enhancement measures that result in substantial environmental benefits as determined on a case-by-case basis by the decision-maker. The extent of encroachment allowed, if any, shall be based on the extent of enhancement exceeding the minimum standards established by this specific plan and the Napa County Code.

- b. Unobstructed setback corridors shall be maintained in conjunction with the watercourses to facilitate movement of wildlife and to provide visual amenities. No development shall occur in the following setbacks:
 1. Suscol Creek: 150 feet from the top bank;
 2. Fagan Creek: 75 feet from the top bank; and
 3. Sheehy Creek and the unnamed primary creek south of the airport: distance set at the discretion of the Napa County Flood Control and Water Conservation Section and the California Department of Fish and Game.
- c. All plans for drainage improvements shall be reviewed by the County and State Department of Fish and Game prior to approval of projects. Plans shall provide specific measures for the alleviation of flooding effects, erosion and sedimentation control, and correction of onsite ponding.
- d. Developers shall be required to submit erosion and sedimentation controls plans for implementation prior to construction. The plans shall specify types of erosion control methods, scheduling of implementation, and location of sediment control structures. Sediment control plans shall specify that sediment loads shall not increase in excess of 10 percent of background levels.
- e. Siltation basins shall be required during construction, and catch/siltation basins with grease skimmers shall be required and maintained after completion of project.
- f. Alterations or improvements to the watercourses shall be designed to maintain or enhance the aesthetic qualities of the channel through preservation of existing vegetation and introduction of new landscaping. Where warranted, plantings of native species shall be introduced into the open space corridor to increase cover and enhance the wildlife habitat. The Department of Fish and Game shall be consulted regarding appropriate selection and use of plant materials to ensure successful growth and wildlife adaptation.
- g. The open space corridors along Suscol Creek shall include an unobstructed access easement between the riparian growth (if any) and the edge of development, to provide a means of controlled public and maintenance access.
- h. The width of the Suscol Creek access easement shall measure at least 10 feet between the edge of development and the outside drip line of the riparian canopy, as indicated by the aerial photography taken of the area in March 1984.

- i. A permanent open space easement (conservation easement) along the Suscol Creek corridor between the creek bank and the edge of development shall be granted to Napa County or its designee as a permanent riparian conservation and enhancement corridor.
- j. The Suscol Creek access easement shall be kept clear and periodically mowed to allow detection of infringements and controlled public access.
- k. Industries using toxic materials shall have a spill containment and cleanup plan. They shall identify specific measures to reduce the possibility that toxic chemicals do not enter the streams. Oil and grease traps shall be mandatory.
- l. Grading operations should be restricted to the dry season between April 15th and October 15th.
- m. Grading shall be performed early enough to stabilize exposed soil surfaces (by hydromulching or another suitable method) and vegetated prior to the onset of the rainy season or November 1st of each year, whichever occurs first.

3. Existing Vegetative Stands

Preservation of existing stands of mature native and naturalized vegetation is a primary goal of the plan. Preservation of existing mature trees and shrubs should be a prime consideration in the design of all development plans. This applies particularly to stands of eucalyptus and native oaks that are scattered throughout the planning area. A tree protection ordinance should be formulated and adopted by the County, incorporating the following standards for application to all developments:

- a. All existing trees (exclusive of riparian areas unless proposed for development) and sizes should be shown on all site plans. Tree removal should be subject to the approval of the designated County agency, which should specify suitable specimen replacement trees.
- b. Development under the drip line of oak trees should be subject to special consideration by the designated agency, as oak trees can be damaged by pavement and water. Landscape plans should incorporate preservation techniques.
- c. Any limbs, trunks, or exposed roots damaged during construction should be painted immediately with a good grade of "tree paint". Limbs and roots larger than 3 inches should not be cut without the approval of the designated agency.
- d. Surveys for rare or endangered vernal pool plants should be required for projects in the grassland areas. Appropriate mitigation plans should be developed on a project-by-project basis if vernal pools or associated rare and endangered plants are found on the project site.

4. Cultural Resources

In September 1983, as part of the County's Master Environmental Assessment for the airport area, the Archaeological Resource Service (ARS) conducted a comprehensive survey of literature and previous reconnaissance of the planning area vicinity. Their findings indicated that significant

historical and archaeological resources could be located within the planning area. ARS compiled its findings into maps showing those general areas which are most likely to be archaeologically and historically sensitive (see Figure 40). Based upon the findings of that report, development within the planning area is subject to the following guidelines:

- a. Any development occurring within areas identified as culturally sensitive (as shown in Figure 40) shall be intensively inspected by a trained archaeologist prior to development.
- b. If any subsurface cultural deposits are discovered during construction, work should be halted in the vicinity of the discovery, and a qualified archaeologist contacted to prepare an evaluation before development at the location of the find is allowed to continue.
- c. Prior to alteration or removal, existing historical structures should be evaluated by an architectural historian in conjunction with an archaeologist, to determine the age, construction methods, and social history, and to determine if significant subsurface deposits or features are present.
- d. If cultural resources are identified, they should be further evaluated and if deemed significant under the guidelines of historic preservation by CEQA, their "preservation" measures should be taken.
- e. A general program shall be developed to reduce adverse impacts to identified significant cultural resources to a non-significant level. When a significant cultural resource is found during reconnaissance, all attempts shall be made to provide alternative mitigation procedures. Mitigation measures shall be incorporated into the design of the proposed development. Further study including test excavation will be necessary to define the extent, condition, function, antiquity, and value of a resource before mitigation procedures are put into effect.
- f. In the event that a previously unidentified cultural resource is discovered during construction, work should be stopped in the vicinity of the find and a qualified archaeologist retained to evaluate the find. The measures recommended by the consulting archaeologist shall be incorporated into development plans.
- g. In the event that cultural resources are discovered, consultation with the State Office of Historic Preservation shall be made, to ensure that recognized cultural resources are fully recorded (including issuance of a permanent trinomial designation) and that proposed mitigation scenarios are appropriately applied, given the new guidelines regarding historic preservation. Locally knowledgeable individuals and Native American groups should be given an opportunity to comment on proposed mitigation scenarios prepared as a result of archaeological study. In particular, the Native American Heritage Commission should be contacted in regards to the treatment of human burials or burial sites identified during survey.

F. GROWTH MANAGEMENT

As the result of a 1980 initiative ballot measure, the Napa County Board of Supervisors adopted a Growth Management System (GMS). The GMS has been incorporated as an element of the

County's adopted General Plan. The GMS provides for an annual allocation of a fixed number of building permits for new residences in the unincorporated portions of Napa County. The system applies only to the unincorporated areas of Napa County. The housing impact analysis in the EIR (Section X.E.2) indicates that the effects of planning area absorption rate projections (Table 10) on cumulative Napa County employment growth might result in increases in housing demand that exceed the level of growth currently allowed under the Growth Management System.

1. Purpose and Objectives

An important goal of this plan is to maintain specific plan consistency with the provisions of the County's General Plan. The level of growth allowed in the airport area must be consistent with the Napa County General Plan, including its Growth Management System. To meet that goal, the plan should include measures to ensure that a reasonable balance is maintained between the employment impacts of the plan and the housing availability implications of the GMS.

2. Employment Intensity Controls Incorporated in the Plan

Previous sections of this Land Use element already include controls on the intensity of planning area industrial development which will effectively limit employment growth and related housing impacts. These controls include:

- Floor area ratio (FAR) standards for the two industrial land use classifications as a basis for limiting development intensity (and corresponding employment intensity); and
- Minimum and maximum parking requirements which also indirectly limit employment intensity.

a. Floor Area Ratios (FAR). Floor area ratio standards are used in Sections B and C of this chapter as the principal basis for controlling the intensity of industrial uses. The F.A.R. describes the relationship between the total gross floor area of the building(s) and the net area of the lot. The floor space may exist in several buildings or in extra stories. In implementing these standards, F.A.R. calculations should be made on a parcel-by-parcel basis, and not over multiple parcels (the latter can get too confusing and prone to abuse).

Any use which is proposed to exceed the F.A.R. limitations of this plan should be carefully considered during the Use Permit process. Similarly, proposed conversion of a parcel or building from a higher floor area category (warehouse, restaurant, etc.) to a lower floor area category (offices) should be carefully considered in the Use Permit process. **During this Use Permit process, the County should determine the potential employment intensity of the use (for example: robot assembly vs. office use) and require appropriate mitigation if the intensity exceeds levels associated with the designated land use.**

b. Parking Requirements. Minimum and maximum parking standards are set forth in this plan for the various industrial land use categories to provide adequate off-street vehicle storage and to discourage employment intensities in excess of the rates anticipated. The parking ratio maximums are intended to discourage conversion of existing buildings to higher employment intensity uses. For example, if a warehouse is converted to an office use, the building will require more parking. If the lot in question cannot provide the parking ratio required for the new use, the conversion

should not be allowed. Proposed uses which seek to exceed the parking limits established in this plan should be carefully examined during the Use Permit process.

3. Industrial Development Monitoring

Every **24 months**, the PC shall **monitor** the rate of and character of planning area industrial development in order to determine whether employment growth is occurring at a rate consistent with the rate of new housing availability within a reasonable commute distance from the planning area. the monitoring procedure shall take into consideration the ongoing effect of the County's residential Growth Management System on the ability of the County's unincorporated areas to absorb a reasonable share of planning area induced regional housing demands. The monitoring procedure should include adequate consideration every 24 months of the following housing impact determinants:

- a. Planning Area Employment Updates. Changes in estimated planning area related employment totals based upon information gathered during the County's **Use Permit** issuance process for all new industrial uses in the planning area.
- b. Updates of ABAG Forecasts of Housing Growth for all Statistical Areas within a Reasonable Commute Distance from the Planning Area. ABAG issues updated forecasts on a periodic basis (ABAG Projections '83, ABAG Projections '85, etc.).
- c. GMS Capacity Updates. Any changes in County GMS allocations which have not been accounted for in the updated ABAG figures.

A PBES staff report should be submitted by the Airport Land Use/Planning Commission to the Board of Supervisors summarizing the results of the monitoring process and presenting conclusions with respect to regional jobs-housing equilibrium. The conclusions can be based upon an impact computation methodology similar to that presented in the plan EIR (Section X.E and Appendix G).

4. Adverse Housing Impact Mitigation Choices

If and when the Board determines that the rate and character of employment growth in the planning area, in combination with the effects of the County's Growth Management System, are together beginning to result in a significant adverse regional housing impact, the Board shall direct staff to recommend a housing impact mitigation procedure, such as a limitation on annual industrial floor space expansion (square footage) in the planning area, or a limitation on annual industrial land absorption (acreage developed). Both of these alternatives are further described in the plan EIR (Section X.E.3).

G. ADJACENT AREAS

The Napa County General Plan and this specific plan respond to the economic importance of the planning area and treat the area as the principal location for meeting the County's near-future and long-range industrial development needs. The planning area is estimated to contain enough vacant industrial land under this specific plan (1,477 acres) to meet the County's industrial development needs for the next 50 years. In addition to this extensive inventory, approximately 650 vacant

acres of land contiguous to the east boundary of the planning area beyond S.R. 29 and Kelly Road and approximately 234 vacant acres contiguous to the southern boundary along the south side of Green Island Road¹, are currently designated in the General Plan for industrial use.

The Napa County General Plan should be amended to change the "Industrial" designations of these lands contiguous to, but outside the eastern and southern boundaries of the planning area as follows:

1. The 234-acre area south of Green Island Road currently served with both water and sewer should be changed to a new designation: General Industrial, i.e., the same land use classification as the property located in the planning area on the opposite side of Green Island Road. Future zoning classifications for these plan-designated General Industrial areas north and south of Green Island Road should also be the same. (Appropriate zoning classifications are recommended in Section VIII.A.2.b of this specific plan.)
2. The 650-acre area to the east should be changed to Agriculture, Watershed, and Open Space or Agricultural Resource. Prohibiting industrial development in this easterly area will serve to further the goals of this specific plan by:
 - a. Protecting and preserving the important visual and open space value of the rural landscape east of the planning area through establishment of S.R. 29 and Kelly Road as the logical edge of industrial activity;
 - b. Avoiding the inefficiencies and growth-inducing impacts of further public service and infrastructure extensions into undeveloped areas east of the Kelly Road-S.R.29 edge;
 - c. Increasing the viability of the planning area industrial land inventory which has been designated as the principal County location for industrial development; and
 - d. Avoiding adjacent opportunities for competitive industrial development which may be subject to a less stringent level of development review and/or may attract a lower quality of industrial development and thereby lessen the overall image of this southern Napa County industrial area.

H. SITE DEVELOPMENT STANDARDS IMPLEMENTATION PROCEDURES

A property owner may apply for a modification of the following site development standards through the use permit process:

1. required rear and side yard setbacks;
2. landscaping;

¹ These industrially zoned vacant lands plus approximately 31 acres of developed lands south of Green Island Road were recently deemed consistent with the General Plan by the Board of Supervisors (Ordinance 782, Resolution 84-74).

3. parking requirements, including use of shared parking, or time of day/traffic management strategies;
4. stream setbacks;
5. provision of sidewalks along public streets;
6. such other site development standards as are set forth in this Specific Plan or in Title 18 of the Napa County Code.

The Planning Commission may modify the above site development standards applicable to a project if the following site-specific findings can be met:

- 1) The proposed modifications comply with the variation procedure requirements of Title 18 of the Napa County Code (Section 18.40.250 or 18.44.210, as applicable based on subject property zoning);
- 2) The proposed modifications, considered together with site specific mitigation measures and restoration where necessary, will provide superior overall aesthetic, environmental, and/or economic benefit than the minimum development standards set forth in the Specific Plan; and
- 3) The proposed modifications are consistent with applicable airport safety regulations.

A modified development standard approved pursuant to this Section H shall prevail over any inconsistent site development standard provided for in this Specific Plan or in Title 18 of the Napa County Code.

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VI. CIRCULATION ELEMENT

A. PURPOSE AND OBJECTIVES

This chapter translates framework goals established in Chapter IV related to circulation into a set of specific circulation policies for the planning area. The chapter includes a roadway classification system, related internal road standards for planning area, description of offsite roadway improvements necessary to accommodate planning area buildout, suggested construction sequences, estimated costs, and suggested cost responsibilities. These provisions are designed to meet the following objectives, summarized from Chapter IV:

1. Roadway System Objectives

A primary purpose of this Circulation Element is to improve regional access to the planning area, and to facilitate efficient local roadway access throughout the airport area in a cost-effective manner. Principal objectives from Chapter IV which are expanded upon in this chapter include substantially improving regional access to the planning area; coordinating the local and regional roadway system into a logical, integrated circulation network; designing, sizing, and improving roadways to adequately meet future traffic demands, consistent with County standards and additional standards set forth herein except as varied by the Planning Commission or the Board of Supervisors for minor roads for the sole purpose of preserving the existing oak woodland east of State Route 29 near Fagan Road; and providing for vehicular access to each parcel with minimal harm to the development potential of all parcels.

2. Air Transportation Objectives

Air transportation objectives from Chapter IV include preserving and protecting the airport's potential to accommodate public and private air transportation, and to maximize the ground accessibility of this unique asset.

3. Rail Service Objectives

Rail service objectives include maximizing opportunities for rail freight service to the planning area through the preservation of existing rail access; and the accommodation of existing and future rail access through the planning area in as safe a manner as possible.

4. Transit Objectives

Transit objectives from Chapter IV include designing roadways and pedestrian paths in a fashion conducive to efficient future, fixed route transit, if and when transit service is provided in the area.

5. Non-Motorized Transportation Objectives

Non-motorized transportation objectives from Chapter IV include providing for safe and direct pedestrian and bicycle linkages within the planning area, and between the planning area and other nearby principal activity areas.

6. Navigable Waterway Access

No improvements to the Napa River in order to accommodate water-borne cargo or passenger movements are recommended as part of this specific plan.

B. ROADWAY CLASSIFICATIONS

The local roadway system set forth in this plan is mapped on Figures 7 and 8. Proposed roadways have been divided into four categories: Controlled access highways, arterial roads, collector roads, and minor roads. Each of these categories and their functions are described below².

1. Controlled Access Highways

A controlled access highway is a route devoted entirely to the task of interregional traffic movement, performing little or no land service function. It should be characterized by some degree of access control.

2. Arterial Streets

Arterial streets are major roadways designed to expedite the flow of through traffic. They are characterized by some restriction on direct access to abutting properties.

3. Collector Streets

Collector streets are intended to serve internal traffic movements within the planning area, and to connect the planning area with the interregional highway system. Collector streets are intended to perform land service functions; they are not intended to handle long through trips.

4. Minor Streets

Minor streets are roadways having the sole function of providing access to immediately adjacent lands.

C. REGIONAL ROAD ACCESS IMPROVEMENTS

Several major improvements to the state highway network serving the planning area will be necessary to accommodate future traffic volumes through and beyond the year 2000, and **to provide the degree of regional access necessary to allow the planning area to effectively compete with other industrial development areas in the Bay Region.** Improvements necessary to accommodate year 2000 highway volumes include those measures already established as

² Adapted from: Fundamentals of Traffic Engineering, W.S. Homburger and J.H. Kell, ninth edition, 1977.

County circulation improvement policy in the Napa County General Plan. These include providing grade-separated interchanges at the intersections of S.R. 29 with S.R. 12 (Jameson Canyon Road) and S.R. 221 (Soscol Ave.), widening S. R. 29 between S.R. 221 and American Canyon Road and controlling access to the route through the planning area, widening S.R. 12 (Jameson Canyon Road) between S.R. 29 and I-80 at Vallejo. Related improvement needs south of the planning area, which are also already established as County circulation improvement policy in the General Plan, include a grade-separated interchange at S.R. 29/American Canyon Road and at the S.R. 29/S.R. 37 (Sears Point Road) intersection in Vallejo. These S.R. 29 improvement amount to the upgrading of this segment of highway and as stated in the General Plan, are necessary to accommodate increases in cumulative through traffic through the planning area as well as planning area generated traffic.

1. S.R. 29/S.R. 12 (Jameson Canyon Road Intersection)

- a. Improvements Needed Immediately. This intersection is already operating at capacity during P.M. peak periods due to the high demand for southbound-to-eastbound left turns onto S.R. 12 and the high volume of through traffic on north-bound S.R. 29 in the afternoons. Traffic generated by other developments in the vicinity (Napa Valley Corporate Park) is anticipated to increase the demand for these left-turn movements in the very near future, thus making the existing problem worse before the planning area begins to develop.

As an **immediate** improvement to this intersection, it is recommended that the southbound S.R. 29 approach be widened to accommodate two left-turn lanes. This would require the widening of the eastbound section of S.R. 12 from one to two lanes in order to accommodate two lanes of traffic turning onto it from S.R. 29.

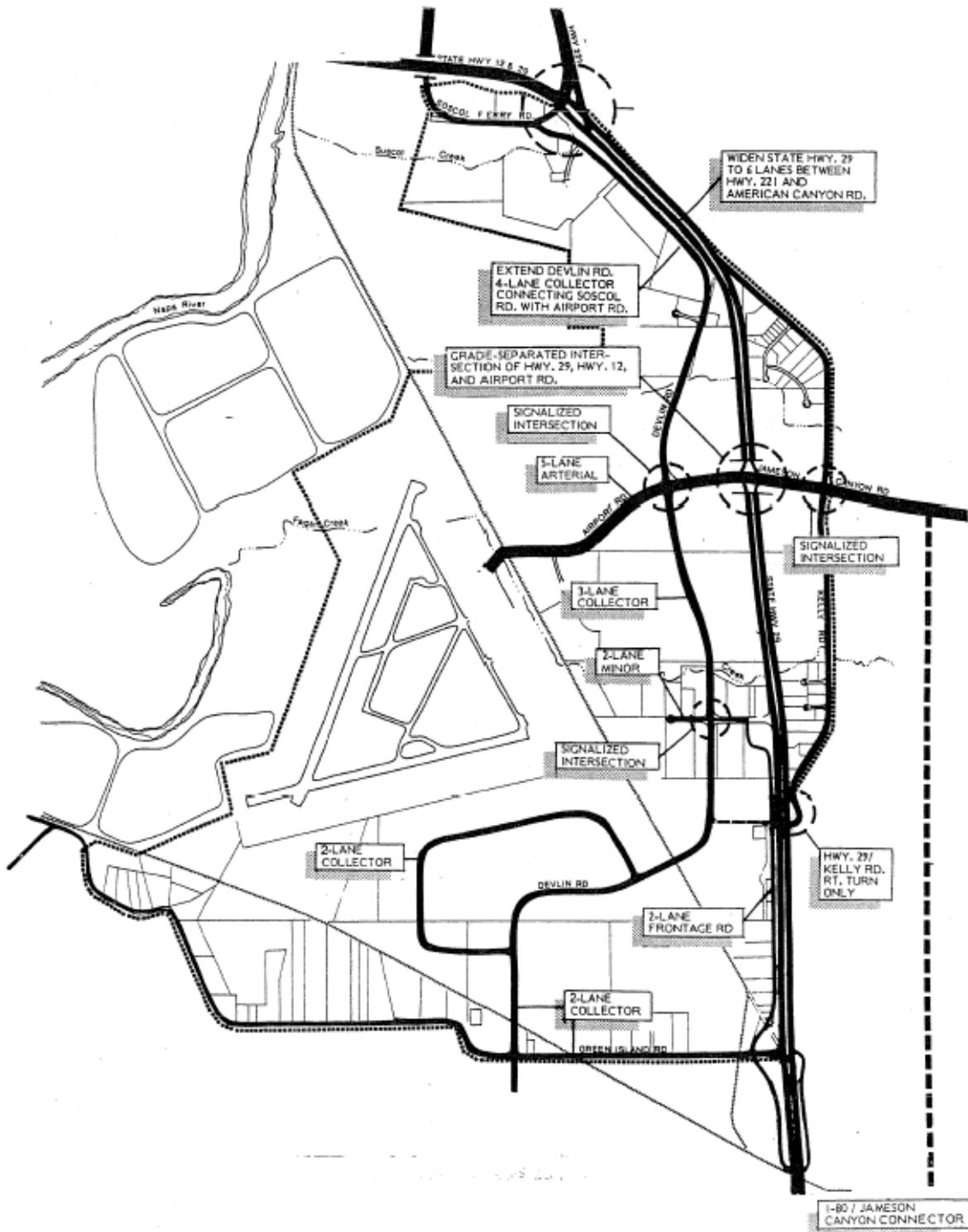


FIGURE 7
RECOMMENDED
CIRCULATION
IMPROVEMENT
PROGRAM

-  HIGHWAY
-  ARTERIAL
-  COLLECTOR
-  MINOR

**FIGURE 8
RECOMMENDED
CIRCULATION
DIAGRAM**

4 NUMBER OF LANES NEEDED

● TRAFFIC SIGNAL

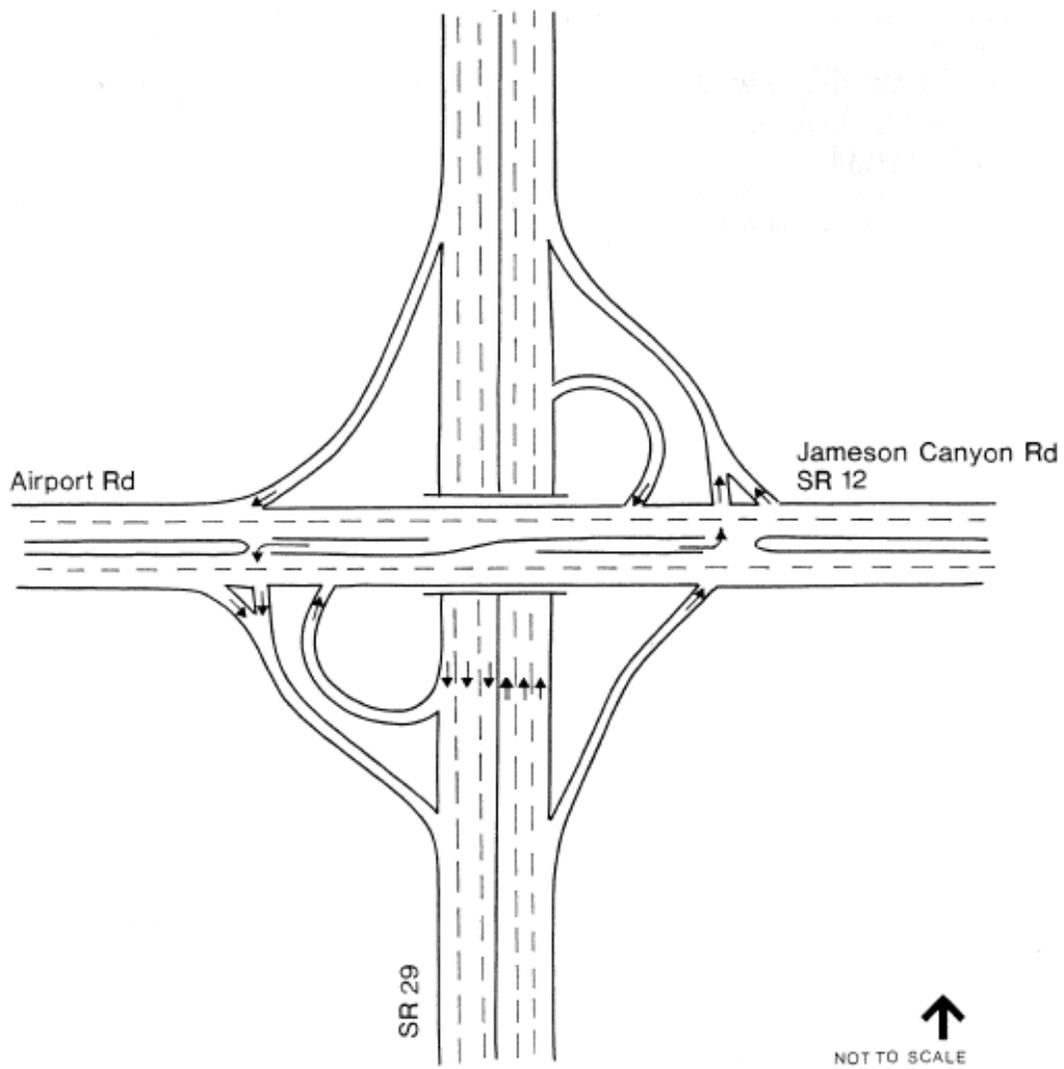


FIGURE 9
SR 29/ SR 12/ AIRPORT ROAD INTERCHANGE

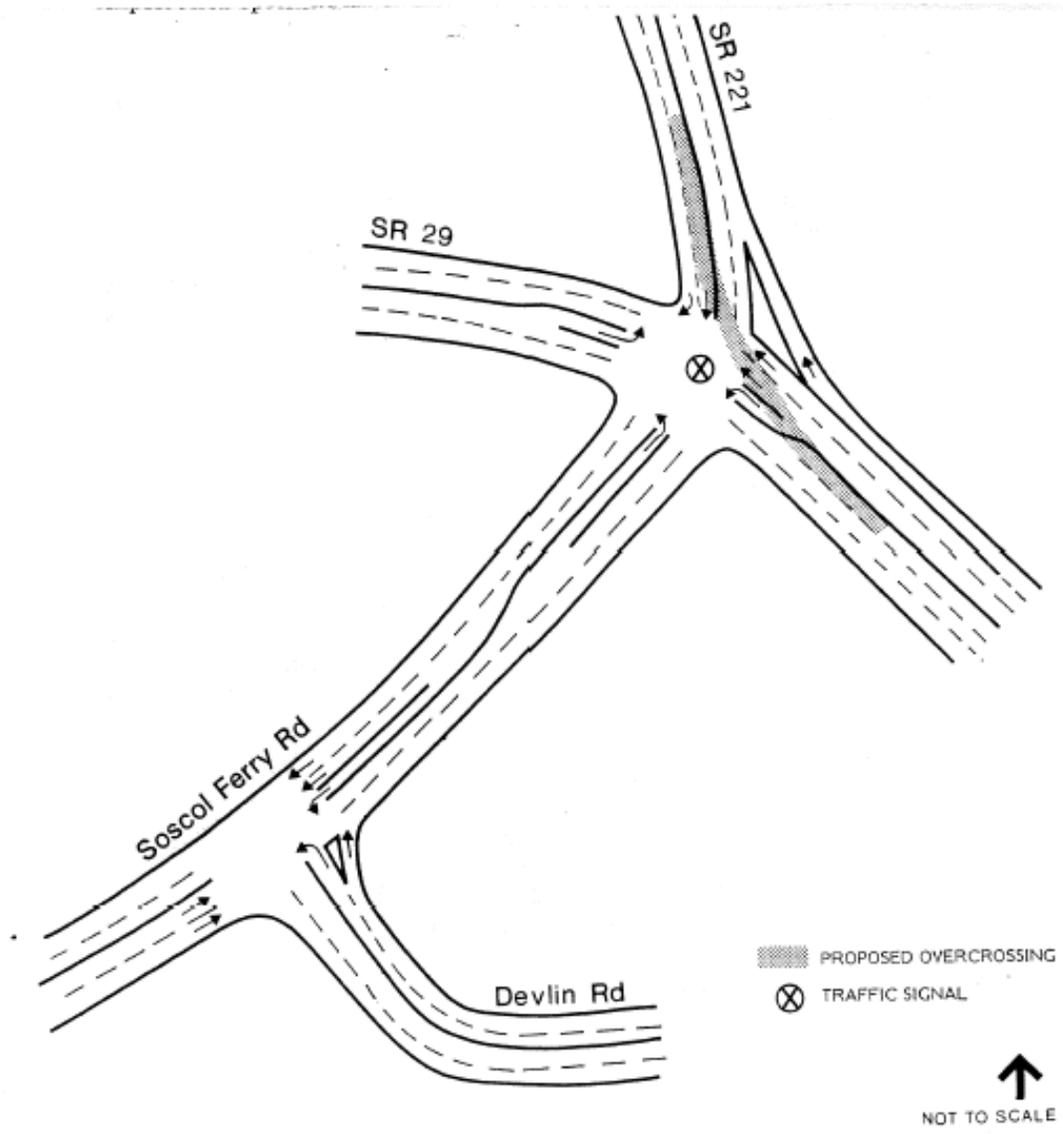


FIGURE 10

SR 29/SR 221/SOSCOL FERRY ROAD/DEVLIN ROAD
INTERCHANGE

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- b. Improvements Needed by the Year 2000. The EIR indicates that by the **year 2000**, a grade-separated intersection will be necessary to accommodate all traffic traveling through the intersection. Many types of interchange concepts are possible to serve this interchange. A suggested interchange improvement is diagrammed on Figure 9. It is recommended that a diamond-type intersection be constructed initially, with sufficient room between the ramps and the highway to construct loop off-ramps beyond the year 2000. The need for the diamond intersection will be triggered when **the P.M peak-hour left-turn demand from southbound S.R. 29 exceeds 900 vehicles per hour** and when **the eastbound volumes on Airport Road increase to 500 vehicles per hour.**

2. S.R. 29/S.R. 221 (Soscol Avenue) Intersection

Improvements to the S.R. 29/S.R. 221 (Soscol Avenue) intersection will be made necessary in large part by anticipated Napa Valley Corporate Park traffic. The improvements will be needed to accommodate the high demand for left turns from southbound S.R. 221 (Soscol Avenue) onto S.R. 29 toward the planning area. A suggested approach to these improvement needs is diagrammed on Figure 10. A grade-separation of this intersection will be necessary when this left-turn volume exceeds 1,200 vehicles per hour. The EIR indicates that this threshold will probably be reach by the **year 2000**.

A direct connection between southbound S.R. 221 and eastbound/southbound S.R. 29 is recommended, with the intersection of S.R. 29 with Soscol Ferry Road remaining at grade. The EIR indicates that this at-grade intersection would probably operate at Level of Service B in **year 2000**, but could decline to Level of Service E by the **year 2015**.

3. Widening of S.R. 29

The one-way link capacity of the existing four-lane S.R. 29 is approximately 3,600 vehicles per hour. The EIR projects that this volume will be approached by the **year 2000**. Soon afterwards, widening of S.R. 29 to six lanes between S.R. 221 and American Canyon Road will be necessary, according to the EIR.

4. Widening of S.R. 12 (Jameson Canyon Road)

The EIR indicates that the current peak-hour traffic volumes on S.R. 12 are approaching the capacity of the Napa County segment east of Kelley Road (approximately 1,600 vehicles per hour per direction), and have reached the practical capacity of the Solano County segment of the route. Clearly, peak-hour capacities will be exceeded by the **year 2000** due to cumulative traffic increases, including planning area effects. Widening of this two-lane facility to a four-lane highway (two lanes in each direction) between S.R. 29 and I-80 will probably be necessary before the year 2000. This improvement will require joint cooperation between the Counties of Napa and Solano, and between Caltrans Districts 4 (includes Napa County) and 10 (includes Solano County), to ensure that the facility is widened all the way to I-80 and not just to the County line.

In designing these Jameson Canyon Road improvements, the route should be treated as an important scenic gateway between the two Counties. Appropriate roadside and median landscaping and signage should be incorporated into the widening program to achieve a **parkway** effect.

5. Construction of an I-80/Jameson Canyon Connector

The County has been assessing the feasibility of constructing a new access route between S.R. 29 near the planning area and I-80 north to Vallejo in order to improve access between Napa and the central Bay Area (See Figure 7). Construction of such a route would serve the major goal of this plan to improve regional access to the planning area. The new route could be expected to dramatically increase planning area competitiveness with other industrial development areas in the region.

6. Other Regional Access Improvement Needs

- a. American Canyon Road, Flosden Road and S.R. 37 Access. The EIR indicates that Napa General Plan recommended improvements to the S.R. 29/American Canyon Road intersection, Flosden Road and the S.R. 29/S.R. 37 intersection will also be needed to accommodate planning area and cumulative traffic increases. A new S.R. 29/S.R. 37 interchange is currently being planned by Caltrans. From the standpoint of the planning area, this interchange should include high-capacity ramps to accommodate movements from southbound S.R. 29 to eastbound S.R. 37, and from westbound S.R. 37 to northbound S.R. 29.

The S.R. 29/American Canyon Road intersection should also be grade-separated and provided with the capability for a high-capacity southbound to eastbound movement. Traffic using this route would also benefit from the General Plan recommended widening of Flosden Road from two lanes to four lanes in order to reach Fairgrounds Drive and I-80 in the City of Vallejo.

- b. North-South Parallel Roadway. A north-south extension of Devlin Road is recommended in Section D.3.a of this chapter (follows) to provide an arterial/collector to carry internal north-south traffic. This new route west of S.R. 29 could also function as a regional access road to the planning area if desired. At the northern end of the roadway, the Soscol Ferry Road undercrossing to S.R. 29 leading to the Napa Valley Corporate Park will provide an important alternative route to southbound S.R. 29 for traffic leaving that development. Without this planning area linkage to Soscol Ferry Road, all Napa Valley Corporate Park traffic destined for southbound S.R. 29 would have to use southbound S.R. 221, and congestion at the Soscol Ferry Road/S.R. 29/S.R. 221 intersection would occur within two or three years.

At the southern end of the north-south Devlin extension at the intersection of Green Island Road, a through connection to areas south of Green Island Road would be possible. If such a connection is desired by the County, the proposed north-south roadway should be aligned to intersect Green Island Road as shown in Figures 7 and 8. This alignment would allow for future extension of the roadway through favorable terrain into the area south of Green Island Road and in good position for eventual extension along the western edge of the American Canyon community. On the other hand, if no regional role and through connection to the south is desired, the north-south roadway should be relocated farther to the east in order to avoid the crossing of the Southern Pacific rail tracks north of Green Island Road.

D. INTERNAL CIRCULATION SYSTEM LAYOUT

1. Controlled Access to S.R. 29

- a. Full Access Points. In anticipation of the S.R. 29 widening, full access from the planning area to S.R. 29 within the planning area should be limited to the following three locations, and indicated on Figures 7 and 8:
 1. The Soscol Ferry Road/S.R. 221 intersection;
 2. The Airport Road/Jameson Canyon Road intersection; and
 3. The Green Island Road intersection.
- b. East Side Frontage Road (Kelly Road). Planning area access to S.R. 29 at the north and south ends of **Kelly Road** should be limited to right turns (northbound) only (see Figure 8). At these locations, no left turns onto or off of Kelly Road will be possible with a 6-lane divided highway. Vehicles wishing to reach Kelly Road from southbound S.R. 29 or wishing to reach southbound S.R. 29 from Kelly Road would use the S.R. 29/Jameson canyon Road/Airport Road interchange. Kelly Road would thus continue to serve as a **frontage road** parallel to S.R. 29 providing local access to properties on the east side of S.R. 29.
- c. West Side Frontage Road. Some type of local access will also be necessary to serve parcels now fronting on the west side of S.R. 29 above Green Island Road. It is recommended that a frontage road parallel to southbound S.R. 29 be constructed between Tower Road and Green Island Road as generally shown on Figures 7 and 8.

This new roadway could be located either between S.R. 29 and the established businesses in this area (in front of the businesses) or just west of the established businesses (behind them). The roadway would need to be at least 32 feet wide from curb to curb in order to provide two-way operation (no on-street parking could be provided within this 32-foot width).

The final design and subsequent adoption of plan lines for this frontage road shall be completed in cooperation with the State of California Department of Transportation. The design and plan lines should also include access provisions (plan lines) for access to any privately owned properties left dependent upon future road rights-of-ways through other private ownerships.

2. Arterial Roads

The purpose of the arterial road system is to expedite through traffic and to provide efficient access to the regional highway network. **Airport Road** is the only roadway within the planning area which will have full, 5-lane arterial status. Design standards for this arterial are described in section F.1 of this Circulation Element. Airport Road should be widened to accommodate two through lanes of traffic in each direction between S.R. 29 and the Napa County Airport. It should also be equipped with a continuous raised median, a median left-turn lane at intersections, and

bicycle/pull-off lanes and sidewalks on each side. No direct access to local properties should be permitted from Airport Road. These properties should be accessed from new collector streets which intersect with Airport Road. The existing Airport Road crossing of the SPTC tracks should be widened to four lanes without a median or median barriers.

3. Collector Roads

Two systems of 2-, 3-, and 4-lane collector streets are shown on Figures 7 and 8 to serve internal traffic movements within the planning area, and to connect planning area properties with the major highway system. A north-south extension of Devlin Road is the collector system for the west side of the planning area. Kelly Road provides the collector system for the east side.

- a. Devlin Road Extension. A north-south extension of Devlin Road will provide a through connection between the Soscol Ferry Road undercrossing and Green Island Road. Since the northern section of this route between Soscol Ferry and Airport Roads will connect both the northern planning area and the Napa Valley Corporate Park to Jameson Canyon Road (S.R. 12 east), the EIR indicates that this section will require a 4-lane configuration--two travel lanes in each direction--to operate at an adequate level of service. The section between Airport Road and the northern SPTC track will operate at adequate service levels with 3 lanes, i.e., two travel lanes and a continuous striped left-turn center lane. The last section between the northern SPTC tracks and Green Island Road will operate adequately with 2 lanes, provided that left-turn lanes are provided at all minor access points.
- b. Kelly Road. The EIR indicates that the Kelly Road collector will also operate adequately with 2 lanes, provided that left-turn lanes are provided at all minor access points. Kelly Road access limitations to S.R. 29 were described under Section D.1.b above. All other designated collector routes will operate at adequate service levels at either 3 lanes; i.e., two through travel lanes and a continuous (striped) left-turn center lane, or 2 lanes, depending upon projected traffic volumes. Figure 8 indicates which collector segments are 4, 3 and 2 lanes.

Design standards for collector roads are described in Section F.3 of this Circulation Element. Exemptions to the Design Standards for transitional uses can be approved by Use Permit.

4. Minor Roads

A system of **minor** roads is shown on Figures 7 and 8 which will provide needed access to immediately adjacent lands. All minor roads shown will operate at adequate service levels with 2 lanes. (One of these minor road segments will operate as the westside S.R. 29 frontage road described earlier under Section D.1.c of this Circulation Element.)

The EIR indicates that Tower Road access to S.R. 29 should be limited to right turns (southbound) only, as shown on Figure 8. In addition, no left turns on or off of the two Kelly Road intersections with S.R. 29 will be possible when the highway is widened to a 6-lane divided facility.

E. ROAD CONSTRUCTION SEQUENCES AND COSTS

This specific plan has been formulated to accommodate anticipated development over the next 30 years. For traffic planning purposes, this 30-year development period has been divided into two phases: **Phase I** which includes the period between 1985 and the year 2000, and **Phase II** which includes the period between the year 2000 and 2015. (Full buildout of the planning area's extensive 1,725-acre industrial land inventory is expected to take 50 to 60 years according to the industrial market overview in Appendix A and as indicated in Table 10.)

Circulation system improvements recommended for completion in Phases I and II are diagrammed on Figures 11 and 12 and are described below. **Phase I improvements are those expected to be necessary prior to the year 2000 to accommodate anticipated levels of planning area industrial expansion (Table 10), plus cumulative development. Phase II improvements are those expected to be necessary after the year 2000 to accommodate anticipated industrial expansion in the planning area for the remainder of the 30-year planning period, plus cumulative development expected during that period.**

Specific traffic volume thresholds when various road improvements will be necessary are also indicated below to provide a more useful, absolute measure for use in improvement sequencing in the event that actual planning area development rates are substantially greater or less than those anticipated in the EIR.

Table 4 outlines specific plan-recommended road improvements for each phase, provides order-of-magnitude cost estimates for each of these improvement (in 1985 dollars), and suggests related cost responsibilities.

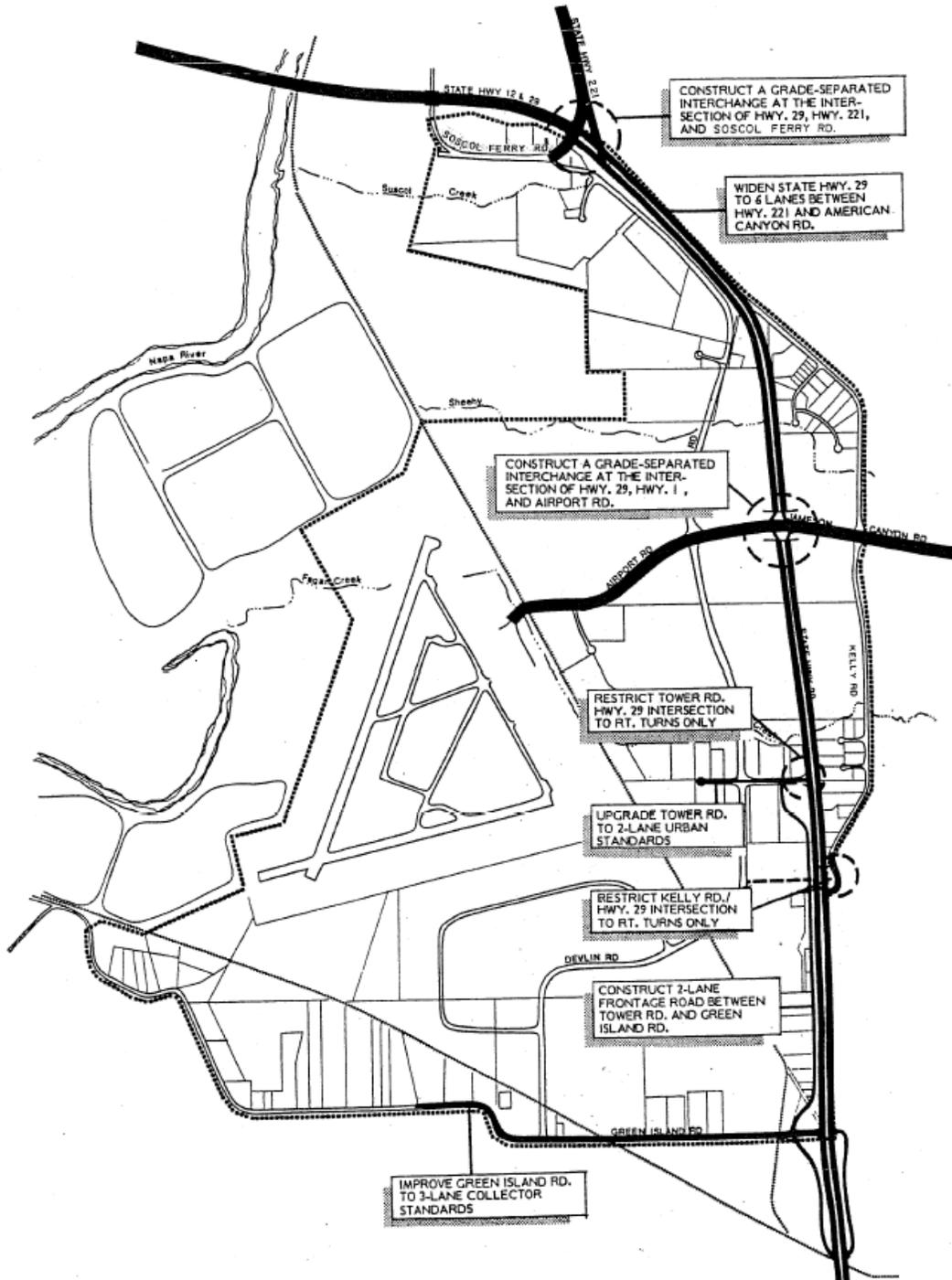
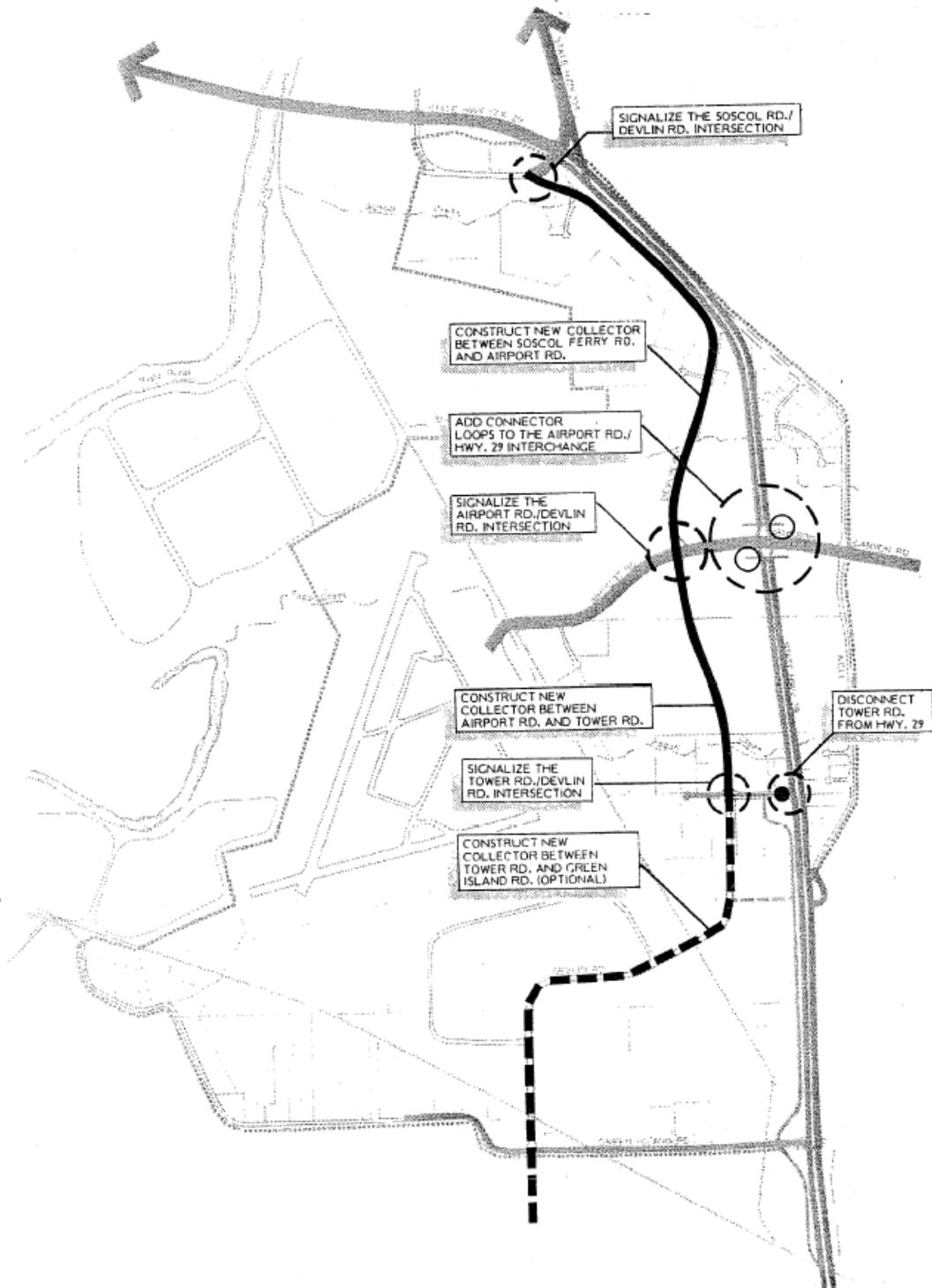


FIGURE 11
PHASE I ROAD
IMPROVEMENTS

COMMON ROAD IMPROVEMENTS
ANTICIPATED BETWEEN THE YEARS
1985 AND 2000



**FIGURE 12
PHASE II ROAD
IMPROVEMENTS**

COMMON ROAD IMPROVEMENTS
ANTICIPATED BETWEEN YEARS
2000 AND 2015



1. Phase I Improvements

As shown on Figure 11, improvements necessary in Phase I relate primarily to regional access needs. The EIR indicates that Phase I road improvements should include:

- a. S.R. 29/S.R. 12 (Jameson Canyon Road)/Airport Road Intersection. The EIR indicates that the S.R. 29 southbound approach widening to accommodate two left-turn lanes and S.R. 12 eastbound approach from one to two lanes to accommodate two lanes of traffic turning onto S.R. 12 from S.R. 29 are needed immediately (improvement is warranted now). By the year 2000, construction of a diamond-type grade-separated interchange will be warranted.
- b. S.R. 29/S.R. 221 (Soscol Avenue) Intersection. Soon after the development of the Napa Valley Corporate Park is complete, construction of the grade separation shown in Figure 10 will be necessary to accommodate left turns from southbound Soscol Ferry Road (S.R. 221) onto S.R. 29. The grade-separation of this intersection will become necessary when peak-hour left-turn volumes reach 1,200 vehicles (per hour).
- c. S.R. 29 Widening. Widening of S.R. 29 from 4 lanes to 6 lanes between the S.R. 221 intersection and American Canyon Road, plus construction of associated planning area frontage roads and related right-turn-only restrictions on Kelly Road and Tower Road, will be required near or at the year 2000.
- d. S.R. 12 Widening. Widening of S.R. 12 from 2 to 4 lanes between S.R. 29 and I-80 in Solano County will also be required near or at the year 2000.
- e. Airport Road Arterial. Improvement of Airport Road to 5-lane arterial status should be included in Phase I (part of anticipated initial phases of the Greenwood Ranch development).
- f. Internal Collector and Minor Streets. Construction of internal collector and minor streets to plan standards, including deviations approved by the Planning Commission or Board of Supervisors, for the purposes of preserving the oak woodland east of State Route 29 near Fagan Road, shall be required to serve new development as it occurs. Each new development project shall be responsible for construction of those plan-designated collector and minor road improvement sequences which (1) traverse the project, and (2) may be necessary to connect the property with related collector and/or arterial routes.

2. Phase II Improvements (Years 2000 to 2015)

As shown in Figure 12, Phase II road improvements are expected to include most or all of the north-south extension of Devlin Road, the addition of the S.R. 29 northbound and S.R. 12 eastbound loop offramps to the S.R. 29/S.R. 12 (Jameson Canyon Road)/Airport Road diamond interchange, the signalization of major internal intersections, and the conversion of the eastern end of Tower Road from a direct connection to S.R. 29 to a cul-de-sac. Costs and cost responsibilities for these improvements are described in Table 4.

Table 4

ROAD IMPROVEMENT COSTS AND RESPONSIBILITIES (1985 DOLLARS)							
Road Component		Approximate Cost			Suggested Cost Responsibility		
		Lin.Ft.	\$/l.f.	Total Local Costs	County Obligation	Benefits to Other New Development ²	Benefits to All Planning Area Development
Phase I (1985 to Year 2000)							
S.R.29/S.R.12/Airport Rd. Interchange	Widen southbound and eastbound approaches to accommodate two left-turn lanes	--	--	\$ 80,000	\$ 80,000 ¹	--	--
	Construct diamond-type grade-separated interchange	--		Total cost = approx. \$5.0 million; assumed local (non-state) share = approx. \$3.0 million	--	\$870,000 (29% of traffic increase at midpt.)	\$2.13 million (71% of traffic increase at midpt.)
S.R.29/S.R.221 Interchange	Construction of direct grade-separated southbound left-turn ramp	--		Total cost = approx. \$3.0 million; assumed local (non-state) share = approx. \$2.1 million	--	\$800,000 (37% of traffic increase at midpt.)	\$1.32 million (63% of traffic increase at midpt.)
S.R.29 widening btwn S.R.221 and American Canyon Rd.	Widen from 4 to 6 lines	27,000	270	Total cost = approx. \$7.3 million; assumed local (non-state) share = approx. \$5.1 million	--	\$1.94 million	
	R.221 and Green Island Rd.	16,800	15	\$250,000	--	--	\$250,000
	Landscape east side btwn. Kelly Rd. north and Kelly Rd. south	9,000	15	\$135,000	--	--	\$135,000
West Side Frontage Rd. north of Green Isl. Rd.	2 lanes, curb and gutter, landscaping, street lights, signage, elec. undergrounding	5,600	210	\$1.8 million total; assume 75% or \$890,000 of cost = part of S.R. 29 widening program ³	--	\$340,000 (38% of traffic increase at midpt.)	\$555,000 (62% of traffic increase at midpt.)
S.R.12 (Jameson Canyon Rd)	Improve planning area segment to 5-lane arterial standards w.cont. raised	1,000	410	\$410,000; assume that 50% will be assigned to landowners fronting on	--	\$43,000 (assuming 50% of total cost will	\$162,000 (assuming 50% of total cost will

ROAD IMPROVEMENT COSTS AND RESPONSIBILITIES (1985 DOLLARS)

		Approximate Cost			Suggested Cost Responsibility		
Road Component		Lin.Ft.	\$/l.f.	Total Local Costs	County Obligation	Benefits to Other New Development ²	Benefits to All Planning Area Development
widening	median, curb and gutter, sidewalks, landscaping, street lights, signage, and elec. undergrounding			route, and 50% to other benefitting landowners		be incurred by adjacent properties, and 21% of remainder = benefit to other new development excl. planning area; i.e. 21% of traffic increase at midpt.)	be incurred by adjacent properties, and 79% of remainder = benefit to planning area -- 79% of traffic increase at midpt.)
	Widen from 2 to 4 lanes btwn. planning area and I-80 in Solano County	approx. 35,000	300	Total cost = approx. \$10.5 million; assumed local (non-state) share = approx. \$7.4 million	--	\$1.55 million (21% of traffic increase at midpt.)	\$5.85 million (79% of traffic increase at midpt.)
Airport Rd. Arterial: S.R.29 to County Airport	Improve to 5 lanes w/ contin. raised median, curb and gutter, sidewalks, landscaping, street lights, signage, and elec. undergrounding	4,000	410	\$1.64 million	\$490,000 ⁴ (1,200 l.f. = airport link)		--
Collector Streets	Improve to 2,3,or 4 lanes w/curb and gutter sidewalk (one-side), landscaping, street lights, signage and elec. undergrounding	--	190 to 310	--	Cost responsibilities assigned to individual landowners or subgroups of landowners who front on, or are directly served by, the collector street		
PHASE I TOTALS				\$21.0 million	\$513,000	\$5,543,000	\$13,557,000
PHASE II (YEAR 2000 TO 2015)							
Devlin Rd. extension, Soscol Ferry Rd. to Airport	Improve to 4 lanes (2 travel lanes in ea. direction), curb and	6,400	350	\$2.24 million	Cost responsibilities assigned to individual landowners or subgroups of landowners who front on, or are directly served by, the collector street		

ROAD IMPROVEMENT COSTS AND RESPONSIBILITIES (1985 DOLLARS)

		Approximate Cost			Suggested Cost Responsibility		
Road Component		Lin.Ft.	\$/l.f.	Total Local Costs	County Obligation	Benefits to Other New Development ²	Benefits to All Planning Area Development
Rd.	gutter, sidewalk on one side, side landscaping, street lights, elec. undergrounding, and signage						
	Construct new bridge over Suscol Creek	--	--	--			
Devlin Rd. Extension, Airport Rd. to Tower Rd.	3 lanes incl. 2 travel lanes, contin. painted left-turn median, elec. undergrounding, curb and gutter, one sidewalk, signage, landscaping	3,200	300	\$960,000	Same		
Devlin Rd. Extension, Tower Rd. to Green Isl. Rd.	2 lanes, curb and gutter, elec. under-grounding, one sidewalk, signage, landscaping	7,900	190	\$1.5 million	Same		
Other Collector Streets	2 lanes, same as above	6,000	190	\$1.14 million	Same		
Signalization	Devlin Rd. at Soscol Ferry and Airport Roads	--	--	\$210,000			
PHASE II TOTALS				\$5.92 million	Same		\$5.92 million
<p>1 - Intersection improvement is needed not, irrespective of future development activity.</p> <p>2 - Outside planning area</p> <p>3 - Since 75% of this road's length will front on future new development, that portion of the cost, \$290,000, should be assigned to those frontages; the remaining \$890,000 should be treated as part of the S.R. 29 widening program, with costs allocated between the planning area and other new local development as shown on the table.</p> <p>4 - Remainder of \$1.15 million should be the responsibility of private properties fronting on the route.</p>							
<p>NOTE: Previous pages of this table refer under Total Local Costs to "non-state" costs, implying that the remaining portion of the cost would be a state responsibility. Because Caltrans funds are limited, the State may not be able to participate in a normal pro-rata share of needed improvements to State highway facilities. In this light, the County should consider collecting adequate development fees throughout the County to assure that these improvements can be implemented in a timely manner in the event that Caltrans cannot contribute its proportionate share.</p>							

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F. INTERNAL ROAD SYSTEM DESIGN STANDARDS

1. S.R. 29

Design standards for the widening of S.R. 29 would be developed jointly by Napa County and Caltrans. Since this highway segment provides the vantage point from which most people develop a perception and image of the planning area, special landscape treatments are warranted. As set forth in Sections V.B.3.b(5) and V.C.3.b(4) of this plan, new development of properties that border S.R. 29 shall have a 55-foot average, 45-foot minimum building setback from the highway right-of-way line. Landscaping details shall be formulated as set forth in Section F.7 herein.

2. Arterials

a. Design Standards. Roadway design standards for Airport Road are shown on Figure 13. The boulevard will serve as the arterial accessing the central planning area and the Napa County Airport. Consequently, it has been designed to handle fairly high speed through traffic. The roadway will include five lanes (two travel lanes in each direction and one median left-turn lane) with bike/pull-off lanes and pedestrian paths. On-street parking will be prohibited. Landscaping treatment for arterials are addressed in Section 7 herein.

As a general rule, the design speed for Airport Road would be 45 mph. As shown on Figure 14, the 5-lane roadway will require a minimum 95-foot right-of-way, with 75 feet curb to curb, and 5-foot pedestrian paths on either side. All segments will have 6-foot paved shoulders on either side, delineated by a 6-inch solid white stripe. This area or lane will be reserved for **bicycle use** and for emergency vehicle parking. (Following consideration of several bicycle provision options including separate bicycle paths and a two-way bike lane, it has been determined that one street-marked bike lane in each direction is most appropriate.) This "Class II" bikeway design fully conforms to existing Caltrans standards³.

b. Direct Access Limitations. Control of direct access is an important arterial design feature to increase efficiency of operation and reduce accidents. Because of the importance of accommodating efficient through traffic on Airport Road, the following set of access controls is recommended:

1. A raised 15-foot median should be provided to prevent left turns. The median should ultimately extend from S.R. 29 to at least the Southern Pacific Railroad crossing.
2. Private driveway access to Airport Road (for right-turning vehicles) should be prohibited.

c. Intersection Configurations. Recommended configurations for intersection turning lanes are diagrammed on Figure 8. In general, the lane configurations have been selected to provide peak-hour traffic operation levels of service "C" or better at projected year 2015 traffic conditions. Anticipated traffic service levels under the plan are discussed more thoroughly in the EIR. A more detailed illustrative drawing of the recommended Airport Road/Devlin Road intersection

³ Caltrans, Planning and Design Criteria for Bikeways in California, June 1978. The standard calls for a minimum 4-foot width, with 6 to 8 feet desirable.

configuration is shown on Figure 14. A minimum turning radius of 40 feet is recommended at all intersections to accommodate the paths of large trucks expected to serve the development.

d. Railroad Crossings. Airport Road, Devlin Road, and Green Island Road will continue to have at-grade intersections with Southern Pacific Railroad tracks. The following railroad crossing policies should be followed at these locations and at any new railroad crossings:

1. A new gate and flasher shall be provided as part of the new road construction (including widenings).
2. Clear sight lines between the road and tracks should be preserved and maintained.
3. No additional rail crossings (spurs, sidings, drill tracks, etc.) of arterials or collector roads beyond those which are shown in Figures 7 and 8 should be permitted.
4. Official requests should be made to the Southern Pacific Transportation Company to limit train movements to non-peak road traffic hours, i.e., to avoid 7-9 a.m., 12-1 p.m., or 4-6 p.m. weekday periods. This could be achieved by local ordinance.

3. Collector Streets

a. Design Standards. Typical cross-sections for 4-, 3-, and 2-lane collectors are shown in Figure 15. Collectors shall not have on-street parking. Collectors shall have sidewalks at a minimum width of 4 feet on both sides. Sufficient width for bicycle traffic will exist on the shoulders of these streets. **Bus turnouts** may be desirable on the Devlin Road extension by the year 2015. Landscaping treatments for collector streets are addressed in Section 7 herein.

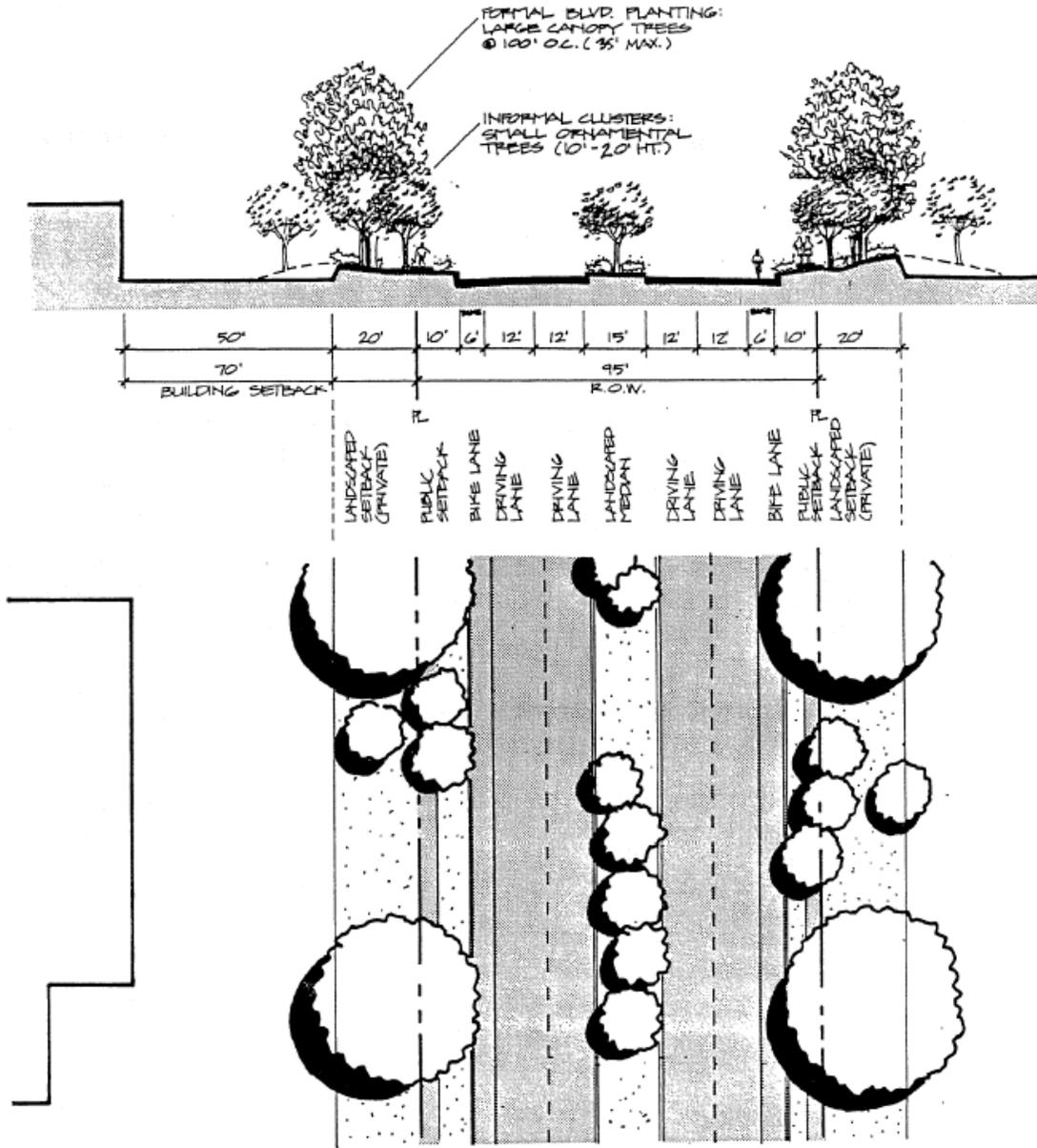


FIGURE 13
AIRPORT ROAD DESIGN STANDARDS

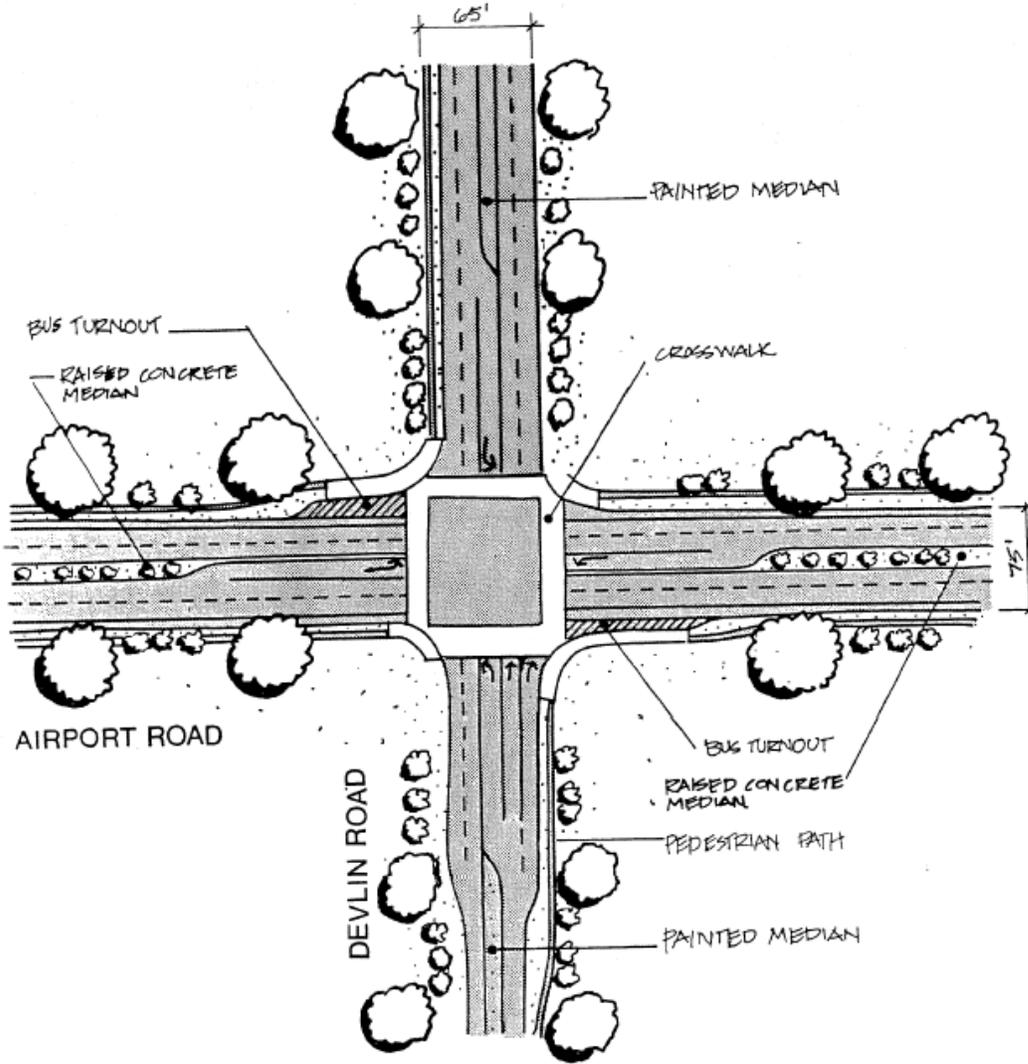


FIGURE 14
AIRPORT ROAD/DEVLIN ROAD INTERSECTION

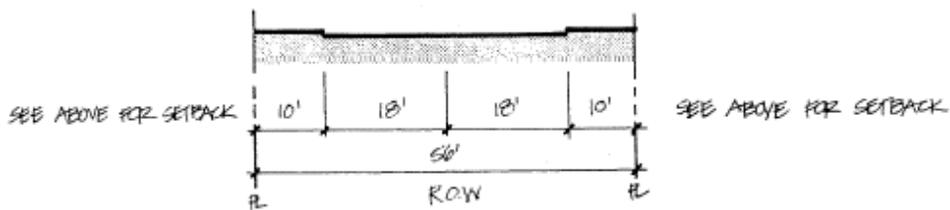
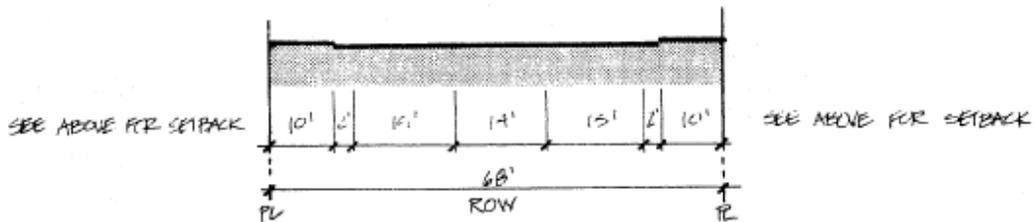
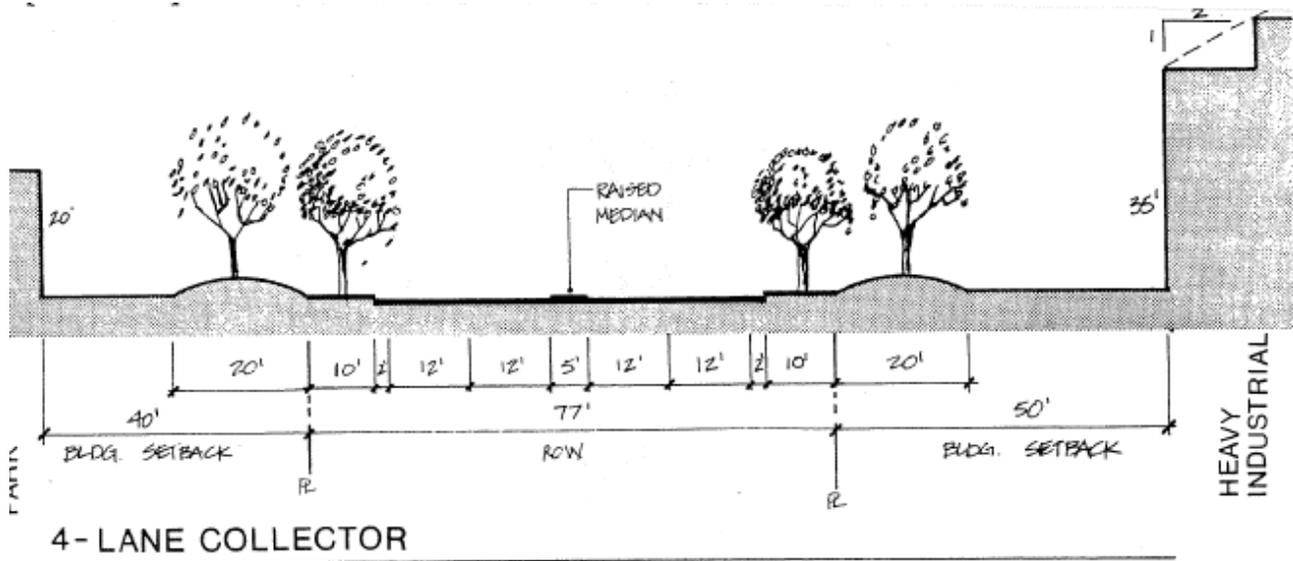
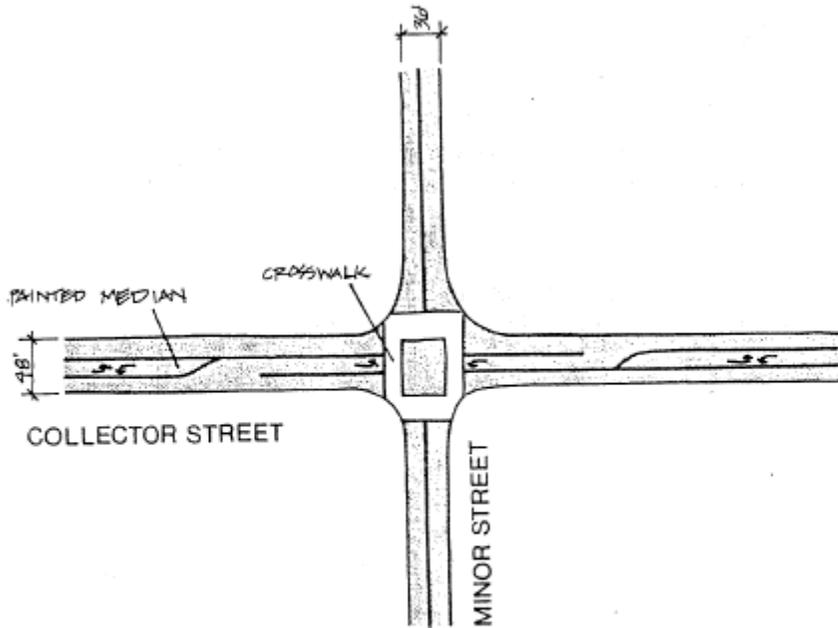


FIGURE 15
COLLECTOR STREET DESIGN STANDARDS

4-WAY INTERSECTION



T-INTERSECTION

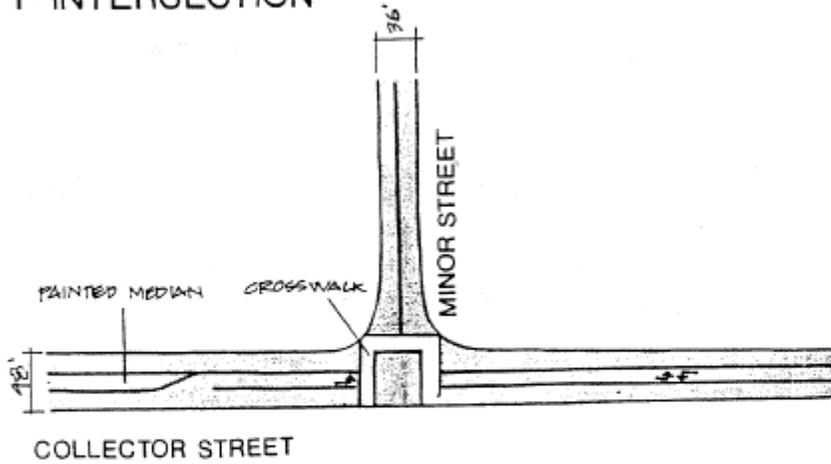


FIGURE 16
TYPICAL COLLECTOR/MINOR STREET
INTERSECTIONS

b. Direct Access Limitations. Private driveways along collectors should be separated by a minimum distance of 200 feet and should not be permitted within 200 feet of an intersection.

c. Intersection Configurations. A typical collector and arterial street intersection is illustrated on Figure 15. Typical collector and minor street intersections are illustrated on Figures 16 and 17. At intersections, additional right-of-way may be required to accommodate turning movements.

4. Minor Streets.

a. Design Standards. Minor streets will provide primarily a "land service" function to tie individual or small groups of properties to the collector and arterial road system. These minor streets will be constructed by individual property owners except where otherwise noted in this Plan. Design standards for these streets, unless varied by the Planning Commission or Board of Supervisors in the course of approving discretionary land use permits, land division or maps, for the sole purpose of protecting existing trees within the oak woodland east of State Route 29 near Fagan Road, shall include a 56-foot minimum right-of-way; 36-foot curb-to-curb width; 4-foot pedestrian path on sidewalks on one side; landscaping treatments are provided in Section 7 for collector streets; on-street parking can be allowed on minor urban streets, provided that the minimum right-of-way width be increased to 66 feet and the minimum curb-to-curb width to 46 feet. Landscaping treatments for collector streets are addressed in Section 7 herein.

b. Intersection Configurations. Typical collector and minor street intersections are illustrated on Figures 16 and 17. Somewhat greater right-of-way could be required at those intersections with collector or arterial roads and minor streets where turning volumes are particularly heavy. Decisions regarding the necessity for such lanes should be made on a case-by-case basis, depending upon the exact nature of the development served.

5. Signalization

Intersections where signals will ultimately be warranted are indicated on Figures 7 and 12. The signal system should include appropriate interconnect technology (which could be time-based) to provide progressive speeds along Airport Road and Devlin Road of 35-40 mph during peak periods.

6. Bus Turnouts

Bus turnouts should be provided at key intersections along Airport and Devlin Roads. These turnouts should be designed to provide a clearly designated location for passenger waiting and loading, and safe, smooth traffic flow by reducing bus movement interference with through traffic lanes. Typical designs for bus turnouts are shown in Figures 14 and 18. Wherever possible, far side bus turnouts should be used in favor of other locations.

7. Roadway Landscaping, Signage, and Lighting

A coordinated system of landscaping and signage along roadways within the planning area should be required in order to: (1) establish a consistent, unified, and high quality appearance to the

overall planning area, (2) promote smooth, efficient movement of traffic through the planning area, and (3) provide safe and efficient circulation for pedestrians and bicyclists.

a. Street Landscape Master Plan. Planning area landowners should finance (see Implementation Element) preparation of a **Street Landscape Master Plan** for: (1) all **arterial** and **collector** streets in the planning area, (2) the **west side of S.R. 29** between S.R. 221 and Green Island Road, and (3) for the **east side of S.R. 29** between the North Kelly Road and South Kelly Road intersections. The Street Landscape Master Plan should identify specific grading, planting, and other treatment requirements for side and median planting areas within the right-of-way as well as for the private landscape setbacks on each side of the right-of-way. This plan can then be used to guide landscape installation along these routes in a unified manner as they are upgraded to their ultimate configuration. A suggested list of associated plant materials is provided in Appendix B. The list is only a suggested palette, not all of which would be used. The final list of plant materials specified in the Street Landscape Master Plan should be kept simple to ensure the level of consistency necessary to create a strong visual impression. The following additional provisions should be included in the Street Landscape Master Plan:

- (1) In the selection of plant materials, emphasis should be given to native and other drought-tolerant plant species. In general, selected plant materials should be hardy and long lived, and require little maintenance (structurally strong, insect and disease resistant, with little pruning requirement).
- (2) It is recommended that all public roadway signs in the planning area be of the same design. A signage system design should be included in the proposed landscape master plan for application throughout the planning area to establish a unified appearance to the streetscape.
- (3) Street lights, traffic signals, and vehicular and pedestrian signs should be integrated, when possible, onto a single pole to avoid the visual clutter often associated with the proliferation of signs and poles at intersections.

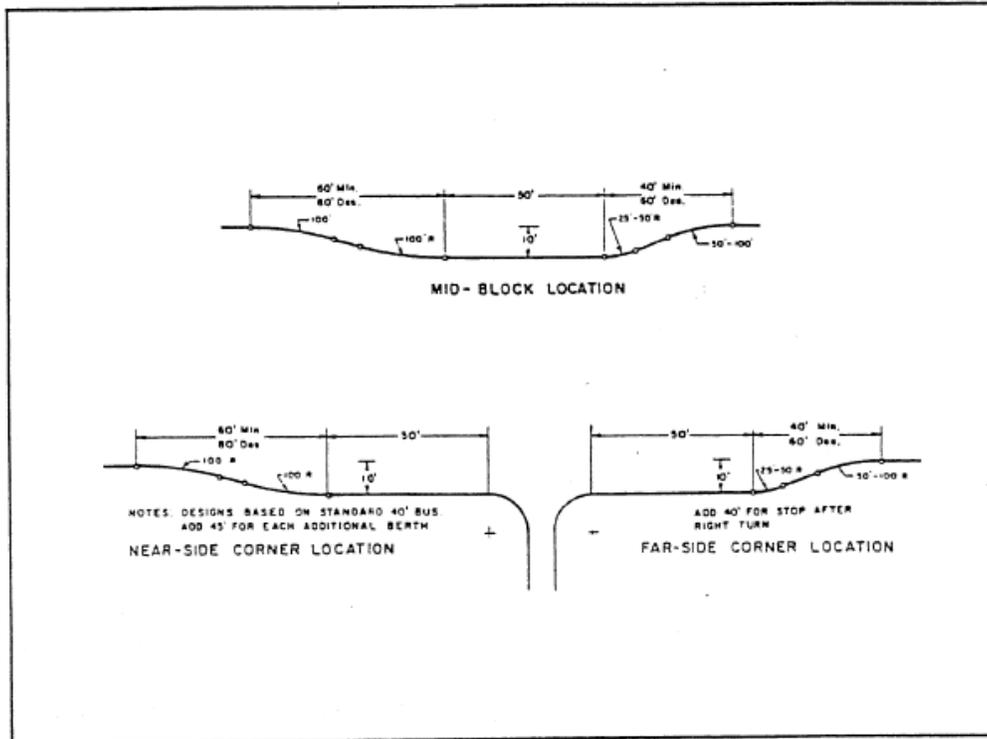


FIGURE 17
TYPICAL BUS TURNOUT DESIGN

- (4) A monument sign should be placed along Airport Road near the S.R. 29 offramp to the industrial area to provide a sense of entrance and identity. Such a sign should not exceed 8 feet in height with a maximum message area of 150 square feet. The sign should be externally illuminated and accentuated by landscaping.
- (5) The street lighting design specifications for Airport and Devlin roads should also be established in the proposed landscape master plan to ensure consistency in the lighting appearance and coverage.

c. Airport Road. The suggested cross-section for Airport Road diagrammed on Figure 13 indicates public and private landscape setbacks. Since the Airport Road arterial provides primary access to both the industrial area and the airport, the visual quality of this entrance corridor should establish a semi-urban identity and overall sense of quality for the planning area. The landscape concept shown on Figures 13 and 14 is of a semi-urban boulevard lines on either side with large, formally planted, canopy-type trees. These large trees should be a single species to create a strong edge and sense of continuity, with smaller trees planted in informal clusters in the medians and along the sides to provide variety and visual interest. Underplantings of shrubs and groundcovers should be used for visual screening, erosion control, and ornamental accent.

d. Collectors and Minor Streets. In general, collectors and minor streets should have a formal landscape character which is compatible with the Airport Road landscape treatment. The following criteria should apply:

- (1) Selection of plant materials should emphasize native and other drought-tolerant species. In general, plants should be hardy and long lived and should require little maintenance. All shrubbery should be no higher than 18-20 inches when mature.
- (2) More intensive and ornamental landscape treatments should be provided at entrances and intersections for ease of identification and aesthetic enhancement.
- (3) All landscape treatments should avoid interference with vehicular sight lines (particularly near intersections) and encroachment on roadways.
- (4) Existing oak woodland vegetation, especially mature oak trees, east of State Route 29 near Fagan Road shall be preserved and incorporated into final roadway landscape plan. Compatible, drought-tolerant vegetation shall be used, where necessary, to enhance existing woodland vegetation in final landscape treatment. Grading, disturbing activities, equipment storage or paving beneath oak trees proposed for preservation should be avoided.

G. AIR TRANSPORTATION LINKAGES

In order to take full advantage of the unique asset of the Napa County Airport, and to accommodate related development plans of adjacent planning area landowners, this plan encourages provision of taxiway access between airport runways and some parcels neighboring the airport. On the other hand, such access provisions should be subject to carefully formulated

conditions in order to protect the viability of aviation services at the airport, and fully comply with related FAA regulations on so-called "through-the-fence" operations.

If taxiway extension requests meet these conditions, taxiway easements 92.5 feet in width are suggested to allow sufficient clearance for small aircraft. Taxiways should be located so as to avoid crossing or intersecting internal streets. A special signal and gate designed for taxiway crossings of the Southern Pacific rail line will also be necessary to prevent train/aircraft collisions.

H. RAIL ACCESS

Preservation of access to the Southern Pacific rail tracks is recommended to allow for possible increases in the demand for rail services in the planning area. Rail easements approximately 20 feet in width with 300 feet turning radii would be sufficient to accommodate future rail "drill" tracks.

I. NAVIGABLE WATERWAY ACCESS

No improvements to the Napa River in order to accommodate water-borne cargo or passenger movements are recommended as part of this Specific Plan. No need for water access to the site via the Napa River is currently envisioned. Intensive waterway use may, in fact, be detrimental to wildlife in the river's wetland areas⁴. If access to the Napa River were to become desirable for some future reason, it could be made most effectively via a facility at the end of Green Island Road.

⁴ Napa Valley Corporate Park report prepared for Bedford Properties by the Urban Land Institute, November 1982, p. 45.

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VII. PUBLIC FACILITIES ELEMENT

This chapter establishes specific plan policies with respect to future expansion of the utility infrastructure serving the planning area, including sewer, water, and storm drainage. Police and fire protection policies are also described.

A. SEWER SERVICE

1. Potential Sewer Layout

An overall schematic for planning area sewage collection is suggested on Figure 18. The diagram is limited to the trunk line systems necessary to provide adequate gravity collection to all parcels in the planning area designated for industrial use. Secondary collection systems and/or laterals necessary to serve the internal needs of individual parcels are not shown.

The Napa Sanitation District and the American Canyon County Water District each passed resolutions in late 1983 to clarify sewer service questions within the recently established County Service Area #3 (see EIR, Section X.G.I.e). The two resolutions state in similar language that, based on service studies, the NSD could best serve the portion of CSA #3 north of Fagan Creek, and the ACCWD could best serve the area south of the creek. The resolution further states that the spheres of influence of the two districts should be revised by LAFCOM to show Fagan Creek as the ultimate sewer service dividing line. Since LAFCOM has not yet decided on this sewer service question, a layout is shown on Figure 18 that can be constructed either as one consolidated system serving areas both north and south of Fagan Creek, or as two separate systems, as suggested by the 1983 resolutions.

a. Northern Collection Zone. For the portion of the planning area north of Fagan Creek, the existing collection system of 18- and 15-inch trunk lines is expected to be adequate to provide for most of the collection needs of planning area development under the land use policies of this plan. (The line has been placed deep enough to allow future extension under Fagan Creek.) To complete the system, additional 10- and 8-inch collection lines are expected to be required to serve the areas north of Sheehy Creek, the Airport Road area, and the area south of Camino Dorado/Camino Oruga (north Kelly Road), as suggested in Figure 18.

b. Southern Collection Zone. There are no existing trunk sewer lines extending into portions of the planning area south of Fagan Creek. The 18-inch ACCWD line which extends north along the planning area's northwestern boundary (see Figure 31 in the EIR) is a force main for pumping gravity-collected sewage up to the joint NSD/ACWD sewage treatment facility. Force mains are not normally tapped for collection purposes.

2. Sewage Treatment Needs

In 1983, the then newly completed Napa-American Canyon treatment plant north of the planning area near the convergence of Suscol Creek and the Napa River had a rated treatment capacity of

15.4 million gallons per day. Of that total, 13.9 mgd was allocated to the City of Napa and 1.5 mgd to the ACCWD. Average flows to the plant in early 1983 were roughly 0.5 mgd for the American Canyon community and about 7.2 mgd from the City of Napa, for a total average flow of about 7.7 mgd.

The Napa-American Canyon Wastewater Management authority operates the new treatment plant. Treatment effluent is disposed of by discharge into the Napa River in the winter, and through a wastewater irrigation program in the summer. In the summer, tertiary treatment is necessary for effluent discharged into the river. Due to the high cost of tertiary treatment, the authority has established a program of effluent delivery to agricultural lands for irrigation purposes, with the objective of eliminating tertiary treatment operations.

The authority also requires pre-treatment of certain industrial wastes.

Table 5 summarizes the estimated sewer service demands on the planning area collection and treatment system under the land use policies of this specific plan. The table indicates that, based on the absorption rate assumptions described in Table 10, the planning area can be expected to require roughly 0.2 mgd of treatment capacity by the year 2000, and 0.4 mgd by the year 2015. It is assumed that a maturing sewer fund generated by current assessments, additional assessments, and/or ongoing fees associated with planning area and other future service extensions will finance any treatment improvements or expansion needs made necessary by cumulative development in southern Napa County.

3. Sewer Service Policies

The following policies should be applied to all future development in the planning area to ensure that adequate sewer service is provided and that related water quality impacts on the Napa River are mitigated:

- a. Accommodate development in the planning area in accordance with the ability of the Napa-American Canyon Wastewater Management authority to provide adequate sewage treatment services.
- b. Request the LAFCO-designated sewer service agencies to each prepare a **sewer facilities master plan** which establishes an integrated sewer system for each service area, adequately sized to accommodate full buildout under the provisions of this specific plan, and designed for construction in components or sequences to meet the immediate needs of separate, near-term development actions.
- c. Require that all new development in the planning area, with the exception of those areas shown on Figure 18 as difficult to sewer, be served by connections to this integrated sewer system. Condition development approvals on applicant provision of the sewer improvement needs and requirements set forth in this sewer facilities master plan.
- d. Sewer mains should be installed in increments as needed, financed by benefitting developers, and sized as set forth in the sewer facilities master plan to meet estimated ultimate buildout demands.

- e. In the interest of cost efficiency, sewer mains should be installed as needed as roadways are build, unless they can be located in a road shoulder or within an initially unpaved portion of a dedicated roadway. Financing approaches to providing sewer service improvements are described in the Implementation Element (Chapter VIII) of this plan.

B. WATER SERVICE

1. Potential Water System Layout

Installation of a common water system or systems will be required in the planning area to meet the needs of the industrial development designations of this plan. The system(s) will require such common improvements as an internal water transmission main or grid system and adequate delivery capacity to provide for peak, reserve and emergency fire flow needs.

A potential water system layout is diagrammed on Figure 19. The sources of water supply for this planning area system are expected to be via connections to water mains which currently extend into the planning area from two water service agencies, the Napa Municipal Water District and the American Canyon County Water District. As stipulated in the subcontract agreement between these two agencies and the Napa County Flood Control and Water Conservation District, the line between these two service areas should be Suscol Creek, as shown on Figure 19 (also see Figure 32 in the EIR).

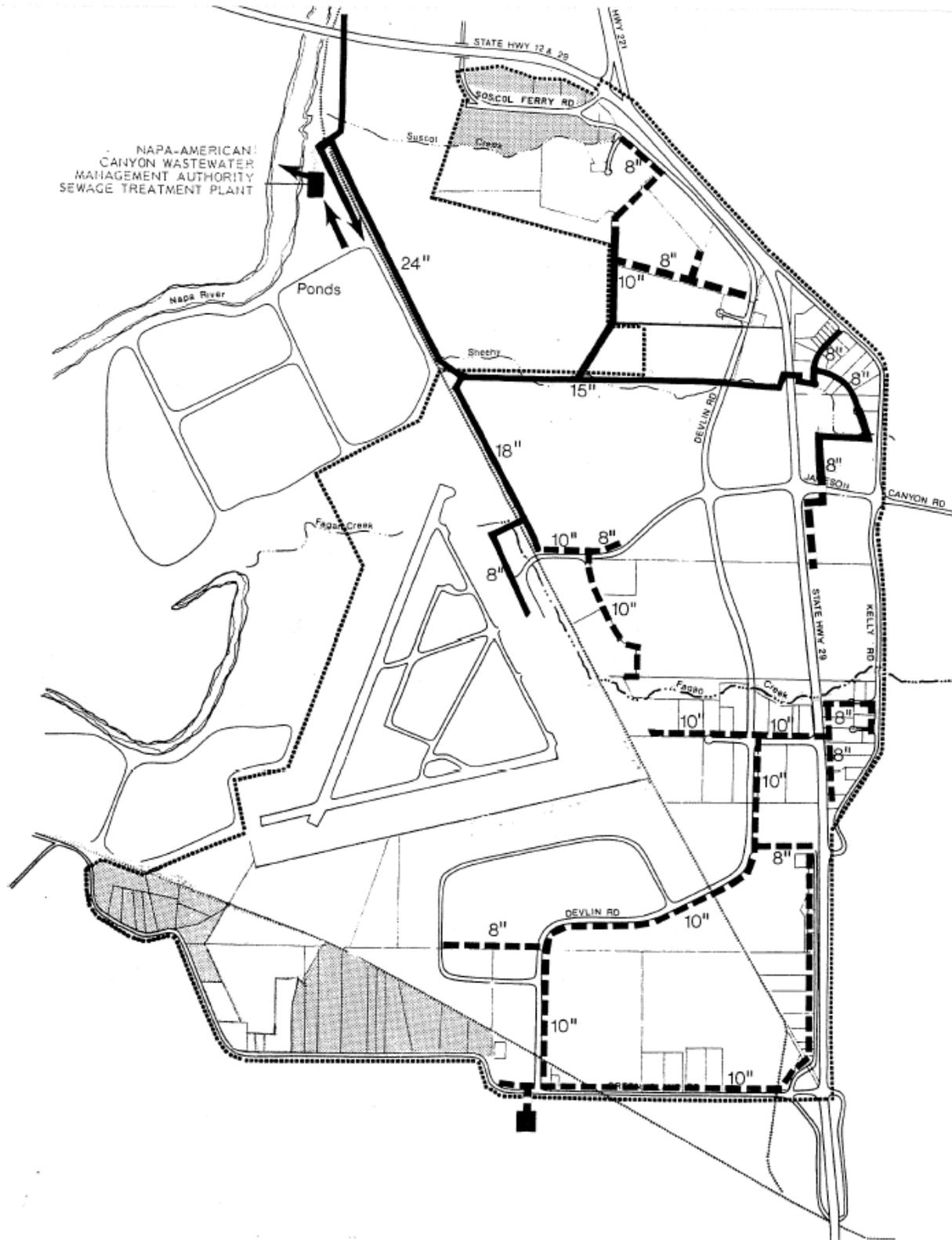


FIGURE 18
POTENTIAL
SANITARY SEWER
LAYOUT

———— EXISTING MAINS

----- SUGGESTED FUTURE MAINS

■ THESE DESIGNATED INDUSTRIAL AREAS
WILL BE DIFFICULT TO SEWER -
DEVELOPMENT SHOULD BE LIMITED
TO LOW-INTENSITY INDUSTRIAL USES
WHICH DO NOT REQUIRE COMMON
SEWERAGE.

NOTE: See Topography Map, Figure 34,
for layout constraints.

Table 5
ESTIMATED SEWER FLOW RATES

		Business/Industrial Park	General Industrial	Totals
a.	Flow Rate per Employee (gallons/day) ^a	30	30	
b.	Employees per Acre ^b	20	10	
c.	Flow Rate per Acre (a x b = gallons/day)	600	300	
d.	Projected Total Acres-- Year 2000 ^c	233	298	
e.	Estimated Total Flow-- Year 2000	139,800 gd	89,400 gd	229,200 gd
f.	Projected Total Acres-- Year 2015	548	373	
g.	Estimated TOTAL FLOW--YEAR 2015	486,600 gd	120,900 gd	440,700 gd
<p>^a San Mateo County cities of Foster City and Menlo Park use "commercial" or "office" rates of 30 gallons per day, assuming 50 people per acre or one employee per 250 square feet of building.</p> <p>^b Employment per acre figures represent averages from Caltrans data on industrial developments throughout the Bay Area; se EIR, Section X.D.2.a, and Appendix D.</p> <p>^c From Table 10.</p>				

Source: Wagstaff and Brady

4. Water Service Policies

- a. Accommodate development in the planning area in accordance with the ability of the two servicing water systems to provide adequate water supply.
- b. Request the two water servicing agencies to each prepare a **water facilities master plan** which establishes an integrated water delivery system for their service subarea which is adequately designed to meet the water requirements of manufacturing processes, fire protection, and domestic needs associated with the industrial designations in this specific plan.
- c. Condition development approvals on provision of water connection needs and requirements set forth in the water facilities master plan(s).
- d. Water system looping should be provided wherever possible to ensure continuous service and maximum fire flow reliability in the event of a main disruption.
- e. Water mains and laterals should be installed in loop increments as needed, financed by associated water agencies and benefitting developers, and sized as set forth in the water facilities master plan.
- f. Financing approaches to providing water service improvements are described in the Implementation Element (Chapter VIII) of this plan.

C. STORM DRAINAGE

- a. A planning area **storm drainage system master plan** should be prepared under the auspices of the Napa County Department of Public Works (Napa County Flood Control and Water Conservation Agency), funded by the planning area zone of benefit, which establishes an integrated storm drainage system adequate to accommodate full buildout of the planning area under the provisions of this specific plan. Based on drainage and flooding conditions described in Section X.1 of the EIR, the system design will probably include such common components as detention basins, tide gates, bypasses, and so on.
- b. The storm drainage system should be designed for construction in sequences (i.e., with road construction) to meet the immediate needs of separate, near-term development actions. In general, primary storm drains must be constructed upon the development of outlying parcels tributary to secondary storm drains. Parcel-or development-specific storm drain designs shall be completed during preparation of detailed individual development plan.

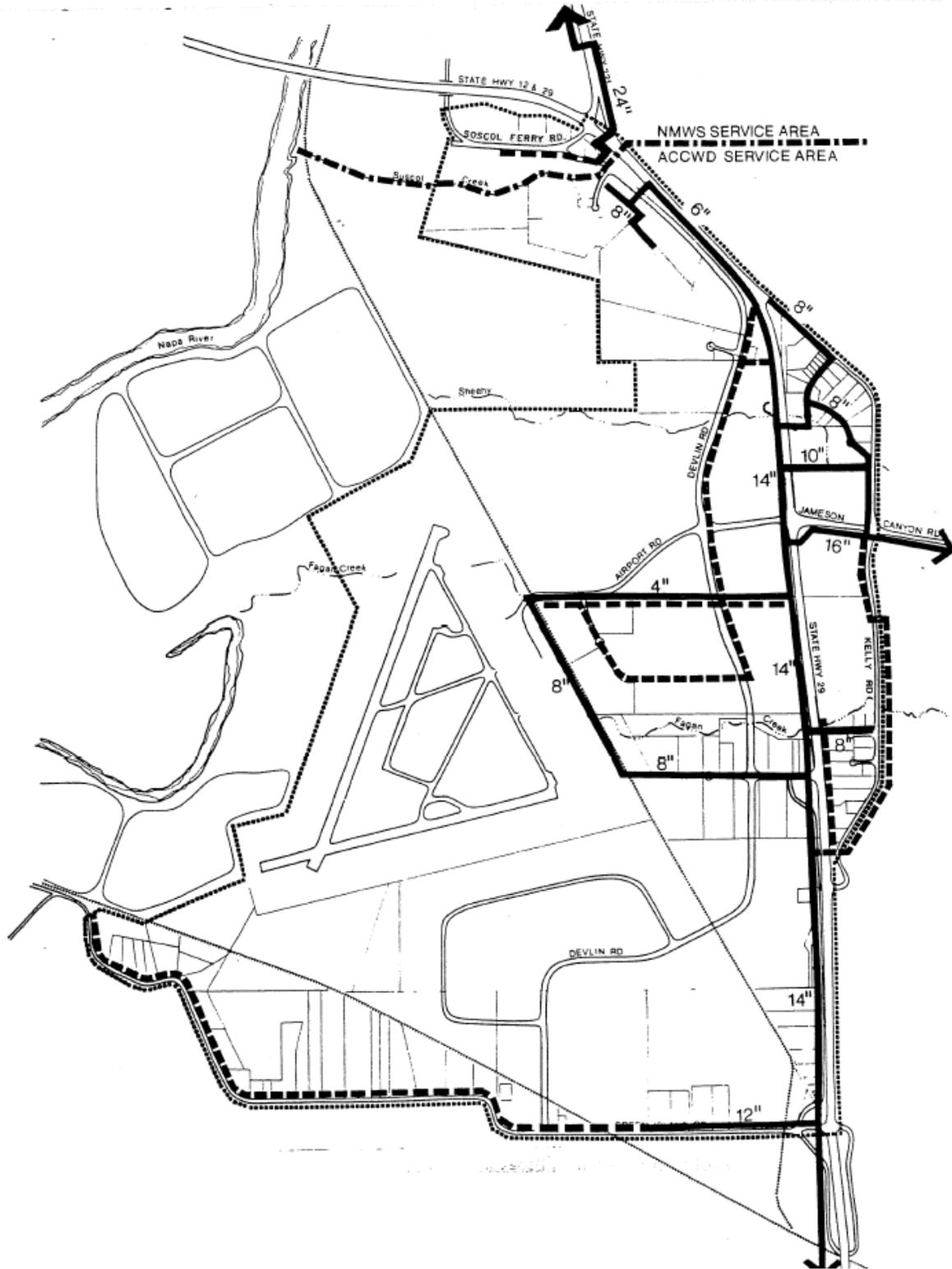


FIGURE 19
POTENTIAL
WATER SYSTEM
LAYOUT

-  EXISTING MAINS
-  SUGGESTED FUTURE MAINS

D. LAW ENFORCEMENT

The Napa County Sheriff's Office should continue to provide law enforcement services to the planning area from its nearest station located on Third Street in Napa. Response time to various locations in the planning area, given the road system configuration shown on Figure 7, will range from 7 to 12 minutes.

Service to the County's South Central Area, which includes the planning area, currently requires 2.5 deputies at minimum staffing, and 4 deputies at maximum staffing. The Sheriff's Office estimates that development of the planning area under the land use policies of this specific plan, and at the buildout rate shown in Table 10, will result in a doubling of the present level of calls by the year 2000. Section X.G.3 of the plan EIR identifies the public cost implications of these additional law enforcement needs.

E. FIRE PROTECTION

1. Fire Protection Needs

Existing fire protection services and projected plan impacts on these services are described in Section X.G.4 of the plan EIR. For the majority of the planning area, the principal fire protection concerns are long fire response times due to travel distances from existing fire stations. Areas in the northern half of the planning area, in particular, are 7 to 10 minutes away from the nearest fire station (the American Canyon Fire Protection District James Street station). The Napa County Fire Department has proposed that sometime around 1989 its Jefferson Street Station could be split, with half of its employees and equipment being relocated in the Silverado Country Club area. A location for the other half has not been selected yet, but it could be near or within the planning area if such a split were to take place.

2. New Fire Station Recommendations

a. Location. In any event, this plan recommends construction of a new fire station at a central location within or very near the planning area. Relocation and construction of a new facility will be warranted prior to the year 2000, if the planning area industrial expansion rate projected in Table 10 holds true. A location on Airport Road within the airport property itself would allow integration of the facility with the existing Airport Fire Station, thereby reducing overall staffing and equipment costs, eliminating private land procurement costs, and avoiding reduction in the industrial land inventory.

Another location option would be on a site in close proximity to the Airport Road/Devlin Road intersection. Such a location would be more centralized with respect to planning area and other south County fire protection needs, but would not offer the cost and other advantages of consolidation with the airport fire facility.

b. Fire Station Funding and Operation. The site acquisition costs and the cost to construct a new fire station to serve the planning area and other portions of the south county shall be borne by impact fees levied upon landowners in the benefitting areas. The new station could be administered under a joint-powers authority and be occupied by personnel and equipment from the

VII. PUBLIC FACILITIES ELEMENT

ACFPD and the NCFD. The cost of the ACFPD crew and equipment would be funded out of the property taxes and fire fees collected by the ACFPD. County personnel and equipment could come from the Jefferson Street Station. With this approach, there would be little increase in costs to the County. It is anticipated in the EIR that such a new station could satisfy the fire protection needs of the planning area through buildout.

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VIII. IMPLEMENTATION ELEMENT

The policies and guidelines of this specific plan are intended to provide for orderly development in the planning area. This section of the plan makes recommendations regarding those administrative, regulatory, development review, and financing approaches that show the most promise for implementing the specific plan.

A. DEVELOPMENT REVIEW AND ZONING

1. Plan Conformance

No subdivision, use permit, design review application, or other entitlement for use, and no public improvement shall be authorized for construction in the planning area, until a finding has been made that the proposed subdivision, entitlement, or public improvement is in substantial compliance with this specific plan. Approval of a tentative map shall be contingent upon substantial compliance with applicable provisions of the Napa County General Plan and this specific plan.

2. Zoning

a. Existing Zoning. Current zoning in the planning area environs is mapped on Figure 20. The shaded area on the map indicates portions of the planning area which are currently zoned for industrial use. Of the approximately 2,945 acres of land in the planning area (Table 8), roughly 2,198 acres (75 percent) are currently zoned industrial. The remaining 747 acres are zoned for airport uses (AV). Of those 2,198 acres of industrial zoning, 248 acres (11 percent) are occupied by existing industrial uses, and 1,950 acres (89 percent) remain undeveloped or underutilized.

The planning area now has essentially two zoning classifications: "Industrial District" and "Airport District". However, the current zoning map identifies two industrial categories: "I" and "I:H-35". The "H-35" indicates a Height combining District with maximum building height limits of 35 feet. The current zoning ordinance (October 1983), however, has held maximum building heights in all Industrial Districts to 35 feet; thus the 35-foot Height Combining District is no longer included in the ordinance. For all practical purposes then, the two industrial categories represent identical "Industrial District" zoning regulations.

The intent of the "Industrial District", as described in Section 12270 of the Napa County Zoning Ordinance, is to provide an environment exclusively for and conducive to the development and protection of a variety of industrial uses such as administrative facilities, research institutions, and specialized manufacturing organizations to be located in areas suitable for industrial development.

Agriculture is the only land use permitted in an Industrial District without a Use Permit.

The Airport district (AV) allows agricultural uses and Napa County Airport facilities and activities without a Use Permit. Other uses that will be allowed with a Use Permit include (1) airports and access buildings; (2) industrial plants, operations, and uses; and (3) commercial and service structures and uses. No set standards for lot size, building height, or lot coverage are enforced within the Airport District; instead, requests for use permits are evaluated in terms of their compatibility with the safe and efficient operation of the airport.

b. Proposed Industrial Zoning. The County should amend Article 4 of the Napa County Code to add two new principal zoning districts: **Business/Industrial Park** and **General Industrial**. This step would fully clarify the County's intent, and add substantial strength to the County's regulatory ability to implement the specific plan. The two new zoning districts could incorporate all standards set forth in the specific plan for these two industrial classifications, including purpose and objectives, allowable uses, and site development standards.

c. Proposed Airport Approach Zoning. The County should also amend Article 4 of the Napa County Code to add a new Combination Zoning District called "**Airport Compatibility Combination (AC) District**". This "overlay" classification would be applied to all lands which are within the boundary of a **Clear Zone**, **Primary Approach Zone**, or **Secondary Approach Zone**, and which are not owned by the County Airport. The AC District would establish by ordinance all requirements as set forth in Section V.D of this specific plan with respect to open areas, building heights, building coverage, employment intensity, and other aviation safety and nuisance factors. These "overlay" regulations would apply in addition to those of the underlying land use districts.

B. REQUIRED CAPITAL IMPROVEMENTS

The planning area is now largely undeveloped. Of the 2,198 acres of land zoned for industrial uses, 248 acres (11 percent are occupied by existing uses). As a result, large portions of the planning area lack many of the basic capital improvements, such as streets, sewers, water distribution facilities, and storm drainage systems, that will be needed as growth occurs. Sections VI, the Circulation Element, and VII, the Public Facilities Element, describe these capital improvement requirements. These needs are also summarized in Table 6 on page 118. Some improvements will provide common benefits to all property owners in the planning area, while others will benefit only individuals or groups of property owners.

New development will require future assignment by LAFCO of specific service purveyors for sewer, water and fire protection. The plan assumes that street, storm drainage and right-of-way landscape maintenance will be provided by the Napa County Department of Public Works and that police services will be provided by the Napa County Sheriff's Office.

Two possible sewer service providers, the Napa Sanitation District and the American Canyon County Water District, have existing trunk lines in place within or adjacent to the planning area and share joint sewage treatment facilities. Water mains owned by two possible water service providers, the Napa Municipal Water District and the ACCWD, are located within the planning area. Extensions of these water and sewer mains will need to be installed as additional planning area industrial sites are developed. All such extensions will be subject to LAFCOM approval.

Recommendation. No sewer or water service extension shall be authorized in the planning area by LAFCOM until a finding has been made that the proposed extension and benefitting development are in substantial compliance with this specific plan.

C. PHASING OF CAPITAL IMPROVEMENTS

It is assumed that development in the planning area will occur over many years. An estimate of the pace of development is summarized in Table 10 and described in the plan EIR.

The probable pace of development activity raises questions about the phasing of capital improvements needed to accommodate growth. There are several alternatives: constructing all major improvements in advance of most development, constructing improvements in several large increments that generally reflect the timing and location of development activity, or constructing improvements in smaller phases as individual developments proceed.

There would be a number of advantages to constructing all major improvements before most of the planning area development occurs, most notable ease of implementation and lower total cost. However, this approach could also impose short-term cost burdens that may be unacceptable to landowners who are uncertain about their development intentions or who are not likely to become involved in development for many years. The approach also has the disadvantage of establishing an inflexible pattern of improvements that may not be appropriate for unforeseen changes in future development characteristics. For example, constructing most streets in advance of development may limit future development configurations and parcelization. **Because of the long buildout period expected for the planning area, the capital improvement program should allow for flexibility in responding to changes in industrial land use characteristics.**

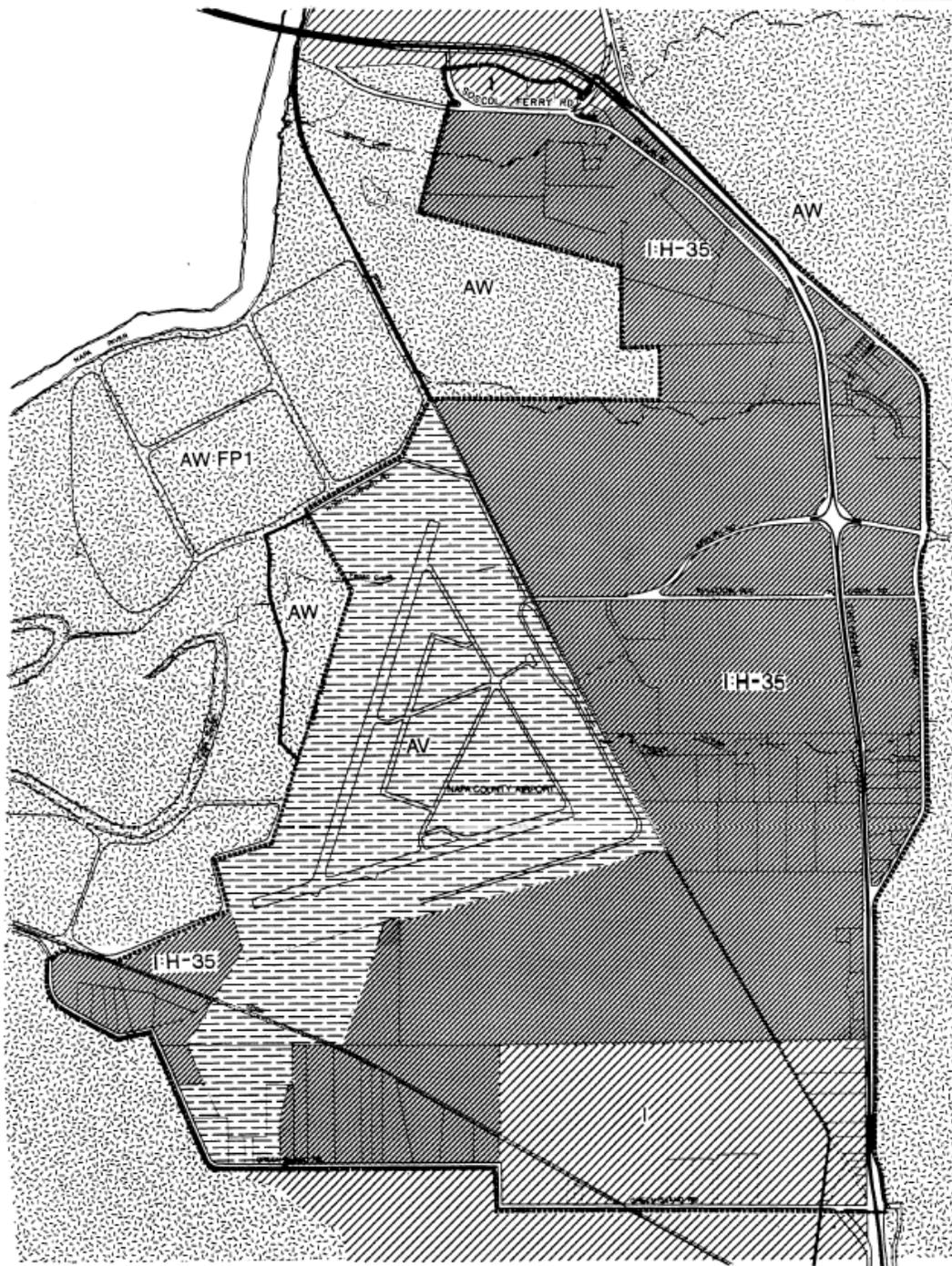


FIGURE 20 CURRENT ZONING*

ZONING DISTRICTS IN AREA

-  Airport District
-  Industrial District
-  Industrial District with 35-foot height limit
-  Industrial District with height and parking limits
-  Agricultural Watershed
-  Agricultural Watershed--Primary Floodplain District

*NOTE: Zoning shown was accurate as of November 4, 1985.
See Official Zoning Map for subsequent changes.

The most workable capital improvements program would probably incorporate elements of each of the three approaches. This might result in constructing some basic common facilities, such as necessary regional road system improvements during the initial years of development, constructing facilities that would benefit the various subareas of the planning area (such as collector streets, sewer mains, and water lines) in large increments that correspond to development pacing, and constructing minor streets and water and sewer laterals as individual developments occur.

Chapter VI of this plan, the Circulation Element, includes a suggested general sequencing of necessary road construction sequences and related costs (Section VI.E). The section groups needed improvements into two phases: **Phase I** which includes the period between 1985 and the year 2000; and **Phase II** for the period between the years 2000 and 2015. Table 7 suggests a similar phasing program for all basic capital improvements including roads, sewer, water, storm drainage and fire station.

D. APPORTIONMENT OF CAPITAL IMPROVEMENT COST RESPONSIBILITIES

The cost of constructing capital improvements in the planning area should be shared between private landowners and public agencies. In general, private landowners should be responsible for improvements that provide direct benefits to their property. Public agencies should assist in the financing of improvements that benefit their own enterprises (such as the County airport) or provide benefits to broader areas of the County and region. Public agency participation in planning area-related capital improvement financing would also serve to attract desired planning area development, expand the County's industrial base, create additional employment opportunities, and thereby add to the County and regional economic well-being.

1. Road Improvements

Chapter VI of this plan, the Circulation Element, includes a section (VI.E) and accompanying table (Table 4) which provide: (1) a breakdown into logical components of the various road improvements necessary to implement this plan, (b) an order-of-magnitude estimate of the cost of each component in today's (1985) dollars, and (c) a suggested assignment of cost responsibility for each component based upon the benefit considerations summarized in Table 6. Those road improvements which directly serve the **airport**, i.e., the widening of the last segment of Airport Road to five lanes, and that portion of improvements to other Airport road segments which benefits the airport, should be an airport responsibility funded through fees and other airport revenue sources. Airport responsibilities for the first shared segments of Airport Road should be determined based upon relative traffic contribution.

For road improvements which improve **regional access** to the area, all non-state cost responsibilities should be divided among all new development in Napa County, including development inside and outside the planning area, through adjustments in Countywide development impact fees.

Road improvement costs described in Tables 4 and 6 as benefitting "**other new development**" in the vicinity are related in large part to the peak-hour traffic contribution of the Napa Valley

Corporate Park (Bedford), as described in the EIR. A fair share of these cost responsibilities should be assigned to that development. Similarly, road costs described in Tables 4 and 6 as **"benefitting all planning area development"** should be the shared responsibility of all landowners for each benefitting parcel in the planning area. An equitable arrangement for sharing these costs among the landowners should be adopted based upon a traffic contribution formula that considers the plan land use designation, the associated traffic generation rate (peak-hour trips per acre), and the acreage.

The construction of collector and minor street components not listed in Table 4, including associated street lights, should be the responsibility of private landowners. The costs of these road improvements should be shared among the landowners directly served.

2. Landscaping and Signage

The cost of landscaping public rights-of-way on interior streets should be borne by individual developers. Signage and lighting costs should be shared as part of the cost of circulation improvements. Non-state costs for landscaping and signage along Airport Road and Highway 29 should be the shared responsibility of planning area landowners and the County as described above. A percentage distribution of costs similar to the distribution adopted for circulation improvements would be appropriate.

3. Sewer and Water Systems

Financial arrangements to fund common sewer and water system improvements as suggested in Section VII-A in the Public Facilities Element should be made and administered by the LAFCOM-designated servicing agencies. It is assumed that the servicing agencies will establish some combination of special assessments, connection fees, and ongoing service fees to fund initial construction and ongoing operations and maintenance costs of the systems.

Water system costs will probably be shared based upon development potentials, anticipated water usage, and associated fire flow needs. Similarly, sewer costs will be shared based upon anticipated discharge characteristics. The costs of water line loops, collection sewers, and related laterals should be shared by a number of landowners where development occurs in larger increments, or should be the responsibility of individual landowners where facilities would benefit only single parcels.

Table 6
CAPITAL IMPROVEMENT NEEDS IN THE PLANNING AREA, ASSOCIATED BENEFITS AND
RELATED FINANCING APPROACHES

Improvements That Benefit All Planning Area Landowners in the Vicinity and the County as a Whole	Improvements That Benefit All Planning Area Landowners	Improvements That Benefit Subgroups of Planning Area Landowners	Improvements That Benefit Individual Landowners
Widening of Hwy 29 to 6 lanes, plus related roadside landscaping	Construction of a continuous, north-south collector between Soscol Ferry and Green Island Rd. (Devlin Rd. extension), plus related roadside landscaping, signage, etc.	Initial, non-continuous segments of the Devlin Rd. extension necessary to meet the access needs of Phase I development (i.e., absorption anticipated between 1985 and 2000)	Segments of arterial and collector streets
Construction of a grade-separated interchange of Hwy 29, Hwy 221, and Soscol Ferry Rd.	Signalization of Devlin Rd. extension at intersections w/Soscol, Airport and Tower roads	Various sewer trunk line extensions constructed individually as needed to serve separate subareas	Local and interior streets
Construction of a grade-separated interchange of Hwy 29, Hwy 12, and Airport Rd.	Landscaping along S.R.29	Various water line extensions constructed individually as needed to serve the operational and fireflow needs of separate subareas	Landscaping, signage, etc., on local streets
Construction of a frontage road between Tower and Green Island Rd. to elim. side friction on Hwy 29		Various collector and local streets and related street lighting, landscaping, signage, etc.	Minor sewer collectors and laterals
Fire station			Minor water mains and laterals
Fire equipment			
Expansion of sewage treatment capacity			
Recommended Financing Approaches:			
Allocate non-state cost responsibilities to new development on a cumulative, county wide, fair-share basis, through development impact fees	Allocate local cost responsibilities through an assessment district encompassing all planning area urban lands	Allocate cost responsibilities through subarea assessment districts, development agreements, and/or refunding agreements	Private financing w/possible County assistance through estab. of Industrial Revenue Bond program

Source: Wagstaff and Brady

Table 7
SUGGESTED CAPITAL IMPROVEMENT SEQUENCES

PHASE 1 -- 1985 TO YR. 2000
<u>Roads</u>
* Preparation of a rights-of-way landscaping master plan
* S.R. 29/S.R. 12 (Jameson Canyon Rd)/Airport Rd grade-separated diamond interchange
* S.R. 29/S.R. 221 (Soscol Avenue) grade-separated diamond interchange
* S.R. 29 widening from 4 to 6 lanes between S.R. 221 and American Canyon Rd.
* S.R. 29 related frontage roads and right-turn-only restrictions on Kelly and Tower roads
* S.R. 12 (Jameson Canyon Road) widening from 2 to 4 lanes between S.R. 29 and I-80
* Airport Road improvement to 5-lane arterial status
* Internal collector and minor streets necessary to serve new development as it occurs
<u>Sewer</u>
* Preparation of sewer master plan
* Initial trunk line extensions to subareas in County Service Area #3 and along the first leg of Green Island Rd. as warranted to serve new development subareas
* Secondary lines and laterals to serve individual developments as they occur in proximity to the initial trunk line extensions
<u>Water</u>
* Preparation of water master plan
* Initial water main extensions to serve subareas in CSA #3 and along the first leg of Green Island Rd. as warranted to serve new development subareas
* Secondary lines and laterals to serve individual developments as they occur in proximity to the initial water main extensions
<u>Storm Drainage</u>
* Preparation of a storm drainage master plan
* Initial common facilities determined to be necessary in the storm drainage master plan (detention basins, tide gates, culverts, bypasses, parallels, etc.) to serve areas tributary to initial phases of road, sewer, and water extensions
* Secondary storm drains as necessary to serve new development subareas (incorporated wherever possible in road extension designs)

<u>Fire</u>
* Acquisition of new site near or within planning area
* Construction of new fire station facility
* Purchase of additional equipment
* Provision of associated additional personnel needs
PHASE II -- 2000 TO 2015
<u>Roads</u>
* Completion of north-south extension of Devlin Road between Soscol Ferry Road and Green Island Road
* Addition of S.R. 29 northbound and S.R. 12 eastbound loop offramps to the S.R. 29/S.R. 12 (Jameson Canyon Road) diamond interchange
* Signalization of major internal intersections
* Conversion of Tower Road from direct connection to S.R. 29 to cul-de-sac
* Internal collector and minor streets necessary to serve new development as it occurs
<u>Sewer</u>
* Additional trunk line extensions necessary to serve additional development subareas
* Secondary lines and laterals to serve individual developments as they occur in proximity to trunk line extensions
<u>Water</u>
* Additional water main extensions to serve additional development subareas
* Secondary lines and laterals to serve individual Phase II developments as they occur in proximity to water main extensions
<u>Storm Drainage</u>
* Additional common facilities as called for in storm drainage master plan (detention basins, tide gates, culverts, bypasses, parallels, etc.) to serve areas tributary to Phase II extensions of roads, sewer, and water
* Secondary storm drains necessary to serve additional development subareas (incorporated wherever possible in associated road extension designs)
<u>Fire</u>
* Purchase of additional equipment necessary to protect added cumulative development in South County service area
* Provision of associated additional personnel needs

Source: Wagstaff and Brady

4. Fire Protection

The eventual location of a new fire station on a site closer to or within the planning area will provide more centralized service to southern Napa County. This relocation and associated equipment and personnel improvements planned for this facility will provide benefits to current and future development in southern Napa County, including the planning area. These improvements should be funded by current and future fire protection fees from all benefitting landowners inside and outside the planning area. In addition, for the area between the current ACFPD district boundary and Soscol Ridge, construction of a new station on a site closer to or within the planning area should result in a shift of current first-response fire protection service burdens from the ACFPD to the new fire service agency. (Due to its current closer proximity to this area, the ACFPD James Road station is now providing first-response services here, with no compensation unless an actual firefighting effort is required.)

E. FINANCING COMMON CAPITAL IMPROVEMENT COSTS

1. Choices

The three principal methods for financing common capital improvements in the planning area are assessment districts, impact fees and refunding agreements.

a. Assessment Districts. Benefit assessment districts would be appropriate for major capital improvements that benefit all landowners in the planning area, or for improvements in large subareas that benefit the landowners there.

In a benefit assessment procedure, a charge against any land area must reflect the specific benefit that would result from the public improvement. Lands that would benefit only slightly can be charged only slightly. Lands that would not benefit until a later phase can have a levy that reflects the discounted present value of the benefit. In the case of phases that would not benefit at all by an improvement, but would benefit by a subsequent expansion of capacity, several "zones or benefit" could be defined and levies for future expansion imposed when the funds are required to finance that expansion. This method would ensure an equitable distribution of the costs of capital facilities in the planning area.

The use of benefit assessments also can lower the total cost obligation for capital improvements. If the landowners take advantage of a municipal bond (assessment bond) issued to finance the initial investment, instead of paying the assessment in cash at the outset, their "front end" financing liability is limited. Using tax-exempt municipal debt to finance infrastructure substantially reduces the ultimate total cost compared to alternative private financing.

b. Impact Fees. Impact fees can also be used for capital improvement financing. Total infrastructure costs are allocated among landowners based on some measure of benefit, and the corresponding fees are assessed when development approval is granted. The connection fees used to finance the expansion of water and sewer systems are one form of impact fee.

The use of fees could have certain limitations for the funding of common improvements in the planning area. Since they are usually paid only when development is close to being initiated, e.g.,

when building permits are issued, impact fees may not provide adequate revenue for initial improvements if market demand is slow and building is phased over many years. However, if development occurs in a planned physical sequence and the improvements can be staged in relatively small increments, impact fees could provide a viable funding source. These fees are usually more costly for the developer than paying the debt service for infrastructure financed with municipal bonds.

c. Refunding Agreements. Refunding agreements are a third method of financing common improvements. These agreements are often used when one developer is interested in extending services to his or her parcel, but neighboring landowners have no immediate plans for development. Refunding agreements of costs to the developer who constructs the improvement by all those who connect to or use the facility thereafter. Refunding agreements are probably best applied to construction of improvements that benefit sub-areas of the planning area, rather than common improvements for the planning area as a whole.

The multiple ownership of the planning area and the varying development intentions of the many landowners will create obstacles to a coordinated approach to capital improvement planning. Landowner cooperation in such a planning effort will be essential. The availability of public financing mechanisms such as assessment bonds for infrastructure could provide an incentive for individual landowners to cooperate in a coordinated planning approach to service provision. Since no one techniques is likely to be appropriate for all improvements, the financing program should be flexible and permit the use of several approaches.

2. Recommendations

The following measures are recommended for financing common improvements in the planning area:

- (1) **Consider establishment of a Countywide Development Impact Fee to provide a fund for use towards constructing those regional road improvements listed in Table 6 which benefit all new development in the County. The fee could be assessed on all new development projects when approvals are granted, based upon some equitable measure of benefit (square footage of building space by type, etc.). Caltrans should also contribute a pro-rata share of the costs to complete needed improvements to State facilities. However, because Caltrans funds are limited, the County should consider collecting adequate development fees to assure that these improvements can be implemented in a timely manner in the event that the state cannot contribute its proportionate share.**
- (2) **Consider establishment of a planning area benefit assessment district to fund those particular road and landscaping improvements listed in Table 6 that benefit all planning area landowners, including a "fair share" portion of all regional access improvements (Table 4 suggests a cost allocation approved for regional access improvements).**
- (3) **Consider establishment of subarea assessment districts, development agreements, and/or refunding agreements to fund those particular road, sewer, water,**

landscaping, signage, streetlighting and other planning area improvements which benefit subgroups of planning area landowners.

- (4) If development is not likely to occur in increments within subareas of the planning area, collector streets, collector sewers, and minor water mains should be privately financed through refunding agreement procedures administered by the County.**
- (5) If developers offer to construct portions of common improvements without refunding agreements, they should be given credit against future assessments or impact fees that are levied to finance similar improvements.**
- (6) Basic maintenance of new County roads in the planning area should continue to be funded by the County through gas taxes and vehicle license fees. The added cost of maintaining such "urban" items as street sweeping, street lighting and landscape maintenance should be funded through the corresponding benefit assessment district.**
- (7) Maintenance of street landscaping (i.e., all planning area landscaping within street rights-of-way) should be provided by County contract with a qualified landscape contractor, with costs of the contract and associated County administrative costs financed through the corresponding benefit assessment district.**
- (8) Ongoing costs for operating and maintaining planning area water and sewage systems should continue to be financed through normal connection and users fee approaches currently followed by the servicing agencies.**
- (9) Planning area increases in demands for fire services should continue to be financed by "fire fee" property tax overrides.**
- (10) Site acquisition costs and the costs to construct a new fire station to serve the planning area should be borne by impact fees levied upon developers of the planning area and other areas of benefit in the South County.**

F. FINANCING IMPROVEMENT TO INDIVIDUAL PARCELS

1. Choices

All improvements on the property of individual landowners, including interior streets, sewer and water lines, landscaping and parking should be privately financed.

Several mechanisms are available to the County to assist in the development of individual parcels and businesses in the planning area. These could provide incentives to development in the planning area similar to those incentives offered by competing industrial locations in the region.

a. Industrial Development Bonds. Industrial development bonds (IDBs) can be used to assist private firms and corporations in the construction, expansion and relocation of commercial and industrial facilities. The California Industrial Financing Act authorizes cities and counties to

create industrial development bond authorities which may issue tax-exempt bonds to finance assembling, fabricating, manufacturing or energy-related facilities for private enterprise.

The construction of on-site infrastructure is an appropriate use of IDBs. Bonds issued under the act are repaid solely by private enterprise, with no taxes or other public monies involved.

b. Small Business Loans. Various programs of the U.S. Small Business Administration (SBA) provide direct or guaranteed loans for small businesses. The Section 503 program is applicable to the construction of facilities in the planning area. SBA-certified development companies organized under provisions of Section 503 provide long-term, fixed-asset financing. Through this joint public/private sector program, financing for the acquisition of land and building construction, expansion, renovation and equipment is available to small business concerns for up to 25 years.

If Napa County does not have a certified development corporation (CDC) operating within the County, this program may still be used. A CDC may be formed or an established CDC operating in the Bay Area may be used so long as it has obtained or will obtain authorization from SBA. Currently, the SBA programs are under attack and budget cuts are possible. Therefore, the degree to which this funding source will be available in the future is uncertain.

2. Recommendations

The County recently established an industrial development authority for the purpose of issuing IDBs. The authority should encourage the use of industrial development bonds to assist private developers and firms in the construction, expansion and relocation of industrial facilities in the planning area.

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IX. SPECIFIC PLAN RELATIONSHIP TO GENERAL PLAN GOALS AND POLICIES

The planning area is subject to County development policies and regulations set forth in the Napa County General Plan. State law requires that the specific plan be consistent with the general plan and contain measures to implement all policies set forth in the general plan that pertain to the planning area. Planning for the future use of the area also requires consideration of County Land Use Commission (ALUC) policies for the County Airport and adjacent areas as set forth in the Napa County Airport Master Plan, and warrants consideration of City of Napa policies for adjacent lands to the north as documented in the Airport North/Bedford Industrial Area Specific Plan (1983). The relationship of this specific plan to pertinent provisions from these documents is summarized in this chapter.

A. COUNTY GENERAL PLAN

1. Relevant Policies

The Napa County General Plan (NCGP) as adopted by the Board of Supervisors on June 7, 1983, establishes general policies with respect to the long-term use of County land. All five of the Countywide planning and development goals stated in the General Plan for the year 2000 are relevant to the Napa Valley Business Park Specific Plan program. The five planning goals are:

- Goal 1: To plan for agriculture and related activities as the primary land uses in Napa County and concentrate urban uses in the County's existing cities and urban areas.
- Goal 2: To develop and implement a set of planning policies which combine to define a population size, rate of population growth, and the geographic distribution of that population in such a manner that the desired quality of life is achieved.
- Goal 3: To determine what the land is best suited for; to match man's activities to the land's natural suitability; to take advantage of natural capabilities and minimize conflict with the natural environment.
- Goal 4: To work with cities, other governmental units, citizens and the private sector to plan for services, facilities and accommodations, including housing, transportation, economic development, parks and recreation, open space and other total County needs.
- Goal 5: To implement the general plan in every possible way to
- a) Ensure the long-term protection and integrity of those areas identified in the general plan as agricultural, open space, or undevelopable.
 - b) Stimulate the development of those areas identified in the general plan for residential, commercial and industrial.

IX. SPECIFIC PLAN RELATIONSHIP TO
GENERAL PLAN GOALS AND POLICIES

The General Plan summarizes these general goals as a statement of the intention to "preserve agriculture, and concentrate urban uses in existing urban areas".

While acknowledging the fact that, in the past, other Counties have been more competitive in attracting industrial development, the General Plan also indicates that industrial growth is anticipated. The area identified in the General Plan for industrial development lies to the east of the airport on either side of State Route 29. This area is considered suitable for industrial development due to its accessibility by air, rail, highway and water transportation, and its potential serviceability by water and sewer lines.

Also, as can be seen in Figure 21, not all land within the planning area is designated in the General Plan for industrial use. The airport and small portions of the area in the north are designated as Public-Institutional, and the area south of the airport and the northernmost tip of the planning area are designated as Agriculture, Watershed and Open Space.

The General Plan designates approximately 3,200 acres in the planning area vicinity for industrial use. Not all of that industrial land is located within the planning area. Some (approximately 650 acres) extends to the east beyond State Route 29 and Kelly Road. In addition, an area of industrial zoned land south of Green Island Road (approximately 265 acres) has recently been deemed consistent with the General Plan by the Board of Supervisors.

The General Plan places a high priority on the preparation of a specific plan for the Napa Valley Business Park, and identifies the following industrial development policies for the County:

- 1. Reserve sufficient industrial property to satisfy future demands for orderly growth and economic development.**
- 2. Study the economic feasibility of enhancing the industrial potential of the Napa County Airport.**
- 3. Direct non-agriculturally oriented industry away from productive agricultural lands and toward areas more suitable for industrial purposes.**
- 4. Review industrial development proposals to address the balance of job creation and the availability of affordable housing.**
- 5. Plan for staged development of water and sewer services in order to promote efficiencies of development and to remove the impetus for leapfrogging industrialization.**
- 6. Work with other public agencies to ensure the maintenance of a high level of environmental quality and protection.**
- 7. Locate industrial areas adjacent to major transportation facilities and provide necessary utilities and services to meet the needs of industrially zones areas.**

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2. Specific Plan Consistency with the General Plan

This specific plan is essentially a refinement of, and an elaboration on, the General Plan and has been formulated to be consistent with the pertinent goals, policies, and objectives summarized in **bold** above. However, the following General Plan amendments will be required to accommodate this specific plan:

- a. The land use map of the General Plan will have to be changed to reflect the new distribution of land uses within the planning area (see the Specific Plan Land Use Map, Figure 5). In addition, lands east of S.R. 29 and Kelly Road that are now designated for industrial land use should be redesignated to "Agriculture, Watershed, and Open Space" as stipulated in Section V.G. of this specific plan (Policy V.G.2), and lands on the south side of Green Island Road that are now designated for industrial land use should be changed to the new General Industrial designation established in this plan (Section V.G).
- b. The Circulation Element will need to be revised to reflect the addition of the north-south collector (Devlin Road extension) through the planning area. This collector has the potential to become a portion of the previously considered New River Road regional transportation improvement that would eventually connect Soscol Ferry Road to American Canyon Road. Other regional access improvements proposed by the plan are consistent with the transportation system improvements program outlined in the General Plan.

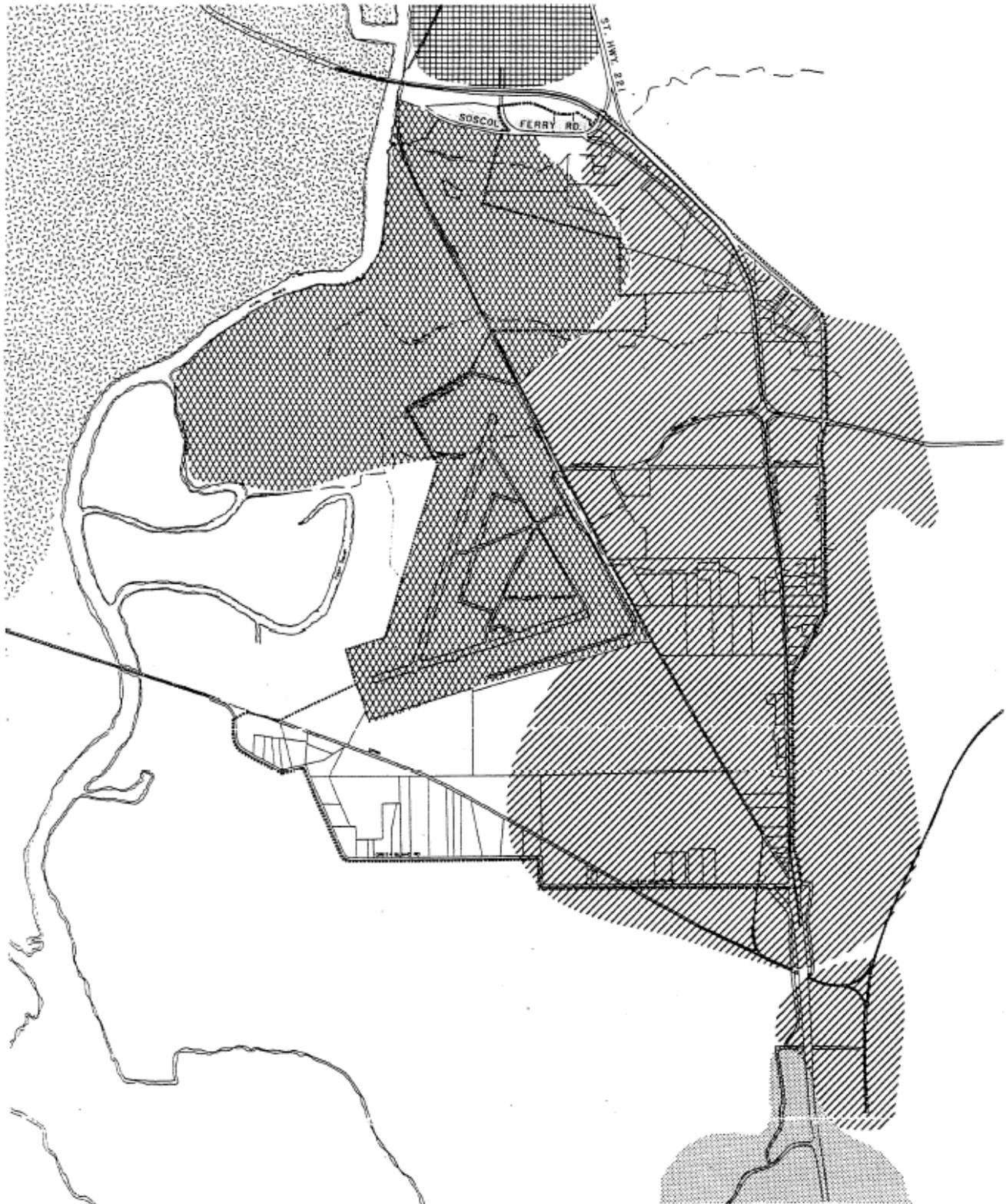
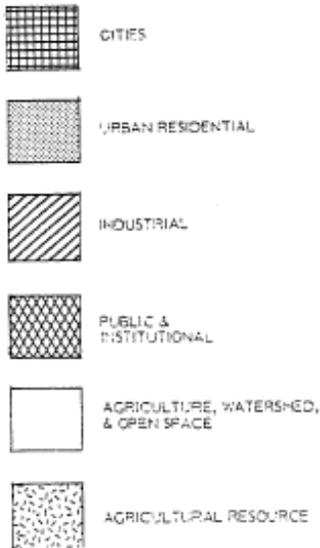


FIGURE 21
**EXISTING GENERAL
PLAN LAND USE MAP ***



* NOTE: General Plan Land Use Map shown was accurate as of July 29, 1986.
See Napa County General Plan (Figure 14) for any subsequent changes.

**NAPA COUNTY AIRPORT
INDUSTRIAL AREA
SPECIFIC PLAN PROGRAM**

NAPA COUNTY, CALIFORNIA

WAGSTAFF AND BRADY
URBAN AND
ENVIRONMENTAL PLANNERS
BERKELEY, CALIFORNIA



B. NAPA COUNTY GROWTH MANAGEMENT SYSTEM

The relationship between the Napa County Growth Management System (GMS) and industrial growth in the Napa County Napa Valley Business Park has been carefully considered in the formulation of this specific plan.

1. Background

In 1981 the Napa County Board of Supervisors adopted a Growth Management System (GMS) which provides for the annual allocation of a fixed number of dwelling units^a. The GMS, which has been incorporated as an element of the County's current general plan, applies only to the unincorporated areas of Napa County.

2. State General Plan Consistency Requirements

California state law stipulates that a general plan must be internally consistent^b. This means that all other elements of the general Plan, such as the land use and housing elements, must be consistent with the GMS, since it is also an element of the General Plan. In addition, the law stipulates that zoning ordinances must be consistent with the General Plan^c.

No language is contained in state statute that directly requires a specific plan to be consistent with the general plan; however, state law does provide that a specific plan must include "all detailed regulations, conditions, programs and proposed legislation ... necessary for the systematic implementation of each element of the general plan"^d. In conclusion, the level of growth allowed in the airport area must be consistent with the Napa County General Plan, including its Growth Management System element.

3. Balancing Residential and Industrial Development

The State has adopted the following statute which applies to Napa County (bold type added);

In exercising its authority to zone for land uses, a City, County or City and County shall designate and zone sufficient vacant land for residential use with appropriate standards, **in relation to zoning for nonresidential use**, and in relation to growth projections of the general plan, to meet housing needs as identified in the general plan^e.

The State obviously is using its authority to encourage cities and counties to provide for more housing construction. The State's approach is to address the issue of housing location with respect to job location. The statute appears to say that a city or county cannot regulate land to allow for industrial development without also allowing for corresponding residential development.

In conclusion, State statute appears to require that local land use regulations must provide housing development opportunities which relate adequately to the level of local employment accommodated by the industrial development provisions of the same local jurisdiction.

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With respect to general plan consistency questions, it appears that not all housing demand resulting from planning area industrial development need be accommodated within the County's unincorporated area, since all of this demand would not normally occur there. However, some logical relationship must exist in the plan and its implementing ordinances between job creation and housing opportunities.

The approach used in this specific plan and EIR has been to:

- a. Control employment intensity per acre through application of floor area ratio standards and minimum and maximum parking requirements;
- b. Monitor the rate and character of planning area industrial development on a periodic basis to determine whether related housing impact potentials are consistent with ABAG housing growth allocations for areas within a reasonable commute distance; and
- c. Initiate a housing impact mitigation procedure **if and when** the rate and character of planning area job growth, in combination with the effects of the County's GMS, begin resulting in a significant adverse regional housing impact.

In this manner, the plan addresses the local jobs/housing balance as required by state statute and maintains policy consistency with the County's Growth Management System. The plan provides for a logical and compatible relationship between plan-related job generation and dwelling unit opportunities within a reasonable commuting distance.

C. NAPA COUNTY AIRPORT PLANS AND REGULATIONS

1. Relevant Objectives and Policies

Land uses on the County Airport grounds and areas immediately surrounding the facility are governed by County provisions set forth in the Napa County Airport Master Plan. This plan was prepared to forecast future airport activity, identify future facility expansion needs, investigate the compatibility of surrounding uses with airport activities, and provide a phased airport development program. The plan found the existing airport site to be adequate for existing and potential uses, but noted that some land acquisition would be necessary to provide space for enlargement of aircraft storage and service facilities. The runway system was forecast to reach capacity about 1990. Existing runway strength was determined adequate for the present range of aircraft operations, but not for larger two- or three-engined air carriers or heavier types of freight. Runway length was also determined to be inadequate for fully loaded business jets and commercial carrier aircraft. The volume of air cargo shipments at the airport was projected to be minor, however, and could be handled by third-level carrier and general aviation aircraft.

The plan identifies the rural, open character of the land surrounding the airport as a unique and favorable factor for airport operations. The plan encourages the County to take steps, while still feasible, to preserve runway clear zones and open approach areas from future urban encroachment. The most effective means of providing the necessary protection for these areas is to acquire fee simple title to the lands involved; on the other hand, aviation and noise easement could also prove

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adequate in some instances. Properly administered zoning of the areas is also identified as a possible form of protection, but is considered the least effective of the three options. The plan questions the reliance on industrial zoning as a means of protecting the airport, particularly since industry has failed, over the years, to develop in these areas even though actively promoted. Its recommendations are that County Planning adopt construction standards that will help mitigate interior noise levels created by exterior sources such as approaching and departing aircraft, and modify existing zoning in the vicinity of the airport to assure mutually compatible uses.

At a minimum, the airport plan recommends the acquisition or positive use control of all lands that fall within the 65 CNEL noise contour. The approach zones shown for the main runway (18R/36L) are 2,500 feet wide and 5,000 feet long. Approximately 60 acres at the south end of the runway and 166 acres at the north end are recommended either for purchase or protection by easements. The approach zones for Runway 6/24 are 1,500 feet wide and 3,400 feet long. The approach at the west end of the runway is protected by air easements extending over the salt evaporating ponds, but acquisition of an additional 65 acres at the east end of the runway is recommended.

2. Specific Plan Relationship

The specific plan has been developed with full consideration of the objectives and policies set forth in the Airport Master Plan. The airport has been treated as a valuable asset to the development of the planning area. Steps have been taken to ensure the best possible relationship between the airport and the surrounding lands, in terms of both safety and effective interactions between airport and industrial developments. The plan institutes the following actions in response to the objectives stated in the Airport Master Plan and the County Code:

- a. The specific plan has designated 50+ acres along the southern boundary as being reserved for airport expansion. This strip of land was identified in the 1976 Airport Master Plan as the most desirable location for additional hangar facilities and tie down areas. The Master Plan indicates that the approximately 50 acres would come from a parcel owned by Napa Airport Properties (Parcel #28).
- b. In conjunction with the future southern expansion of the airport, the Master Plan proposes the relocation of Tower Road with an optional "terminal access" road connecting to Green Island Road. In keeping with this proposal, the specific plan also indicates an optional "terminal access" road connecting to Green Island Road; however, the location has been moved to better coordinate with the rest of the specific plan's circulation system (see Figure 7).
- c. The specific plan reiterates the special safety controls recommended by the Airport Master Plan for the runway Clear Zones and Primary and Secondary Approach Zones. All development has been prohibited from the Clear Zones of both major runways. Development in the Primary and Secondary Approach Zones is subject to stringent height, coverage, and land use restrictions. The plan has taken reasonable steps to provide maximum public safety while striving to minimize related hardships on affected properties.

IX. SPECIFIC PLAN RELATIONSHIP TO
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The use of aviation easements and a new County Airport Combination Zone are recommended in the plan as a means of achieving the necessary protection.

- d. The specific plan is consistent with the standards set forth in the Airport Safety Ordinance (Article 4) of the Napa County Code.
- e. The specific plan also supports the potential for industrial development with direct links to the airport (e.g., the Greenwood Ranch proposal). Although existing airport plans and policies do not specifically address this concern, the concept of airport-related industries around the perimeter of the airport is one that tends to ensure compatibility with surrounding uses and promote the general welfare of the airport. On the other hand, County approval of any request for direct taxiway links to the airport should be subject to carefully formulated conditions which ensure against adverse impacts on the viability of existing and planned airport services, and should incorporate related FAA regulations for so-called "through-the-fence" operations.

D. CITY OF NAPA GENERAL PLAN

1. Relevant Objectives and Policies

The City of Napa General Plan (1982) includes northern portions of the planning area (east of the Southern Pacific Railroad tracks and north of Airport Road) on its land use map (Planning Area #15, page 89 of the General Plan), even though the area is beyond the City's LAFCO-designated sphere of influence. The City's southern sphere of influence boundary is currently the same as the City limit boundary. The City's General Plan land use designations are generally consistent with the County's in designating the planning area for industrial use. Although the City has no jurisdiction over the area south of its sphere of influence boundary, the plan indicates general guidelines the City would like to see observed in the development of this area. The guidelines state that:

- (1) Appropriate uses for the area should be moderate to high intensity, non-polluting industries.
- (2) Development should be sited, designed, and screened to mitigate its visibility from roads entering Napa from the south.
- (3) Development in the airport flight path should also be sited and regulated to correspond to airport traffic safety standards.
- (4) Lands designated to receive irrigation waters from the Napa sewage treatment plant should remain in agricultural use.
- (5) Lands to the east and west of industrial properties should remain as greenbelt with agricultural or other rural uses.

IX. SPECIFIC PLAN RELATIONSHIP TO
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- (6) To avoid adverse traffic impacts, the timing of industrial development should correspond to traffic improvements.
- (7) Built-in fire protection systems and other mitigating measures should be incorporated into all construction since the industrial development is beyond the 1-1/2 mile response distance.

The City of Napa General Plan also states the City's commitment to limiting urban growth within its Rural/Urban Limit Line (RUL) and maintaining a greenbelt of non-urbanized County lands beyond it. The development of County industrially zoned lands in the planning area is viewed as potentially in conflict with this greenbelt objective and with current plans for urban service extensions.

The Housing Element of the City of Napa General Plan sets forth two policies which could be adversely affected by development in the planning area. The first is a growth limitation policy which limits population growth within the City's rural/urban limit (RUL) to 75,000 people by the year 2000. The second is a policy to balance employment opportunities with the provision of housing. The City has expressed the concern that the potentially large employment-generating capacity of the planning area could present serious conflicts with these two stated housing policies.

2. Specific Plan Relationship

The specific plan is consistent with all the general guidelines that the Napa City General Plan indicates would be desirable for industrial development in this area. The specific plan has also been carefully structured so that employment generation of planning area development will not cause undue hardship on the City's efforts to limit its population to 75,000 by the year 2000. As described earlier in this chapter, this specific plan places particular emphasis on maintaining such a housing/jobs balance in direct response to City and County concerns. Section V.F of this plan establishes an industrial growth management system for the planning area which ensures policy consistency with the County's Growth Management System.

E. REFERENCES

^a Growth Management System, Napa County General Plan (1983 as amended through January 10, 1984), p. 136.

^b West's Ann.Cal.Gov.Code, Section 65300.5.

^c West's Ann.Cal.Gov.Code, Section 65860.

^d West's Ann.Cal.Gov.Code, Section 65451.

^e West's Ann.Cal.Gov.Code, Section 65913.1.

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X. ENVIRONMENTAL IMPACT REPORT

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X-A EIR SUMMARY

A. LAND USE IMPACTS

1. The specific plan replaces the all-encompassing General Plan "Industrial" designation which currently covers the majority of the planning area with three new land use designations: "General Industrial", Business/Industrial Park", and "Agriculture/Permanent Open Space".
2. The specific plan consolidates nuisance-prone heavy industrial activities away from the S.R. 29 corridor, while accommodating continuation of as many of these activities as possible.
3. The "Business/Industrial Park" designation and associated zoning recommendations along the S.R. 29 corridor will convert some existing businesses to "non-conforming uses".
4. By placing additional development restrictions within designated airport approach zones, the plan reiterates and implements Airport Master Plan goals to maintain safety and compatibility between airport activities and surrounding land uses.
5. The 1981 General Plan designates 3,200 acres in the airport vicinity for industrial development. The specific plan calls for a total reduction in the local industrial land inventory of approximately 1,040 acres (a 32 percent reduction).
6. The specific plan is expected to improve the planning area's development potential over its present status.
7. Development standards in the plan will help to ensure a higher quality of development and higher degree of land use compatibility both internally and externally.
8. The designations of areas along S.R. 29 and Airport Road as "Business/Industrial Park" will serve to contain and insulate the internal "General Industrial" areas, and provide a higher quality land use and visual environment along these important routes.
9. Bases on past agricultural performance in the planning area, the plan will not greatly reduce agricultural productivity. The designated transition from open space to industrial use has long been projected for the planning area in the County's General Plan.

B. EMPLOYMENT IMPACTS

1. Under the policies of the specific plan, future industrial development in the planning area can be expected to create one of the County's principal employment concentrations.
2. It is estimated that by the year 2000, the planning area will directly provide approximately 6,000 jobs onsite (there are about 1,100 jobs in the planning area now, including the airport). At buildout, roughly 13,000 jobs could be provided within the planning area. (Since the labor requirements of businesses can vary widely, the actual total will depend on the types of activities that ultimately develop.)
3. Most of the new planning area jobs will represent net additions to total employment in the County.
4. Projected planning area employment increases under the specific plan represent about 80 percent of ABAG-projected County-wide employment growth (unincorporated areas).

C. POPULATION AND HOUSING IMPACTS

1. Primary and secondary employment growth inside and outside the planning area will translate into significant increases in the demand for new housing within a reasonable commute distance from these locations.
2. Effective implementation of this specific plan will increase average annual demands for new home construction within a 30 mile commute radius of the planning area by 150 to 200 units per year between 1985 and 2000 (assuming an average industrial development rate of around 20 acres per year).
3. With effective implementation of this specific plan, cumulative demands for housing in the County's unincorporated areas could eventually exceed annual housing construction allotments established by the County's Growth Management System (GMS).
4. Specific plan related increases in the demand for homes for purchase or rent in the City of Napa, in combination with similar housing demand increases associated with other employment growth in the City and County (including the 245-acre Napa Valley Corporate Park), could significantly exacerbate current housing availability and affordability problems in the City.
5. The resident population of the planning area is expected to decrease under the specific plan by around 20 persons between 1985 and 2000, and by roughly another

22 people between the year 2000 and buildout, as existing rural residents are displaced by industrial development.

D. HOUSING IMPACT MITIGATION MEASURES

To ensure consistency with the Napa County General Plan and its GMS provisions, the specific plan and this EIR include provisions to monitor plan housing impacts and to mitigate them when and if they become adverse (i.e., exceed ABAG-projected housing availability within a reasonable commute distance, as affected by the County's GMS housing limitations).

E. TRANSPORTATION IMPACTS

1. The majority of the trips generated by specific plan related industrial development will be via local roads. The plan recommends a number of onsite and offsite road modifications and related cost responsibilities to accommodate these added trips. A phased sequence of highway interchange, arterial, collector, and minor street improvements is described in the plan and EIR.
2. Several other developments in the planning area vicinity, especially the Napa Valley Corporate Park in the City of Napa, will also contribute to these roadway improvement needs.
3. The plan calls for provision of adequate rights-of-ways ("plan lines") to accommodate future road improvements.
4. Recommended road improvements would be timed to coincide with specified development thresholds as they are reached.

F. TRANSPORTATION IMPACT MITIGATION MEASURES

1. A number of specific on- and offsite road improvements are recommended in the Circulation Element of the specific plan to accommodate projected cumulative traffic increases in the area. Planning area contributions to these cumulative traffic increases are described for use in determining fair share cost responsibilities.
2. Roadway improvement recommendations in the Circulation Element are divided into two phases: needs anticipated between now and the year 2000 (Phase I improvements), and needs anticipated between the year 2000 and buildout (Phase II improvements).
3. Phase I improvement recommendations include widening S.R. 29 to 6 lanes; construction of a grade-separated S.R. 29/ S.R/ 12 interchange; construction of a grade-separated S.R. 29/S.R. 221 interchange; widening of Airport Road to 5 lanes;

and construction of a frontage road along the west side of S.R. 29 between Tower Road and Green Island Road.

4. Phase II improvement recommendations include completion of a north-south roadway connecting Devlin Road with Green Island Road; and addition of loop ramps to the S.R. 29/S.R. 12 interchange.
5. The plan also recommends aggressive implementation on a continuing basis of Transportation System Management (TSM) measures to improve traffic conditions at minimal cost, including flex-time and staggered work hours, ride-sharing, bicycle facilities and improved transit service.

G. PUBLIC SERVICE AND FISCAL IMPACTS

1. A suggested common **sewer** system layout is described in the Public Facilities Element of the plan to meet the needs of planning area industrial development as it occurs. The plan assumes that a maturing sewer fund generated by current assessments, additional assessments, connection fees, and ongoing user charges will finance associated treatment and maintenance needs.
2. A suggested common **water** system layout is also described in the Public Facilities Element to meet the needs of planning area industrial development as it occurs. Like sewer, ongoing costs for operating and maintaining the water system will be financed through normal connection and user fees.
3. The **Sheriff's** Department estimates that planning area development will result in double the present level of calls from the area by the year 2000. Additional personnel needed to maintain current standards and associated costs to the County are described in the EIR. Ongoing costs for added personnel and equipment would be funded out of property tax allocations to the Sheriff's Department.
4. The County anticipates construction of a new **fire** station in the planning area vicinity sometime around 1989. Site acquisition and construction costs for the new station will be born by impact fees levied upon developers in the planning area and other local areas served by the new facility. It is anticipated that such a new station could satisfy planning area and vicinity fire protection needs through buildout. The station could be administered by a joint-powers authority, with personnel and equipment from the ACFPD and the County of Napa. Ongoing costs for crew and equipment would be funded out of property taxes and fire fees.

H. STREET MAINTENANCE IMPACTS

Plan-related street maintenance needs and costs are described in the EIR, and would be provided for on an ongoing basis by the County Department of Public Works, funded

through gas taxes and vehicle license fees. Associated impacts on the County's general fund would be minimal.

I. LANDSCAPING IN PUBLIC RIGHTS-OF-WAY

Landscape maintenance services would be necessary to maintain common street landscaping in the planning area (sides and medians). By the year 2000, 140 acres of common landscaped area are anticipated; by the year 2015, 230 acres are anticipated. Maintenance would probably be provided by a private contractor (DPW currently does not provide "in-house" landscape maintenance services). Landscaping costs could be financed through a special benefit zone or other method similar to that now used at the Silverado County Club.

J. PUBLIC REVENUE VS. COST IMPACTS

The level and type of development allowed under the specific plan would have a positive fiscal effect on the annual operating revenues of the County. Anticipated increases in annual property tax revenues to the County from the planning area substantially exceed estimated cost increases for public services.

K. SOILS AND GEOLOGY IMPACTS AND MITIGATIONS

1. Soil conditions in the area do not create any major development constraints.
2. Expansive, shrink-swell prone soils, regional seismicity, and the presence of soils that may be subject to liquefaction, are the principal geotechnical concerns in the planning area. Such concerns can be addressed through normal site preparation, foundation engineering and building design measures.
3. In addition, the presence of the West Napa Fault in the planning area creates potentials for impacts due to surface faulting. An Alquist-Priolo Special Study Zone has been designated along the fault. Prior to approval of new construction within the designated Special Studies Zone, geologic study will be required to determine the hazard of surface fault recapture.

L. HYDROLOGY AND WATER QUALITY IMPACTS AND MITIGATIONS.

1. Development within specific plan designated industrial areas could significantly alter drainage patterns, volumes, and rates, and could also affect stream alignments.

2. Changes in planning area runoff characteristics, together with the cumulative effects of other development within the watersheds, could increase potentials for downstream flooding.
3. In particular, increased runoff volumes and rates in Fagan Creek and the unnamed stream could exacerbate storm drainage and tidal flooding problems at the airport.
4. Water pollutants from construction period runoff and permanent paved surfaces, roofs, and landscaping would be transported into local and regional drainage nets via surface runoff due to storm events and irrigation.
5. A set of development guidelines has been incorporated into the plan specifically to minimize surface runoff impacts, water pollutant loadings, stream channel degradation and flood hazards.
6. A drainage study is recommended to determine appropriate approaches to mitigating cumulative flood problems at the lower reaches of Fagan Creek and the unnamed stream, funded by developers of planning area lands within these drainages, and by the County airport. Based on the study findings, specific drainage improvement requirements and related drainage mitigation fees should be set.

M. VEGETATION AND WILDLIFE IMPACTS AND MITIGATION

1. Areas of special concern include possible damage to riparian and marshland habitats along Suscol and Fagan Creeks, potential destruction of vernal pools, and the loss of grassland habitats.
2. Associated mitigation measures from the Airport Area MEA have been combined in the specific plan with additional measures tailored to the specific development pattern set forth by the plan.

N. VISUAL IMPACTS AND MITIGATIONS

1. Generally, development as recommended in the plan would significantly change the visual character of the area, replacing the rural, predominantly open space landscape with a densely developed industrial character.
2. In particular, buildout of the planning area under the specific plan would eliminate much of the rural landscape now visible along this segment of S.R. 29. Planning area development would be visually buffered by the landscaped setbacks called for in the plan for both sides of the highway.
3. The plan sets forth an extensive program to establish a standard of visual quality appropriate for attracting and accommodating desired industrial development.

4. Development, design, and landscaping standards set forth in the plan will eventually result in an upgrading of those developed areas along S.R. 29 presently considered visually unattractive, and will create a more visually unified highway corridor.
5. Although the plan recommends preservation of existing mature trees to the extent feasible, some may eventually be removed to accommodate development.
6. The visual character of Fagan and Suscol Creek riparian areas will be preserved and enhanced by setbacks and other protection measures required by the plan.

O. NOISE IMPACTS AND MITIGATIONS

1. Buildout under the proposed plan could result in small offsite noise increases due to increased vehicular traffic and industrial area point sources. Given the limited level of residential development in the vicinity, no significant adverse community response is anticipated.
2. The most significant source of intermittent noise affecting development within the planning area will be aircraft using the airport, with the greatest effects confined to the airport primary and secondary approach zones.
3. Within the approach zones, noise abatement measures associated with conventional industrial park construction techniques would be sufficient to reduce interior noise levels to within the criteria set forth in the County's Noise Element.
4. Any buildings with offices which are to be constructed within the projected 65 Ldn Noise Contour along Highway 29 should be designed with special noise abatement measures to meet County intermittent interior noise standards.

P. ARCHAEOLOGICAL AND HISTORICAL RESOURCE IMPACTS AND MITIGATIONS

1. A data survey by the State's Archaeological Resource Service (ARS) indicates that certain locations within the planning area should be considered "highly sensitive", i.e., construction activities in these areas could unearth and destroy existing archaeological and historical resources.
2. A set of mitigation guidelines has been incorporated into the plan's Land Use Element to prevent disruption of valuable resources, and to describe required steps to be taken upon discovery of such resources.

Q. AIR QUALITY IMPACTS AND MITIGATIONS

1. The 1,030-acre reduction in industrial area recommended by the plan will mean that the planning area's contribution to regional emissions will be reduced.
2. The greatest project-related air quality concern will be from mobile sources.
3. Project-related regional air quality impacts could be accommodated within the dispersion capacity of the basin airshed.
4. Although project contributions to regional emissions would be relatively small (a few tenths of one percent of the total), they would nevertheless be significant because the regional air basin is expected to have difficulty in meeting air quality standards over the next two decades.
5. If the plan-recommended sequence of onsite and offsite transportation improvements coincident with industrial development is implemented, local roadways would remain at service levels that would minimize congestion and related carbon monoxide generation impacts.
6. Industrial development normally also results in numerous secondary emissions sources that may cumulatively impact air quality (fugitive dust, equipment exhaust emissions, industrial processes involving solvents, material handling, combustion sources, etc.). All major emissions sources that locate in the planning area will be required to undergo a detailed review and regulatory process by the Bay Area Air Quality Management District.
7. The EIR lists a number of construction period and ongoing measures to reduce air pollutant emissions increases associated with planning area industrial development.

R. ALTERNATIVES TO THE PROPOSED PLAN

1. Four alternative land use schemes were identified in the plan formulation program and compared in terms of such environmental factors as land use and visual impact, traffic generation, market and socio-economic effects, capital improvement needs and fiscal implications, and other impact considerations.
2. In addition, four alternative circulation schemes, four sewer service alternatives, four water service choices, and three fire protection alternatives were identified and evaluated.

INDEX TO MANDATORY CEQA ELEMENTS

Topic	State EIR Guidelines Section	Page in MEA-1	Section in this Specific Plan/EIR
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Appendices	15147	114	X.11
Cumulative Impacts	15126(e)	NA	X.D-X.N
Effects Found Not to Be Significant	15128	NA	X.S
Environmental Setting	15125	7, 20, 36, 36, 41, 60, 73, 82	111.A-111.D, X.B-X.N
Growth-Inducing Impacts	15126(g)	52	X.Q
Incorporation by Reference	15150	NA	V.D.3, V.D.4, X.J.3, X.M.3, and X.N
Inconsistencies with Adopted Plans	15125(b)	1	IX
Index	15122	ii	i
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Irreversible Commitments	15126(f), 15127	NA	X.R
Location	15124(a)	2	111.A-111.B, X.B
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X-B ENVIRONMENTAL IMPACTS

A. INTRODUCTION

The following section provides a documentation of environmental impact potentials and mitigation needs associated with anticipated development in the planning area over the next 30 years under the policies set forth in this specific plan. This environmental impact component has been prepared pursuant to all relevant provisions of the California Environmental Quality Act. The analysis is general in scope, discussing cumulative impacts expected to result from anticipated absorption of the planning area under specific plan policies. The assessment is intended to provide a master environmental impact assessment which will enable a reduced scope of environmental review for individual project applications which are consistent with the plan.

B. LOCATION

Locational characteristics of the planning area are described in Section III of the specific plan.

C. LAND USE

1. Existing Setting

a. Planning Area Land Use. The existing land use pattern in the planning area is mapped on Figure 22. The majority of the area is currently characterized as agricultural and open land, interspersed with a mixture of non-agricultural uses including light manufacturing, construction materials supply, automobile and truck repair shops, automobile salvage yards, distribution warehouses, and gravel and cement processing plants. Table 8 lists general categories of land uses currently in the planning area and their approximate acreages. Specific businesses identified in the area are listed in Table 9. Existing land use categories and conditions are as follows:

(1) Agricultural and Open Land. The predominant land use category in the planning area is "agricultural and open land", which comprises almost 60 percent of the useable land area (i.e., excluding extensive airport-held open space areas and major road and railroad rights-of-way). Of that total, only 22 acres are presently being cultivated for a perennial crop. The remaining 1,734 acres are used for forage crops, grazing, or open land.

(2) Residential. Residential uses in the planning area consist of a number of farm houses (approximately 14) which are on lands referred to in Table 8 as agricultural and a number of rural residences on parcels of 5 acres or less (approximately 18). Thus, the total number of residences in the planning area is approximately 32.^a

(3) Heavy Commercial and Heavy Industrial. Approximately 218 acres or 8 percent of the planning area is currently in heavy commercial or industrial use. Activities are predominantly land extensive, non-capital intensive operations including salvage yards, equipment yards, lumber and construction material yards, batch plants, metal fabricators, distribution warehouses and so on. These can generally be described as activities which would conflict with extensive nearby residential development or higher end commercial and office development, and require relatively low land values and reasonably good accessibility. A rough breakdown of the area's industrial and commercial occupants indicates that approximately one-third are involved in some form of automobile/truck repair or salvage and another one-third are related to the construction industry (i.e., materials yards, contractors, equipment, etc.).

(4) Light Industrial. Approximately 24 acres or less than one percent of the planning area consists of what might be termed light industrial development. Typically, light industrial development involves non-nuisance industrial activities which are compatible with each other and with any adjoining non-industrial areas. Development in these areas tends to be of higher quality and more costly design. These areas are generally subject to special performance standards to ensure attractive and harmonious development. Portions of the Napa Valley Business Park and new development along Ferry Road are representative of this type of development.

(5) Service Commercial. Service commercial businesses are those whose function is to provide support services to nearby employees or residents, or to customers passing through the area (i.e., restaurants, gas stations, etc.). The planning area has relatively few businesses (4.6 acres) that fit this category, amounting to slightly more than four acres of land area. The three businesses identified are all restaurants: The Highway 29 Cafe, Tonnelli's, and the Old Soscol House.

(6) Napa County Airport. The airport constitutes the single largest user in the planning area with 747 acres or 25 percent of the planning area. The Napa County Airport is the only publicly owned airport in the County. It is a general aviation facility that serves privately owned propeller and business jet aircraft, and also provides quarters for a large pilot training program (IASCO). Hanger and tie-down spaces are available for private planes. Other aviation related activities include Bridgeford Flying Service, Silverado carrier service is currently based at the airport. One non-aviation related activity at the Avionics, and the California Highway Patrol helicopter operations. No commercial Airport is Jonesy's Famous Steak House, a popular local restaurant that attracts as many as 300,000 visitors per year to the airport.^b

Airport runway capacity characteristics are described in Section IX.C. The airport recorded approximately 180,000 takeoffs and landings in 1981, and expects to increase its annual aircraft activity to 375,000 operations by the year 2000. To accommodate this projected demand, the Napa County Airport Master Plan calls for an increase in runway capacity to 490,000 and the installation of an Instrument Landing System (ILS) on one of its three runways. Additional storage facilities and parking are also planned. The airport has targeted 75 acres adjacent to the south side of the airport to accommodate this expansion. Runway capacity is projected to be reached by the year 1990 according to the Airport Master Plan's analysis.

(7) Current and Planned Development Activity. At present no construction activity is taking place within the planning area; however, planning activity is progressing on some parcels. Current and planned development activity is mapped on Figure 23.

The 37-acre Napa Valley Development property on Jameson Canyon Road immediately south of the Napa Valley Business Park is the closest to actual development. The landowner has recently obtained approval of a subdivision map dividing the property into four 7-8 acre parcels. The development (Napa Airport Corporate Park) will be marketed to attract medium to high light industrial and service commercial users, as defined in the Industrial Market Overview (see Appendix A). Possible tenants include operations that would take advantage of the site's location at the junction of Route 29, Route 12 and Jameson Canyon Road, such as a restaurant, hotel and/or "wine center". construction of infrastructure is projected to begin within the next few months. Access to the parcels will be from an internal street off Kelly Road.

Another project which is currently in the preliminary planning stages is the 386-acre Greenwood Ranch (Gunn Property) which is northeast of and contiguous to the Napa County Airport. This area is currently being planned as a master-planned industrial park with support office and commercial uses, including a corporate conference center and hotel. The landowner's planners indicate that the park would be marketed to high end users and would feature private aircraft taxiways from the airport into the park. Initial development concepts call for approximately 290 acres of net developable space with 17 to 19 percent of the gross area being devoted to landscaping and open space. Specific timing on the project has not been defined, but the developer has indicated that phasing of the project would occur over an 8 to 12 year period.

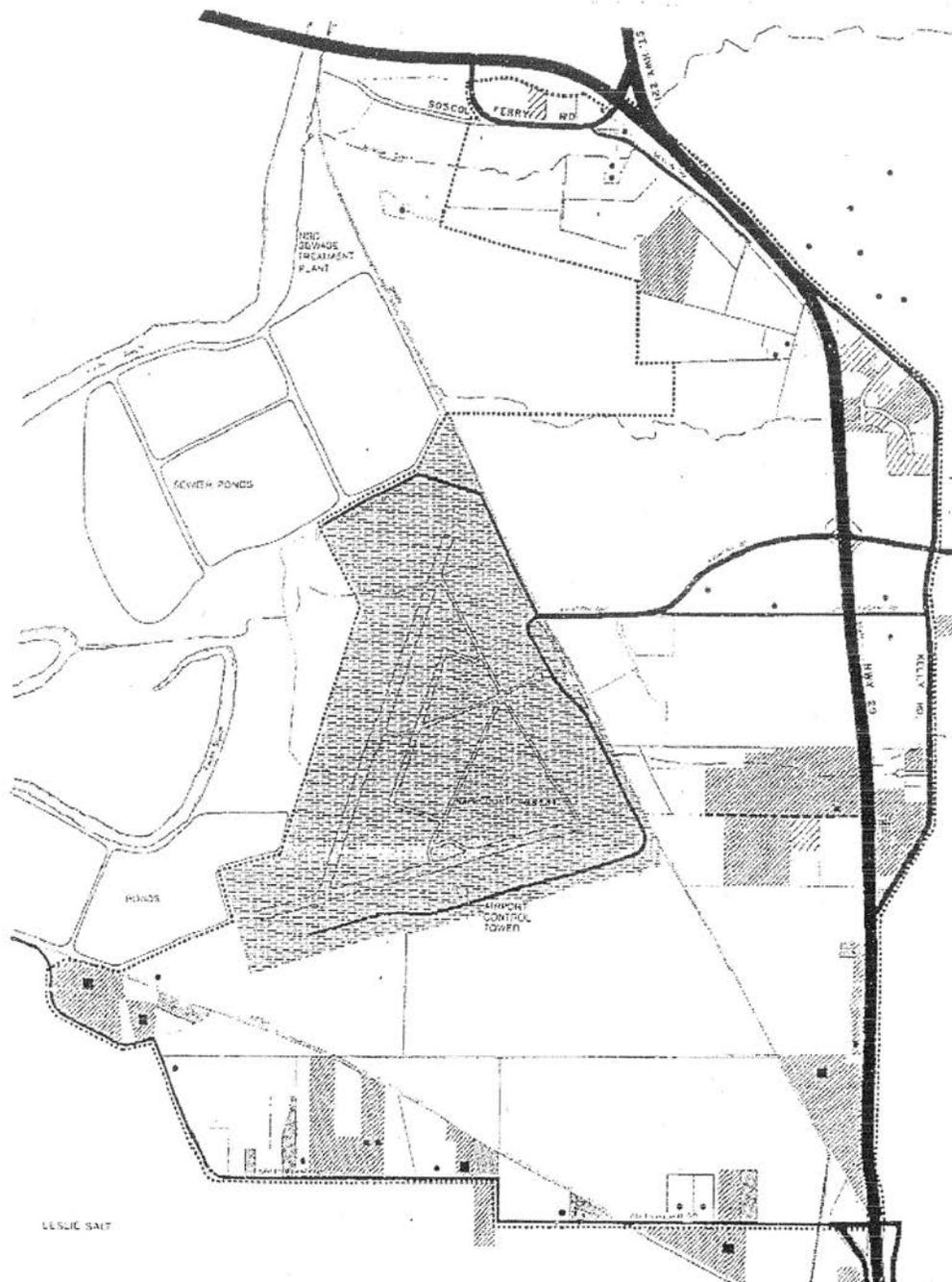


FIGURE 22
EXISTING LAND USE
AND CIRCULATION

LEGEND

-  AGRICULTURE AND VACANT LAND
-  RURAL RESIDENTIAL (5 ac.)
-  SERVICE COMMERCIAL
-  LIGHT INDUSTRIAL
-  HEAVY INDUSTRIAL AND HEAVY COMMERCIAL
-  Indicates sites occupied by a salvage or equipment storage yard
-  Indicates a residence on a parcel 5 acres or more (all "rural residential" parcels also include a residence)
-  HIGHWAY (4-LANE ARTERIAL)
-  COLLECTOR (2-LANE ARTERIAL)
-  LOCAL ROAD
-  PRIVATE ROAD

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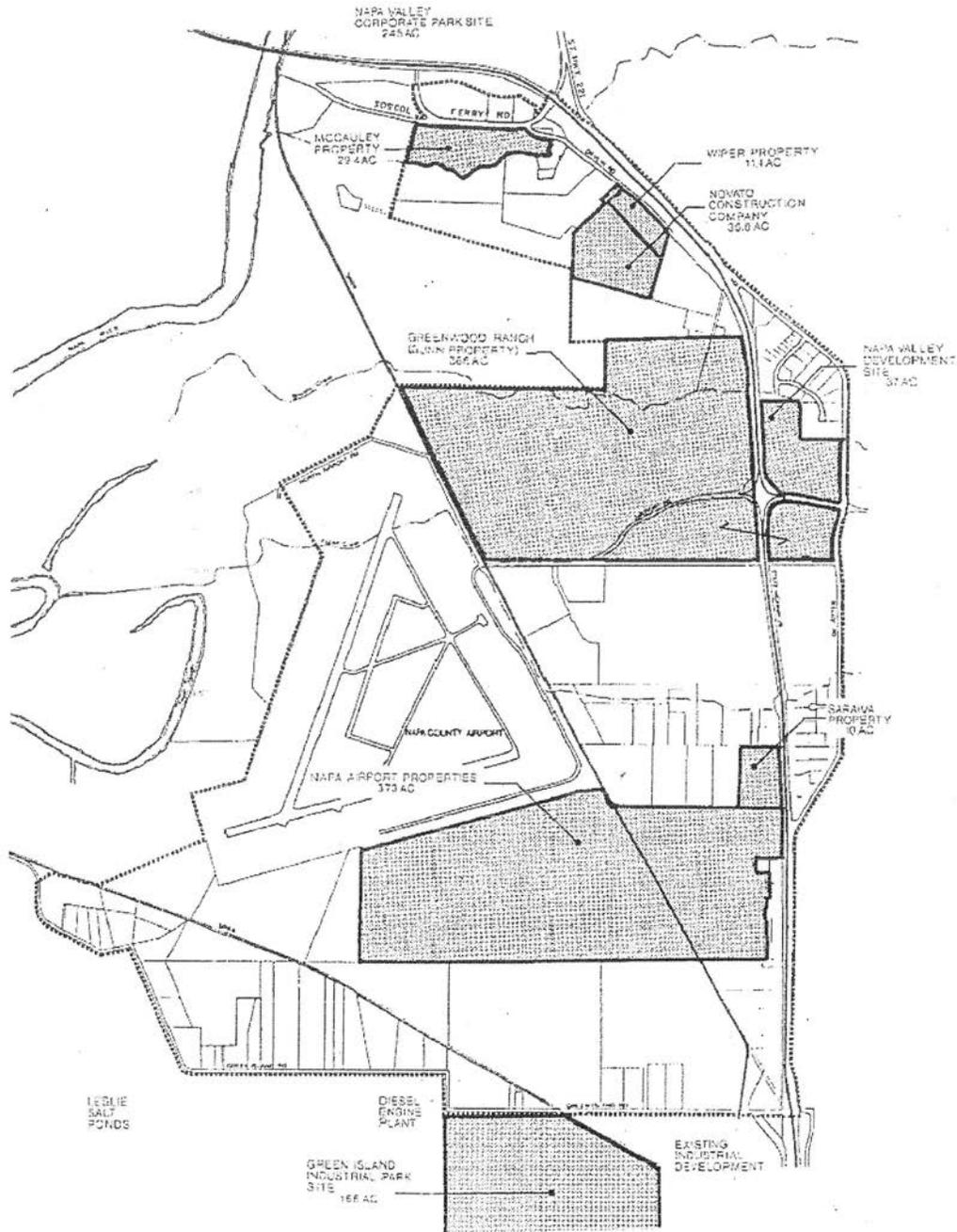


FIGURE 23
CURRENT AND PLANNED
DEVELOPMENT ACTIVITY

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Table 8
 EXISTING PLANNING AREA LAND USE

Land Use	Approximate Acreage	Percent of Total
Agriculture and Vacant Land	1,756.03	59.6
Napa County Airport	746.85	25.3
Rural Residential (less than 5 acres)	24.35	0.8
Service Commercial	4.57	0.2
Light Industrial	24.08	0.8
Heavy Commercial and Heavy Industrial	218.55	7.7
SUBTOTAL	2,781.29	94.4
Road R-O-W	134.40	4.6
Railroad R-O-W (SPRR)	29.30	1.0
TOTAL	2,944.99	100.0

Source: Wagstaff and Brady, based on field surveys, aerial photography and County Assessor's data; August 1984.

Table 9
EXISTING BUSINESSES OBSERVED IN THE PLANNING AREA--JULY 1984

	NAME	ADDRESS
1	Earl's Radiator Exchange	450 Green Island Rd.
2	Earl's Auto Dismantlers	1554 Green Island Rd.
3	Sunshine Auto Salvage	1578 Green Island Rd.
4	Altech Engineering and Construction	1667 Green Island Rd.
5	Al Baker Auto Wrecking	1678 Green Island Rd.
6	Brian's Junkyard & Salvage	2580 Green Island Rd.
7	Larry's Auto Dismantling	2600 Green Island Rd.
8	Poochie's Auto Wrecking	2744 Green Island Rd.
9	North Bay Auto Salvage	2744 Green Island Rd.
10	Green Island Auto Salvage	2744 Green Island Rd.
11	Hwy 29 Glass Co.	5353 State Route 29
12	M & M Sanitary Co.	5357 State Route 29
13	Doshier-Gregson Drilling, Inc.	5365 State Route 29
14	Clark's Rock	5381 State Route 29
15	Vancor Distributors	5425 State Route 29
16	Vintage Custom Woodwork	5431 State Route 29
17	El Ray Distributing Co.	5555 State Route 29
18	Bill's Motor Home Specialists	5755 State Route 29
19	J.H. Blevins Lumber Co.	5757 State Route 29
20	Pacific Auto Salvage	5759 State Route 29
21	National Truck Dismantlers	6275 State Route 29
22	Kokolios Ironworks & Supply	6400 State Route 29
23	Nova Group Inc.	7411 State Route 29
24	Stucco Stone	---- State Route 29
25	Titan Co. Starters & Generators	---- State Route 29
26	Tonelli's Dinner House	---- State Route 29
27	Professional Drywall Systems	---- State Route 29
28	Paul's Garage	---- State Route 29
29	Hwy 29 Café	117 Kelly Rd.

	NAME	ADDRESS
30	Langendorf Bread	257 Kelly Rd.
31	Flea Market and Auction	303 Kelly Rd.
32	Sunrader	369 Kelly Rd.
33	Hwy 29 Mini Storage	---- Kelly Rd.
34	Design Concepts	1885 Kelly Rd.
35	Syar Industries	---- Tower Rd.
36	Central States Concrete Pipe Co.	---- Tower Rd.
37	Arco Petroleum Products	---- Tower Rd.
38	Northern Graphic Supply	131 Camino Dorado
39	Builders Exchange	135 Camino Dorado
40	Berglund Inc.	150 Camino Dorado
41	Mondavi Winery	---- Camino Dorado
42	Actus Corp.	103 Camino Oruga
43	Pacific Bell	---- Camino Oruga

Source: Wagstaff and Brady, based on field surveys and assessor's date; August 1984.

Development of the 373-acre Napa Airport Properties site is also in the early planning stages. The property is southeast of and contiguous to the airport and State Route 29 (Parcels 28 and 29 on Figure 4). The landowner anticipates submittal of subdivision maps to the County in the near future.

Four other properties in the planning area have been involved in some planning activity within the last year or so:

- A subdivision map for the 35.81-acre Novato Construction Company property parcel (Parcel 10 on Figure 4) has been approved, dividing the property into one 20 acre parcel (already developed) and three 5-acre parcels.
- Subdivision of the 11.36-acre Wiper property (Parcel 3 on Figure 4), which is contiguous on the northeast with the Novato Construction Company's property, has also been approved. This property was subdivided into two parcels, one 5 acres and one 6.3 acres.
- A subdivision map for the 10.5-acre Saraiva property (Parcel 64 on Figure 4), which is at the intersection of State Route 29 and Tower Road, has also been approved. The property was divided into four equal parcels of 2.6 acres.
- The 29.43-acre McCauley property (Parcel 124 on Figure 4), which is contiguous with the north side of Suscol Creek, has an approved subdivision map dividing the property into parcels of 15.80, 8.28, and 6.07 acres. Also approved was a development plan for a mini-storage yard on the 8.28 acre parcel.

b. Surrounding Land Uses

(1) Areas North of the Planning Area. The northern edge of the planning area is defined by the Southern Crossing which follows along the top of Soscol Ridge and crosses the Napa River. The ridge forms a distinct geographic barrier between the planning area and the area to the north. Immediately north of the Southern Crossing is the 245-acre Napa

Valley Corporate Park (the Bedford project), recently annexed to the City of Napa. This development, which is projected to be a high quality office/industrial park, currently is in the first phase of construction (i.e. infrastructure) and plans to have its first building under construction by the end of the year. Just west of the Napa Valley Corporate Park is the 100+ acre Kaiser Steel Corporation Plant. To the northeast of the site across State Route 29 are several rural residences located at the foot of the slope leading up to Soscol Ridge.

(2) Areas East of the Planning Area. The land to the east of the planning area is open grassland leading up to the foothills along the eastern side of the Napa Valley. These grasslands are undeveloped except for an occasional farm house, and are used primarily for grazing.

(3) Areas South of the Planning Area. The land immediately adjacent to Green Island Road on the south is primarily open grassland, except that the west end where salt evaporation ponds border the road. A few heavy industrial uses are currently scattered along the road, including a lumber yard, a

chemical plant, and a large diesel engine plant. Just west of the second railroad crossing on Green Island Road the 166-acre Green Island Industrial Park development plan and Use Permit have been approved by the County. Additional industrial and commercial development begins about 750 feet south of Green Island Road along State Route 29 and adjacent to the Napa Junction.

(4) Areas West of the Planning Area. The land to the west of the planning area, up to the Napa River, is all undeveloped. The land due east of the airport is environmentally sensitive marshland fed by Fagan and Steamboat Sloughs. All the land south of that consists of Leslie Salt's evaporation ponds. The lands north of the marsh (i.e., northwest of the airport) are all leased or owned by Napa Sanitation District, which uses them for spray fields.

2. Plan Impacts

a. Changes in Planning Area Land Use. The proposed land use configuration presented in the plan replaces the all-encompassing "Industrial" designation which currently covers the majority of the area with three new land use designations: General Industrial, Business/Industrial Park, and Agriculture/Permanent Open Space. The plan has attempted to consolidate the more nuisance-prone heavy industrial areas away from the S.R. 29 corridor, while still accommodating a continuation of as many of these existing heavy industrial uses as possible.

The plan has designated a major portion of the planning area for non-nuisance-type, Business/Industrial Park uses. This designation has been applied to all the areas considered sensitive from land use compatibility and marketing standpoints. The plan also provides for a significant expansion of existing General Industrial uses in the southern portion of the planning area along Green Island Road. This area has a relatively low potential for land use incompatibility problems due to its limited access and the heavy industrial character of existing and proposed land uses.

Over the years the County has taken steps to secure lands within the airport approach zones to provide safe, unencumbered areas off the end of each runway. The plan reiterates the Airport Master Plan recommendation to protect airport activities and surrounding uses from safety hazards by placing additional restrictions on development within these designated approach zones.

As indicated in Tables 3 and 10, the plan will permit industrial development to total 1,909 acres. This figure represents a reduction in the amount of industrial development allowed of approximately 391 acres or 17 percent (under current General Plan policy, up to 2,300 acres of industrial development could be accommodated in the planning area). Of the total, 555 acres (29 percent) will be subject the General Industrial standards specified in the plan, and 1,354 acres (71 percent) will be subject to the Business/Industrial Park standards. Agricultural and Open Space will occupy 50 acres 92 percent of the planning area). The remaining 164 acres (5.6 percent of the planning area) will be occupied by arterial and collector road and rail rights-of-way.

The specific plan has taken several steps to improve the planning area's development potential over its present status. Development standards and performance standards included in the plan will help to ensure a higher quality of development and a higher degree of land use compatibility both internally and externally. Potentials for land use compatibility with areas outside the planning area

and among internal land uses have been significantly improved through the careful distribution of land uses. The designation of the areas along S.R. 29 and Airport Road for Business/Industrial park use will serve to contain and insulate the General Industrial areas, and provide for a high quality land use and visual environment along these important routes. Also by reserving the airport approach zones for agriculture and open space the plan ensures the safety and long-term land use compatibility of the airport and surrounding uses.

b. Nonconforming Uses. The Business/Industrial Park designation which has been placed along the S.R. 29 corridor will, however, create a situation in which some existing businesses will become "nonconforming uses" with respect to the proposed zoning for the area. These uses will be allowed to continue subject to applicable County regulations in effect with respect to "nonconforming uses".

c. Projected Planning Area Absorption rate. The impact of this specific plan on the rate of planning area buildout is difficult to forecast. The actual rate of industrial development will be determined by a number of variables, including national and regional economic conditions, individual landowner intentions, the rate of improvement in regional access, and changing industrial development conditions in competing subregions. The rate of absorption will also depend on the marketing and pricing strategies of landowners and developers. For example, some owners could choose to refuse earlier offers, judging that a stronger market in the future would result in a substantial appreciation in the price. Despite the difficulty these factors introduce, information from the industrial market overview completed in this planning program (Appendix A) provides a general basis for industrial absorption rate forecasting. Planning area absorption rate projections are summarized in Table 10. The projections are based upon acres-per-year absorption forecasts developed in the market overview. The anticipated pattern of industrial absorption between 1985 and the year 2000 is diagrammed on Figure 24.

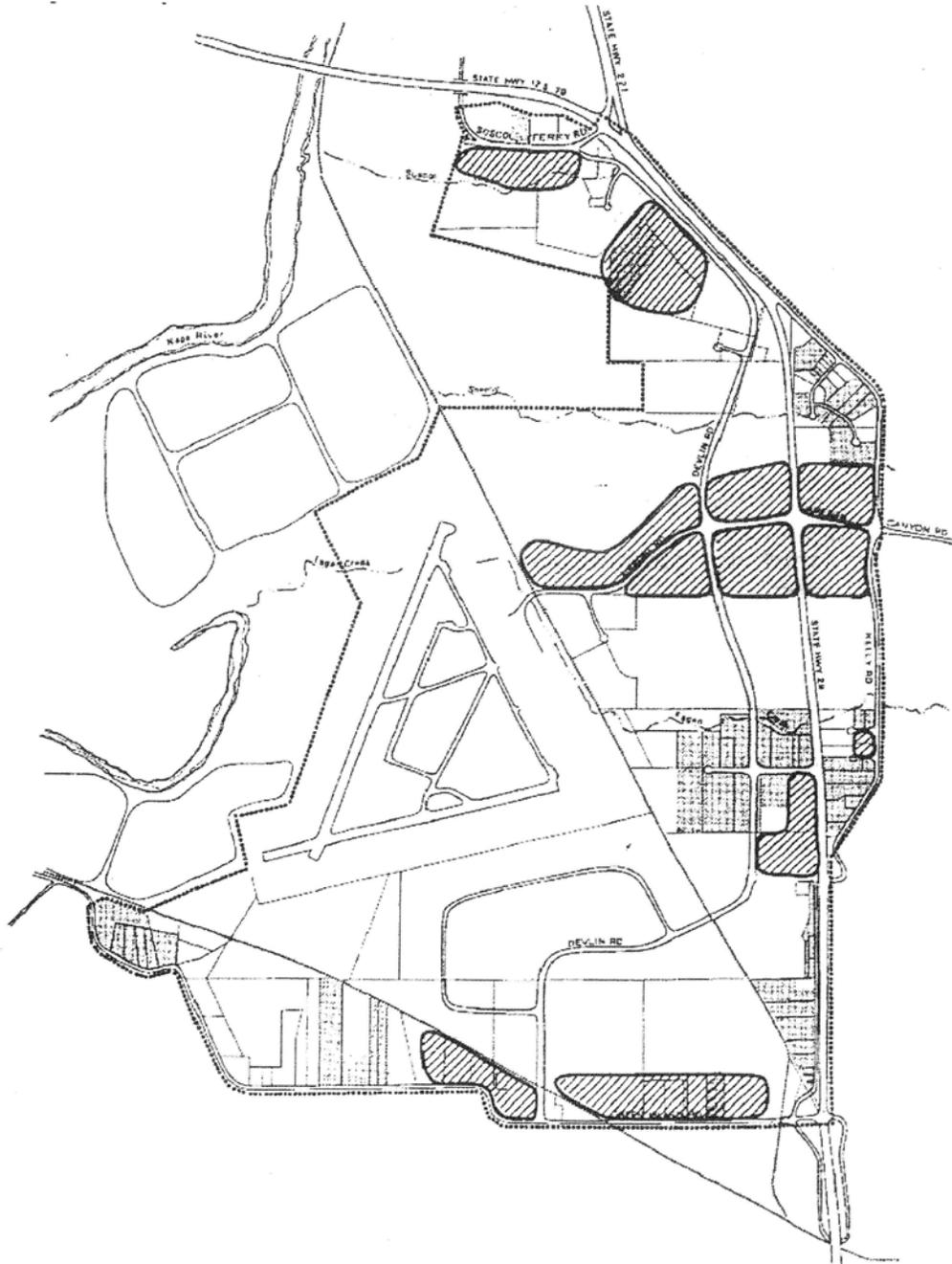
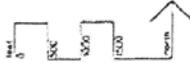


FIGURE 24
ANTICIPATED
ABSORPTION:
1985 TO 2000

-  EXISTING INDUSTRIAL DEVELOPMENT--1985
-  ANTICIPATED INDUSTRIAL EXPANSION--1985 to 2000

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The planning area absorption rate in the initial years (1985-95) is expected to slightly favor General Industrial development. During the period between 1995 and 2000 when the planning area begins to get established and becomes more competitive for higher quality uses, the absorption rate is expected to begin favoring Business/Industrial Park development. This trend is expected to continue after the year 2000 as the area develops its reputation and the portions of the planning area designated for General Industrial begin to reach buildout. Also, as time passes, strong tendencies to upgrade and increase the intensity of use on parcels now developed with lower quality or land-extensive uses are likely to develop.

It was estimated in the market overview that the Napa/American Canyon subarea of Napa county (which includes the planning area) will capture about three-quarters of County industrial growth between 1985 and 2000 (370 acres of the 490 acres of land absorbed). The estimated planning area share of this growth, as shown in Table 10, could be expected to be approximately 283 acres or 60 percent of the County total.

d. Changes in Agricultural Productivity. Approximately 70 percent (1,880 acres) of the usable land area (excluding major road and rail rights-of-ways) could presently be described as agricultural or open land. However, of that total, only 22 acres are presently being cultivated for a perennial crop. The remaining 1,858 acres of open land are used for forage or are inactive.

For the most part, soil in the planning area are all designated as Class II or Class III according to the Soil Conservation Service capability classification system. Class II soil have moderate limitations for agriculture and Class III soils have severe limitations that can limit the choice of plants and require special conservation practices. Figure 36 shows the distribution of these agricultural lands in the planning area. The Class II soils in the planning area are suitable for field, forage, row and truck crops, but are subject to poor drainage and slow permeability due to the flatness of the land and high clay content of the soil. The Class III soils in the area are suitable primarily for field and forage crops, and range and pasture. These soils are underlain with a dense subsoil with a moderate to very slow permeability rate.

Table 10
PLANNING AREA ABSORPTION RATE PROJECTION--ACRES

Years	1985	2000	2015	2025	2050
Approx. Absorption Rate (ac/yr):	20		25		
Land Use					Buildout
Industrial					
Business/Industrial Park	29 ^a	233 ^d	548	811 ^g	1,354
General Industrial	219 ^b	298 ^e	373	403 ^g	555
Subtotal	248	531	921	1,214	1,909
Airport	747 ^b	722 ^f	822	822	822
Agriculture and Open Space	1,780 ^c	1,478	1,038	745	50
TOTALS	2,781^b	2,781	2,781	2,781	2,781
^a From Table 8 (existing light industrial plus existing service commercial). ^b Table 8. ^c From Table 8. Includes ag. plus rural residential. ^d Same as e, but reflects an overall absorption rate of roughly 15 acres per year for the planning area between 1985 and the year 2000; see Appendix H for parcel-by-parcel breakdown of this total. ^e Figure derived from known development plans for various parcels, with absorption rates adjusted to reflect an overall absorption rate total of roughly 5 acres per year for the 1985 to year 2000 increment. Parcel-by-parcel absorption assumptions for this period are listed in the Appendix H. ^f Includes 75-acre expansion area described in Napa County Airport Master Plan. ^g See Appendix H for parcel-by-parcel breakdown.					

Source: Wagstaff and Brady, April 1985.

Traditionally, the planning area lands have been used primarily for field and forage crops, and pasture land. With the exception of the vineyards that are presently being cultivated on Parcel #125 (see Figure 4), previous attempts at agriculture have apparently been unprofitable. The development allowed under the plan would preclude the agricultural use of the majority of the Class II and Class III soils in the area by allowing the continued expansion of the urban environment into this part of the County. Based on past performance, however, this change will not greatly reduce the actual agricultural productivity of the area. In addition, this transition from open land to industrial land has long been projected by the County's General Plan.

e. Plan Relationship to Current Land Use Policies. Section IX of the plan describes the relationship of the proposed specific plan to pertinent land use provisions of the Napa County General Plan, the Napa County Airport Master Plan, and the City of Napa General Plan.

4. Notes

^aThe number may be slightly higher. Two of the parcels with residences on them are taxed as multi-family residential properties; however, the field survey was not able to determine the number of units on these parcels.

^bAugust W. Compton and Associates, Napa County Airport Master Plan, 1976, p. 8.

^cBlayney-Dyett; August 9, 1984.

D. EMPLOYMENT

1. Existing Setting

Approximately 50 businesses are currently located in the planning area,^a excluding those located at the airport. The majority of these are located along State Route 29. The businesses are primarily industrial and heavy commercial and tend not to be employment intensive (i.e., do not have high employee per acre figures). Based on an August 1984 telephone survey of 36 of the approximately 50 planning area businesses, total planning area employment is estimated to be approximately 925 to 950 persons excluding the airport. This total translates into an existing employment density of approximately 4 employees per acre (assuming an employment area of 247 acres from Table 8).

In summary, there are currently around 1,045 to 1,100 jobs in the planning area, including 120 to 150 employees at the County airport. This list of businesses in Table 9 indicates that roughly one-third are construction oriented (lumber, stone, glass, drilling, etc.) and another third are automobile oriented (primarily salvage operations). Due to the substantial portion of construction businesses, existing planning area employment totals can be expected to fluctuate seasonally (higher in dry construction months, lower in wet months).

2. Employment Impacts

a. Anticipated Total Job Growth Within the Planning Area. Future industrial development in the planning area under the policies of this specific plan can be expected to create one of the County's principal employment concentrations. Projected planning area industrial buildout characteristics are summarized in Table 10. The estimated direct employment impacts of these absorption characteristics are estimated in Table 11. It is estimated that by the year 2000, the planning area will directly provide approximately 6,000 total jobs (onsite), an increase of 4,900 over the 1984 planning area total. By the year 2015, an estimated 13,000 jobs will be provided within the planning area. The actual total will depend upon the specific types of businesses that ultimately locate in the planning area. The labor requirements of businesses can vary widely.

For purposes of this analysis, it was assumed that businesses locating in designated Business/Industrial Park areas will probably average around 20 employees per gross acre.

General Industrial areas will probably average around 10 employees per gross acre. These assumptions are based on comparison of employment per acre figures from a number of sources with the types of industrial activities anticipated in the planning area. (These employment-per-acre comparisons and assumptions are listed in Appendix D.)

Most of the new jobs in the planning area will represent net additions to total employment in the County. Exceptions might include industries that move to the planning area from other locations in the County.

The employment figures in Table 11 show a 1985-2000 job increase for the planning area which amounts to 82 percent of the total ABAG employment growth projection for all unincorporated areas of the County. (ABAG projections '85 indicate a projected total, Countywide 1985-2000 job increase of 13,400 (from 40,200 to 53,600), with 6,000 of these new jobs occurring in the unincorporated areas. With respect to the manufacturing/wholesale sector, ABAG assumed some increase in the sector's share of total County employment between 1985 and 2000 (from 13.7 percent in 1985 to 15.6 percent in the year 2000). Thus, the Table 11 employment projections are generally consistent with current ABAG forecasts.

Table 11
PROJECTED PRIMARY JOB GENERATION--PLANNING AREA

Land Use	Existing/1985	Year 2000	Year 2015	Buildout
Industrial				
General Industrial	760 ^a	1,550 ^d	2,300 ^g	4,120 ⁱ
Business/Industrial Park	190 ^b	4,270 ^e	10,570 ^h	26,690 ^k
Totals				
Airport	150 ^c	175 ^f	200 ⁱ	250 ^l
TOTALS	1,100	5,995	13,070	31,060
Increase		4,895	7,075	17,990
<u>Notes:</u> ^a -From Memo 1, p. 44. ^b -From Memo 1, p. 44. ^c -From Memo 1, p. 44. ^d -298 acres - 219 acres (Table 10) = 79 add'l ac. X 10 empl./ac.* = 790 add'l jobs; 760 + 790 = 1,550. ^e -233 ac. - 29 ac. = 204 add'l ac. X 20 empl./ac.* = 4,080 add'l jobs; 190 + 4,080 = 4,270. ^f -Approximation based on anticipated 75-acre expansion. ^g -373 - 219 ac. (Table 10) = 154 add'l ac. X 10 empl./ac.* = 1,540 add'l jobs; 760 + 1,540 = 2,300. ^h -548 ac. - 29 ac. = 519 add'l ac. X 20 empl./ac.* = 10,380 add'l jobs; 10,380 + 190 = 10,570. ⁱ -Approximation based on assumed intensification of airport activities. ^j -555 ac. - 219 ac. = 336 ac. X 10 empl./ac.* = 3,360 add'l jobs, 760 + 3,360 = 4,120. ^k -1,354 ac. - 29 ac. = 1,325 added acres; 1,325 X 20 empl./ac.* = 26,500 add'l jobs; 26,500 + 190 = 26,690. ^l -Approximation based on anticipated intensification of airport activities. *See Appendix D.				

Source: Wagstaff and Brady, 1985.

E. POPULATION AND HOUSING

1. Existing Setting

a. Planning Area. Since the planning area is currently dominated by agricultural and industrial uses, it has a relatively small residential population of less than 100 people^b. Although this population is spread throughout the area, approximately two-thirds of the existing residences are located along Green Island Road.

b. Napa County. The population of Napa County as a whole in 1985 was estimated at 104,000 by ABAG, and the total number of households at 39,400^c.

c. City of Napa. The City of Napa, about 4 miles north of the planning area, included a 1985 population of approximately 60,900 people and 24,460 households within its so-called rural/urban limit line. The City's Planning Department estimates that the City accounted for nearly 60 percent of Napa County's total population growth between 1970 and 1980. Since the County's Growth Management System (GMS) was implemented in 1981, the City has been concerned that its future share of Countywide demands for additional housing construction will tend to be greater than the 60 percent experienced during the past decade. The City has adopted a goal and policy that the population within its rural/urban limit line should not exceed 75,000 by the year 2000. City policy and physical constraints are expected to limit its 1985-2000 residential growth capacity to no more than approximately 507 units per year, the ABAG-projected (Projections '83) growth rate for the City (see Appendix G).

2. Population and Housing Impacts

a. Impacts within the Planning Area. The resident population of the planning area is likely to decrease under the specific plan as existing rural residents are displaced by industrial development. It is estimated that the resident population might decrease by around 20 persons between 1985 and 2000 (corresponding to the displacement of about 7 homes); and by roughly another 22 people by 2015 (displacement of about 8 more homes).

b. Total Housing Impact within the Planning Area Commute Radius. **Primary** job growth within the planning area and related **secondary** employment growth both within and outside the planning area (i.e., the "multiplier" effect) will translate into significant increases in the demands for new housing within reasonable commute distances from these jobs.

With respect to the primary planning area jobs, some workers will move into the County as new residents to take these jobs. Others will be existing County residents who switch from jobs elsewhere in the County. In turn, some of these vacated County jobs will be filled by additional persons who move into the County from other areas. Finally, some of the new planning area jobs will be taken by Napa County residents who shift from jobs outside the County (according to 1980 Census data, about 22 percent of the workforce living in Napa County worked outside the County^d).

With respect to **secondary jobs**, this EIR analysis assumes that some secondary job growth will occur within the planning area itself in support of new primary ("basic") industrial development, but

that most of the remaining secondary job growth will occur in service sectors within the communities where planning area employees settle.

The range of effect that all of these primary and secondary employment factors can be expected to have on planning area housing impacts is estimated in Table 12. Table 12 indicates the following differences between planning area housing impacts without and with the specific plan:

(1) Assuming an average industrial buildout rate between 1985 and the year 2000 of 10 acres per year for the planning area **without** the specific plan-guided development program, the average annual demand for new housing **within a 30-mile commute radius** due to planning area industrial growth would be between **100 and 205 units** per year (based on ABAG Projections '83).^e

(2) Assuming an accelerated average industrial buildout rate of approximately 20 acres per year for the planning area **with** effective implementation of the specific plan, the average annual demand for new housing within a 30-mile commute radius due to planning area industrial growth would be between **205 and 420 units** per year.

Thus, effective implementation of this specific plan can be expected to increase average annual demands for new housing construction within a 30-mile commute radius of the planning area by as much as 105 to 215 units per year between 1985 and 2000.

c. Distribution of Plan-Related Housing Impacts. "Gravity" factors which normally determine the **distribution** of housing impacts from an employment concentration include:

(1) The extent of housing growth opportunities within reasonable commuting distances of the job concentration; and

(2) Differences in commute times (vehicle miles) to those housing growth areas.

Table 12
COMPARISON OF PLANNING AREA JOB IMPACTS ON 1985-TO-2000 HOUSING DEMANDS--OUTLOOK UNDER CURRENT CONDITIONS VS. OUTLOOK WITH ADOPTED SPECIFIC PLAN

		"Status Quo" (10 industrial acres/year)	With Adopted Specific Plan (20 industrial acres/year)
1	Projected additional jobs in planning area	2,400	4,895 (Table 11)
2	Range of these jobs assumed to be "basic industry" (export industry bringing outside money into the County economy) 60-80% =	1,440-1,920	2,950-3,950
3	Multiplier Effect: Total direct and secondary jobs generated within planning area and its commute radius, based on assumed multiplier of 2.0 (see Appendix E) = roughly	2,880-3,840	5,900-7,860
4	Range of this direct and secondary job total assumed to be filled by commute-radius residents shifting from jobs outside the commute area = 0 to 15% =	0-439	0-880
5	Range of these new direct and secondary jobs assumed to be filled by commute-radius residents who were previously unemployed or are entering the work force for the first time = 0 to 15%	0-430	0-880
6	Range of these new direct and secondary jobs assumed to be filled by people choosing to reside outside a <u>reasonable commute distance</u> from the planning area = 0 to 5%	0-140	0-290
7	Remaining new direct and secondary jobs assumed to be filled by people seeking <u>new</u> homes within a <u>reasonable commute distance</u> from the planning area = remainder =	1,880-3,840	3,850-7,860
8	Estimated number of new housing units needed to accommodate employees seeking this new housing, assuming 1.25 job holders per average household in the commute radius (see Appendix F) =	1,500-3,070	3,080-6,290
9	Estimated number of new housing units needed per year over the next 15 years (1985-2000) within a <u>reasonable commute distance</u> from the planning area, due to planning area employment impacts alone =	100-205	205-420
10	PLAN IMPACT = Difference in total housing demand associated with projected rate of planning area industrial buildout without adopted specific plan (10 acres per year), versus rate with the adopted specific plan (20 acres per year) =	105 to 215 additional units needed per year with the adopted specific plan	

Source: Wagstaff and Brady, February 1985

Figure 25 shows a "gravity diagram" illustrating current housing growth projections for communities within 30 miles of the planning area and their relative commute distances (vehicle miles). A more detailed analysis based on this "gravity" concept is included in Appendix G. Based upon the gravity characteristics diagrammed in Figure 25, estimates have been made of the portion of total plan-related housing demand increases from Table 12 that can be expected to be attracted to the various residential areas within a reasonable commute radius of the planning area. These estimates are shown in Table 13.

According to Table 13, the anticipated **cumulative** increase in housing demand for all of Napa County (incorporated and unincorporated areas) between 1985 and the year 2000 will average around **880** units per year (ABAG Projections '83) under the current Napa County General Plan scenario, i.e., without implementation of this specific plan. Table 13 also indicates that, at most, this figure can be expected to increase to between **920 and 950** units per year with adoption of this specific plan, based on the assumption that the planning area industrial development (absorption) rate will double with the new plan, as shown in Table 10.

d. Impacts on the City of Napa. Growth limitations currently affecting the City of Napa will prohibit that community from substantially increasing its annual housing growth rate beyond that projected by ABAG (Projections '83). Thus, plan-related increases in demands for purchase or rent of Napa housing units, in combination with similar housing demand increases associated with other employment growth in the City and County (the 245-acre Napa Valley Corporate Park, etc.) could be expected to significantly exacerbate current housing availability and affordability problems in the City. In general, the effect of the specific plan would be to accelerate planning-area-related additions to demands for housing in Napa, and thus accelerate upward pressures on Napa housing prices, adding significantly to the City's housing affordability problems.

In light of the relatively high purchase and rental prices for Napa housing in comparison to other areas within a convenient commute distance from the planning area, relatively few new planning-area-related employees would be able to afford a home in Napa, unless they were members of dual-income households. New planning-area-related employees competing for the limited number of new homes for purchase in Napa would primarily consist of the higher salaried job categories, including professional, technical, managerial, and administrative employees. This added market demand in turn could contribute significantly to cumulative upward pressures on Napa Housing prices, raising the level of income needed to become a Napa resident. In a broader sense, those new planning-area-related employees who would want to move to Napa, but found that they could not afford on of the limited available Napa homes-for-purchase and could not locate an affordable Napa rental, would experience and would add significantly to Napa's unmet housing needs.

e. Impacts on the Unincorporated Areas of Napa County. The current 1985-2000 growth **capacity** of the unincorporated areas is estimated by the Napa County CDPD to be between 180 and 200 units per year, including GMS allowances and grandfathered units (but excluding the prospect of second or "mother-in-law" units).

f. Conclusion. The Table 13 projections indicate that cumulative housing demands in the County's unincorporated areas with the plan could eventually exceed GMS-related limitations. To ensure consistency with the Napa County General Plan, this specific plan must

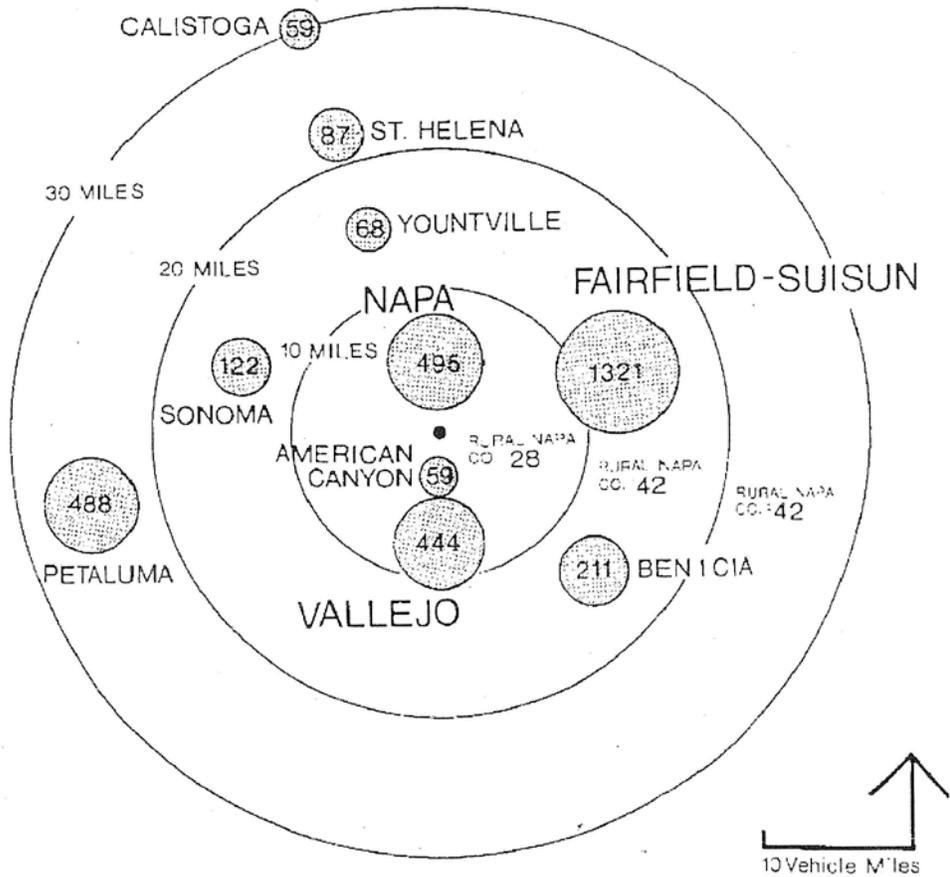
therefore include reasonable provisions to monitor such plan housing impacts, and to mitigate them if and when they become adverse. The mitigation measures would be enacted if and when the plan's Monitored" housing distance, as affected by the County's GMS-related limitations.

3. Mitigation Measures for Balancing Employment and Housing Growth

In theory, the intensity and rate of employment growth associated with planning area industrial development can be controlled through one or a combination of the following measures:

- Establishing floor area ratios as a basis for controlling industrial development (and employment) intensity;
- Establishing minimum and maximum parking requirements to control employment intensity;
- Establishing a monitored ceiling on annual planning area employment growth;
- Establishing limitations on the annual industrial floor space expansion rate;
- Establishing limitations on the annual industrial acreage absorption rate; and/or
- Encouraging those kinds of industrial uses which have lower job generation characteristics.

Floor area ratios and parking limitation approaches have already been incorporated in the specific plan as employment control (and housing impact mitigation) measures (See Section V.F.2). The advisability of the other mitigation choices, i.e., monitored employment ceilings, expansion or absorption rate controls, and reduced job-generation incentives, are discussed below:



LEGEND

CITY  ABAG-PROJECTED GROWTH RATE IN HSG. UNITS/YEAR 1985-2000 WITHOUT ADOPTION OF SPECIFIC PLAN

FIGURE 25
CURRENT HOUSING GROWTH PROJECTIONS
WITHIN THE PLANNING AREA COMMUTE RADIUS

Table 13
COMPARISON OF PLANNING AREA JOB IMPACTS ON HOUSING DEMANDS, 1985 TO 2000, WITH AND WITHOUT ADOPTED SPECIFIC PLAN, I.E. CURRENT INDUSTRIAL BUILDOUT OUTLOOK (10 ac/yr) VS. OUTLOOK WITH A SPECIFIC PLAN (20 ac/yr)

		Projected Housing Growth per Average Year		
Mileage	Location	Without the Specific Plan = ABAG-Projected Housing Unit Growth Rate ^a	With the Specific Plan; i.e., Including Additional Units Needed per Year	Difference: Plan Impact
3-30	American Canyon & Other Unincorporated Areas	171	209-247	+38-76 ^b
6	Napa	495	495	None ^b
8	Vallejo	444	471-499	+27-55
11-15	Fairfield/Suisun	1,321	1,345-1,369	+24-48
12-13	Sonoma	122	124-127	+2-5
15	Benicia	211	215-219	+4-8
15	Yountville	68	69-71	+1-3
22	St. Helena	87	88-90	+1-3
25	Petaluma	488	496-503	+8-15

		Projected Housing Growth per Average Year		
Mileage	Location	Without the Specific Plan = ABAG-Projected Housing Unit Growth Rate ^a	With the Specific Plan; i.e., Including Additional Units Needed per Year	Difference: Plan Impact
30	Calistoga	59	60-61	+1-2
TOTAL PLAN IMPACT (Including areas outside the County)				105-215
Napa County Total		880	921-954	41-84
^a ABAG Projections '83 are based in large part on current local general plan policies; thus these numbers reflect the current general plan buildout scenario for planning area. The market analysis (Appendix A) indicates that under this existing General Plan scenario, the ABAG figures reflect a Countywide industrial absorption rate of 10 acres per year. This EIR analysis assumes that most of that increase will occur in the planning area.				

Source: Wagstaff and Brady

a. Monitored Employment Ceiling. Some Bay Region jurisdictions interested in maintaining a better balance between jobs and housing have established ordinances to place controls on the number of employees per acre per shift. Their subsequent experiences, however, have shown that such controls are difficult to administer and easy to circumvent. The City of Sunnyvale, a community with strong desires to remain an industrial center, has recently overturned its employment per acre per shift controls. These direct employment ceilings have been replaced with a new ordinance that controls the expansion of jobs through a combination of Use Permits for high intensity users, floor area ratio controls, encouragement of lower job generating industrial uses, and use of parking minimums and maximums.

b. Monitored Industrial Development. The first step in ensuring consistency between this specific plan and the County's Growth Management System is to begin **monitoring** the rate of planning area industrial development and related employment characteristics in order to determine whether employment growth is occurring at a rate consistent with the rate of new housing availability within a reasonable commute distance from the planning area. **If and when** the monitoring process revealed a possible imbalance between planning area employment growth and available housing opportunities within reasonable commute distances from the planning area, the County could consider implementation of a system to phase industrial development at a rate consistent with the rate of housing development within a reasonable commute radius. **A monitoring process is described in Section V.F.3 of the specific plan.**

c. Phased Industrial Development. Two phasing approaches could be considered **if and when** County monitoring procedures revealed a possible imbalance between jobs and housing growth:

- (1) Limitations on Annual Floor Space Expansion Rates. In an effort to reduce downtown employment growth and resulting traffic, transit, housing and other impacts, the Cities of San Francisco and Walnut Creek have both recently passed ordinances limiting the annual increase in office floor space (square feet per year). Establishment of a similar planning area floor space "cap" for the planning area would be difficult and complicated due to the range of land use types allowable under the specific plan, including office, research, light manufacturing, warehousing, dismantling, and so on.
- (2) Limitations on the Annual Acreage Absorption Rates. An annual limitation on the number of acres of industrial development could also be instituted to control the level of employment growth. Based on information developed through the **monitoring system** with respect to the number of employees per average acre, an annual acreage "cap" could be placed on industrial buildout in the planning area. The housing impacts analysis documented in this EIR indicates that if and when rate of planning area buildout per average year between 1985 and the year 2000 approaches or exceed **16 to 20 acres**, the fair-share housing demand allocation to the unincorporated areas of Napa County could begin to exceed new home construction limits set by the GMS. This acreage range was estimated based on: (a) estimated employee per acre characteristics for the various anticipated planning area industrial types, (b) 1983 ABAG projections of housing growth with a reasonable commute distance from the planning area, and (c) current GMS housing growth allotments for the unincorporated areas of the County. Any one of these factors could change over time. The jobs-housing **monitoring system** recommended in Section V.E.3 of the specific plan allows these changes to be taken into account as they occur.

4. References

- ^a Estimate based on windshield survey of the planning area by Wagstaff and Brady, August 1984.
- ^b Estimates based on site visits, aerial photographs, and average household size for unincorporated areas of the County: 32 rural residences X 2.70 persons = ± 86 persons.
- ^c ABAG, Projections '83.
- ^d Metropolitan Transportation Commission, 1980 Census Journey-to-Work, County-to-County & Superdistrict-to-Superdistrict Workers by Mode of Travel, Data Release #2, July 1984 (revised 9/5/84).
- ^e ABAG Projections '85 were released after completion of this housing impacts analysis. The updated ABAG figures would result in minor changes in the findings in this analysis. These changes would not significantly affect the analysis conclusions, however.

F. TRANSPORTATION

1. Existing Setting

a. Major Streets and Roadways. The road system serving the planning area is diagrammed on Figures 2 and 26. The major roads which provide regional access to the planning area are Interstate 80, State Route 29, State Route 12, and State Route 221 (Soscol Avenue). Major local roadways are Airport Boulevard, Green Island Road, American Canyon Road and Kelly Road. Each of these facilities is described below.

- (1) Interstate 80. Interstate 80 connects San Francisco with Sacramento and passes approximately 5 miles to the east of the planning area. I-80 is an eight-lane freeway. Its three connector routes to the planning area are Sears Point Road (Highway 37), American Canyon Road and Jameson Canyon Road (Highway 12).

Napa County is now considering a general plan amendment to show a new connector between I-80 north of Vallejo and State Route 29 near the planning area in order to improve access between Napa and the central Bay Area. The County expects to decide whether and how to act on the proposed amendment in 1985.

- (2) State Route 29. Also known as Napa Road, State Route 29 runs north and south along the east side of the planning area, connecting it with Vallejo to the south and Napa to the north. State Route 29 is a four-lane, limited-access highway through the planning area, with signalized intersections at American Canyon Road, Airport Road/Jameson Canyon Road (State Route 29) and Soscol Ferry Road (State Route 221).
- (3) State Route 12. State Route 12 is an east-west state highway connecting the planning area to Fairfield on the east and Sonoma on the west. State Route 12 is a two-lane roadway (one lane in each direction) east of State Route 29. This section is also commonly referred to as Jameson Canyon Road. West of State Route 29, State Route 12 and State Route 221 are combined. This section is commonly referred to as Soscol Ferry Road. North of the State Route 29/Airport Road/Jameson Canyon Road intersection, State Route 12 and State Route 29 are combined.
- (4) State Route 221. This roadway connects State Route 29 southeast of Napa to State Route 121 northeast of Napa. It is a four-lane facility (two lanes in each direction).
- (5) Airport Road. Airport Road is a two-lane facility providing access from State Route 29 to the Nap Airport.
- (6) Green Island Road. Green Island Road is a two-lane east-west roadway south of Napa County Airport, terminating at the Napa River. The capacity of Green Island Road declines in the vicinity of the second railroad crossing west of State Route 29. This section of roadway is constrained by a narrow pavement width of 20 to 24 feet and significant horizontal and vertical curves.

- (7) Kelly Road. Kelly Road is a two-lane facility which forms a loop to the east of S.R. 29, intersecting it both north and south of S.R. 12. It thus provides an alternate route for people travelling between S.R. 29 and S.R. 12, allowing them to bypass the S.R. 29/S.R. 12/Airport Boulevard intersection if desired.

b. Current Traffic Volumes. Current average daily traffic volumes (ADT) on the local road system are shown on Figure 26. The figures were determined from 1983 CalTrans traffic volume figures. Since 1978, average daily traffic volumes on State Route 29 through the planning area have increased at an average rate of 1.24 percent per year, with a total five-year increase of approximately 2,000 vehicles per day. Volumes on S.R. 12 between S.R. 29 and I-80 increased at a rate of 7.11 percent per year, equal to approximately 4,000 new trips per day for the five-year period.

Evening peak hour volumes on planning area roadways are also shown on Figure 26. These p.m. peak hour figures were determined from manual turning movement counts performed by the Goodrich Traffic Group as part of the Airport Area Master Environmental Assessment in early 1984.

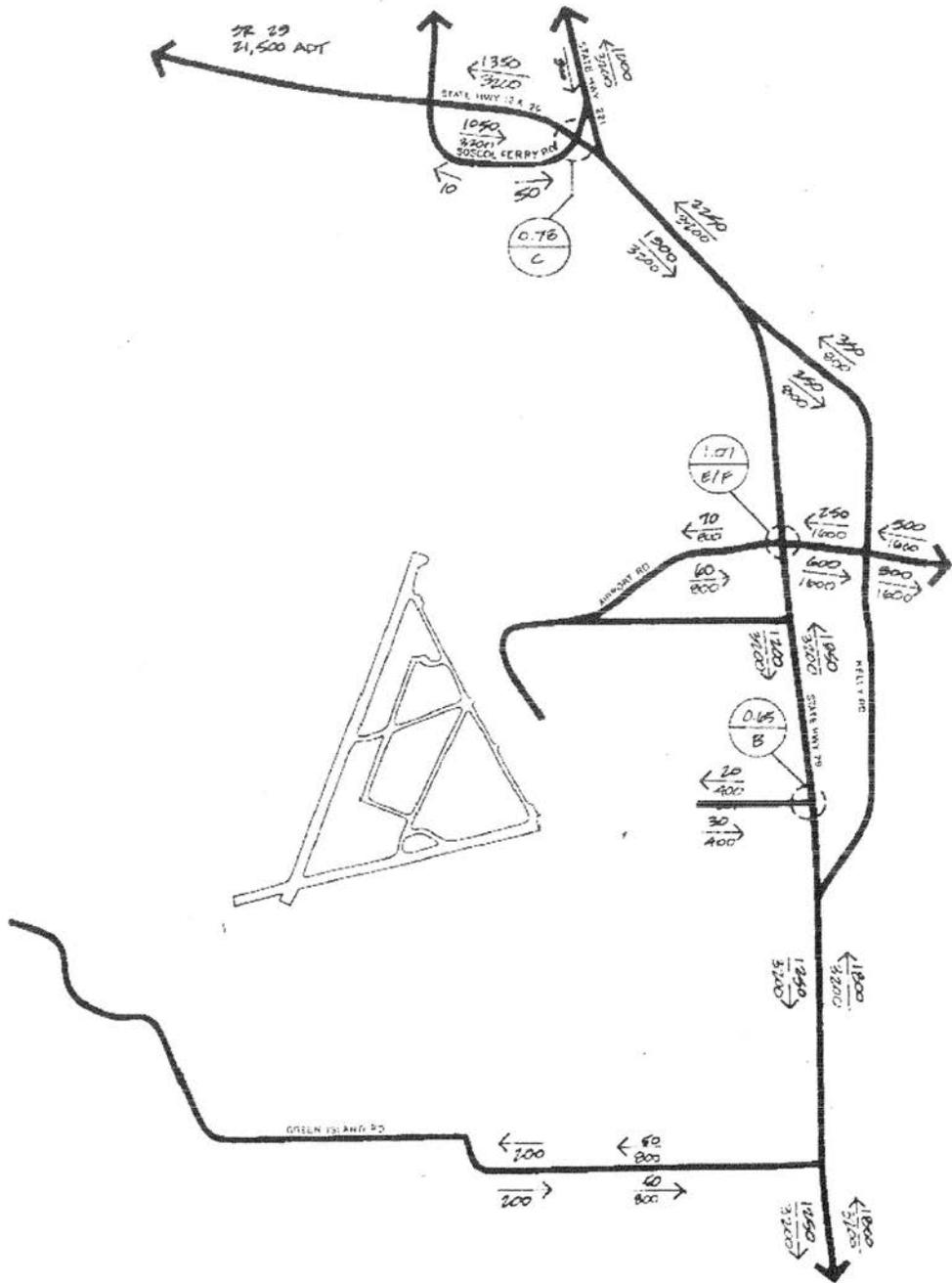
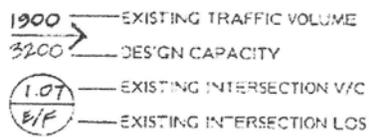


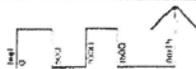
FIGURE 26
EXISTING TRAFFIC
CONDITIONS
PM PEAK HOUR, 1985



NAPA COUNTY AIRPORT
INDUSTRIAL AREA
SPECIFIC PLAN PROGRAM

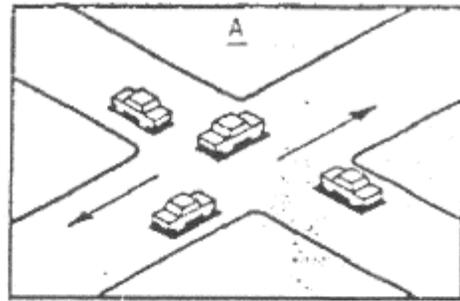
NAPA COUNTY, CALIFORNIA

WAGSTAFF AND BRADY
LEON AND
ENGINEERS, PLANNERS
SUNSFELT, CALIFORNIA



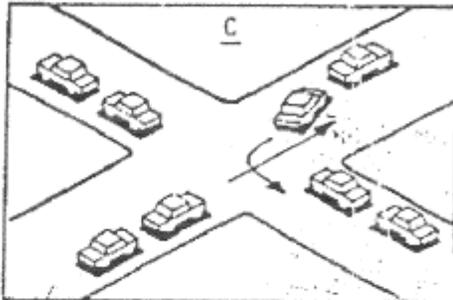
LEVEL OF SERVICE A Volume/Capacity Ratio = 0 - 0.59

- Free flow conditions
- No vehicle waits longer than one signal indication



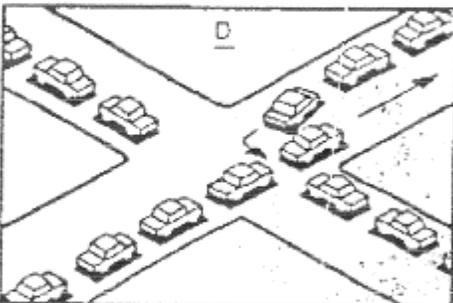
LEVEL OF SERVICE B Volume/Capacity Ratio = 0.60 - 0.69

- Stable traffic flow
- Motorists rarely wait through more than one signal indication



LEVEL OF SERVICE C Volume/Capacity Ratio = 0.70 - 0.79

- Stable and acceptable flow but speed and maneuverability somewhat restricted due to higher volumes
- Motorists intermittently wait through more than one signal indication
- Occasional backups behind left turning vehicles



LEVEL OF SERVICE D Volume/Capacity Ratio = 0.80 - 0.89

- Extensive delays at times
- Some motorists, especially left turners, may wait through one or more signal indications, but enough cycles with lower demand occur to prevent excessive backups
- Maneuverability restricted

LEVEL OF SERVICE E Volume/Capacity Ratio = 0.90 - 0.99

- Very long queues may create lengthy delays, especially for left turning vehicles
- Volume at or near capacity
- Unstable flow

LEVEL OF SERVICE F Volume/Capacity Ratio = 1.00 or greater

- Backups from locations downstream restrict movement at intersection approaches
- Forced flow conditions
- Stoppage for long periods due to congestion
- Volumes drop to zero in extreme cases

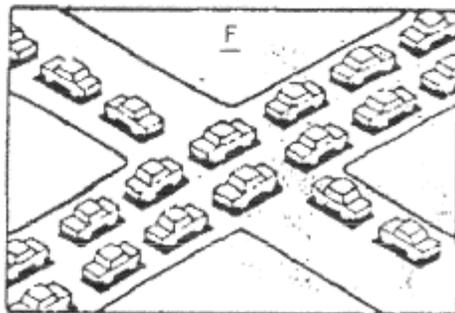


FIGURE 27
LEVEL OF SERVICE CONCEPT

c. Traffic Patterns. Two different traffic patterns characterize the use of S.R. 29 in southern Napa County: a Napa to Vallejo/Oakland/San Francisco commute and a smaller yet significant Solano County to Napa commute. The Napa to Vallejo commute is predominantly southbound in the morning and northbound in the evening. These travellers generally use S.R.29 to reach I-80 by way of American Canyon Road, Flosden Road, Fairgrounds Drive in Vallejo, and S. R. 37. An estimated 1,400 vehicles use southbound S.R. 29 to reach Vallejo during the morning peak hour, while approximately 1,700 return from Vallejo via S.R. 29 during the evening peak hour.

The secondary travel pattern on S.R. 29 consists of residents of Solano County travelling to Napa and points west and north of Napa by way of S.R. 12 and S.R. 29. This pattern is predominantly westbound on S.R. 12 and northbound on S.R. 29 (toward Napa) in the mornings and predominantly southbound on S.R. 29 and eastbound on S.R. 12 (toward Fairfield) in the evenings. The magnitude of this travel pattern is approximately one-half the size of the Napa-Vallejo pattern, with an estimated 700 westbound commuters on s.R. 12 during the morning peak hour and approximately 800 eastbound vehicles on S.R. 12 during the evening peak hour.

d. Peaking Characteristics. Morning traffic volumes on S.R. 29 peak during the hour between 7:00 and 8:00 a.m. During this period, volumes on S.R. 29 are approximately 70 percent southbound (toward Vallejo) and 30 percent northbound (toward Napa). Afternoon volumes peak between 4:15 and 5:15 p.m. Directional splits during this period are not as pronounced as during the morning peak, with approximately 60 percent of the traffic being northbound and 40 percent southbound.

e. Speeds and Delays. Traffic on S.R. 29 generally travels close to the 55 mph speed limit except when in the vicinity of signalized intersections. These intersections include S.R. 29/Soscol Ferry Road, S.R. 29/S.R. 12/Airport Boulevard.

Intersection delays are most significant where left-turn conflicts are prevalent. The major left-turn conflict along S.R. 29 occurs at the S.R. 29/S.R. 12/Airport Boulevard intersection during the p.m. peak period. At this point, northbound traffic on S.R. 29 conflicts with southbound traffic which turns left onto S.R. 12 toward Solano County. The two major traffic patterns within southern Napa County thus cross at this point during the afternoon peak. This conflict is not as prevalent during the morning peak period, since traffic from Solano County destined for Napa makes a right turn at this intersection from westbound S.R. 12 onto northbound S.R. 29, rather than a conflicting left turn. At the Kelly Road/S.R. 12 intersection, motorists on southbound Kelly Road destined for Solano County are delayed in making left turns onto eastbound S.R. 12 by both eastbound and westbound traffic flows.

f. Roadway Capacities. Roadway capacities for S.R. 29 and S.R. 12 are estimated to be approximately 1,600 vehicles per lane per hour. The capacity of the four lane S.R. 29 is thus approximately 3,200 vehicles per hour per direction. During the p.m. peak hour 40 to 70 percent of this capacity is currently occupied by existing traffic on S.R. 29 links.

g. The Level of Service Concept. The quality of traffic service provided by a roadway system can be measured in terms of the capacity of the system versus the traffic volumes which use the system. The Level-of-Service concept is a standard means of expressing traffic conditions associated with various levels of traffic volume versus capacity. A range of six Level-of-Service ratings A through

F are used in this evaluation system. The ratings relate to peak period driving conditions from best to worst, respectively. The characteristics of traffic flow for these various Levels of Service are summarized in Figure 27.

The volume of traffic experienced on a roadway divided by the design capacity of the roadway is called the volume/capacity ratio or V/C. If the amount of traffic on a roadway is equal to its capacity, the V/C ratio will be 1.00. V/C ratios can be translated into Levels of Service as shown in Figure 27. A V/C ratio of 0.80 would indicate acceptable service levels, while ratios greater than 0.80 indicate congestion.

Service level D (V/C ration = 0.80 to 0.89) will be considered in this program as the minimal acceptable peak-hour design standard for the local road system. Level of Service "D" is defined as a condition approaching unstable traffic flow, where speeds and maneuverability are restricted. For example, at this Level of Service drivers may have to wait through more than one traffic signal cycle for a clear intersection.

h. Existing Levels of Service. Figure 26 shows existing peak-hour traffic volumes on major streets in the planning area, along with existing volume/capacity ratios and Levels of Service at key locations. The p.m. peak hour typically occurs between 4:30 and 5:30 p.m. The most critical existing roadway capacity problem in the planning area occurs at the intersection of State Route 29 with Jameson Canyon Road and Airport Road. This intersection is currently operating at Level of Service E/F; i.e., at capacity. Thus, the intersection is not capable of absorbing any additional p.m. peak-hour traffic without improvements to increase its capacity. Other planning area intersections are operating at Level of Service D or better. **The intersections which are currently operating at Service Level D should also be improved to Service Level C or better prior to any major new urban development in the immediate service area.**

i. Truck Travel. CalTrans data indicate that trucks currently account for approximately 7.3 percent of all traffic on State Route 29 near the Napa County Airport and approximately 8.9 percent of all traffic on State Route 12 just east of the airport. Trucks account for approximately 5.7 percent of all traffic on State Route 221.^a

j. Transit Service. No fixed-route transit service is currently provided within the planning area. Greyhound provides intercity bus service between Vallejo and Napa, but does not make any stops in the Napa County Airport area. The County's Volunteer Center provides paratransit services to elderly and handicapped persons throughout Napa County.

k. Pedestrian and Bicycle Facilities. There are no paved sidewalks on any of the State highways or local streets in the planning area. There are no existing bicycle facilities in the planning area, although the flat terrain is generally favorable to bicycle use.

l. Rail Service. A Southern Pacific branch mainline operates north-south through the planning area west of Route 29 and east of the airport. Train movements average one train in each direction per day. The principal rail destination is currently the Kaiser facility in southern Napa, approximately one mile north of the planning area. Southern Pacific is currently studying the feasibility of abandoning this line.^b

m. Air Transportation. Napa County Airport currently provides facilities for private aircraft, with no scheduled commercial flights. Commercial flights have operated at the airport in the past.^c

2. Transportation Impacts

a. Circulation Improvements. Circulation improvements recommended in the Circulation Element consist of construction of new roads, as well as provision for bicycle, pedestrian, and transit facilities. The majority of the trips generated by the project will be via roads. Road modifications recommended in the plan to accommodate these trips consist of highway interchange, arterial, collector, and minor street improvements. These improvements are depicted in Figures 7 and 8. They generally provide for a loop-type road system. This road network was chosen as the one most appropriate to the generally level terrain in the area, and one which minimizes 90-degree turns for truck traffic. Other determinants of this layout are described in the Circulation Element.

Recommended traffic signal locations are also shown in Figure 7. Recommended road standards are illustrated in Figures 8 through 10 and 13 through 18. Circulation improvements would be phased according to the timing of development in the area as suggested in Figures 11 and 12. In general, right-of-way should be provided to accommodate the buildout situation ("plan lines"), while the actual physical improvements should be times to coincide with the occupancy of new projects within the area.

b. Other Developments. Several other developments in the vicinity of the Napa County Airport Area will affect roadway volumes and Levels of Service in the planning area. The most important of these projects is the Napa Valley corporate Park development in the City of Napa, just north of the planning area. The traffic projected to be added by this under-construction project to planning area roadways is shown on Figure 28, along with the impacts of this traffic. (Napa Valley Corporate Park traffic projections were derived from the Airport Area Master Environmental Assessment, prepared for Napa County by Larry Seeman Associates, February 1984.)

Traffic generated by increased activity at the Napa County Airport is estimated to result in an approximate doubling of the existing amount of roadway traffic currently generated there by the year 2000.⁵ P.M. peak-hour traffic on Airport Road was thus assumed to increase by approximately 30 vehicles in each direction due to airport expansion.

c. Traffic Generation. Planning area traffic generation was calculated using normal traffic engineering procedures, which rely on standard trip generation rates recommended by CalTrans and the Institute of Transportation Engineers (ITE). These rates were based on average weekday trip ends per acre, stratified by different land use types. The rates are shown on Table 14.

⁵ Airport Master Plan Report prepared for the County of Napa by August W. Compton and Associates, July 1975, page 89.

Table 14
TRIP END GENERATION RATES

		P.M Peak Hour		
Land Use	Trips/Day Acre	In	Out	Total
General Industrial	15.6	0.5	1.7	2.2
Business/Industrial Park	62.8	2.6	8.3	10.9

Source: Wilbur Smith and Associates, February 1985.

The two separate rates for General Industrial and Business/Industrial Park are indicative of the range of industrial development types anticipated for the planning area. The General Industrial rate reflects the less employment intensive types of industrial land uses listed as allowable under this classification in the Land Use Element. Recent traffic counts as existing developments along S.R. 29 and Tower Road indicate existing trip-generation rates as low as 5 to 10 one-way trips per day per acre. The higher rate applied in Table 14 for General Industrial uses (15.6 trips/acre) is based on ITE and CalTrans figures for the broader range of land uses anticipated under this classification. The traffic-generation figure applied to the Business/Industrial Park category of development is more indicative of the traffic generation characteristics of the types of high technology, manufacturing, distribution, and office developments which are anticipated in this land use category (these kinds of activities typically have a higher rate of employees per acre than General Industrial land uses).

Previous traffic studies of industrial development in Napa County including the Transportation Element of the Napa County General Plan, have used a single trip-generation rate to be applied to all types of industrial land uses. This study provides a more refined analysis than is possible through the use of a single "Average" factor covering all types of industrial development.

Table 15 indicates the total volume of trip ends generated by the planning area based on the projected acreage of each type of development. By the year 2000, for example, a total of 14,040 new trip ends would be generated each day by the projected 283 acres of additional developed land. Approximately 2,390 of these trips would occur during the p.m. peak hour, or about 17 percent of the daily total.

d. Traffic Distribution. The distribution of traffic from the planning area depends on a number of factors. One is the number of internal versus external trips. An internal trip occurs when a vehicle trip has its beginning and ending entirely within the planning area. An external trip occurs when a vehicle trip has a beginning or ending (a "trip end") within the planning area, and one outside the planning area. Since development under the recommended Land Use Element will be fairly homogeneous (primarily industrial), the percentage of internal trips has been estimated to make up only 10 percent of the trip ends produced in the airport industrial area, while 90 percent of the trips would have a trip end outside the area.

A second factor is the directional distribution of trips. The directional distribution depends upon the focus of residential and economic activity outside the planning area, and the relative impedance

(speed) of different routes. Since the majority of urban activity will be to the south, the external trip distribution has been estimated as follows:

<u>Direction</u>	<u>Percentage</u>
South (S.R. 29)	45
East (S.R. 12)	22
North (S.R. 221)	16
North (S.R. 29)	8
West (S.R. 12)	<u>9</u>
TOTAL	100

These trip distribution assumptions are based on a detailed analysis of future housing opportunities and travel times throughout the vicinity of the study area conducted by Wagstaff and Brady, as well as on existing travel characteristics.

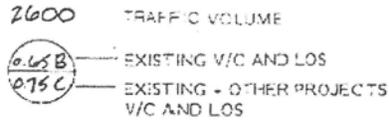
e. Projected Traffic Volumes and Levels of Service. Projected traffic volumes and Levels of Service are shown on Figure 29 and 30 for the years 2000 and 2015 respectively. Intersection Levels of Service shown for the year 2000 and 2015 scenarios are based on projected traffic volumes with the roadway improvements described in the Circulation Element of this specific plan.

Table 15
TRIP END GENERATION SUMMARY

			P.M. Peak Hour Trip Ends		
	Added Acres (Table 10)	Trip Ends/Day	In	Out	Total
1985-2000					
General Industrial	79	1,230	40	130	170
Business/Industrial Park	204	12,810	530	1,690	2,220
Subtotal	283	14,040	570	1,820	2,390
2000-2015					
General Industrial	75	1,170	40	130	170
Business/Industrial Park	315	19,780	820	2,610	3,430
Subtotal	390	20,950	860	2,740	3,600
2015-Buildout					
General Industrial	152	2,370	80	260	330
Business/Industrial Park	806	50,620	2,100	6,690	8,790
Subtotal	958	52,990	2,180	6,950	9,120
TOTALS	1,631	87,980	3,610	11,510	15,110

Source: Wilbur Smith and Associates, December 1985.

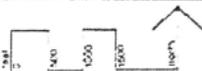
FIGURE 28
BASE CASE
TRAFFIC
CONDITIONS
PM PEAK HOUR
PLANNING AREA +
OTHER NEARBY
DEVELOPMENTS



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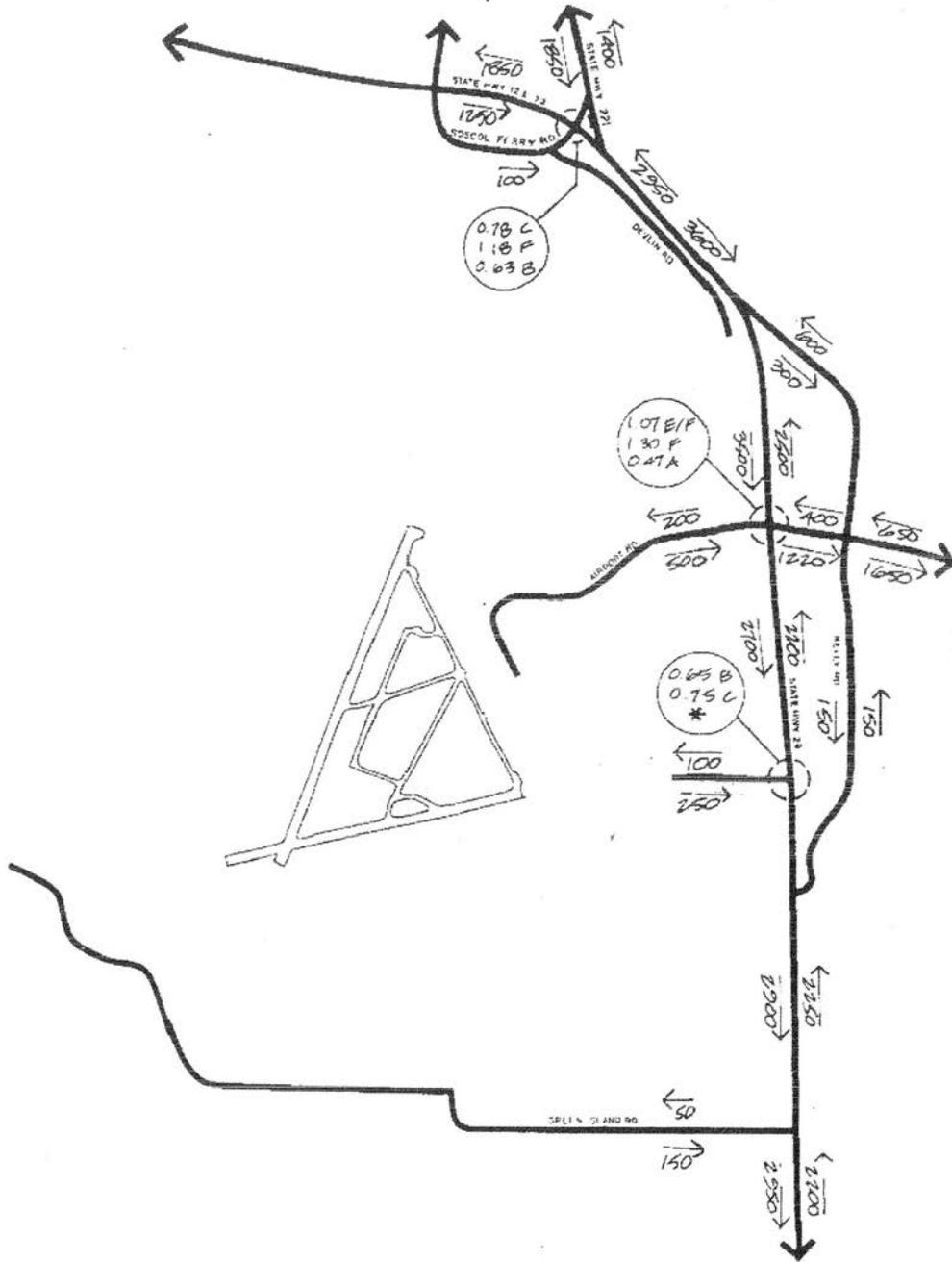
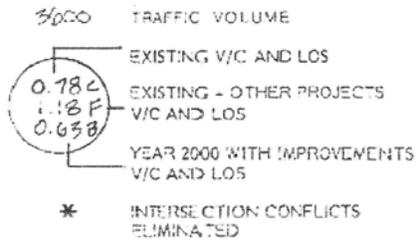


FIGURE 29
TRAFFIC IMPACTS,
YEAR 2000
PM PEAK HOUR

EXISTING + OTHER
PROJECTS + YR 2000
PLANNING AREA
DEVELOPMENT



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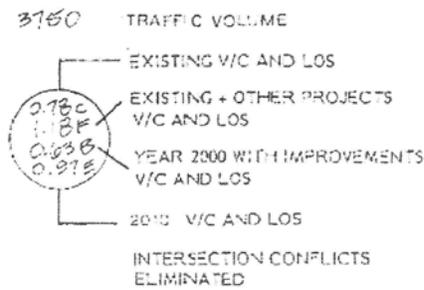
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FIGURE 30
TRAFFIC IMPACTS
YEAR 2015
PM PEAK HOUR

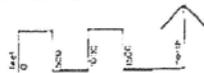
EXISTING + OTHER
PROJECTS + YR 2010
PLANNING AREA
DEVELOPMENT



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f. Projected Truck Travel Characteristics. This section highlights some of the truck travel characteristics likely to have an impact on traffic, energy, and noise factors in the planning area. It is based on studies of truck use in manufacturing and light industrial areas around the United States.⁶

- The distribution of light (under 5 tons), medium (5 to 10 tons), and heavy trucks (over 10 tons) is expected to be approximately 45 percent light, 35 percent medium, and 20 percent heavy, based upon the plan-recommended land use allocations.
- Approximately 8 percent of all vehicle trips would be generated by trucks over 5 tons.
- Peak hours of truck trips generally would fall within the midday period. The morning peak for trucks generally occurs between 8:30 and 9:30 a.m., with a highly variable afternoon peak which generally occurs between 1:00 and 4:00 p.m.
- The average total length of truck trips is expected to be about 6 miles.

g. Projected Transit Demand. Transit demand would primarily be related to commute trips for persons employed in the planning area. No fixed-route transit service is currently provided within unincorporated areas of Napa County, and it is unlikely that either the Cities of Napa or Vallejo would extend service to unincorporated areas without significant amounts of financial assistance from property owners. Assuming transit service to Napa or Vallejo, were provided, it would probably attract about 5 percent of planning area commute trips based upon experience with comparable industrial developments in other rural/suburban region, or about **300 employees per day in the year 2000** and about **650 per day in the year 2015** (based on employment figures in Table 11).

h. Pedestrian and Bicycle Travel. Pedestrian and bicycle travel are expected to compose only about 5 percent of all commute trips, and an even smaller fraction of total trips to the development. Nevertheless, reasonable and cost-effective provisions for non-motorized travel facilities are provided in the specific plan, as follows:

- (1) On-street (Class II) bikeways along Airport Road;
- (2) Sidewalks on both sides of the street for arterials and collectors, and on one side of the street for minor roads; and
- (3) Adequate provision for safe travel across a reconstructed S.R. 29/Jameson Canyon Road interchange for bicycles and pedestrians (sidewalk or pathway).

i. Rail Services and Traffic Impacts. The SPTC line passing through the site provides potential rail freight access from the area to the Southern Pacific rail network. Spur tracks serving parcels throughout the planning area could be provided via rail easement across neighboring properties.

⁶ Wilbur Smith and Associates, Motor Trucks in the Metropolis, prepared for the Automobile Manufacturers Association, 1969.

Land uses requiring rail access are expected to be located as close as possible to the mainline track, in order to minimize the need for roadway crossings of rail tracks and to minimize the amount of land consumed for rail easements. The number of industries utilizing rail services is expected to be fairly small, and relatively little freight is expected to be carried to or from the planning area by rail. Substantial increases in energy prices could, of course, alter the shipper's choice of mode decision between rail and highway modes.

j. Air Transportation Impacts. Some access to the site will be made via airplane, with the potential for taxiway access directly to individual parcels. This traffic is assumed to consist primarily of industrial light cargo and infrequent trips made by corporate executives, and is not assumed to cause a significant decrease in automobile traffic to and from the planning area.

k. Navigable Water Access. No need for water access to the site via the Napa River is currently envisioned. Intensive water use may, in fact, be detrimental to wildlife in the river's wetland areas.*⁷ If access to the river were to become desirable for some reason in the future, it could be made most effectively via Green Island Road.

3. Transportation Impact Mitigation Measures

a. Roadway Improvements. Roadway improvements recommended during Phases I and II to mitigate impacts identified in this analysis are detailed in the Circulation Element of this plan and are summarized below:

Phase I (1985-2000):

- Widen S.R. 29 to six lanes;
- Grade separate S.R. 29/S.R. 12 (Jameson Canyon Road) intersection (diamond configuration);
- Grade separate S.R. 29/S.R. 221 (Soscol Avenue) intersection;
- Widen Airport Road to 5 lanes without curbs or gutters;
- Construct segment of north-south road just north of Airport Road; and
- Construct frontage road just west of S.R. 29 and south of Tower Road.

Phase II (2000-2015):

- Completion of north-south roadway through site;
- Addition of loop ramps to S.R. 29/S.R. 12 interchange; and
- Construction of collector and arterial roads serving parcels on the south side of study area.

By the **buildout** condition (i.e., in 50 to 60 years, according to Table 10), traffic congestion will be a serious constraint in the planning area vicinity, assuming that current industrial characteristics, transportation patterns and habits continue well into the 21st century. Regional roadways will become congested (even with recommended improvements) and congestion on local roadways will be a serious problem. Alternatively, technological changes, industrial automation, communication

⁷ Napa Valley Corporate Park, prepared for Bedford properties by the Urban land Institute, November 1982, page 45.

changes, employment-intensity decreases, energy shortages, and other societal changes can be expected to alter the patterns of transportation resulting in a much different level of congestion.

b. Transportation System Management (TSM) Measures. Other non-construction mitigation measures which could be used to improve conditions at minimum costs are outlined below: These include:

- Employer flextime and/or staggered work hours;
- Employer-sponsored programs to encourage ride sharing;
- Employer sponsorship of bus service and/or subsidy of employee transit passes;
- Improved transit services;
- Facilities to encourage bicycle and pedestrian travel;
- Preferential freeway access for high-occupancy vehicles (carpools, vanpools, and buses); and
- Improved roadway signage.

If aggressively implemented on a continuing basis, these kinds of TSM measures could reasonably result in a 10 to 20 percent reduction in peak-hour peak-direction traffic volumes. Each of these steps is discussed briefly below. An association of employers in the planning area could facilitate coordination of transportation programs.

a. Flextime/Staggered Work Hours. As a condition of building approval, employers could be required to coordinate with other nearby employers in the area in setting their work hours. The work hours should take into account traffic conditions prevailing on S.R. 12, and the S.R. 12 interchanges with Jameson Canyon Road, S.R. 221, American Canyon Road, and S.R. 37, and on local arterials and streets (particularly Airport Road and Devlin Road). An association of employers in the planning area and vicinity could facilitate coordination of such scheduling programs.

b. Ridesharing Programs. This would involve groups of employers sharing the cost of a part- or full-time transportation coordinator for the area. The coordinator's local carpool matching system, or using the existing Bay Area Rides), providing information on transit routing and schedules, discussing with employers benefits of staggered work hours, and so forth. Particular focus would be placed on targeting new employees, who are the most likely to consider a travel mode change when they are changing jobs.

c. Employer-Sponsored Bus and Transit Passes. If enough employees working at a given site and having relatively similar home locations exist, then partial sponsorship of a subscription bus service by employers may be warranted. Given the alternative cost of a parking space (which can cost \$2,000 or more), this is a fairly economical approach to reducing the use of single-occupant autos. The County could grant reductions in parking requirements in return for employer participation in such programs.

d. Improved Transit. Napa City Transit could extend its existing lines from Napa via Airport Road, and perhaps Devlin Road, to the Napa County Airport, thereby serving planning area development. Adequate pedestrian access to transit stop locations is provided in this specific plan to serve such

trips. If commercial air travel activity grows at the airport, its management should consider provision of an airport shuttle bus from downtown Napa and other locations.

e. Bicycle/Pedestrian. Bicycle travel in the development would be provided for through the use of shoulder areas along Airport Road and minor collector streets. Employers should also provide adequate bicycle parking areas near building entrances. Pedestrians would be accommodated on the proposed pedestrian path system which would extend throughout the development.

f. Preferential Freeway Access. Caltrans should consider providing high-occupancy vehicle-bypass lanes on the onramp from Airport Road eastbound to S.R. 29 southbound. Sufficient right-of-way for this bypass lane would be required from property in the southwest quadrant of the interchange. The preferential bypass ramp would result in reduced travel time for carpools, thereby encouraging the formation of carpools and vanpools.

g. Land Use Controls. A number of land use control measures could be effective in reducing traffic impacts, including:

- (1) Encouraging the development of complementary land uses such as restaurants and shops within the planning area to reduce demand for employee trips out of planning area; and
- (2) Encouraging less employee-intensive land uses, as discussed in the Land Use and Circulation Element of this specific plan;
- (3) Providing for affordable residential development in unincorporated County area near the planning area, yet outside the impact area of the Napa County Airport in order to reduce commuting distances.

h. Improve Roadway Signage. Access to the site from I-80 south of Vallejo could be encouraged to reach the planning area via S.R. 12 (Jameson Canyon Road) as well as via S.R. 37 and S.R. 29 through Vallejo. The Red Top Road exit on eastbound I-80 should be signed by CalTrans as a Napa/westbound S.R. 12 exit to encourage its use for this purpose.

Additionally, Napa Corporate Park traffic destined for southbound S.R. 29 should be encouraged to use Soscol Ferry Road to reach the S.R. 29/Soscol Ferry Road intersection in addition to southbound S.R. 221. This would require adequate signage along Soscol Ferry Road within the planning area.

4. References

^a 1982 Annual Average Daily Truck Traffic on the California State Highway System, compiled by the Division of Traffic Engineering of the State of California, June 1983.

^b Wilbur Smith and Associates, telephone conversation with Don Thomas, Office Engineer, Southern Pacific Transportation Company; August 7, 1984.

^c Wilbur Smith and Associates, telephone conversation with William L. Partain, Director of Aviation, Napa County Airport; August 7, 1984.

G. PUBLIC SERVICE AND FISCAL IMPACTS

New development in the planning area will result in a need for additional public services, especially sewer and water, street maintenance, landscape maintenance in public rights-of-way, law enforcement, and fire protection. Added public expenditures for these services will be a likely consequence. On the other hand, planning area industrial expansion will result in increased public revenues. This section describes these public service and fiscal effects of the plan.

1. Sewer

a. Existing Planning Area Sewer Lines. Sewer lines from two sewer service agencies currently extend into the planning area, as shown on Figure 31. A 24 inch Napa Sanitation District service main runs south to the planning area boundary where it splits into a 15-inch line running east to serve the Napa Valley Business Park and Napa Airport Corporate Park east of Highway 29 (north of Jameson Canyon Road), and an 18 inch line extending south to Airport Road. In addition, an 18-inch American Canyon County Water District force main extends up to the planning area's northwestern boundary on North Airport Road. Existing sewer service capacities for the NSD and ACCWD systems are described in Table 16.

b. Napa Sanitation District (NSD). The NSD currently serves all lands within the City of Napa, plus areas within the city's rural/urban limit line (RUL). The NSD serves all City lands immediately north of the planning area, including the recently annexed Napa Valley Corporate Park. The NSD also currently serves all occupied Napa County Airport buildings except for the air traffic control tower.

It is LAFCOM's current policy to require properties to annex to the City of Napa if they are to join the NSD. It is NSD policy to require new customers to install connector lines up to 8 inches in diameter at their own expense; the district bears the added cost where larger lines are required.

c. American Canyon County Water District (ACCWD). The ACCWD provides sewer services to the American Canyon community immediately south of the planning area. The district pumps wastewater from its primary treatment facilities west of American Canyon Road to the joint NSD/ACCWD treatment plant north of the airport via an 18-inch ACCWD force main extending through the planning area. Currently, there are no ACCWD service mains extending into the planning area. The ACCWD has suggested a future sewer service layout for the southern portions of the planning area, as shown on Figure 31.

Current average flows to the joint treatment plant from the ACCWD system are 0.5 mgd, serving a population of about 6,000.

d. Joint Sewage Treatment Facilities. The recently completed sewage treatment plant north of the planning area near the convergence of Suscol Creek and the Napa River (see Figure 31) is owned jointly by the Napa Sanitation District and the American Canyon Water District and is operated by the Napa-American Canyon Wastewater Management authority. The plan has a 15.4 million gallons per day treatment capacity. Of that total 13.9 mgd is allocated to the City of Napa, and 1.5 mgd to the ACCWD. The average flow in early 1983 was about 7.7 mgd.

Treated effluent is disposed of by discharge into the Napa River or through a wastewater irrigation program. Tertiary treatment is provided for effluent discharged into the river. Due to the high cost of tertiary treatment, the authority has established a program of effluent delivery to agricultural lands for irrigation purposes, with the objective of limiting tertiary treatment operations to four months per year (dry weather months).

The authority requires pre-treatment of certain industrial wastes.

e. County Services Area No. 3. County Services Area No. 3 was recently established by Board of Supervisors resolution to provide sewer services to the Airport Road area shown on Figure 31. The CSA No. 3 boundary comprises approximately 1,575.6 acres (including the 622.4-acre County airport property). Although the boundaries of the area have been established, CSA No. 3 has not been activated, i.e., to date no sewer service provisions have been initiated nor fees assessed.

Table 16
EXISTING SEWER CAPACITIES

Napa-American Canyon Treatment Plant Rated Capacity (EPA)	approx. 15.4 mgd ^a
City of Napa	
Total allocation	approx. 13.9 mgd ^b
Anticipated average flow	approx. 10-11 mgd ^c
Allocated capacity remaining	approx. 3-4 mgd
American Canyon County Water District	
Total Allocation	approx. 1.5 mgd ^d
Current average flow	approx. 0.58 mgd ^e
Allocated capacity remaining	approx. .92 mgd
^a Ironside, p. 8. ^b Ironside, p. 8. ^c Average flows in 1983 were around 7.7 mgd (Ironside, p. 8); the District has planned to allocate about 3 mgd of capacity to the Napa Valley Corporate Park; 7.7 + 3 = 10.7 mgd. ^d Green Island Industrial park EIR, (p. 47). ^e 1981 flow was approximated at 0.5 mgd in the Green Island Industrial Park EIR; assuming 5 percent increase per year, 1984 flow = 0.58 mgd.	

Source: Wagstaff and Brady

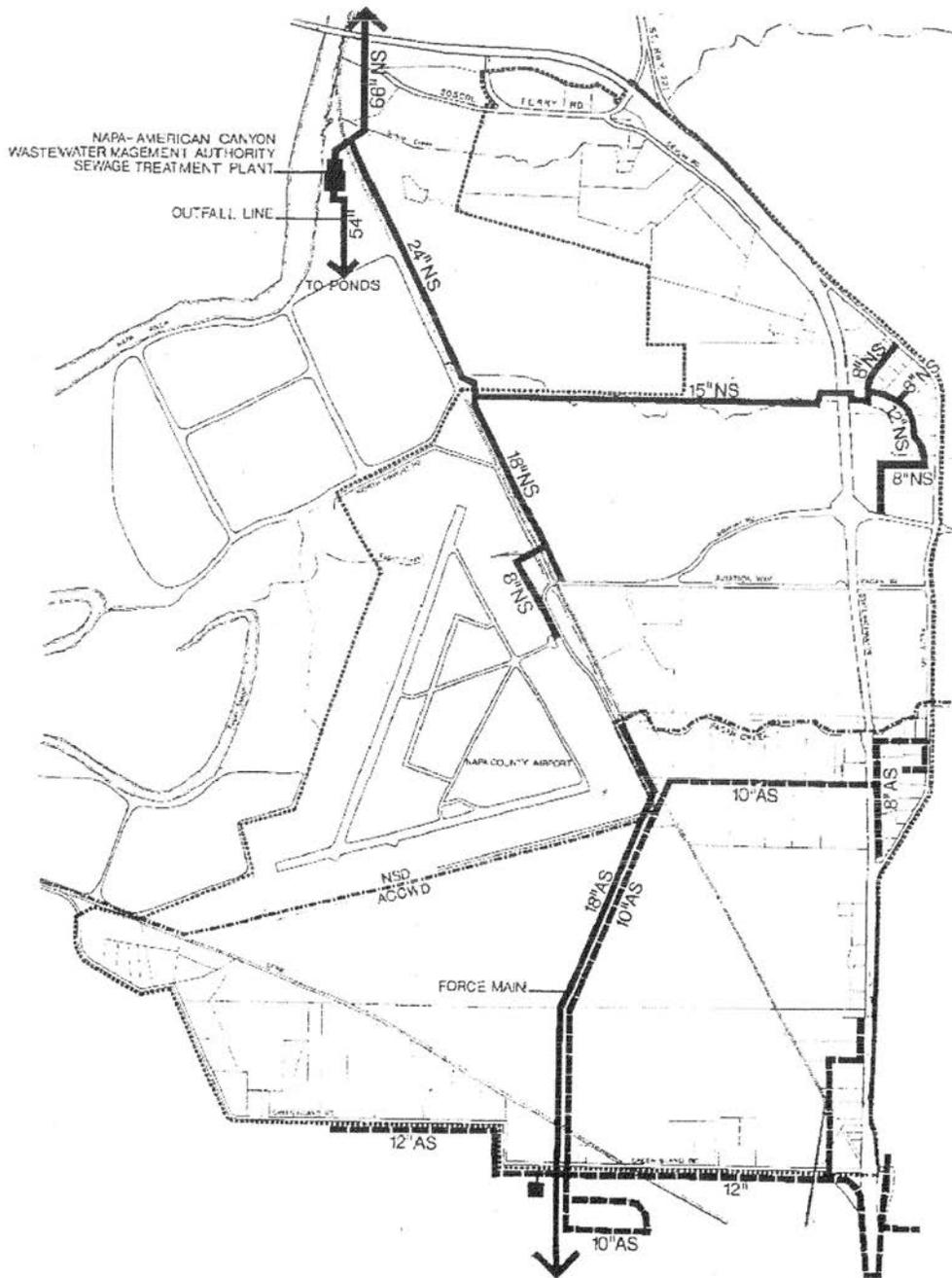


FIGURE 31
EXISTING SEWER
SERVICE

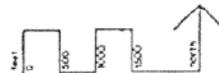
LEGEND

-  EXISTING AMERICAN CANYON COUNTY WATER DISTRICT SEWER LINE
-  PROPOSED AMERICAN CANYON COUNTY WATER DISTRICT SEWER LINE
-  EXISTING NAPA SANITATION DISTRICT SEWER LINE
-  PROPOSED NSD/ACCWD BOUNDARY (AGREED TO BY BOTH AGENCIES)

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The NSD and the ACCWD each passed resolutions in late 1983 to clarify sewer service questions within Napa County Service Area No. 3. The two resolutions state in similar language that, based on service studies, the ACCWD could best serve the portion of CSA No. 3 south of Fagan Creek, and the NSD could best serve areas north of the areas served by the ACCWD. The resolutions further stated that the spheres of influence of the two districts should be revised by LAFCOM to show Fagan Creek as the ultimate sewer service area dividing line.

f. Sewer Impacts. A suggested sewer layout for the planning area is described in the Public Facilities Element of this plan (Section VII.A). A suggested sewer collection system layout is diagrammed on Figure 18 in that element. Table 5 in the Public Facilities Element summarizes the estimated sewer service demands on the planning area collection and treatment system under the land use policies of this plan. The table indicates that, based on the absorption rate assumptions described in Table 10, the planning area can be expected to require roughly 0.2 mgd of treatment capacity by the year 2000, and 0.6 mgd by the year 2015. It is assumed that a maturing sewer fund generated by current assessments, additional assessments, and/or ongoing fees associated with planning area and other future sewer service extensions will finance treatment improvements or expansion needs made necessary by cumulative development in southern Napa County.

Capital costs implications of the expanded planning area sewer system are addressed in the Implementation Element (Sections VIII.D and E). Ongoing costs for operating and maintaining the sewer system would be covered by connection fees and user charges.

2. Water Supply

a. Existing Planning Area Water Lines. Like sewer, lines from two water agencies currently extend into the planning area, as shown on Figure 32. Three service mains from the City of Napa Municipal Water System extend south into the planning area, including: (1) a 24-inch main along State Route 29, (2) a 42-inch main enters the planning area just south of Suscol Creek and runs south along the railroad for one-quarter mile, then crosses southeast to connect with the 42-inch Jameson Canyon line. No planning area customers are currently receiving Napa municipal water.

One water main from the American Canyon County Water District extends into the planning area. The 14-inch line runs northerly along State Route 29 to a point near the northern intersection of the highway and Kelly Road. Laterals off the 14-inch main line serve planning area users to the east and west, including: (1) an 8-inch system serving the Napa Valley Business Park and Napa Airport Corporate Park east of State Route 29, on Camino Dorado, (2) a 4- to 8-inch loop system to the west serving the airport and industrial uses along Tower Road, and (3) a 12-inch lateral extending westerly along the first 2,100 feet of Green Island Road. In addition, a 6-inch ACCWD line extends further north to serve users on Devlin Road.

Two Jameson Canyon lines link the City of Napa, American Canyon and the planning area with the North Bay aqueducts.

b. Napa Municipal Water System. The City of Napa urban area is served by the Napa Municipal Water system. Its water sources include Lake Hennessey, Milliken Reservoir, and the North Bay Aqueduct. The City has a total of around 79,700 acre feet of dependable water supply per year from

these three sources. A City entitlement to NBA water represents a major portion of this Citywide total (roughly 17,200-acre-feet annually).⁸

c. Napa County Flood Control and Water Conservation District. The Napa County Flood Control and Water Conservation District is the prime contractor to the State Department of Water Resources (DWR) for the North Bay Aqueduct water supply. The City of Napa and the American Canyon County Water District are subcontractors. Under the subcontract agreement, each of these purveyors is given a service area extending beyond present jurisdictional boundaries. **These subcontracts stipulate that the line between NMWS and ACCWD service areas within the planning area is Suscol Creek. This specific plan reiterates this policy.**

d. American Canyon County Water District. The ACCWD is the only purveyor currently serving customers in the planning area. The current ACCWD contract with the Napa County Flood Control and Water Conservation District provides for delivery of up to 5,200 acre feet of water annually to the district by 1990. All present Napa County Airport buildings and fire hydrants are served by this system. Urban land uses and hydrants along Camino Dorado, Camino Oruga, Tower Road, and the initial 2,100 feet of Green Island Road are supplied by the ACCWD system.

e. Water Service Impacts. As described in the Public Facilities Element of this plan (Section VII.B), installation of a common water system or systems will be required in the planning area to meet the needs of the industrial development designations of this plan. The system(s) will require such common improvements as an internal water transmission main or grid system and adequate delivery capacity to provide for peak, reserve, and emergency fire flow needs.

A suggested water system layout is diagrammed on Figure 19 in the Public Facilities Element. The sources of water supply for this planning area system are expected to be via connections to water mains which currently extend into the planning area from two water service agencies, the Napa Municipal Water District for areas north of Soscol Ridge, and the American Canyon County Water District for areas south of Soscol Ridge, as shown on Figure 32 (and Figure 19).

Like sewer, capital costs for new planning area water facilities are addressed in Sections VIII.D and E of this plan. Ongoing costs for operating and maintaining the water system will be financed through normal connection and user fee approaches currently used by the servicing agencies.

⁸ This figure needs confirmation by City staff.

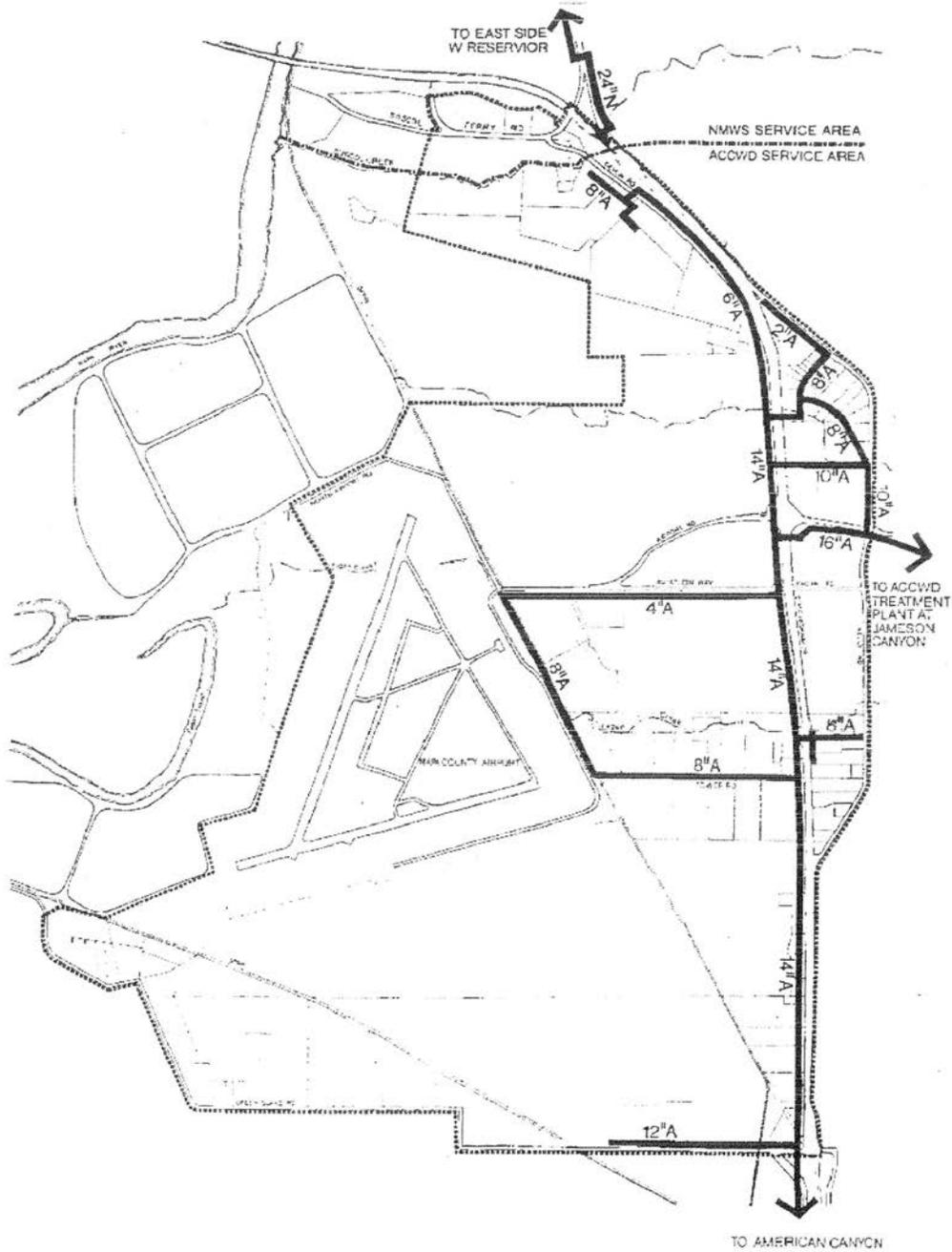


FIGURE 32
EXISTING WATER
SERVICE

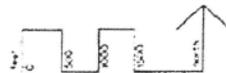
LEGEND

-  AMERICAN CANYON COUNTY WATER DISTRICT LINES
-  CITY OF NAPA MUNICIPAL WATER SYSTEM LINES

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3. Law Enforcement

a. Setting. Law enforcement services to the planning area are provided by the Napa County Sheriff's Office. The nearest station is located on Third Street in Napa, about 7 to 12 minutes in response time from various areas of the site. During 1984, the Sheriff's Office received approximately 950 calls to the planning area. Service to the entire South Central area, which includes the planning area, currently requires 2.5 deputies at minimum staffing and 4 deputies at maximum staffing. There are no abnormal enforcement problems with the current level of urban development in the planning area.

b. Impacts. The sheriff's office estimates that development of the planning area will result in double the present level of calls by the year 2000. Estimated cost of additional personnel needed to maintain current standards have been made based on increasing staff by 0.5 in 1990, 0.5 in 1995, and 1.0 in 2000. Assuming annual expenses of \$32,000 per deputy including salaries, benefits, and equipment, plus 2 percent for administrative overhead, police-protection expenses would increase by \$16,820 in 1990, \$32,640 in 1995, and \$65,300 in 2000 (amounts are in 1984 dollars). An estimated two additional deputies would also be needed by the year 2015 at an annual cost of \$130,600 (1984 dollars). (Art Thompson, telephone interview, January 29, 1985.)

4. Fire Protection

a. Setting. Existing fire protection provisions in the planning area are diagrammed on Figure 33. Fire protection responsibilities for the area are shared through a mutual aid agreement between the American Canyon Fire Protection District and the Napa County/State Division of Forestry Fire Department. The ACFPD fire station on James Road in the American Canyon community is roughly 3.6 road miles south of the Airport Road/State Route 29 intersection. The NCDF fire station on Jefferson Street near Trancas Street in Napa is roughly 8 miles from the Airport Road/State Route 29 intersection.

Based on an automatic aid agreement between the ACFPD and NCDF, all emergency calls from areas south of Soscol Ridge are responded to first by the ACFPD, due to its faster response time. The NCDF Jefferson Street station also responds to all calls in those portions of the area which are not within the current boundaries of the ACFPD.

The airport provides its own fire-crash-rescue protection. The County Airport Fire Station, located in the terminal area, is equipped with a tanker truck manned when needed by airport personnel. The International Air Services Corporation (IASCO), which operates the Japan Airlines flight training center at the airport, also maintains an around-the-clock fire service facility to provide backup for the County facility. The ACFPD, as part of their automatic aid agreement with the County, also responds to airport emergency calls.

As indicated on Figure 33, the current boundary of the ACFPD includes only a small portion of the planning area. The ACFPD is financed by tax overrides referred to as "fire fees". Areas within the district's boundaries are assessed an annual fire fee based upon the land use of the property. In 1984, ACFPD received within its district about \$165,000 (or 41.25 percent) of its \$400,000 total budget from these fees. The demand for additional ACFPD services from the development of

property within its district would be funded through property taxes (Fund 380) and the fire fees.

Areas between the current ACFPD boundary and Soscol Ridge which are receiving first arrival fire protection services from the district are not assessed for fire calls unless an actual fire fighting effort is required. In the latter case, the landowner can be billed by the ACFPD for the fire fighting services. In effect, owners in the ACFPD are partially financing fire protection service provided outside the district; and these extended services tend to decrease the level of service available to properties within the district boundary.

Establishment of a "secondary sphere of influence" or contract fire services area (fire services agreement between the ACFPD and the County) encompassing ACFPD-served areas outside the district's boundary would provide a means of compensating the district for automatic aid services provided to planning area properties outside the district.

The ACFPD James Road stations is staffed on a 24-hour basis by a two-person engine company. Two additional engine companies are operated on a volunteer basis. The facility also includes one rescue truck and a four-wheel drive tanker truck. The district maintains a fire equipment fund which is expected to finance purchase of a "telesquirt" engine company in 5 years. With the growth currently anticipated within the district, the Department also expects to add two more full-time firefighters within the next 5 years, plus additional volunteers.

The ACFPD reports that its current facilities are adequate to serve the existing level of industrial development in the planning area. Substantial industrial intensification in the area would require expansion of fire protection facilities, however.

The NCFD station on Jefferson Road in Napa is staffed on a year-round, 24-hour basis by one two-person engine company and one battalion chief. During high fire periods, an added California Division of Forestry 3- to 4-person engine company is also stationed at the facility.

Fire protection services in the district are currently rated at ISO class "5". The district anticipates that upon reinspection in 2 years, their ISO rating will improve to "4".

Figure 33 indicates areas where structural fire protection provisions (fire hydrants and response times) are considered to be completely adequate. The map also indicates areas where structural fire protection provisions are expected to be at least marginally adequate in the foreseeable future. For the remaining majority of the planning area, the principal fire protection concerns are long fire response times. Areas in the northern half of the planning area are 7 to 10 minutes away from the nearest fire station (ACFPD James Street station).

With respect to the service provided by the NCFPD's Jefferson Street Station, there has been some discussion about splitting the station. Currently the station has about 20 employees and 4 engines (two contract engines from the County of Napa and two owned by the Department of Forestry). The current proposal is that sometime around 1989 the station would be split with half of the employees and equipment being relocated to the Silverado Country Club area. A definite location for the other half has not been selected yet, but would likely be relocated near or within the planning area.

FIGURE 33
EXISTING FIRE
PROTECTION

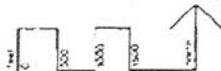
LEGEND

-  AREAS CURRENTLY OUTSIDE THE ACFPD BOUNDARY, BUT SERVED BY THE AMERICAN CANYON FIRE DEPT. AND THE NAPA CO. FIRE DEPT.
-  AREAS CURRENTLY WITHIN THE ACFPD BOUNDARY, AND SERVED BY THE AMERICAN CANYON FIRE DEPT.
-  CURRENT ACFPD SPHERE OF INFLUENCE BOUNDARY
-  AREAS WITHIN WHICH STRUCTURAL FIRE PROTECTION SERVICES ARE CONSIDERED ADEQUATE (WITHIN EST. 4.5 MINUTE RESPONSE TIME; 1 HYDRANT)
-  AREAS WITHIN WHICH STRUCTURAL FIRE PROTECTION SERVICES ARE CONSIDERED TO BE MARGINALLY ADEQUATE (MINOR ACCESS IMPROVEMENTS NEEDED)

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b. Impacts. The site acquisition costs and the cost to construct a new fire station to serve the planning area will be borne by impact fees levied upon the developers of the planning area, and, therefore, would not impact County funds (see specific plan sections VII.E and VIII.E). It is likely that the new station would be administered under a joint-powers authority and would be occupied by personnel and equipment from the ACFPD and the County of Napa. The cost of the ACFPD crew and equipment would be funded out of the property taxes and fire fees collected by the ACFPD. The County personnel and equipment would probably come from the Jefferson Street Station. Therefore, there would be little increase in costs to the County. It is anticipated that such a new station would be able to satisfy the fire protection needs of the planning area through buildout. (Chris Vallergera, telephone interview, January 30, 1985.)

5. Street Maintenance

Major existing, new, extended, or widened public streets within the planning area include the widened Airport Road, the Devlin Road extension, the S.R. 29 westside frontage road, the widened Green Island Road, and the existing Kelly Road, Fagan Road, and Tower Road (to be dedicated). The Circulation Element calls for approximately 3.2 additional total miles of arterial and collector streets by 2000. By the year 2015, about 7.7 miles of additional arterial and collector streets would be provided.

Annual maintenance expenses for streets in the rural areas of Napa County generally average \$4,000 to \$5,000 per mile to maintain (currently there are no significant urbanized areas maintained by the County). This cost represents the lower levels of maintenance required by rural areas. For example, it includes the maintenance cost for lighting of intersections only. It was estimated that street maintenance cost for the urbanized planning area would run about \$10,000 per mile (partly due to settlement-prone soil conditions in the planning area).

County road maintenance is funded through gas taxes and vehicle license fees. It is likely that a special benefit zone or zones would be established to fund the increased cost in the planning area for additional public services required for such items as street sweeping, lighting, and landscape maintenance. (Bill Bickell, telephone interview, January 18, 1985.)

Since such street maintenance costs will be financed from revenues derived by taxes and fees other than property taxes, associated impacts on the County's general fund from this ongoing cost item will be minimal.

6. Landscaping in Public Rights-of-Way

The Circulation Element of the specific plan recommends public landscaping in the rights-of-way areas (sides and medians) along all arterial and collector streets in the planning area, along the west side of S.R. 29 right-of-way between North and South Kelly roads, and along the east side of S.R. 29 between S.R. 221 and Green Island Road. These plan recommendations represent approximately 144 acres of landscaping by 2000 and 233 acres by 2015.

The Napa County Department of Public Works does not currently provide "in-house" landscape maintenance services. Presently, maintenance of common landscaping in unincorporated areas,

such as the Silverado Country Club area, is provided by County contract to a private landscape contractor. This private contractor estimates this area is serviced at an average annual cost per acre of \$3,360. This rate could be reduced through the use of automatic sprinkler systems and less intensive groundcovers.

Landscaping costs, like street maintenance cost, would likely be financed through the establishment of a special benefit zone, or some other method similar to that used at the Silverado County Club, and would not be paid out of property tax revenues (Tilman Hoeggerath, telephone interview, January 29, 1985).

7. Plan Effects on Annual Public Revenues

a. Property Tax. The property tax will be the most important source of annual public revenue generated by new development in the planning area. The assumptions used to estimate property taxes are shown in Table 17.

These assumptions were applied to the projected land use and absorption characteristics of the planning area listed in Table 10 of the plan. It was assumed that building coverage would average 35 percent of gross acreage in Business/Industrial Park areas, and 25 percent of gross acreage in General Industrial areas. Actual development patterns are more likely to vary from these assumptions for General Industrial than Business/Industrial park development. Broad differences among the types of potential occupants of General Industrial zones make it difficult to predict the eventual characteristics of structures and site utilizations for these areas.

It was also assumed that most of the unimproved land would eventually be sold to developers and that a two-year period would elapse between the land sales and construction of improvements. The assessed value of the properties which are not expected to change character (i.e., will not go from present agricultural use to either industrial park or heavy industrial use) was increased at 2 percent per year. When a property changes use as projected in this plan (Appendix H), the new market value of the property has been estimated and a new secured property tax rate projected based upon estimated market value. The projected increase in property taxes resulting from construction of buildings and site improvements, as well as the estimated value of personal property (unsecured property) was assumed to accrue to the County two years after each sale of land.

Based on these assumptions, new development in the planning area would bring the total value to about \$158.5 million by 2000 (in 1984 dollars) and about \$282.13 million by 2015. At the current property tax rate of one percent of assessed value (exclusive of taxes levied to retire voter-approved bonded indebtedness), it is estimated that new development in the planning area would generate annual property taxes of \$1,585,000 by 2000 and \$2.82 million by 2015. These assessed value and property tax estimates (in 1984 dollars) are shown in Table 18.

These property taxes should be viewed as reasonable approximations of eventual taxes, subject to the general assumptions outlined in Table 17. Actual development in the planning area could vary from these assumptions, changing the amounts of property tax generated.

b. Property Tax Distributions. Land within the planning area is situated within one of thirteen different tax rate areas. The ratio of taxes distributed to the various agencies varies within each tax zone. Thus, the approximate tax revenue portions to various major agencies were approximated by taking a weighted average to the various funds per acre of each zone.

Table 17
ASSUMPTIONS FOR ESTIMATING PROPERTY TAX REVENUES FROM PLANNING AREA -- 1984 Dollars

Value Assumptions	Business/ Industrial Park	General Industrial	Weighted Average
Land Value (per sq.ft. of land) ^a	\$ 0.69	\$ 0.58	\$ 0.67
Building Value (per sq.ft. of building) ^b	40.00	30.00	38.08
Value of Improvement to Non-Bldg. Area (per sq.ft. of non-bldg. area) ^c	2.00	2.00	2.00
Value of Unsecured Property (per sq.ft. of bldg. area) ^d	20.00	25.00	20.96
<u>General Assumptions</u>			
Average Change in Assessed Value of Secured Property after Sale or Construction	2% per year		
Average Inflation Rate	6% per year		
Average Change in Assessed Value of Unsecured Property after Sale or Construction	Same as average inflation rate less depreciation. Assumed that value lost through depreciation will be balanced by new purchases so overall value will keep pace with inflation.		
Real Change in Land Value	2% per year higher than the average inflation rate.		
Frequency of Property Turnover after New Construction	Once every 20 years.		
^a -Unimproved land. ^b -For industrial park, assume a mix of concrete tilt-up light industrial/warehouse structures and office buildings, with light industrial/warehouse structures predominating. For heavy industrial, assumes concrete tilt-up or metal frame structures. ^c -Includes improvements such as parking, landscaping, storage yards, etc. ^d -Includes business furnishings, office equipment, machinery, etc.			

Source: Landerman Associates

Table 18
 ASSESSED VALUE AND PROPERTY TAX REVENUE DUE TO DEVELOPMENT IN
 PLANNING AREA: YEARS 2000 AND 2015 -- 1984 Dollars

	Year 2000	Year 2015
Assessed Value		
Secured Property	\$ 107,450,000	\$ 180,300,000
Unsecured Property	51,010,000	101,830,000
Total Value	158,460,000	282,130,000
Annual Property Tax Revenue		
Total, All Agencies ^a	\$ 1,595,000	\$ 2,821,000
Note: Figures rounded to nearest ten thousand dollars. ^a -One percent of assessed value. Additional property taxes levied to retire voter-approved bonded indebtedness are excluded.		

Source: Landerman Associates

Table 19
DISTRIBUTION OF PROPERTY TAX REVENUES AMONG MAJOR ENTITIES: YEAR 2000
TO BUILDOUT -- 1984 Dollars

Taxing Agency	Year 2000	Year 2015	Buildout ^a
County General Fund (Fund 100)	\$ 455,000	\$ 811,000	\$ 3,626,000
County Fire Protection (Funds 108 & 117)	61,000	108,000	486,000
Napa City/County Library (Fund 315)	44,000	178,000	348,000
American Canyon Fire Protection District (Fund 308)	48,000	85,000	379,000
Napa Valley Unified School District (Fund 507)	792,000	1,411,000	6,310,000
Napa Community College (Fund 515)	125,000	222,000	994,000
County School Service Fund (Funds 890 & 893)	44,000	27,000	354,000
Other Agencies ^b	15,000	27,000	120,000
Total Annual Property Taxes^c	\$ 1,585,000	\$ 2,821,000	\$ 12,618,000
<p>Note: Estimates are rounded to the nearest thousand dollars.</p> <p>^a-Buildout assumed to occur by 2040.</p> <p>^b-Other agencies receiving property taxes from the planning area include mosquito abatement, Napa County Resource Conservation District, and Bay Area Air Quality Management District.</p> <p>^c-One percent of assessed value. Additional property taxes levied to retire voter approved indebtedness are excluded.</p>			

Source: Landerman Associates

A detailed breakdown of the property tax distribution among the various taxing entities is contained in Table 19. The Napa Valley Unified School District (Fund 507) receives almost half of all property taxes collected in the planning area. Napa county's general fund (Fund 100) is the next largest recipient, receiving approximately 29 percent of the tax funds. The Napa County/Department of Forestry fire protection fund receives approximately 4 percent of the total property taxes through Funds 108 and 117, and the American Canyon Fire Protection District receives 3 percent through Fund 380. The property tax funds received by the ACFPD are in addition to the tax override funds (the so-called "fire fees") also collected by the district.

c. Other Major Revenues. New development in the planning area would generate other public revenues in addition to property taxes. These revenues, which would primarily include property

transfer taxes and sales taxes, would accrue directly to the County. Presently, the County does not collect business license fee or franchise taxes.

- (1) **Property Transfer Taxes.** Property transfer taxes have been available to Counties since 1968. The amount of property tax levied is established by law at the rate of \$1.10 per \$1,000 in sales value of property sold, not including the value of any lien or encumbrance that is assumed by the purchaser. Since all of the property in the planning area is located within the County, all of this property transfer tax revenue would accrue to the County. Generally, this tax comprises a fairly small portion of total property tax revenues. Prior to the passage of Proposition 13, property transfer taxes accounted for one-third of one percent of all County revenues in California.⁹

The County can expect transfer upon the initial sale of the property by landowners to developers. Thereafter, transfer taxes would be generated each time a property is re-sold. For purposes of projection, it was assumed that property would be sold free and clear of any existing encumbrances. This assumption is the developer than upon later transfers, which are assumed to occur after 20 years. The amount calculated is, therefore, likely to overstate the amount of transfer taxes. This "worst case approach" was done intentionally to illustrate how small transfer taxes are in relation to property taxes. Transfer tax revenues do not begin to be significant for several years. For example, it is estimated that in the year 2000, the County would receive about \$1,500 (1984 dollars) in annual transfer taxes, and would receive about \$13,300 in 2015 if development occurred according to the assumption in Table 10.

- (2) **Sales Taxes.** Sales taxes would result from retail sales in the planning area (by both retail and non-retail establishments). It is unlikely that substantial retail development will occur in the planning area, beyond service establishments to serve the industrial area workers and businesses. Some non-retail businesses may occasionally sell items at retail, but these activities are not expected to represent a major source of sale taxes. Some planning area businesses may manufacture and retail their products at the same location (e.g., manufacturers of aggregate, building materials, hot tubs, etc.), but these activities are not expected to represent more than a small share of total new development in the planning area.

8. Conclusions: Plan Fiscal Implications

The level and type of development allowed under the specific plan would have a positive fiscal effect on the annual operating revenues of Napa County. As shown in Table 20, the anticipated increase in annual property tax revenues will exceed the increased costs to the County for public services--namely, law enforcement costs, since all other services would be paid by benefiting private development out of user fees, impact fees, or special assessments. Table 20 indicates that by the **year 2000**, annual revenues from the planning area should exceed annual costs by about **\$304,000** (in 1984 dollars). By the **year 2015**, annual revenues are projected to exceed costs by about \$963,000.

⁹ Economic Practices Manual

(The increase in property tax revenue received by the County from the planning area was derived by taking the projected property tax for the years in question, discounting that figure to 1984 dollars, and subtracting it from the \$88,000 received by the County in 1984.)

Table 20
COMPARISON OF INCREASE IN ANNUAL REVENUE AND ANNUAL SERVICE EXPENDITURES: YEARS 2000 AND 2015 -- 1984 Dollars

	Year 2000	Year 2015
County of Napa		
Property Tax Revenue	\$ 367,000	\$ 811,000
Transfer Tax Revenue	2,000	13,000
SUBTOTAL	\$ 369,000	\$ 824,000
Street Maintenance Costs	0	0
Landscaping Costs	0	0
Fire Protection Costs	0	0
Law Enforcement Costs	65,000	131,000
SUBTOTAL	\$ 65,000	\$ 131,000
Net Increase (Deficit)	\$ 304,000	\$ 693,000
Note: Amounts rounded to nearest thousand dollars.		

Source: Landerman Associates

H. SOILS AND GEOLOGY

1. Existing Setting

a. Topography. Planning area topography is mapped on Figure 34. The terrain in the planning area is relatively flat with a gradual cross slope from east to west. Elevations range from 107± feet at the highest point to less than 5 feet at the lowest points. Slopes in the planning area generally do not exceed 10 percent.

b. Soils. Planning area soils types have been identified and mapped by the United States Department of Agriculture Soil Conservation Service (Soil Survey of Napa County California, August 1978). Although the planning area consists of a mosaic of eight soil types, the majority of the area is covered with two soils types (Clear Lake clay--drained or Haire loam). All of the soils in the planning area are alluvial in origin and the majority have moderate to high clay content. Other relevant characteristics include slow to moderate runoff rates, slight erosion hazard, slow permeability rates, moderate to high shrink-swell characteristics, and moderate to high agricultural values (see Section X.C.2.b for more discussion of agricultural land values).

c. Geology. Geologic evidence indicates that an active trace of the West Napa fault passes northwest through the planning area. Figure 37 shows the location of identified fault traces. An active fault is one along which historic movement has been documented. Evidence of such movement was obtained in field investigations conducted for the Airport Area MEA.

2. Impacts

a. Soils. The soil conditions in the area do not create any major development constraints. The principal concern is with the shrink-swell and differential settlement characteristics of the clayey soil units. Expansive or shrink-swell soils are those that contain significant amounts of clay minerals causing them to swell when wet and shrink when dry. Serious damage, such as cracking of foundations, wells, and roads, can result from differential movement and from repetition of the shrink-swell cycle. These soil conditions will create special engineering problems with respect to site preparation, foundation design, and road construction. In some cases, this problem may be avoided by removing the top soil layer before placing a foundation. Approximately 50 percent of the planning area is underlain by soils having a high shrink-swell potential. Figure 35 indicates the distribution of these soil conditions.

Soils having high shrink-swell potential in at least the top 12 inches are found throughout the County and are often referred to as "adobe" soils. Although these soils can be an expensive nuisance, awareness of their existence prior to construction often means that problems can be mitigated through proper foundation design and site preparation. These additional design and construction requirements often lead to higher than normal development costs.

b. Seismic Hazards

- (1) Surface Faulting. The presence of the West Napa Fault in the planning area creates the potential for impacts due to surface faulting. In the event of an earthquake, the occurrence of even the smallest displacement beneath a building, transportation facility, main utility line, etc., can have a very serious impact.

State law (the Alquist-Priolo Special Study Zone Act, California Public Resources Code, Division 2, Chapter 7.5) requires that any new construction which occurs along active fault zones must give adequate consideration to the hazard of surface fault rupture. One of the provisions of the Alquist-Priolo Act is that Special Study Zones be established for each active fault zone. The Special Study Zone for the West Napa Fault, as determined by the State Geologist, is shown in Figure 37.

Prior to approval of any subdivision or most types of new construction within a designated Special Study Zone, the Alquist-Priolo Act requires that a "geologic study" directed at determining the hazard of surface fault rupture be conducted. The "study" requirement applies to any structure that would be occupied for more than 2,000 person-hours per year. The law specifies that structures which fall under the authority of the act cannot be built astride an active fault trace, and recommends a 50 foot setback. The Act exempts certain

woodframe single-family dwellings from its requirements but does not restrict other types of building construction.

- (2) Ground Shaking. Due to the planning area's location along the West Napa Fault and in the northern portion of the seismically active San Francisco Bay Region, the area could be subject to the effects of at least one high magnitude earthquake during the lifetime of proposed industrial development. ABAG estimates indicate that groundshaking intensities in the planning area would range from "strong" to "very strong" (San Francisco Intensities C to B).¹⁰

The potential effect of groundshaking on commercial and industrial buildings in the planning area are difficult to forecast due to the variety of possible building types. One- and two-story wood frame and stucco structures could be expected to show fair performance in earthquakes. Single-story wood-frame or tilt-up construction has generally sustained only moderate damage during earthquake shaking, although recent experience in San Fernando suggest that minimum code requirement with respect to roof-to-wall connections in tilt-up buildings may not be adequate to assure public safety, especially in high-occupancy commercial buildings. Hence, roof or wall collapse must be considered a possibility in at least a minority of tilt-up buildings during higher intensity shaking. During a strong earthquake, the damage and safety of tilt-up buildings in industrial areas would depend on the level of special structural design precaution and care in supervision of construction.

The extent to which a specific structure is damaged is a function of the design and construction quality of the particular building and the local soil conditions. The specific characteristics of shaking which can be expected at a given site and the reaction of a certain type of structure to such shaking must be determined on an individual basis by site investigation.

c. Liquefaction. Soil liquefaction results from loss of strength during earthquake shaking. The most susceptible soils are clean, uniformly graded, loose, saturated, fine-grained sands. The granular soil material is transformed by earthquake shaking into a fluidlike state in which solid materials are virtually in suspension, similar to quicksand.

The Seismic Safety Element of the Napa County General Plan classifies most of the valley floor as an area "that may be subject to liquefaction"; however, the mapping is not detailed and does not show varying degrees of risk. A more detailed evaluation, ABAG's "Liquefaction Potential Mapping", indicates varying liquefaction potentials based on surficial deposits. The mapping of the planning area is shown in Figure 37. This map indicates that a substantial area around the airport has moderate potential for liquefaction.

¹⁰ Napa County Airport Area MEA, p. 14. Groundshaking at San Francisco Intensity C could cause poorly designed structures to sustain heavy structural damage; and even well-designed structures to sustain damage. At San Francisco Intensity B, conspicuous cracks form in the ground, artesian springs can form in muddy areas, most masonry and frame structures are destroyed along with their foundations, some well-built wooden structures and bridges are destroyed, serious damage occurs to dikes and embankments, and railroad tracks are bent slightly.

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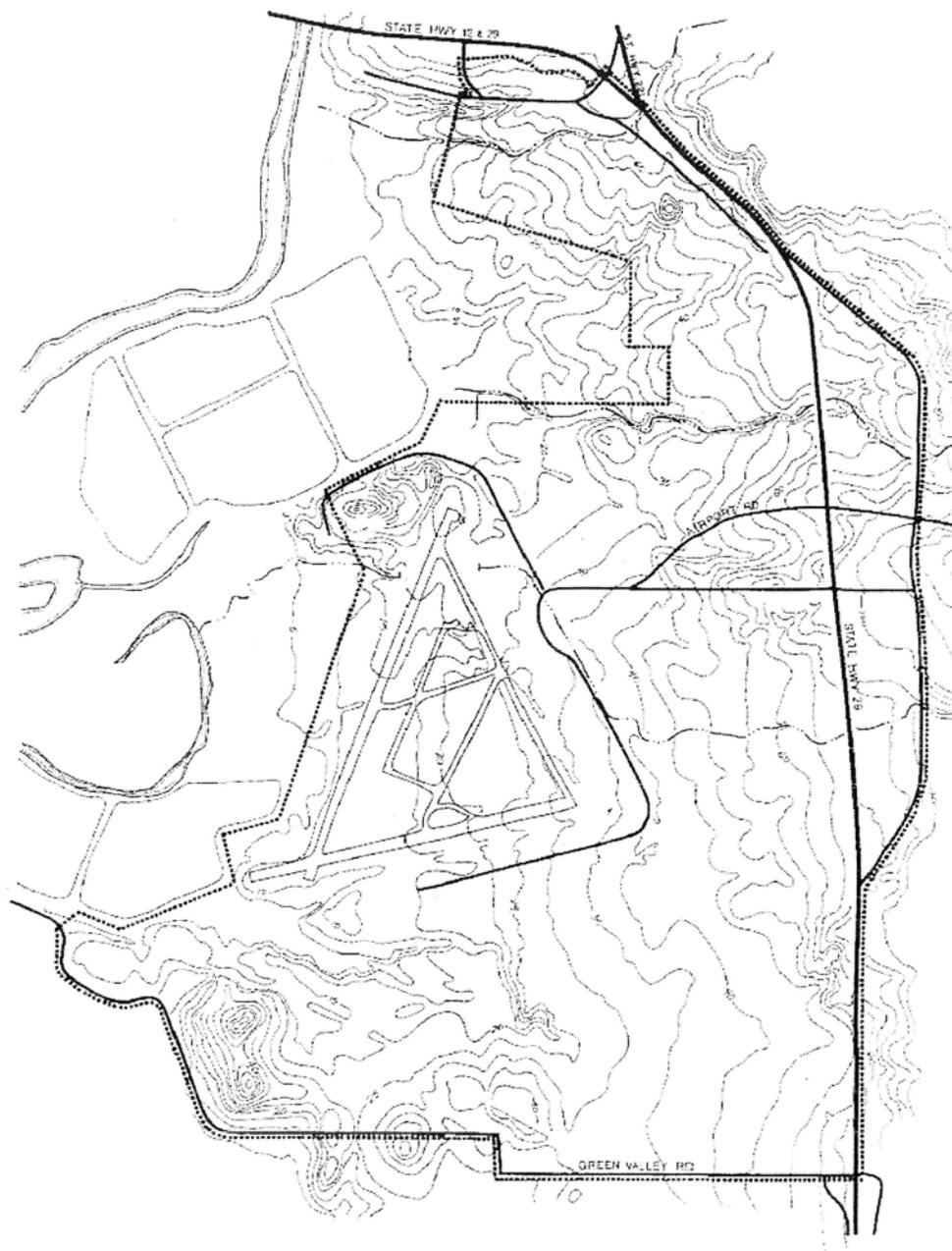
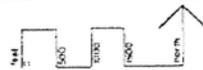


FIGURE 34
TOPOGRAPHY

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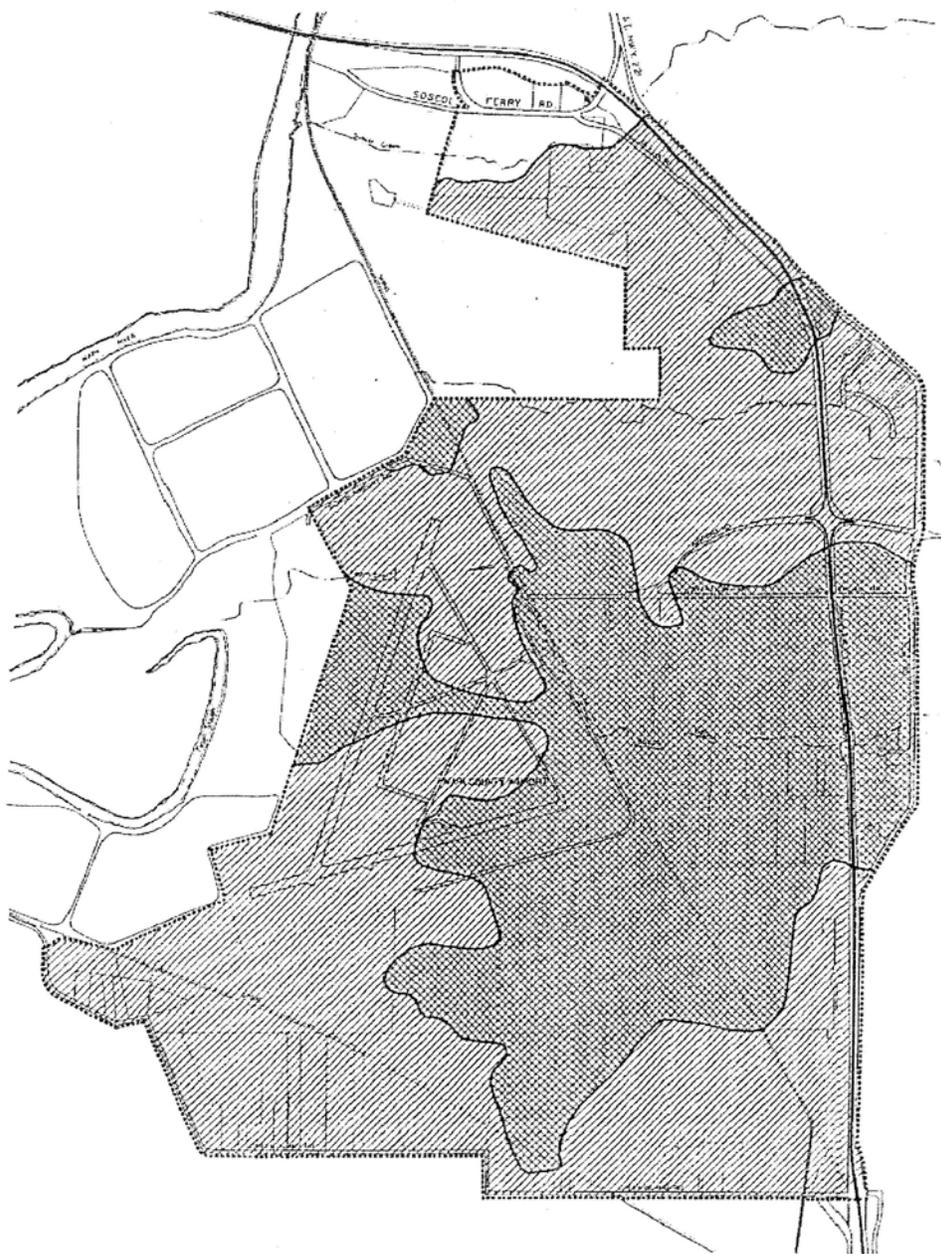


FIGURE 35
SOIL SHRINK-
SWELL POTENTIAL

LEGEND

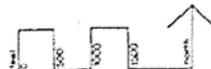
-  HIGH
High clay content - "Adobe" soils
-  MODERATE
Moderate clay content
-  LOW
Low clay content

SOURCE: USDA SCS Soil Survey of Napa County, August 1978.

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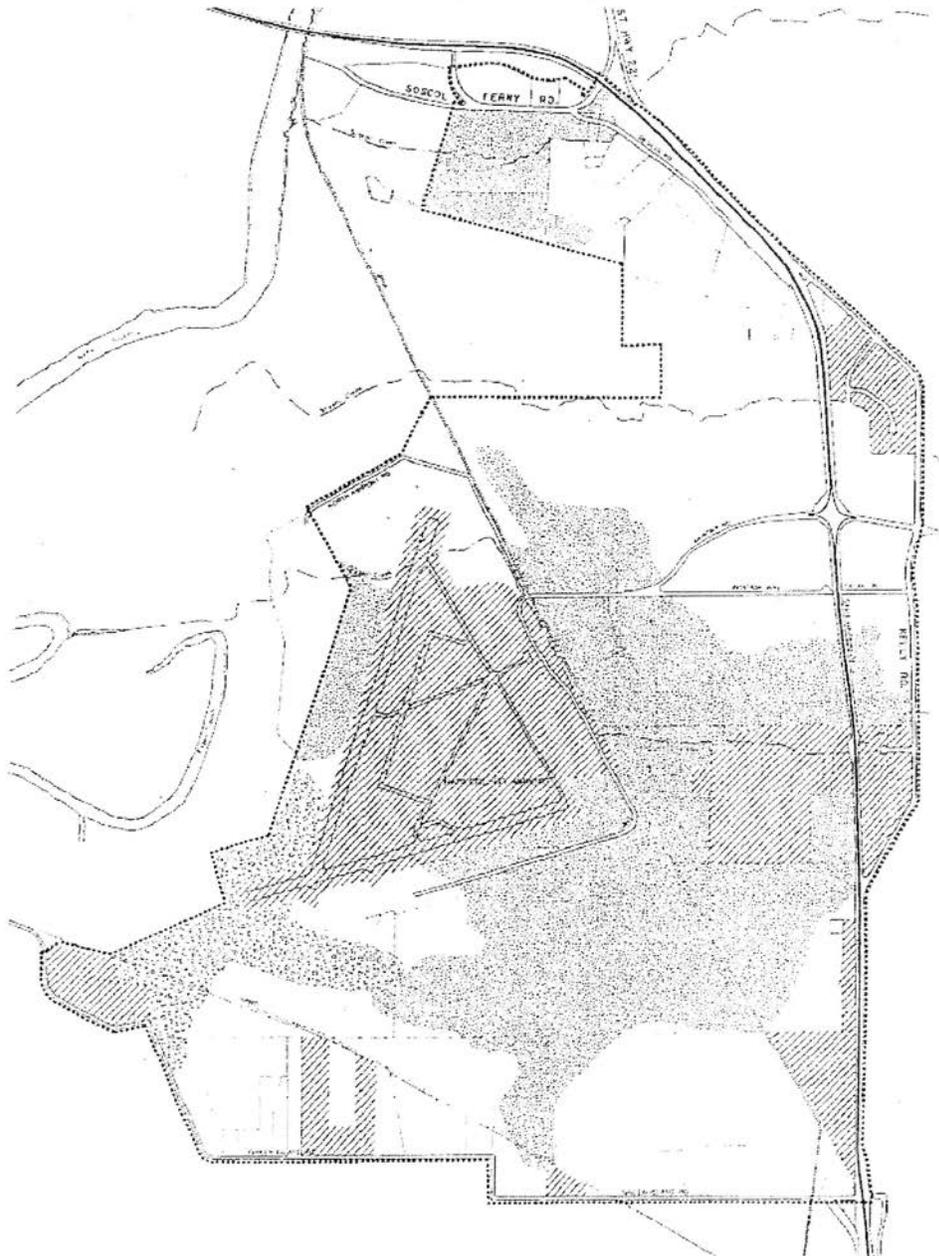


FIGURE 36
AGRICULTURAL
FACTORS

LEGEND

STATE FARMLANDS INVENTORY
(STATE DEPARTMENT OF CONSERVATION)

-  PRIME FARMLANDS
Lands with the best combination of physical and chemical features for production of agricultural crops
-  FARMLANDS OF LOCAL IMPORTANCE
Lands of importance to the local agricultural economy
-  URBAN AREAS
Developed lands

USDA SOIL CAPABILITY RATING
(SOIL CONSERVATION SERVICE)

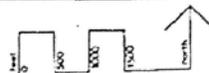
-  CLASS II SOILS
Second to the highest of seven USDA soil capability groupings; means only moderate limitations for field crops. There are no Class I soils in the planning area.
-  MARSHLANDS

NOTE: There are no Agricultural Preserve (Williamson Act) contracts in effect on lands within the planning area.

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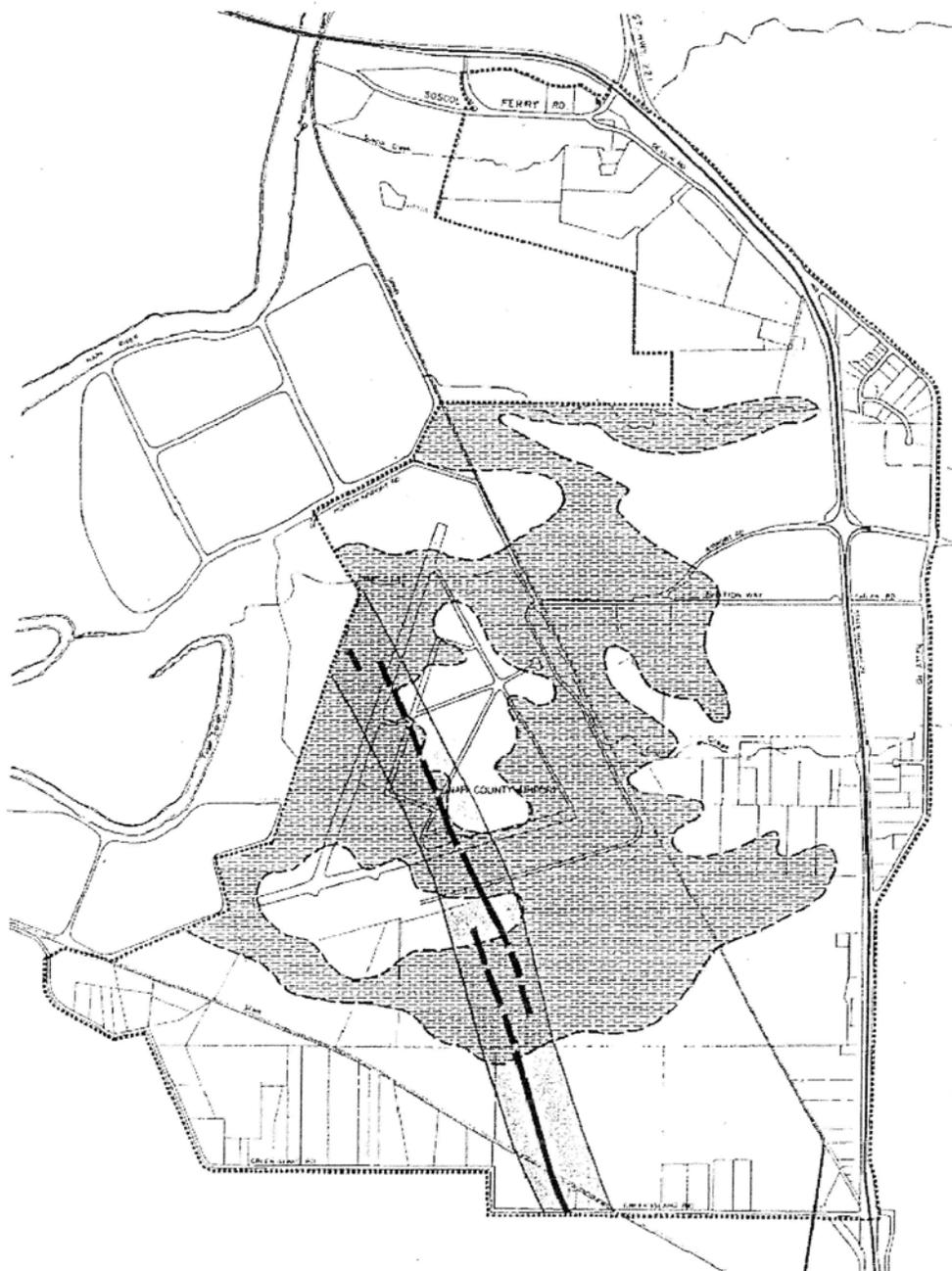


FIGURE 37
GEOLOGIC FACTORS

LEGEND

-  ALQUIST-PRIOLO
SPECIAL STUDIES ZONE

-  FAULT TRACE--ACCURATELY LOCATED

-  FAULT TRACE--APPROXIMATELY LOCATED

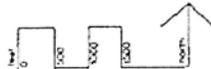
-  AREAS WITH MODERATE
LIQUEFACTION POTENTIAL

NOTES: (1) THE PLANNING AREA IS GENERALLY LEVEL. AVERAGE SLOPES DO NOT EXCEED 10 PERCENT.
(2) NO AREAS OF HIGH LANDSLIDING OR EROSION HAZARD EXIST IN THE PLANNING AREA.

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The liquefaction of soils can cause them to move laterally outward from under buildings, roads, pipelines, transmission towers, railroad tracks, and other structures such as bridges. Damage is usually greatest to large or heavy structures on shallow foundations, and takes the form of cracking, tilting, and differential settlement. Where gentle slopes exist, such as on stream or slough banks, liquefaction may cause lateral spreading landslides. Where the condition is known to exist, proper structural and foundation design can usually minimize or eliminate liquefaction hazard to new construction.

3. Mitigation Measures

a. Soils. There appear to be no hazardous or unavoidable soil conditions that would preclude the proposed land uses. Development on expansive soils is not unusual and can be mitigated by routine engineering services should be provided to guide foundation design, grading, and construction of each project in the planning area.

b. Seismicity. Prior to issuance of a permit to construct, a design-level geotechnical study should be made for each project within the planning area to evaluate the potential for damage due to surface faulting, ground shaking, or liquefaction. In general, provisions of the building code should be followed with regard to structural design for earthquake resistance.

I. HYDROLOGY AND WATER QUALITY

1. Existing Setting

a. Planning Area Drainage Characteristics. As shown on Figure 34, the planning area terrain is relatively flat and gently slopes to the west. Elevations along State Route 29 average around 60 feet N.S.L., and slope down as low as 5 feet along the western edge of the planning area. Planning area drainage characteristics are diagrammed on Figure 38. Four streams cross the planning area in an east/west direction, draining into the Napa River. Fagan and Suscol Creeks are the principal streams through the planning area. Fagan Creek passes through the central portion of the area to the railroad tracks, where it is channelized to run parallel to the tracks for approximately one-half mile. The stream then turns west, passing under the northern end of the airport runway where it reconnects with the natural channel and flows into Fagan Slough.

Suscol Creek is a heavily vegetated stream that crosses the northern tip of the planning area approximately 600 feet south of Soscol Ferry Road. Sheehy Creek traverses the planning area approximately half way between Suscol and Fagan Creeks. A fourth unnamed creek drains the area south of the airport. Flows in all four of these channels are intermittent or ephemeral, with approximately 95 percent of the annual flow occurring during the wet weather months of December through April. During the summer months and prolonged non-storm periods, flow may consist primarily of runoff from agricultural and urban uses.

The Airport Director has indicated that in the past the airport and adjacent planning area lands have experienced flood or near flood conditions during periods when heavy rain has coincided with high tides in the Napa River. The worst problems have occurred along Fagan Creek where it parallels the eastern boundary of the airport. During a recent "100-year storm" (seven or eight years ago)

airport management reports that flood water overflowed the creek banks, flooded the airport entry drive and parking lots, and came close to damaging the airport administration building. Two years ago, storm waters came within inches of overflowing these creek banks again.

Another area of concern is at the south end of the airport where the unnamed stream empties into drainage marshes surrounding the evaporation ponds east of the airport. The combination of high tides and storm conditions here has caused flood waters to come very close to the southern end of the runways.

b. Stream Protection Policies. The Flood Control and Water Conservation Section of the Napa County Department of Public Works is responsible for regulating the use of all waterways in the County and protecting them from alteration and obstruction which might create potential flood hazards and/or disturb riparian vegetation. The department reviews development proposals, issues permits, and enforces standards and regulations set forth in the Napa County Flood Plain Management Ordinance (#627 as amended). This ordinance requires review of all development proposals that are within the 100-year flood zone boundary derived by the U.S. Army Corps of Engineers in conjunction with the National Flood Insurance Program. Figure 38 shows the extent of these flood-prone areas.

The ordinance also identifies those streams that are subject to review due to their potential for disturbance to riparian vegetation or obstruction of stream flows. Any development proposals within 50 feet of the top bank of Soscol, Sheehy, or Fagan creeks require review and permits by the district. (The unnamed stream to the south of the airport is not subject to this portion of the ordinance.)

In addition to County review, all development proposals that would substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of a stream must be submitted to the Department of Fish and Game pursuant to Fish and Game Code Section 1603. No work can be initiated on such proposals until a streambed alteration agreement has been executed.

c. Planning Area Groundwater Factors. Groundwater is extracted in useable quantities from all geologic formations in the Napa/American Canyon area. The planning area lies in the Airport Subarea groundwater basin. This basin is characterized by a heavy clay layer underlain by coarser water-bearing zones. Soil conditions indicate that the water table is at least 6 feet below the ground surface. Only a minimal amount of recharge occurs on these lands west of State Route 29. Most of that recharge is the result of subsurface inflow from basins located to the north.

d. Planning Area Water Quality Concerns. No water quality data are available for the four streams that cross the planning area. General water quality concerns relate to potentials for erosion and sedimentation due to soil disturbance through agricultural or development activity, and associated effects of increased suspended solids downstream in the Napa River. Suspended particulates can restrict light penetration into the river and thereby limit the amount of algae that can be supported in the estuary. Other concerns include possible improper wastewater disposal, septic leaching, and animal husbandry practices which can contribute to low levels of dissolved oxygen and high coliform (bacteriological) counts in the streams.

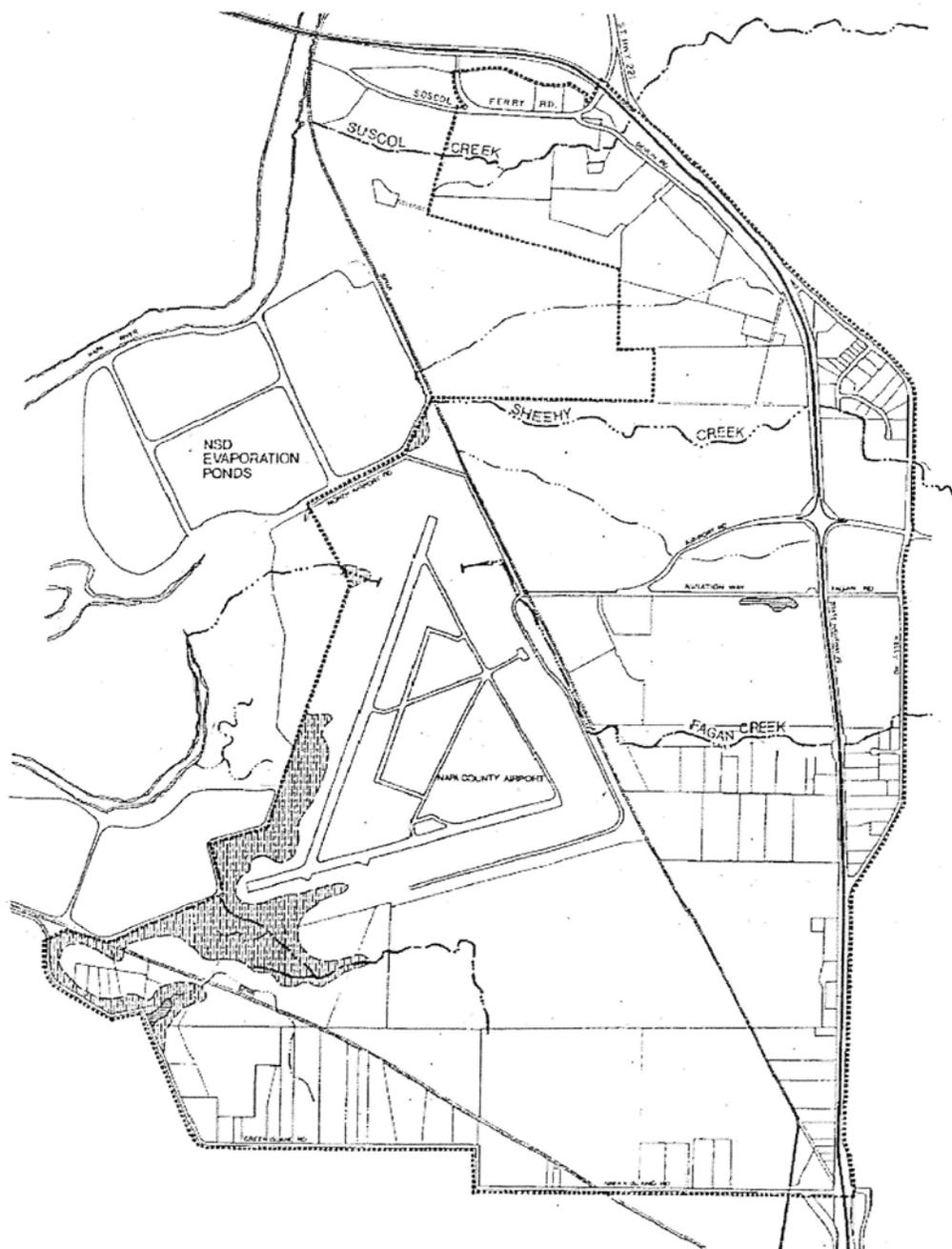


FIGURE 38
DRAINAGE AND
FLOODING

LEGEND

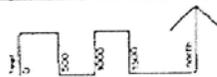
-  100-YEAR FLOOD PLAIN
-  PONDS
-  PRIMARY CREEKS
-  SECONDARY CREEKS

SOURCE: Napa County Department of Public Works (Napa Flood Control and Conservation Agency), and aerial photography.

NAPA COUNTY AIRPORT
INDUSTRIAL AREA
SPECIFIC PLAN PROGRAM

NAPA COUNTY, CALIFORNIA

WIGSTAFF AND BRADY
URBAN AND
ENVIRONMENTAL PLANNERS
BERKELEY, CALIFORNIA



The groundwater in the area is generally of good quality. Few producing wells, however, exist in the planning area, and some wells at the west end of Green Island Road have experienced salty and brackish tasting water. No saltwater intrusion has been reported in the area, however. For the most part, contamination of groundwater has been limited by the impermeability of the heavy clay layer that covers much of the area.

2. Impacts

a. Changes in Planning Area Drainage Characteristics. Grading anticipated for development under the proposed specific plan designations could significantly alter onsite drainage patterns. Introduction of road crossings and other development actions could also affect stream alignment. Subsequent industrial development would increase impervious surfaces onsite and thus the potential volume and rate of runoff.

b. Cumulative Downstream Effects. Changes to runoff characteristics (increased volume, velocity, and shortened peaking period) from development of the area at levels designated in the specific plan, plus the effects of cumulative development within the watersheds, together could lead to increased potential for downstream flooding. In particular, increased runoff volumes and rates in Fagan Creek and the unnamed stream could be expected to exacerbate storm drainage and tidal flooding problems at the airport.

c. Water Quality. In addition to increased siltation from soils exposed during construction, water quality would also be impacted by post-construction runoff carrying urban debris and petroleum wastes from paved surfaces. Water pollutants collected on paved surfaces, roofs, and landscaping during dry seasons would be transported into local and regional drainage nets via surface runoff from storm events and irrigation.

3. Mitigation Measures

- a. Based upon the impact analysis in the Airport Area MEA and the mitigation measures proposed in that study, a set of development guidelines has been incorporated into the plan under Natural Resource Protection Policies in the Land Use Element (see Section V.D.3). These guidelines have been established specifically to minimize surface runoff impacts, water pollutant loadings from urban surfaces, and stream channel degradation and flooding hazards.
- b. Developers of planning area lands within the Fagan Creek and unnamed stream drainages, together with the Napa County Airport, should fund completion of a drainage study to determine appropriate approaches to mitigating cumulative flood problems at the lowest reaches of these channels. Based upon the findings of such a study, specific drainage improvement requirements and associated fair share contributions to the cost of such improvements (drainage mitigation fees based upon land areas and runoff coefficients) could be set. Individual or group onsite stormwater detention pond approaches may also be recommended by such a study.

J. VEGETATION AND WILDLIFE

1. Existing Setting

a. Vegetation. The dominant biotic community in the planning area is annual grassland. The grassland has been modified over the years by agricultural activity (primarily grazing and hay production). The disturbance caused by these activities has tended to favor introduced annual grasses and forbs, which are generally more tolerant than native perennials. Introduced annual grass species found in the area include ripgut brome, red brome, wild oats, and rye grass. Some native bunch grasses, such as fescues, still exist in the less disturbed areas. Flowering plants in the grassland community include mustard, wild radish, curly dock, morning glory, yellow-star thistle, and assorted native wildflower species.

The grassland also supports a limited number of trees, including the native Valley Oak (Quercus lobata) and the Coast Live Oak (Quercus agrifolia). Some tree species have been introduced to the planning area, the most prominent being the groves of eucalyptus (Eucalyptus globulus) which are scattered throughout the area. The location of significant stands of trees can be identified on the aerial photograph of the planning area Figure 3.

Another major biotic community found in the planning area is the riparian vegetation along Suscol and Fagan Creeks. Suscol Creek, in particular, supports a lush corridor of riparian vegetation. Dominant tree species include cottonwood, willow, and California bay laurel. Understory species include blackberry, wild rose, wild grape, mugwort, and elderberry. Riparian vegetation along Fagan Creek is generally lower growing and less lush. Cattle using the creek as a water source have disturbed the vegetation and creek banks in areas. The dominant tree species along Fagan Creek is red willow; typical understory species include grasses, cattails, rush, mustard, snowberry, poison oak, and coyote bush. Riparian vegetation along the other two streams in the planning area is comprised primarily of similar herbaceous plants and shrubs, with little or no overstory growth.

Vernal pools are believed to be located throughout the grassland community, although a complete survey of the planning area has not been conducted. These pools vary in size and have all been disturbed by grazing or plowing. Such pools often support plant species listed as rare and endangered by the California Native Plant Society (CNPS). Legenere limosa, listed as "endangered" by CNPS, has been identified in nearby vernal pools in 1973 and 1983. Dwarf dowingia, listed as "rare but not endangered" by the CNPS, has also been found in the vicinity. The rare and endangered designation given these plants by the California Native Plant Society does not have legal status, but is an indication of the sensitivity of these species and of vernal pool habitats in general.

b. Wildlife. Grassland provides principal habitat for a number of small birds and mammals. Small rodents and other herbivores that inhabit the area include the black-tailed hare, Botta pocket gopher, California meadow mouse, western harvest mouse, and California ground squirrel. Burrowing owls and various songbirds also inhabit the area. In addition to providing a habitat for these birds and mammals, the grassland also plays an important role as a hunting and feeding ground for animals that live in other habitats. Most of the raptors in the area fall into this category, including the red-tailed hawk, American kestrel, marsh hawk, black-shouldered (white-tailed) kite, and turkey

vulture. Other animals that utilize the grassland habitat include the striped skunk, raccoon, opossum, gray fox, and a variety of songbird species.

The riparian vegetation along Fagan and Suscol Creeks creates a particularly valuable wildlife habitat due to the availability of food, water, and protective cover. Many of the grassland species mentioned above either live or make use of the riparian habitat. Additional species that are more likely to be found in the riparian habitat than in others include red-breasted sapsucker, Bewick's wren, hermit thrush, warbling vireo, yellow warbler, and broad-footed mole. Two species which are tied more directly to the streams because of their dependence on water as a breeding ground are the California newt and the Pacific tree frog.

2. Impacts

The following analysis of impacts is taken from the Airport Area Master Environmental Assessment. Although that study did not include the northern-most portion of the specific plan area, the impacts on that area would be essentially the same as those identified for the rest of the planning area. The one major difference is that the Suscol Creek corridor represents a more important vegetation and wildlife habitat than the Fagan Creek corridor (described below). Impacts on planning area segment of Suscol Creek would be similar in kind to those described in the MEA for Fagan Creek.

"Development would directly affect the grassland habitat type by reducing its total acreage. Indirect impacts such as sedimentation will affect the riparian and marshland habitat types.

"The grassland and pasture areas found within the study area serve as an important raptor feeding area. Conversion of these areas from their present agricultural uses to urban development would significantly reduce their value to the various predatory bird species found in the area. Complete development of these areas would eliminate their value to all species while incremental development would slowly reduce their habitat values. Species less tolerant of man's activities such as prairie falcons and rough-legged hawks would be the first to be displaced. Species such as the red-tailed hawk, American kestrel, and turkey vulture would continue to use the larger, undeveloped parcels until they too were developed.

"Small animals and birds that use the grassland habitat type would be displaced when development occurred. These species would experience a decline in their local populations proportional to the loss of habitat.

"Without specific development plans, the direct impacts on riparian habitat cannot be evaluated. If development requires the removal of riparian vegetation, the wildlife habitat value of the area will be greatly reduced. Many species presently in the area rely on the riparian zone of Fagan Creek for water, food, and cover. Removal of riparian vegetation would therefore reduce the species diversity in the study area. Other development impacts would be increased sedimentation in the creeks, and increases of pollutants that may be toxic to plant and animal species present in the riparian zone.

"Development within the project area could affect rare or endangered species. Coastal brackish marsh species could be affected by off-site impacts, such as sedimentation or water quality degradation. Vernal pool habitats could be directly eliminated by development.

"Development is unlikely to directly affect rare or endangered species associated with coastal brackish marsh. The small area of this habitat type within the project area is located in a sprayfield operated by the Napa Sanitation District. Continued operation of the sprayfield is unlikely to adversely affect the brackish marsh or the transition zone, although changed land uses could have adverse effects. Upstream potential for toxic material spills. These effects, described in more detail in the Water Quality section of this assessment, could have adverse impacts on any or all of these species.

"Vernal pools could be destroyed by development in the grassland area. Any rare or endangered species present in the pools would also be eliminated. Surveys for vernal pools and rare or endangered plants associated with vernal pools should be done in spring and early summer; apparently no surveys have been done in the project area. The potential for adverse effects on rare or endangered species cannot be predicted, but suitable habitat for these species is present. The loss of vernal pools would be an adverse impact regardless of the presence or absence of rare or endangered plants."

3. Mitigation Measures

The mitigation measures from the Airport Area MEA have been combined in the specific plan with additional measures tailored to the specific development pattern recommended in the plan to form a set of development guidelines which will protect and enhance the biotic resources in the planning area. These development guidelines have been incorporated into the Land Use Element under the section on natural resource protection (see Section V.D.3.).

K. VISUAL FACTORS

1. Existing Setting

a. General Study Area Characteristics. As shown in the aerial photograph (Figure 3), the planning area landscape is characterized by relatively flat, lightly vegetated rural open space. Commercial and industrial development tends to be clustered in pockets along State Route 29. Rural residences are scattered throughout the area. Few significant tree stands exist in the planning area. Exceptions include a stand of oaks near the intersection of Fagan and Kelly Roads, and the riparian areas along Suscol and Fagan Creeks (see photo 3). Other stands of trees tend to be associated with existing development (i.e., farm houses, commercial development, etc.; see photos 9, 11, 23 and 29).

The open, level character of the planning area permits views westerly across the entire area to the Napa River and beyond (photos 7 and 10), and easterly and northerly views of rolling foothills (photo 15). Since the area has few internal roads, the primary existing viewpoints into the area are from State Route 29, Green Island Road, and Airport Road.

b. State Route 29. State Route 29 extends the length of the planning area and provides the vantage from which most people view the site. The route has regional visual significance as the southern entrance to the Napa Valley. The visual character of this corridor is important to the County's growing wine-oriented tourist industry since the route contributes to the visitor's first impressions of the County.

The landscape on either side of State Route 29 along the planning area has distinctly different visual characters. Looking west into the planning area, the viewer sees a level terrain that slopes gently down to the river and beyond (photo 7). The evaporation ponds and railroad drawbridge to the west of the planning area are clearly visible. To the east of State Route 29, the terrain slopes up to meet rolling foothills dotted with stands of native oaks (photo 15). Both of these areas are simple landscape types covered primarily with grassland with few natural vertical elements. This lack of visual complexity makes these areas highly vulnerable to visual disruption. The absence of a variety of landforms and vegetation limits the ability of the landscape to absorb new development without conspicuous disruption of the visual character of the area. This is clearly demonstrated in areas along this corridor where development has occurred (photo 8).

At present, the majority of all development in the planning area has clustered along State Route 29 in three major groups. From Green Island Road north to the intersection with Kelly Road, industrial and commercial development has occurred continuously along the west side of the highway (photos 14 and 16); no development occurs along the east side of the road. The development on the west side tends to be built very close to the road (photos 17 - 19). Parking areas and storage yards are typically located immediately adjacent to the road shoulder, with little or no landscaping or screening. Due to the nature of most of these businesses, the architecture is purely functional, and buildings tend to be boxy and unadorned. Signs proliferate along this strip and are of all sizes, shapes, and placements. The overall visual character is cluttered and of low quality. This strip of development along the west frontage of State Route 29 contrasts sharply with the open vista of rolling grasslands and foothills that occurs along the east side of the highway.

The next cluster of development to the north is located between the Kelly Road intersection and Fagan Creek. Development along this stretch occurs on both sides of the highway and is of similar visual quality to the Green Island Road-Kelly Road segment. Development is more intensive along this stretch with business taking access off Tower and Kelly Roads as well as State Route 29. As a result, the positive visual qualities associated with the rural open space on both sides of the highway have been blocked by development in the foreground.

A third area of development is the Napa Valley Business Park, located at the northeast quadrant of the northern junction of State Route 29 and Kelly Road. This planned development is situated on the east side of State Route 29, and takes access off Kelly Road. Structures in this planned development are all oriented towards an internal street system. At present, most of the buildings are set back from the highway. As a result, their visual impact from State Route 29 is not as great as the development to the south. Fewer signs are placed along the highway and some landscaping has been added to screen views of structures. In summary, the visual character of the area is more organized and of a generally higher quality (e.g., architecture, landscaping, setbacks, signs) than the other two developed areas.

As State Route 29 turns west and crosses the river it gains elevation and provides panoramic overviews both to the north of the Southern Crossing and to the South. It also provides an overview of the planning area from the east (see Photo 1). The riparian vegetation along Suscol Creek is an important visual element in the views from this elevated portion of the road.

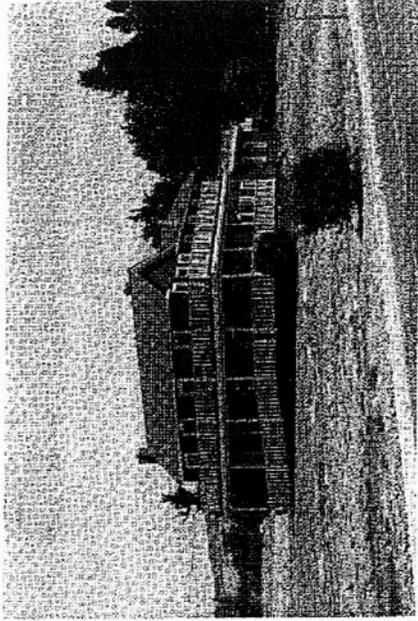
c. Green Island Road. Green Island Road currently has only scattered development along its planning area frontages (photos 23-27). To the north (in the planning area), roadside views consist of an intermixing of rural landscapes (flat pastureland and open grassland) and occasional residences. These views are typical of rural areas and have no special scenic value. However, about halfway out Green Island Road, the presence of automobile salvage yards significantly alters the visual character of the landscape from a rural industrially oriented area (photos 27 and 28). The visual quality declines dramatically toward the end of the road where stacks of cars or dilapidated corrugated metal fences line the roadside. South of Green Island Road, views are primarily of open grasslands, but landscape features such as Oat Hill, the salt evaporation ponds, and heavily wooded areas add visual interest. A couple of industrial developments have been located along the south side of the road. They are involved in heavy industrial activities, and the visual character of their facilities is typical of such operations (photo 26).

In general, the visual character of the industrial areas along both Green Island Road and State Route 29 is utilitarian. Visual conditions are indicative of the low level of development control associated with land-extensive, low capital investment uses: ramshackle and worn structures, minimal road setbacks, exposed construction equipment and materials storage, other casual materials storage practices, abandoned equipment and debris, unpaved roads, dust, haphazard signage, and a general lack of effective visual screening.

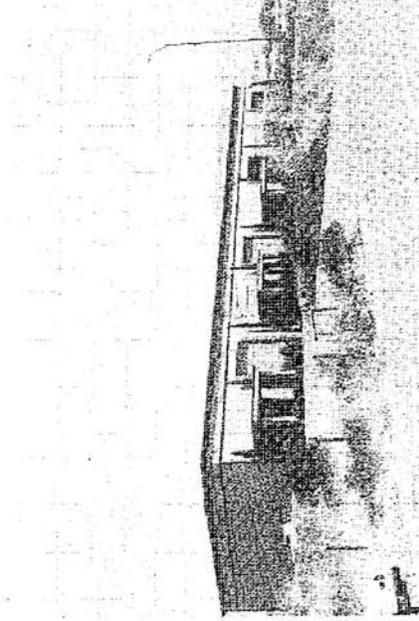
d. Airport Road. Airport Road currently provides sweeping views of the area, with open grazing land in the foreground and foothills terminating the views to the east, west and north (photo 10). The only manmade features close at hand are two barns on a rise just south of Airport Road (photo 9). They add visual interest to the scene and reinforce the rural agricultural character of the area. The other development that can be seen from the road is distant enough to be visually insignificant. Due to the topography, the airport facilities themselves are not visible until one is practically upon them.

e. Special Visual Features. The planning area has few distinctive onsite elements that contribute significantly to the visual value of the area. The most important of these are areas with significant stands of vegetation, particularly along Suscol Creek and the heavily wooded slopes just south of State Route 12. The historic Soscol House also adds cultural and visual interest to the area (photo 2).

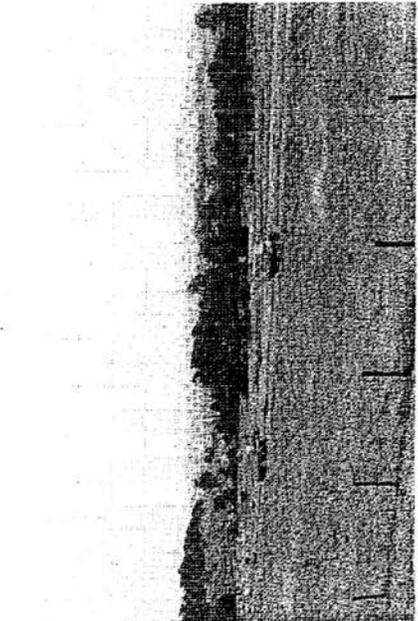
A very important visual feature which is not in the planning area, but contributes significantly to the high visual quality of the corridor is the open landscape to the east of the highway. These open grasslands and rolling foothills dotted with oaks form a landscape unit which gives a distinctive rural character to the area.



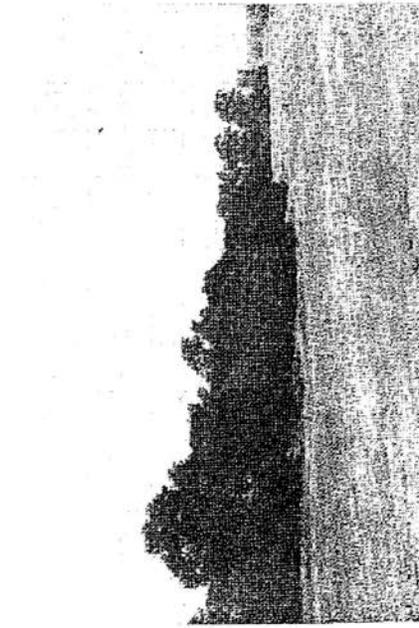
2. The Old Soscol House.



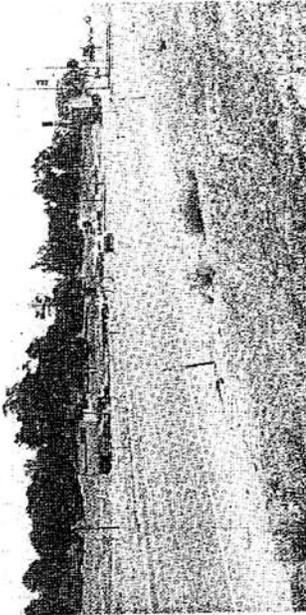
4. Light industrial activity on Soscol Ferry Road.



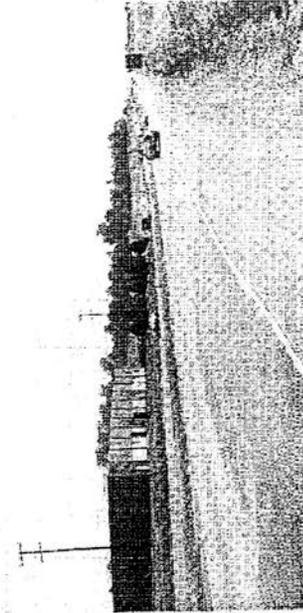
1. Southern Crossing vista point (looking south over the planning area).



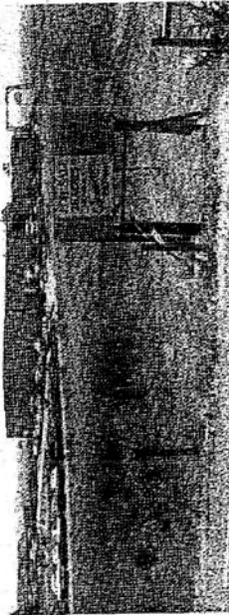
3. Riparian vegetation along Suscol Creek.



6. State Route 29 (looking south).



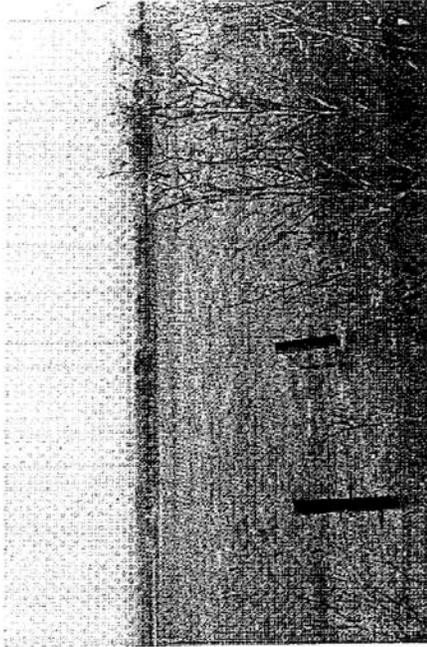
8. State Route 29 (looking south toward intersection with State Route 12 and Airport Road).



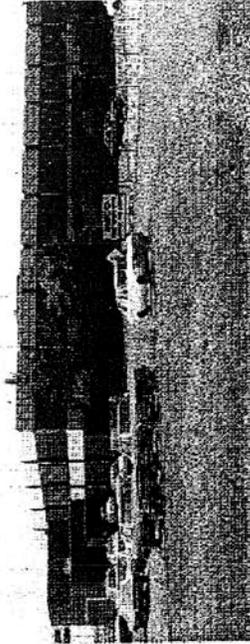
5. Industrial activity along Devilin Road.



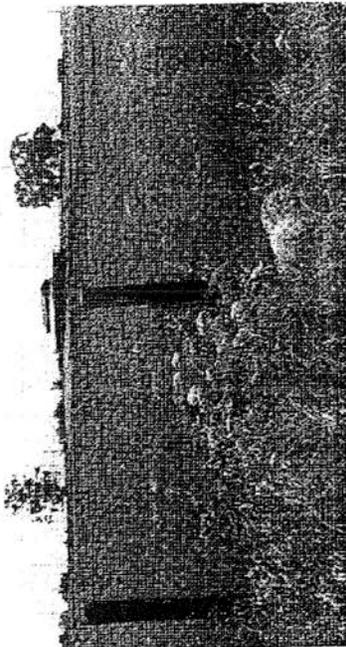
7. Sheehy Creek (looking west from State Route 29).



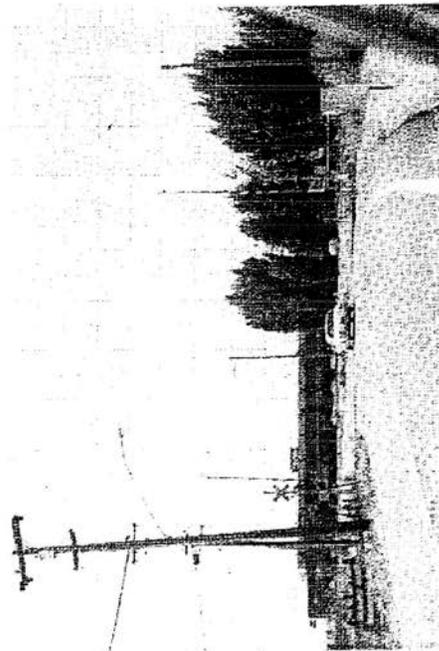
10. Agricultural land north of Airport Road.



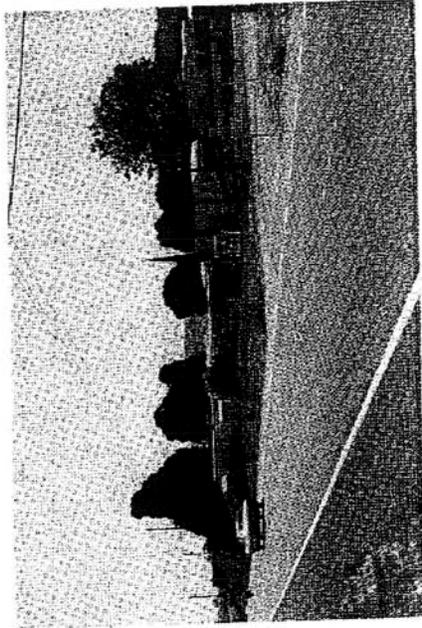
12. JASCO Flight Training Center at the airport.



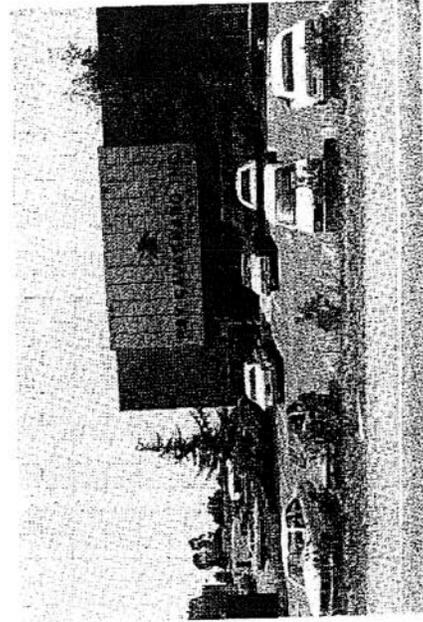
9. Agricultural land south of Airport Road.



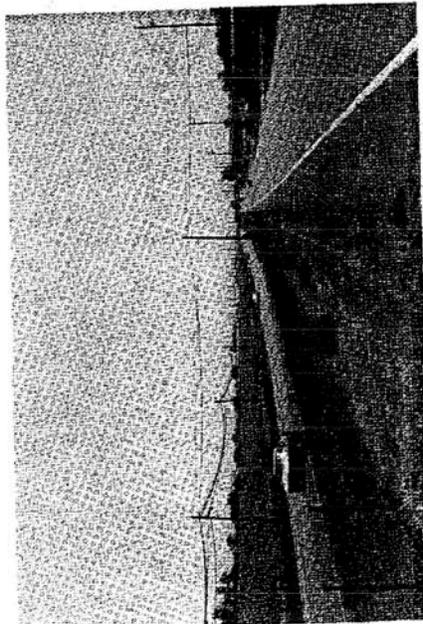
11. Entrance to Napa County Airport.



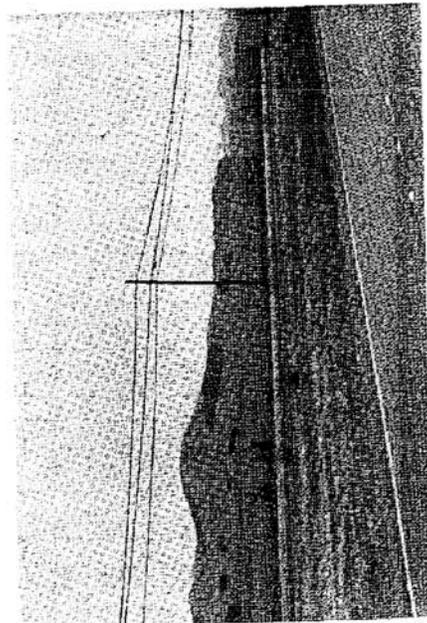
14. Industrial activity on west side of State Route 29.



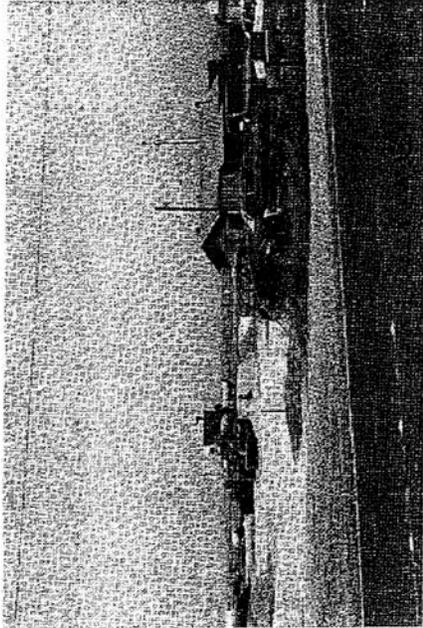
16. Industrial activity on west side of State Route 29.



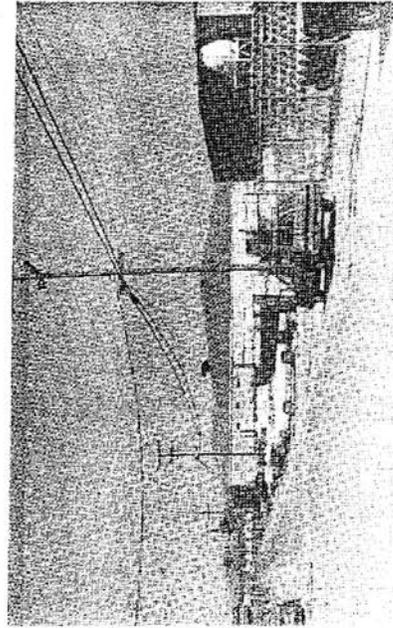
13. State Route 29 (looking south).



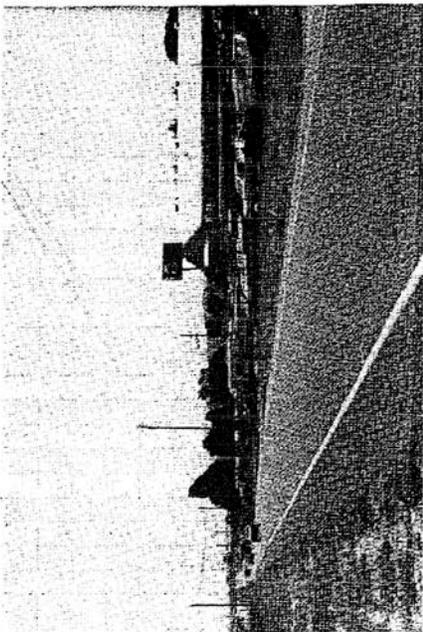
15. Open grasslands east of State Route 29.



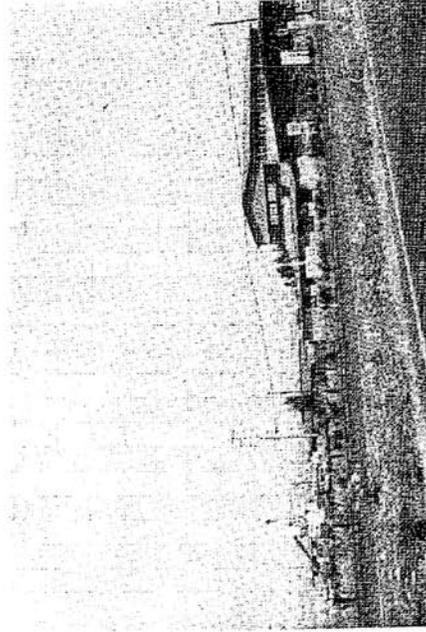
18. Industrial activity on west side of State Route 29.



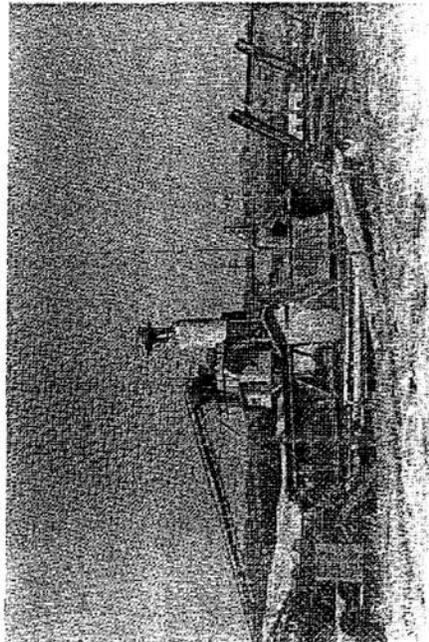
20. Industrial activity on south side of Tower Road.



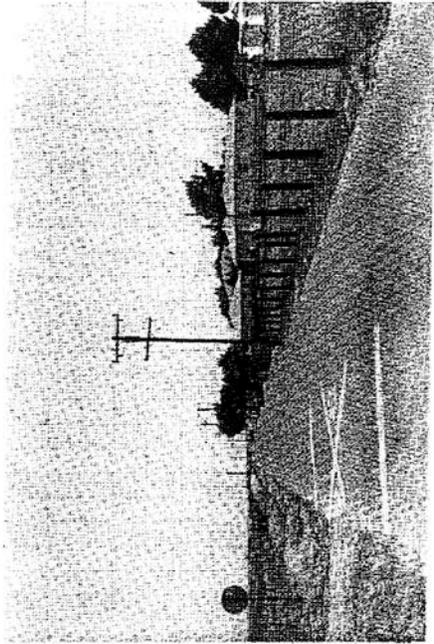
17. Industrial activity on west side of State Route 29.



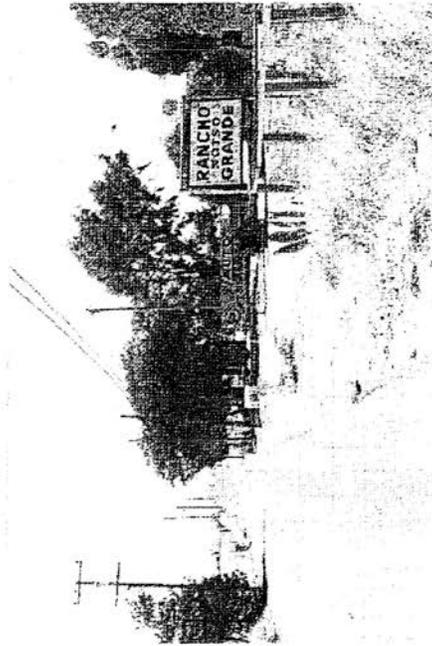
19. Industrial activity on west side of State Route 29.



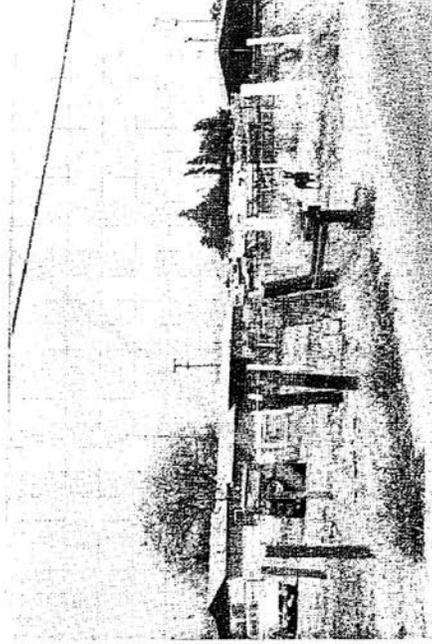
21. Industrial activity on north side of Tower Road.



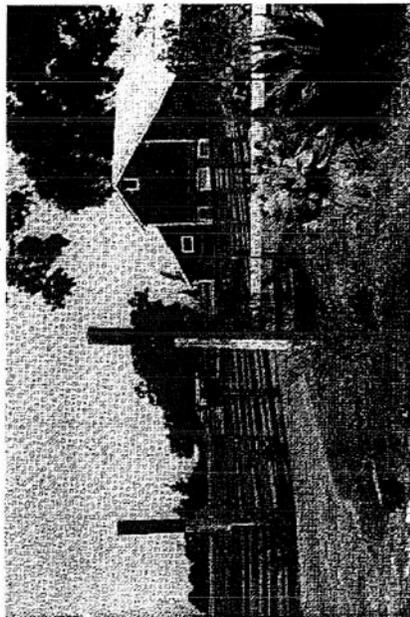
22. Green Island Road (looking west).



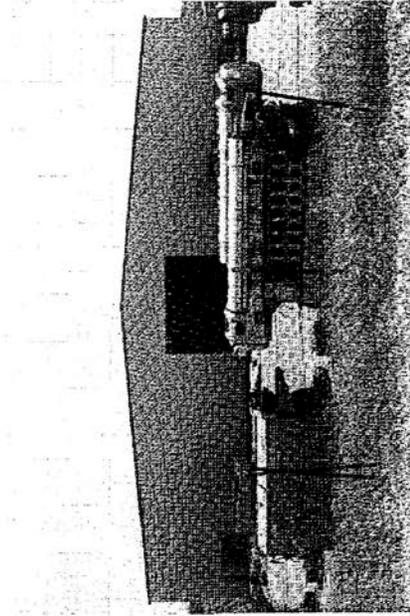
23. Industrial activity on north side of Green Island Road.



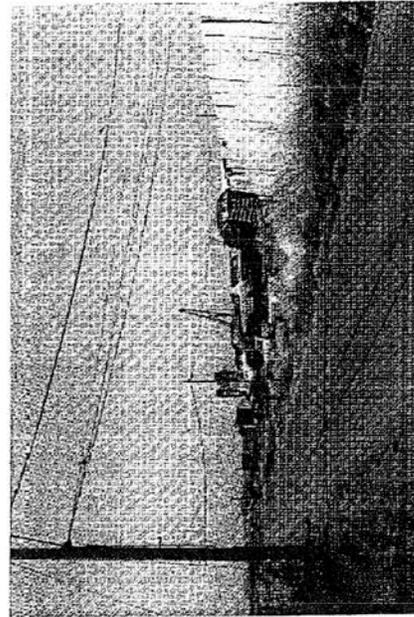
24. Rural residences along north side of Green Island Road.



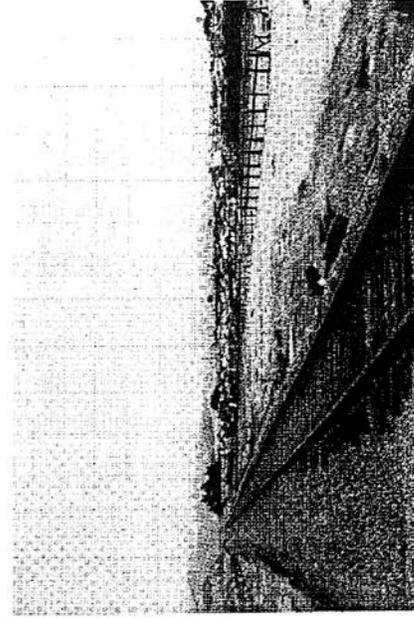
25. Agricultural activity on north side of Green Island Road.



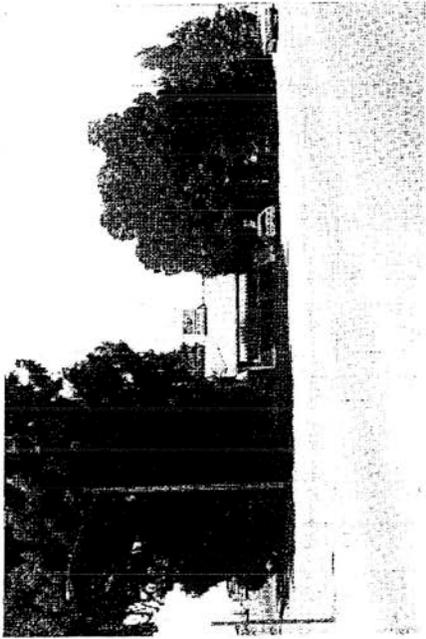
26. Industrial activity south of Green Island Road.



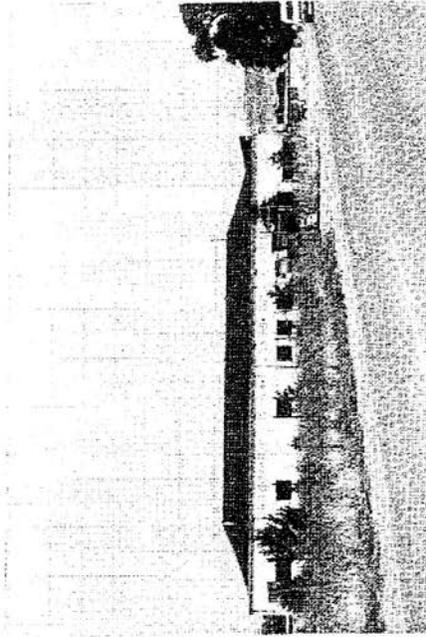
27. Industrial activity on north side of Green Island Road.



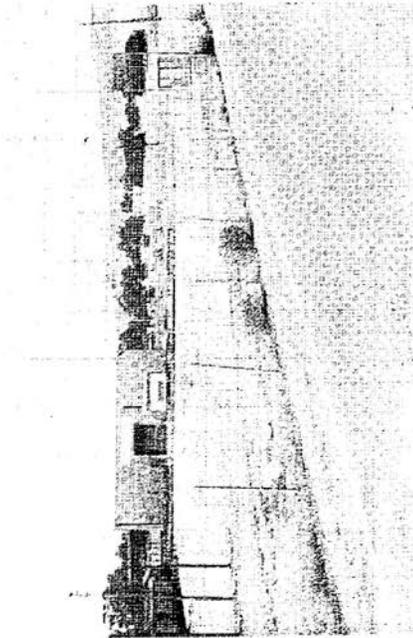
28. Southern Pacific Railroad line (looking east from southwest corner of planning area).



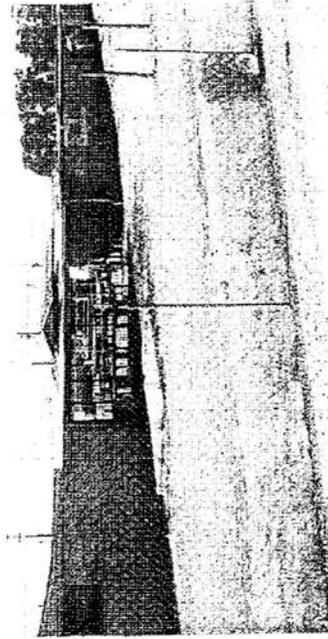
29. Service commercial activity at junction of South Kelly Road and State Route 29.



30. Industrial activity on west side of Kelly Road.



31. Industrial activity on west side of Kelly Road.



32. Industrial activity on west side of Kelly Road.

2. Impacts

a. Site Vicinity. The simple, flat terrain and the predominantly rural or open space atmosphere which characterize the planning area contribute to its visual vulnerability. Generally, development of the planning area as proposed would significantly change the visual character of the area, replacing the rural, lightly developed landscape with a more densely developed industrial character.

b. State Route 29. Buildout of the planning area under the specific plan will eliminate much of the rural landscape that is now visible from Highway 29. Existing uninterrupted views to the west will be disrupted by buildings and landscaping associated with new development. Such development, however, will be visually buffered by landscaped setbacks called for in the plan for both sides of the highway.

The effect of the new development standards required by the plan (including landscaping, signage, and architectural controls, coverage and setback limitations, etc.) will be to eventually upgrade areas along the highway that are presently considered visually unattractive, and to create a more visually unified transportation corridor with consistent, high quality landscape treatments along the length of the planning area. This new landscape treatment along this corridor segment should provide a positive visual contrast to the unobstructed views of open grasslands east of the highway. (This finding also assumes that the County will implement the policy in Section IV.G. of the specific plan to protect these view corridors by preserving land east of the planning area for agriculture and open space uses.)

The overall effect of the plan on the S.R. 29 corridor will be to promote a positive, more visually unified, although more urban, visual character to this important southern entrance to the County.

c. Green Island Road. In general, the visual character of Green Island Road will be allowed to become more consistently industrial under the specific plan. The heavy industrial uses proposed along Green Island Road can be expected to be of a relatively low visual quality; however, standardized setbacks and landscaping requirements will help mitigate the worst impacts of development along the north side of the road (i.e., within the planning area). The potential visual impacts created by such development in this location are not considered to be highly significant in light of the isolated nature of the area and the limited number of people affected. Because Green Island Road is a non-through road, people affected by this change will be limited to those conducting business in the area and those few who continue to have residences along this road.

d. Airport Road. The visual character of Airport Road will change significantly as the roadway is upgraded to its ultimate five-lane configuration. The existing views of pastures and farm structures will give way to views of business/light industrial park development. The roadside landscaping approaches called for in the Circulation Element of the plan will provide a unified, continuous, and formal roadside treatment. As buildout occurs, views into the interior of the planning area from Airport Road will become increasingly limited.

e. Internal Visual Conditions. Specific plan development standards for both business/industrial park and heavy industrial areas will have the effect of visually upgrading and standardizing those properties which front on internal streets. The low visual value and utilitarian character of some

existing developments in the area will not be immediately affected by the implementation of the specific plan. Over the long term, however, general buildout and upgrading of the planning area may create pressures to visually upgrade these properties.

f. Special Visual Features. The rural visual values associated with the existing agricultural land and farm structures will eventually be lost within the planning area. The preservation of structures like the Old Soscol House and the Old Ranch House in the Greenwood Ranch, could, however, maintain some link with the area's past and create some visual interest. Although the plan recommends preservation of existing mature trees to the extent feasible, it is possible that some trees will be removed to accommodate development.

The visual character of the riparian environments along Fagan and Suscol Creeks will be preserved and enhanced by setbacks and other protection measures required in the plan. The plan's impact on the visual quality of Sheehy Creek and the unnamed stream could be positive, but will depend on design solutions formulated by individual property owners with input from the Napa County Flood Control and Water Conservation Section and the California Department of Fish and Game.

3. Mitigation Measures

Buildout of the planning area under the plan will result in a substantial change in the existing visual character of the area. Principal rural elements which now characterize the area (i.e., most of the open pasture land and farm structures) will be displaced primarily by industrial park development. The plan sets forth an extensive program for establishing and protecting a standard of visual quality appropriate for attracting and accommodating this industrial development.

L. NOISE

1. General Conditions

The planning area is located in rural area that currently supports agricultural, industrial, and airport uses, scattered residential uses. The noise environment is generated primarily by traffic on State Route 29 and aircraft using the Napa County Airport. Other, less significant noise contributors include the railroad, Airport Road, Green Island Road, and Devlin Road.

2. Noise Measurements

Noise measurements were conducted at four locations in the planning area to quantify existing noise levels there. The measured data are summarized in Table 21.

At location 1 in the southwest corner of the planning area, the major noise source was general aviation aircraft from the Napa County Airport. Occasional vehicles on Green Island Road also contributed. Maximum noise levels generated by the aircraft overflights were 64 dBA. At location 2, near the intersection of Green Island Road and State Route 29, the noise environment was dominated by traffic on State Route 29. Maximum levels were generated by truck pass-bys and ranged from 68 to 73 dBA. At location 3, the junction of Airport Road and Aviation Way, the noise

environment was generated by automobiles on Airport Road with general aviation aircraft, distant industrial noise, and wind in the trees also contributing. At location 4 near the north end of the planning area, the noise environment was generated by cars on Devlin Road and general aviation aircraft overflights. The maximum sound level was generated by a direct overflight and reach 78 dBA.

During the noise measurement survey, no jet aircraft were observed. Jet aircraft use the Napa County Airport regularly. Falcon jets are an aircraft type commonly used at the Napa facility. Measurement of the Falcon jet noise was conducted in 1973 as a part of the Napa County Airport Runway Extension EIR. The data indicate that, directly on line with the runway at the north end of the planning area, single-event maximum noise levels of up to 88 dBA can be expected during typical operations when the jets are landing. At the south end of the planning area on line with the runway, maximum noise levels of up to 95 dBA can be expected during takeoffs. The noise element indicates that typical maximum levels of 75 dBA can be expected out to distances of 2,000 feet from the aircraft and 65 dBA can be expected within 4,000 feet of the aircraft.

Table 21
SUMMARY OF 15-MINUTE NOISE MEASUREMENTS (dBA) --
THURSDAY, AUGUST 2, 1984

	Location	Time	Leq	L1	L10	L50	L90	L99
1	Green Island Rd at southwest corner of site	2:07 pm	51	63	54	45	42	39
2	160 ft from State Route 29 centerline at Green Island Road	2:33 pm	63	74	66	59	54	50
3	Intersection of Airport Road and Aviation Way	3:00 pm	53	62	54	51	48	46
4	Intersection of Devlin Road and Soscol Ferry Road	3:34 pm	61	73	65	54	49	45

Source: Charles M. Salter Associates

3. Noise Compatibility Guidelines

The Noise Element of the Napa County General Plan contains noise compatibility guidelines for different land uses. The guidelines are reproduced as Tables 22 and 23. The noise levels shown are in terms of the Ldn noise metric and single event maximum noise levels. Ldn is a 24-hour average noise level with 10 dB added to noise levels between 10:00 p.m. and 7:00 a.m. to account for people's heightened sensitivity to noise at night. Figure 39 shows the year 2000 noise contours which would be expected based on projected development levels under the current General Plan. Noise levels for State Route 29 were calculated from traffic volumes figures contained in the General Plan Noise Element. The noise contours for the airport and railroad were taken from the Noise Element. A comparison of the noise and land use compatibility guidelines with the noise contour map indicates where noise mitigation will be required and where unacceptable noise levels would occur for the different land uses.

The intermittent noise criteria shown in Table 23 are for interior noise levels. A typical residence with the windows open for ventilation provides 12 to 15 decibels of noise reduction. Therefore, large areas of the site would be considered incompatible for residential use without mitigation based on this criteria. A commercial building containing offices typically provides 15 dBA of noise reduction with the windows closed. Therefore, the majority of the site would be considered compatible with commercial development with the exception of areas within about 900 feet of the airport approach and departure alignments. In these areas, noise mitigation may be required.

4. Noise Compatibility Definitions¹¹

Completely Compatible: The noise exposure is such that both the indoor and outdoor environments are pleasant.

Tentatively Compatible: The noise exposure is great enough to be of some concern, but common building construction practices will make the indoor environment acceptable. The outdoor environment will be reasonably pleasant for recreation and play.

Normally Incompatible: The noise exposure is so severe that unusual and costly building construction is necessary to ensure some tranquility inside a home, and barriers must be erected between the site and prominent noise sources to make the outdoor environment tolerable.

Completely Incompatible: The noise exposure at the site is so severe that construction costs to make the indoor environment acceptable would be prohibitive and the outdoor environment would still be intolerable.

Table 22
NAPA COUNTY NOISE COMPATIBILITY GUIDELINES

Land Use	Completely Compatible	Tentatively Compatible	Normally Incompatible	Completely Incompatible
Residential	less than 55	55-60	60-75	greater than 75
Commercial	less than 65	65-75	75-80	greater than 80
Industrial	less than 70	70-80	80-85	greater than 85

Source: Environmental Protection Agency; San Francisco Department of City Planning; San Mateo County Airport Land Use Commission; Santa Clara County Airport Land Use Commission; San Jose Planning Department; Porter & Schwartz; and Bolt, Beranek & Newman.

¹¹ Source: Napa County LAFCOM, 1981.

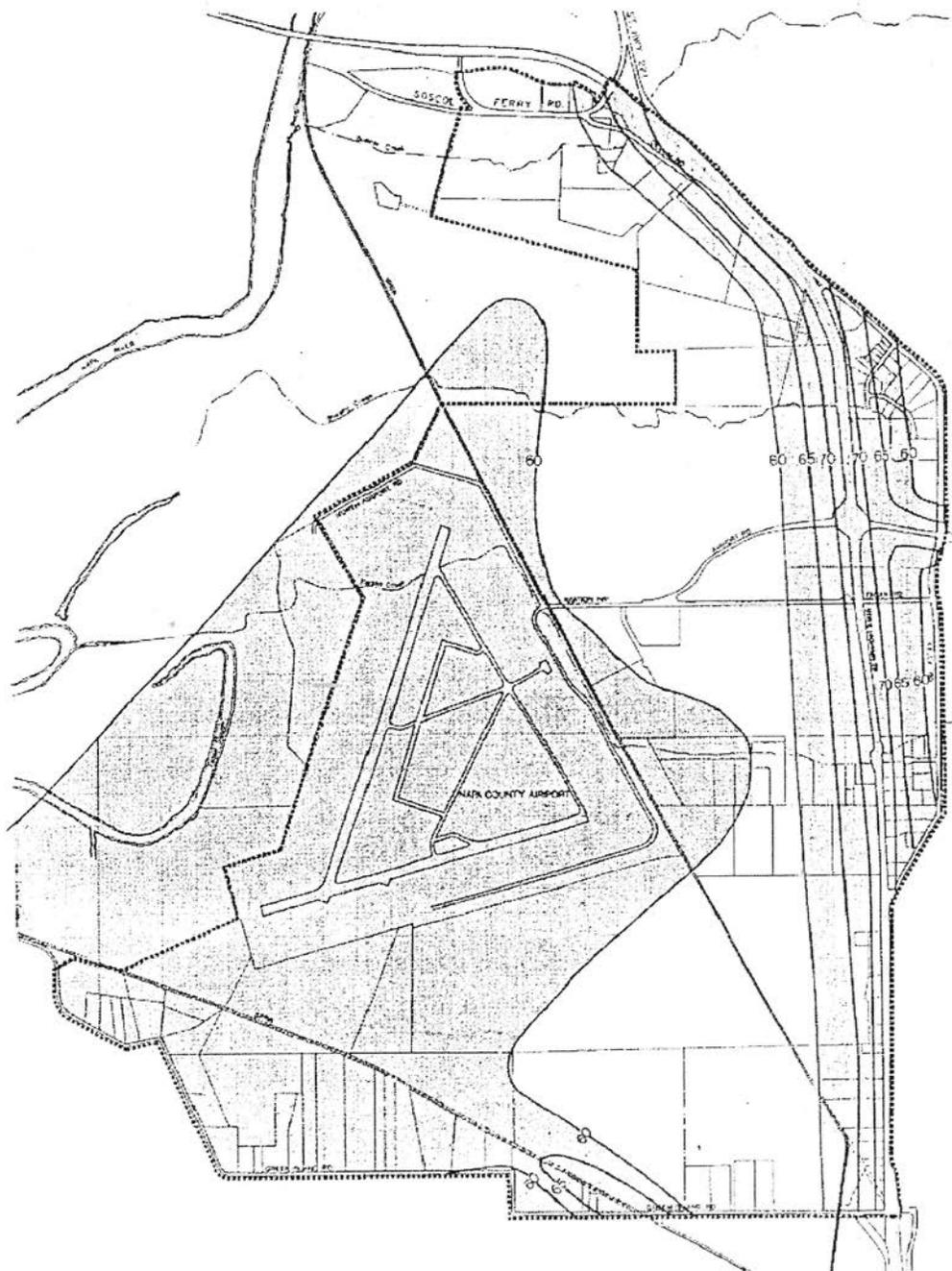


FIGURE 39
NOISE CONTOURS

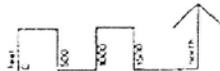
LEGEND

-  PROJECTED YEAR 2000
NOISE CONTOURS (dB CNEL)
-  PORTIONS OF THE PLANNING AREA
SUBJECT TO PROJECTED NOISE
LEVELS IN EXCESS OF 60 (dB CNEL)

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5. Impacts

The noise impact of the proposed project falls into three possible categories.

- Off-site noise impacts generated by increased traffic or industrial noise sources.
- Intra-site noise impacts created by noise generating uses adjacent to noise sensitive uses.
- The compatibility of the proposed uses with the ambient noise environment generated by aircraft, vehicular traffic, and trains.

a. Off-site Impacts. Buildout under the proposed project could result in off-site noise impacts due to increased vehicular traffic and to noise generated by heavy industrial point sources. A comparison of S.R. 12 traffic noise levels anticipated under the existing General Plan with those anticipated under this specific plan indicates that noise levels under the specific plan would be at most one decibel higher by the year 2000 and at the midpoint of full buildout. A one decibel difference in traffic noise levels is not generally noticeable. Because of the very limited residential development in the immediate S.R. 29 corridor, no adverse community response is anticipated.

Table 23

RECOMMENDED MAXIMUM INTERIOR NOISE LEVEL CRITERIA

Generalized Land Use (Occupancy)		Maximum Int. Intermittent Noise - dBA	Basis for Criteria
A. RESIDENTIAL -- SINGLE & TWO FAMILY DWELLINGS			
1	Living Areas		
	a. Daytime	60	Conversation - 5 ft. - normal voice
	b. Nighttime	55	Conversation - 10 ft. - normal voice
2	Sleeping areas	50	Sleeping
B. RESIDENTIAL			
	Multiple Family Apartments	Same as A	Same as A
C. EDUCATIONAL FACILITIES, ETC.			
1	Concert Hall	25	Intrusion of noise may spoil artistic effect
2	Legitimate Theater	30	Intrusion of noise may spoil artistic effect
3	School Auditorium	35	Minimize intrusion into artistic performance
4	School Classroom	55	Speech communication - 20 ft. - raised voice
5	School Laboratory	60	Speech communication - 6 ft. - normal voice
6	Church Sanctuaries	45	Speech communication - 50 ft. - raised voice
7	Library	55	Speech communication - 3 ft. normal voice

Generalized Land Use (Occupancy)		Maximum Int. Intermittent Noise - dBA	Basis for Criteria
D. RECREATIONAL FACILITIES			
1	Motion Picture Theater	45	Minimize intrusion into artistic performance
2	Sports Arena	75	Conversation - 2 ft. - raised voice
3	Bowling Alley	75	Conversation - 2 ft. - raised voice
E. COMMERCIAL MISCELLANEOUS			
1	Hotel, Motel Sleeping	50	Sleeping
2	Hospital Sleeping	50	Sleeping
3	Executive Offices, Conf. Rooms	55	Speech communication - 12 ft. - normal voice
4	Staff Offices	60	Speech communication - 6 ft. normal voice
5	Sales, Secretarial	65	Satisfactory telephone use
6	Restaurants	65	Conversation - 4 ft. - normal voice
7	Markets, Retail stores	65	Conversation - 4 ft. - normal voice
F. LIGHT INDUSTRIAL			
1	Office Areas	See E-3,4,5	See E-3,4,5
2	Laboratory	60	Speech communication - 6 ft. - normal voice
3	Machine Shop	75	Speech communication - 3 ft. - raised voice
4	Assembly, Construction	75	Speech communication - 2 ft. - raised voice
G. HEAVY INDUSTRIAL			
1	Office Areas	See E-3,4,5	See E-3,4,5
2	Machine Shop	75	Speech communication - 3 ft. - raised voice
3	Assembly, Construction	75	Speech communication - 2 ft. - raised voice

Source: Adapted from Table 2 in "Noise Insulation Problems in Buildings", Paul S. Veneklaran & Associates, January 1973

Heavy industrial development is proposed along the southern boundary of the planning area. Other heavy industrial development is proposed at various sites within the planning area. Certain types of heavy industrial development could generate increased noise levels for land uses located outside of (south of) the planning area. However, adjoining lands along the south side of Green Island Road currently have a low sensitivity to noise since they tend to be undeveloped, developed for heavy industrial uses or planned for such uses.

b. Intra-Site Noise Impacts. The planned mix of airport, heavy industrial, industrial park, and agricultural and permanent open space land uses can result in noise conflicts within the planning area. For instance, at the interface between the heavy industrial and industrial park uses, a heavy industrial use such as an asphalt batch plant can generate noise levels high enough to affect office workers, laboratories, and other sensitive work industrial park environments. The airport operations are another example of a potential intra-site noise conflict. This concern is discussed further in the Noise and Land Use Compatibility section below.

c. Noise and Land Use Compatibility. As discussed in the Setting section, the Napa County Noise Element of the General Plan contains noise guidelines for different land uses. Figure 39 section, shows the year 2000 noise contours assuming general plan buildout. As discussed above, noise levels under the Specific Plan would increase at most 1 decibel along the highway and other streets in the planning area. The contours shown in Figure 39 can therefore be used for planning purposes. Airport contours are shown for the year 2000. Railway contours reflect the existing level of use which is not anticipated to change in the near future.

A comparison of Figure 5, the Proposed Land Use Map with the noise and land use compatibility guidelines in light of the noise contours Figure 39 indicates that the plan would be considered "completely compatible" for the heavy industrial and agricultural and permanent open space plan designations, and either "completely compatible" or "tentatively compatible" for the industrial park designations. The tentatively compatible definition would apply to possible office/commercial development adjacent to State Highway 29.

The County has also adopted recommended maximum interior noise level criteria for intermittent noise. The most significant source of intermittent noise on the site are aircraft using the airport. It is recommended that these interior criteria be applied where the average noise contours indicate that the proposed land uses are not "completely compatible" with the noise environment. Since all plan-designated heavy industrial development would be "compatible" on a noise basis, the interior standards are not applicable. Within the primary and secondary airport approach zones, mitigation measures associated with conventional business park construction techniques would be sufficient to reduce interior noise levels to within the County's recommended criteria.

6. Noise Mitigation

Any buildings with offices adjacent to S.R. 29 and within the 65 Ldn noise contour should be designed to meet the County's intermittent interior noise standards. Treatments such as double glazed windows, gasketed doors, and careful attention to vents and other penetrations for ventilation, must all be considered in the design of these spaces. It is recommended that prior to the approval of building plans, the applicants provide documentation showing how environmental noise levels will be reduced to meet the County's criteria.

The County's noise ordinance (No. 777) will be enforced for both off-site and intra-site noise. Enforcement of the noise ordinance will effectively mitigate other potential industrial noise impacts.

M. ARCHAEOLOGICAL AND HISTORICAL RESOURCES

1. Existing Setting

In September of 1983, as part of the Master Environmental Assessment for the airport area, the Archaeological Resource Service (ARS) conducted a comprehensive survey of literature and previous archaeological reconnaissance of the planning area vicinity. Relevant findings from that report are summarized below:

a. Archaeological Resources. The ARS study identified the following planning area localities or broad geographical areas which should be considered "highly sensitive":

- (1) Suscol Creek was identified as a particularly sensitive area for prehistoric resources. As many as six separate prehistoric sites have already been found along the creek.
- (2) Other intermittent streams in the area (including Fagan, Sheehy, and the unnamed creek) could also have supported some form of prehistoric activity. From the scatters of obsidian flakes and isolated grinding implements that have been found, it is believed that these drainage areas were probably visited only seasonally by groups on gathering expeditions.
- (3) Based on ethnographic settlement models and the distribution of known prehistoric shellmounds in the Napa Region, the 20-foot contour elevation at the edge of the Napa River floodplain (where isolated islands or prominences occur) was identified as an area where shellmounds, fishing and fowling campsites, vegetable gathering/processing sites, and other task-specific sites could be located.
- (4) Sandstone and basalt outcroppings in the Soscol vicinity, and other rock outcroppings where one would expect grinding depressions (mortars and metates), may have been produced by prehistoric inhabitants.
- (5) Alluvial deposits containing cobble masses of suitable rock, or bedrock outcroppings located in the foothill areas, probably were prehistoric quarry sites.
- (6) Seasonal wetlands including vernal pools, marshes, and ponded areas within intermittent drainages have been known to be associated with artifacts scatters from temporary use of the areas by prehistoric inhabitants.

Figure 40 maps these broad descriptions of sensitive areas in the planning area.

b. Historical Resources. The ARS study also concluded that historic resources, such as homesteads, ranch complexes, railroad towns and stops, plus such attendant features as trash dumps, all can be expected within the planning area. In general, the ARS overview indicated that the historic resources of the area have not been adequately studied. To date, no historic sites have been identified within the planning area. The Old Soscol House at the northern tip of the planning area is on the National Register of Historic Places; it was moved to its present location in 1978 to make way for the construction of the Southern Crossing.

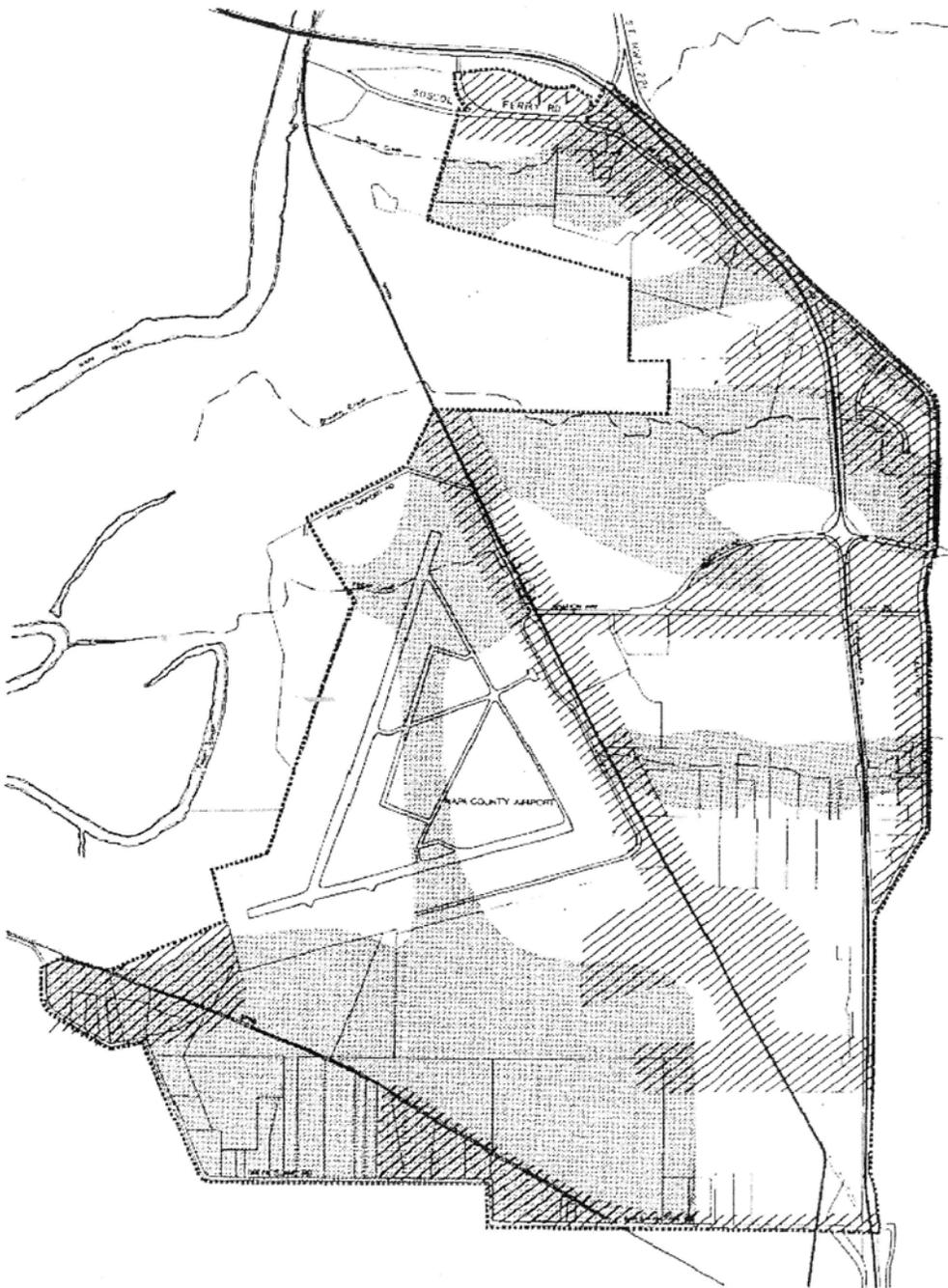


FIGURE 40
ARCHAEOLOGY

LEGEND

 ARCHAEOLOGICALLY SENSITIVE AREAS

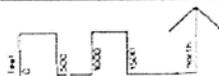
 HISTORICALLY SENSITIVE AREAS

SOURCE: Maps prepared by the Archaeological Studies Center of Sonoma State University.

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Based upon their literature review and consultation with knowledgeable sources regarding historic settlement patterns in the region, ARS identified four general areas where historic resources were most likely to be located:

- (1) The old route of the Napa-Vallejo (or Benicia-Sacramento) Road, or other wagon roads or trails known to have existed in the region;
- (2) The route of the Southern Pacific and Electric Railroad lines, extending through the planning area from the Napa River bridge crossing to Napa Junction (residential, commercial, and industrial structures and facilities can still be expected to be located in close proximity to the former railbed);
- (3) Historic farmsteads associated with major roads and trails. Notable among these would be the Soscol Rancho/Thompson Gardens area on the southern bank of Suscol Creek, below the former Ferry landing.
- (4) Localities where economically important minerals or products could be obtained. Such rock types as "Napa stone", perlite, basalt, rhyolite, and other volcanic materials were mined above Soscol, in the Napa State Hospital area, and in American Canyon (Basalt Rock Company).

Figure 40 shows the locations of historically sensitive areas within the planning area based upon the above description.

2. Impacts

Results of the ARS study indicate that certain locations within the planning area should be considered highly sensitive. Construction activities in these areas could unearth and destroy existing archaeological and historical resources.

3. Mitigation Measures

Based upon the ARS study and the impact review in the Airport Area Master Environmental Assessment (1984), a set of mitigation guidelines have been incorporated into the plan (see the Land Use Element, Section V.D.4). These guidelines have been established to prevent disruption of valuable resources and to outline required steps to be taken upon discovery of such resources. Specific mitigation measures (i.e., partial preservation, total avoidance, etc.) to deal with discovered resources have been deferred to the expertise of qualified archaeologists.

N. AIR QUALITY

1. Existing Setting

The air quality analysis conducted as par of the Airport Area Master Environmental Assessment (MEA) established that existing air quality conditions in the vicinity of the planning area meet all applicable national ambient air quality standards (AAQS), although occasional violations of the

more stringent California state standards for ozone and particulates do occur. In general, however, most pollutant categories have shown improvement over the last five years. On the regional level, violations of national AAQS occur in the Bay Area air basin primarily for ozone and carbon monoxide. While these violations do occur, their occurrence has been reduced drastically in the last five years. (See Airport Area MEA for a more detailed discussion of this existing setting.)

The Bay Area Air Quality Plan was established to identify the emissions reduction tactics by which federal air quality standards (AQS) can be attained by the federally mandated 1987 deadline. The plan contains a set of measures by which attainment of regional standards can be achieved while the Bay Area continues to experience reasonable rates of growth. As long as the projected growth in the planning area is consistent with the growth expectations used to develop the AQP, then such development will not interfere with regional attainment schedules. Air quality impacts in fact typically cannot be examined on an individual project basis, but must be analyzed in their relation to the growth of the entire air quality planning region.

2. Impacts

a. Regional Effects. This assessment of plan are quality impacts is based on the air quality analysis prepared for the Airport Area MEA. That analysis showed that the greatest project-related air quality concern be from mobile sources, i.e., from the large increase in automobile and truck traffic volumes generated by industrial development in the area. The MEA's figures indicate that the planning area's contribution to regional emissions would be relatively small (a few tenths of one percent of the total), but would nevertheless be significant because of the fact that the regional air basin is expected to have difficulty in meeting air quality standards over the next two decades with or without any additional development. However, in estimating the planning area's contribution to regional air quality, the MEA's projected development figures are consistently higher than those projected in the specific plan. In their "worst-case" scenario, the MEA projects an industrial area of 2,300 acres with a buildout date around the year 2000. The plan, on the other hand, designates a total of 1,909 acres of industrial development (a 17 percent reduction in land area) with buildout expected to occur sometime between 2025 and 2035. The plan is projecting about 530 acres of total industrial development by the year 2000. In estimating the annual air pollutant emissions from project-related traffic, the MEA assumed 125,000 daily vehicle trips. This is about 30 percent more trips than the 87,900 projected to occur under the plan.

Based upon these higher figures, the MEA concluded that project-related, regional air quality impacts could be accommodated within the dispersion capacity of the basin airshed. The slower growth rate projected by the plan and the reduced development area will mean that the planning area's contribution to the regional emissions will be somewhat less than projected in the MEA, and that much of the area's contribution will not occur until after the year 2000.

These findings do not mean that the planning area will have no impact on regional air quality. As stated before, any additional contribution will make it more difficult for the basin to achieve its air quality goals. ABAG projections were the basis for the Bay Area Air Quality Plan. The plan projects the potential employment generation of the planning area to be approximately 82 percent greater than accounted for by ABAG projection.

b. Local Effects. The MEA found that the concentration of traffic on S.R. 29 and other airport area arterials may create locally elevated pollutant concentrations near traffic centroids (i.e., major intersections, large parking lots, etc.). These so-called "hot-spots" are typically characterized by unhealthy carbon monoxide (CO) levels. Because the plan has scheduled traffic improvements to be linked to development of the planning area, local roadways should remain at service levels that will minimize the congestion that generates unhealthy levels of carbon monoxide.

The MEA also indicates that air quality problems could also occur due to off-site congestion south of the planning area unless alternate access routes are developed in conjunction with the growth of the planning area. This specific plan encourages such regional access improvements, including the widening of Jameson Canyon Road/Highway 12 between the planning area and I-80.

Industrial development normally generates a number of secondary emission sources that may cumulatively impact air quality. Such sources include fugitive dust and equipment emissions during construction phases. Industrial processes involving surface coating, solvents, degreasing, etc., as well as material handling and manufacture may add hydrocarbons or particulates to the local airstream. Combustion sources from portable materials handling equipment or from generators, compressors, and other onsite sources may also contribute to the local pollutant burden. All major emission sources that locate in the planning area will be required to undergo a detailed review process (BAAQD New Source Review NSR rules) to prevent further reduction of regional air quality. The fact that a relatively small portion of the planning area has been allocated for the heavy industrial uses that would normally produce air pollutants, should help mitigate potentials for significant air quality impacts.

c. Construction Period Effects. Soil disturbance during construction will add a large volume of fugitive dust to the Napa Valley airshed. The California Air Resources Board (ARB) estimates that without mitigation measures, up to 13.2 tons of dust can be lofted into the air for each acre that is disturbed by construction activities. The ARB also estimates that this number can be reduced as much as 50-75 percent with property dust suppression measures. Such dust abatement measures are required by BAAQMD "public nuisance" ordinances. Dust emissions will represent more of a nuisance-type impact than health impact, because the particles are chemically inert and are readily filtered by human breathing passages. The long period projected for development of the planning area also implies a decreased air quality impact due to construction activities, since the intensity of activity is dispersed over time.

3. Mitigation Measures

The air quality impacts associated with the specific plan will be considerably less than those projected by the MEA due to the reduced size of the development area; the upgrading of the land use designations; and the extended period of development. However, the size of the planning area, and the fact that its contribution to County industrial growth has not been completely anticipated in the current regional air quality plans, necessitates measures by project proponents and developers to mitigate air emissions impacts. The MEA makes the following recommendations to reduce emissions:

a. Construction Period. Use adequate dust control measures to reduce dust nuisance impacts. These include:

- Adequate watering and early paving;
- Performing major grading in spring when soil moisture is highest;
- Washing access roads periodically to remove dropped dirt;
- Minimizing travel on unpaved surfaces.

b. Ongoing Mobile Sources. Implement an effective TCM program incorporating adopted AQP measures including:

- Maintaining optimum traffic flow through assuring adequate roadway capacity;
- Encouraging alternate modes of travel via transit, ride sharing, or bicycle modes;
- Encourage reduce vehicle use or shift traffic to off-peak periods through "flex schedules", 4/40 work plans, and single passenger automobile disincentives such as parking charges, or HOV lanes.

c. Ongoing Energy Use. Develop an energy management plan that incorporates joint energy and land use planning, including:

- Industrial park physical layouts designed for optimum solar access;
- Industrial groupings that may benefit from cogeneration where process steam and electricity are generated from the same source; and
- Maximizing the use of solar heating and lighting and natural breeze cooling as opposed to artificial energy-intensive environments.

O. ALTERNATIVES TO THE PROPOSED PLAN

A set of specific land use, circulation, capital improvement, financial, and administrative alternatives for consideration as possible components of the Napa Valley Business Specific Plan were identified and examined during this specific plan formulation process. Four different land use schemes were described and tested. To help understand the relative advantages and disadvantages of these various land use combinations, a number of evaluative factors were examined on a comparative basis for each alternative--i.e., land use and visual impacts, traffic-generation factors, market and socioeconomic effects, capital improvement and fiscal factors, and other environmental impact considerations.

Four alternative circulation schemes, four sewer service alternatives, four water service choices, and three fire protection alternatives were also identified and evaluated. In addition, the advantages and disadvantages of a number of plan financing and administration alternatives were evaluated. The results of this alternative evaluation process are incorporated into the various elements of this specific plan.

All of these alternatives and comparative impact evaluations are fully described with graphics and text in Memorandum 2: Preliminary Planning Criteria and Alternative Specific Plan Concepts, October 1984, by Wagstaff and Brady. Copies of this memorandum are available for public review at the offices of the Napa County Department of Conservation, Planning and Development.

P. SHORT-TERM USES VERSUS LONG-TERM ENVIRONMENTAL PRODUCTIVITY

In keeping with California Environmental Quality Act (CEQA) guidelines for EIR content, this section discusses the possibility of any cumulative long-term effects of the specific plan which would adversely affect the environment. In particular, consideration has been given to impacts associated with the short-term use of the planning area under the plan which might narrow the range of long-term beneficial uses of the environment.

Buildout of the planning area under the policies of this specific plan would eventually remove the majority of the planning area from future agricultural production. In the past, much of the area has been used for cattle grazing, forage crops, and some row crops. These areas are capable of sustaining such uses into the foreseeable future. Gradual conversion of the planning area to urban use would also permanently alter the rural character of the planning area and related overall perceptions of Napa County as a whole.

The natural channels of Sheehy Creek and the unnamed stream could be permanently altered by development under the proposed plan. Vernal pool habitats that are located in the planning area could also be eliminated or greatly reduced in number. Wildlife use of the property would change with industrial development, due to associated habitat reductions and increases in human contact. More "urban species" would tend to replace those more natural existing species.

The principal beneficial effects of the specific plan would be to provide a location and detailed policy framework for the consolidated growth of industrial park and heavy industrial activities in the County; provide a new source for County jobs; provide the airport with lasting protection from incompatible land uses, and; meet the County's General Plan goal for continued economic growth.

Q. GROWTH-INDUCING IMPACTS

The specific plan will permit a total of 1,909 acres of industrial development in the planning area, including 1,354 acres of industrial park development and 555 acres of heavy industrial development. This EIR estimates that planning area industrial development will directly provide

approximately 4,895 new jobs by the year 2000, and 11,970 new jobs by the year 2015 (approximately 30 years from now).

Additional employment opportunities generated by the effective implementation of the specific plan have been estimated to create an added need up to the year 2000 for between 105 and 215 more housing units per year within a reasonable commute distance from the planning area (Table 12). Of this total, 41 to 84 more units are projected to be needed within the County and the remaining 64 to 131 additional units will be needed outside the County (i.e. Vallejo, Fairfield-Suisun, etc.). These projections indicate that cumulative housing construction demands could exceed the growth capacity of the County's cities and unincorporated area (as determined by the Growth Management System) by between 5 and 10 percent. If the average annual absorption rate of the planning area does meet or exceed the plan's estimates, the County will need to take steps to monitor and control employment growth in the planning area to maintain specific plan consistency with the General Plan (GMS). The specific plan recommends actions for the County to take should such a situation arise. (A detailed discussion of the plan's effect on housing and employment is presented in Sections X.D and X.E. Recommended actions are described in Section V.F.)

The specific plan program is expected to result in significant changes in the rate and character of industrial absorption in the planning area. The specific plan encourages and facilitates the development of the area, thereby accelerating associated growth-inducing effects on the County. The projected absorption rate for the area under the plan will be approximately twice what is expected without the specific plan program. By designating a large portion of the area for industrial park uses and supporting this with stricter design standards, the plan also encourages higher employment intensity uses than might be expected under existing policies. Other coordinated, growth-inducing actions which are supported by the plan include improvements in regional access to the area, the extension of water and services, and the establishment of a through-traffic route (Devlin Road) to the north and potentially to the south.

R. UNAVOIDABLE AND IRREVERSIBLE ADVERSE IMPACTS

Unavoidable or irreversible impacts are those which could not be significantly alleviated by mitigation measures recommended in this specific plan and EIR. These effects can only be eliminated by an alternative land use scheme or by moving the proposed industrial area to another location. Such impacts include the following:

1. Traffic and Road Access. The proposed industrial development program would significantly increase traffic on the local circulation network and would reduce service levels at related intersections.
2. Hydrology and Water Quality. The proposed industrial area would increase stormwater runoff into the four planning area streams, and would increase levels of sedimentation and urban pollutants such as oil and other hydrocarbons, lead and nutrients.
3. Vegetation and Wildlife. Industrial development would decrease naturally occurring grassland and vernal pool habitats and associated vegetation and wildlife values.

4. Land Use. The proposed industrial area could ultimately eliminate approximately 1,730 acres of what is presently defined as "agricultural or open land".
5. Visual. The predominantly rural, open space character of the planning area would be altered significantly by industrial development, giving the area a more densely developed urban character.
6. Noise. The development of the planning area according to the specific plan would increase off-site noise levels by approximately one decibel, due primarily to increases in traffic.
7. Air Quality. Short-term generation of dust and other pollutants would occur during periods of construction activity. Significant increases in regional air pollutant emissions would result from the proposed industrial development, primarily due to traffic emissions.

S. EFFECTS FOUND NOT TO BE SIGNIFICANT

The County of Napa CDPD in its Initial Study of the specific plan program determined that a number of possible environmental effects would be insignificant or could be adequately addressed by County staff in the development review process without further environmental assessment in this report. These effects included:

1. Water erosion of soils;
2. Groundwater impacts;
3. Light and glare effects;
4. School impacts;
5. Parks and other recreational facilities impacts;
6. Energy effects;
7. Electrical, gas, communication, and solid waste utility impacts; and
8. Health hazards.

T. PERSONS, ORGANIZATIONS AND AGENCIES CONTACTED

County of Napa

Conservation, Development and Planning Department
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Anthony McClimans, Senior Planner (Project Coordinator)
James O'Loughlin, Senior Planner (Environmental Coordinator)

William Selleck, LAFCOM Analyst
Bob Nelson (Housing Element)
Charlie Wilson

Others

William Partain, Airport Director, Napa County Airport
Steve Bardessono, Napa County Agricultural Commission
Lance Houser, Tax Appraiser
Bill Wilson, Tax Appraiser's Office
Bernie Klein, Engineer, Department of Public Works
Ken Johnson, Department of Public Works
Byron Carnalglia, Napa County Fire Warden
Art Thompson, Napa County Sheriff's Office

City of Napa

John Yost, Planning Director
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Jerry Cormack, Principal Planner, Current Planning
Mike Joell

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Chris Vallerga

American Canyon County Water District

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Property Owners, Developers and Agents

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Al Norman, Napa Airport Properties
Ron Greenslate, Gunn Property (Greenwood Ranch)
Herb Gunn, Gunn Property (Greenwood Ranch)
John Hancock, Napa Valley Development

Charlotte Williams, Century 21 (Green Island Industrial Park)
Mardi Harding (Bedford Properties)
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